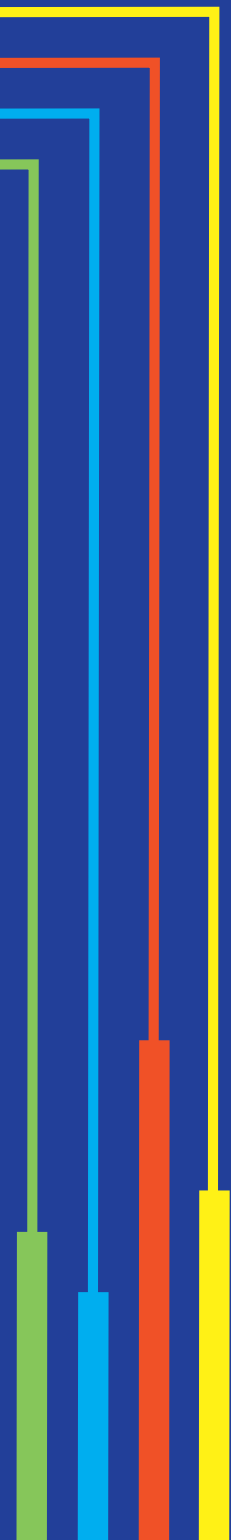


# Gas Transmission

Stakeholder Engagement Incentive  
Scheme Submission – Parts 1 and 2  
2018/19



# Part 1

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# Welcome to our stakeholder engagement incentive submission 2018/19



**Phil Sheppard**  
 Director of Gas Transmission  
 and National Grid Gas Board Member

“Our business has the responsibility and privilege of energising the country safely, reliably and efficiently.”

**Thank you for taking the time to read our 2018/19 submission.**

The need for National Grid Gas Transmission to engage effectively with its stakeholders has never been greater.

- Tens of thousands of new consumers continue to connect each year to the gas system.
- Currently four out of five of the UK’s 27.2 million homes use gas for heat.
- The gas networks deliver three times the energy as electricity networks, and we support the electricity system as a form of energy flexibility and energy storage: 40% of electricity generation comes from our network.

Our business has the responsibility and privilege of energising the country safely, reliably and efficiently. We celebrated last summer the 50th anniversary of North Sea gas coming ashore and into our transmission system. The emphasis has now turned to how we can bring our stakeholders into a powerful partnership, to shape the gas transmission networks of the future as we consider a net-zero carbon future.

Part One of this document sets out our strategy for engaging with our diverse range of stakeholders. Also:

- Provides a brief overview of who our stakeholders are, including our increased focus on consumers and new ways of working with our stakeholders
- Details how we have reshaped our organisation to better respond to their needs
- Summarises survey feedback we have received from our stakeholders over the year

Lastly, it contains an overview of the results of an independent evaluation of our stakeholder engagement activities conducted by established experts AccountAbility.

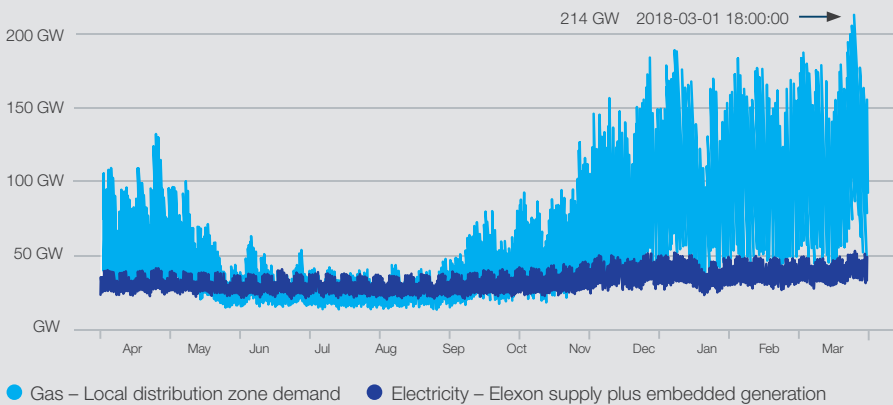
Listening to the views of our stakeholders is something that matters a great deal to me personally. I relish the interactions I have had with our new stakeholder group (detailed on page 6). Hearing the critical feedback we received from Ofgem and its panel of independent experts in response to our 2018 submission was painful. However, it has helped galvanise me and my team to focus more on stakeholders and to accelerate the pace of change across our organisation.

The panel made clear to us it wanted to see more evidence that we have listened to feedback from our stakeholders, with greater emphasis on what outcomes had been generated for them. This is the focus of Part 2.

I look forward to hearing your feedback on our submission, and we always welcome the opportunity to provide any further information you require from us.

**Phil Sheppard, Director of Gas Transmission**

**The Challenge**



Britain’s hourly local gas demand and electrical system supply, 2nd April 2017–6th March 2018<sup>1</sup>. The gas networks deliver three times the energy provided by electricity networks, peaking to an even higher proportion in winter.

<sup>1</sup>Challenges for the decarbonisation of heat: local gas demand vs electricity supply Winter 2017/2018, UK Energy Research Centre

# Our engagement strategy

## What is our engagement strategy?

To operate the UK gas transmission system safely and efficiently both now and in the future. It's essential that we listen to the voices of those individuals and organisations who use it and are affected by it – not just those who pay for a service.

However, we must go beyond simply seeking views and listening: we have a responsibility to act on feedback and use it to improve the gas transmission system and our entire energy system for the better.

At its simplest and most fundamental level our engagement strategy is our way of ensuring that external voices are heard by our organisation and feedback we receive is acted on at all levels.



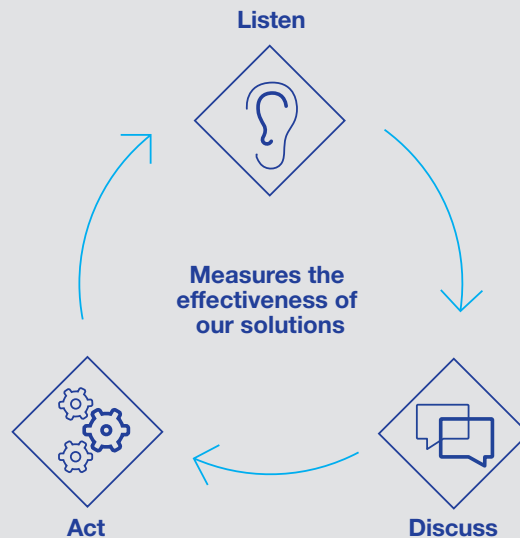
National Grid Gas Transmission managers participating in a consumer listening event in Birmingham, March 2019. We have engaged directly with consumers during 2018/19, enabling us to improve our future plans with better knowledge of what they think and feel about our service – and what they are willing to pay for maintenance and improvements.

We continue to evolve our engagement strategy so that it is fit for the future, and we took very seriously the guidance we received from Ofgem following last year's submission.

While acknowledging it as a foundation rather than an end in itself, we continued to align our engagement strategy with the independent AccountAbility AA1000 Stakeholder Engagement Standard, based on the principles of:

- **Inclusivity** – people should have a say on the decisions that have an impact on them
- **Materiality** – decision makers should identify and be clear about the issues that matter
- **Responsiveness** – organisations should act transparently on material issues.

We introduced our new Gas Transmission structure on 7 January 2019, shaped by our colleagues and consultation feedback. It helps us address the challenges we face in delivering the value and service that our customers, stakeholders and broader society expect. See page 8 for more details.



## Key facets of our engagement strategy

- **Lead from the top** – senior leaders in our business underwrite our strategy and conduct engage with customers and stakeholders themselves.
- **Accountable** – we act on feedback. We take responsibility for what we say we'll deliver and do even better wherever we can. We act on feedback to deliver a continuous improvement cycle for our customers and stakeholders.
- **Sustainable** – delivers measurable benefits both now and in the future

- **Inclusive** – our activities affect a broad range of people and organisations: we seek to involve all stakeholders in our decisions
- **Transparent** – we seek to build trust in our relationships with stakeholders by being open in the way we operate
- **Effective** – we engage with a clear purpose and we focus on gaining good outcomes from our engagement
- **Embedded** – our approach is disseminated widely across our organisation and seen as part of everyone's responsibility

# Our stakeholders

## National Grid Gas Transmission stakeholders

We have agreed consistent definitions for customers and stakeholders across our business. Although they may have different needs, it is our ambition to exceed the expectations of both. Our stakeholders comprise:



**Customers:**  
pay for a service from us e.g. gas distribution networks



**Other stakeholders:**  
a person, group or organisation that has an interest in our activities e.g. landowners, local authorities



**Consumers:**  
users of network services (for example shippers) as well as domestic and business end consumers, and their representatives

## Stakeholder types and engagement methods

We recognise that one size does not fit all so we tailor our engagement approach to fit our diverse range of stakeholders. See more details below:

Stakeholder group	Stakeholders engaged	Engagement approach
Political – UK	10 Downing Street, UK Parliament, Specific MPs, Government departments, Scottish Government, Scottish Parliament, Welsh Government, Welsh Assembly, Mayors, local councils Office for Low Emission Vehicles	1–1 meetings, surveys, topic-based meetings, stakeholder managers
UK Government Advisory Bodies	Committee on Climate Change, National Infrastructure Committee	Attendance at events, input to consultations
Regulatory	Ofgem, Competition and Markets Authority (CMA), other economic regulators, Environment Agencies, HSE	Topic –specific meetings, stakeholder managers, input to consultations
European Bodies	European Commission/Parliament, European Network of Transmission System Operators (ENTSO-G), Council of European Energy Regulators (CEER), Centre for Energy Regulation in Europe, Agency for the Cooperation of Energy Regulators (ACER)	Attendance at events, input to consultations, 1–1 meetings
Think tanks and innovators	Policy Exchange, Bright Blue, Dieter Helm, Centre for Policy Studies, Infrastructure Forum, Universities, UKERC Energy Data Centre, KPMG, McKinsey Frontier Economics, Element Energy, Energy Technologies Institute, Energy Systems Catapult	Attendance at events, 1–1 meetings
Industry bodies	Oil & Gas UK; Renewable Energy Association; Anaerobic Digestion and Bioresources Association; British Ceramics Confederation; Campaign for Better Transport; Chemical Industries Association; Decarbonised Gas Alliance; Energy & Utilities Alliance; International Association of Oil and Gas Producers; Major Energy Users Council; National Farmers Union; Natural Gas Vehicle Network; Renewable Energy Association; UK Onshore Oil & Gas; UK Shale Gas; Society of Motor Manufacturers & Traders, Carbon Capture and Storage Association	Attendance at events, 1–1 meetings, topic-specific meetings
Infrastructure	Highways Agency, HS2, Network Rail, Electricity System Operator, utilities	Topic-specific meetings
Customers	Shippers, gas connection customers, gas distribution networks, directly connected demand, gas interconnectors, terminal operators, energy suppliers	Seminars, surveys, operational forums, 1–1 and topic-based meetings
Supply chain	Suppliers, partners, contractors	Work closely, supply chain forums, tender events, 1–1 meetings
Media	Consumer, trade, financial	Work closely
Interest groups	Green Alliance, Friends of the Earth, National Trust, English Heritage, John Muir Trust, CPRE, Sustainability First, Stonewall, Greenpeace, WWF	Tailored engagement approach
Consumer groups including those with a focus on representing ‘hard to reach’ stakeholders	Which?, Citizens Advice, Age UK, Major Energy Users Council (MEUC), Energy Intensive Users Group (EIUG)	Work closely, Attendance at events, Bilateral meetings, site visits
UK public and future bill payers	Project communities, other local communities, landowners, individuals via attitudinal research	Topic specific tailored engagement approach, surveys
National Grid employees	National Grid Board, UK employees, global employees, Gas System Operator	Work closely
Trade Unions	Unite, Unison, GMB, Prospect	Work closely

Building trust and reassurance we’re proud to have achieved the following accreditations:

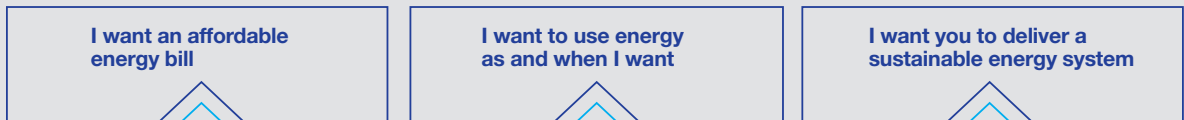


# Customers and consumers

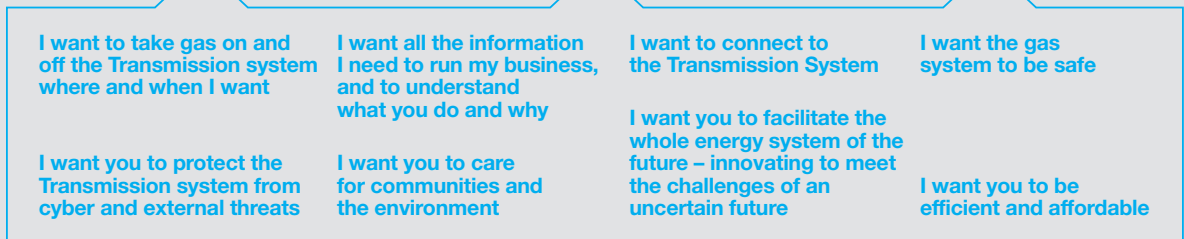
**At National Grid Gas Transmission, we have the privilege to provide an essential service to society. That's why we want our work to be shaped by the people affected by us, directly or indirectly.**

In our 2017/18 submission we set out how we went about gathering feedback from our stakeholders about their gas transmission priorities. We continued to be guided by these which are set out below.

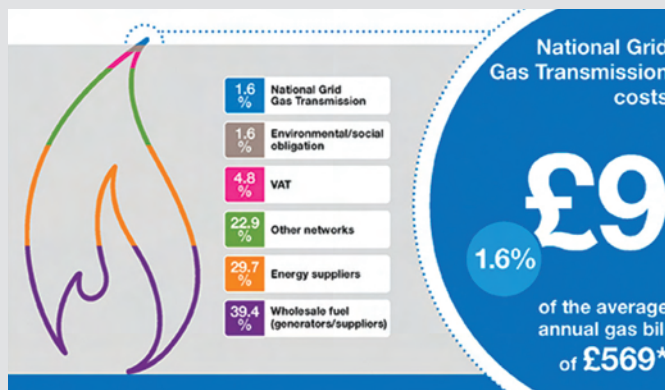
**Industrial and Domestic consumer priorities...**



**...are delivered through our stakeholder priorities...**



**...these were developed by consulting with**



Our commitment to our stakeholders is to maintain a world class gas network that supplies gas when and where it's needed while keeping energy prices affordable in a sustainable and safe way.

The break-down of our costs to consumers is shown on the left.

We carried out our largest ever listening exercise for our draft plan. For the first time, we built our business plan around stakeholder priorities.

This process will also make our plan easier to understand, and clearer on what we will deliver and why it matters.

## Three phases of turning stakeholder feedback into our business plan



# Engaging stakeholders on our future business plan

**Our stakeholders:** would like more detail about how the engagement strategy works in practice and evidence to show that stakeholder engagement is being used to develop longer-term business plans and strategy.

**What we did:** We have innovated in our approach to incorporating stakeholder feedback into our business planning making it more ambitious and far-reaching.

We are committed to improving awareness and understanding of how our business plan will benefit and affect stakeholders in the early 2020s. As part of realising this intention, we introduced an industry first in February 2019 by publishing our Playback consultation for Gas Transmission.

Taking a phased approach, we used the Playback to summarise what stakeholders have told us so far, suggesting how we might address their feedback and asking what they want in our part of the RIIO T2 business plans.

Our work to pull together our RIIO T2 business plans for gas and electricity transmission is continuing at pace, with stakeholder engagement findings at their core, as we get closer to Ofgem’s deadline for our first draft submission on 1 July.

The Gas Transmission consultation saw over 3,300 page views on our website

47 gas and electricity respondents found our consultation to be relevant to them and nearly all respondents found the consultation to be clearly written.



**There was strong support for our approach to customer engagement, alongside a prevailing view that we should improve our customer service further.**

improve our customer service further.



**Throughout the reporting year, we have continued to find new ways of engaging our stakeholders through digital channels,**

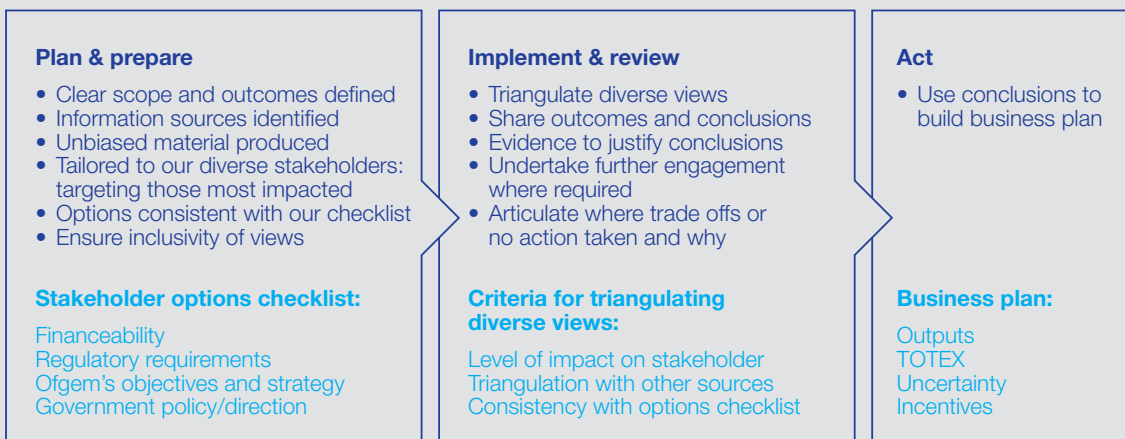
**the “Your Energy Future” website, through audio webinars and face-to-face engagement across the UK. Most importantly in terms of our improvement agenda, we have checked back on each engagement activity to clarify and confirm what we have heard.**



**Industry stakeholders said that the key requirement for the gas transmission system of the future is to be flexible to**

**adapt for new gas entry points, differing gas compositions and different types of decarbonised gas on the system.**

## Features of our approach



## Gas Transmission Playback Consultation response themes

- Stakeholders continue to support our priority areas
- the gas system must be flexible in the future and have the ability to be flexible
- adapt for new gas entry points, differing gas compositions and different types of decarbonised gas on the system.

The playback document was a key part of the process, helping us shape our business plan and gain a broad range of views on our direction of travel. We are now reviewing and incorporating stakeholder feedback into the first draft of our plans which will be submitted to Ofgem on 1 July

# Independent Stakeholder Group

## Our independent Stakeholder Group

Since July 2018 our independent Stakeholder Group has met on a bi-monthly basis. The group is chaired by Trisha McAuley OBE. It includes people from consumer, environmental and public interest groups, as well as large energy users, large-scale and small-scale customers and distribution networks.

Phil Sheppard, Director of Gas Transmission has attended all Stakeholder Group meetings to date.

The group has three main roles:

- Challenging and reviewing how we engage with stakeholders to develop business plans
- Scrutinising our business plan and checking that our proposals reflect what our stakeholders have told us
- Reporting to Ofgem with its views on our business plan.

“What really struck me was the diversity of backgrounds and ideas from the groups, and yet we are beginning to work as a collective. As an example of this, we all recognised that there is considerable work to do for stakeholders – this was robustly challenged by members. National Grid attendees were receptive to the challenges and are looking at new ways of addressing this. This would not be possible if it wasn't for the openness, trust and honesty we are establishing.”

**Trisha McAuley OBE**, Independent Chair of the Gas Transmission RIIO-2 Stakeholder Group.



## The Stakeholder User Group have challenged us to do things differently

The Stakeholder Group have so far raised over 100 challenges to National Grid and we identified five key themes which cut across topics discussed. These include; stakeholder engagement strategy, consumer outcomes, topic context, collaboration and benchmarking, and stakeholder segmentation.

Following the group's feedback so far, we've extended our engagement phase to make sure we have the right information to properly explain the options we're presenting to stakeholders. We have expanded our consumer engagement programme to meet their expectations. We have been challenged to think about different ways of engaging consumers as well, particularly when it comes to getting into detail on topics that affect them, but with which they may not be very familiar. Consumer experts on our Stakeholder Group have given us specific challenges in this area, so we worked with third parties who specialise in this type of work to develop a plan for research and engagement. This included using cultural research and looking at consumer trends to understand the needs of future consumers as well as current.

We also commissioned specialist third-party organisations, to assess our approach and tell us where we needed to do things differently and reach the targets the group has set for our engagement process.

Independent Stakeholder Group meeting, November 2018 : Phil Sheppard, Director of Gas Transmission, participated in this and all other Group meetings to date.





# Engaging stakeholders on our future business plan – research

## An increased focus on consumers

We consider it essential to have an evidence base of what customers and consumers experience and believe about services from the gas industry, in advance of making future plans and taking investment decisions.

In March 2019, working alongside electricity transmission businesses across Britain, we commissioned independent research to establish the willingness of both domestic and non-domestic customers to pay for service improvements. For the first time, we also looked at longer-term issues such as paying for low-emissions heating through hydrogen or hybrid gas boilers.

The research has given us detail about how our customers view service attributes such as reducing the risk of supply interruptions, improving the environment around transmission sites, supporting local communities, investing in innovation projects and supporting consumers in fuel poverty.

Domestic gas surveys also tested customers’ relative preferences for alternative heating technologies such as hybrid heat pumps and the use of hydrogen in future systems. We plan to use this as we develop options for removing carbon emissions from the transmission system through the early 2020s.

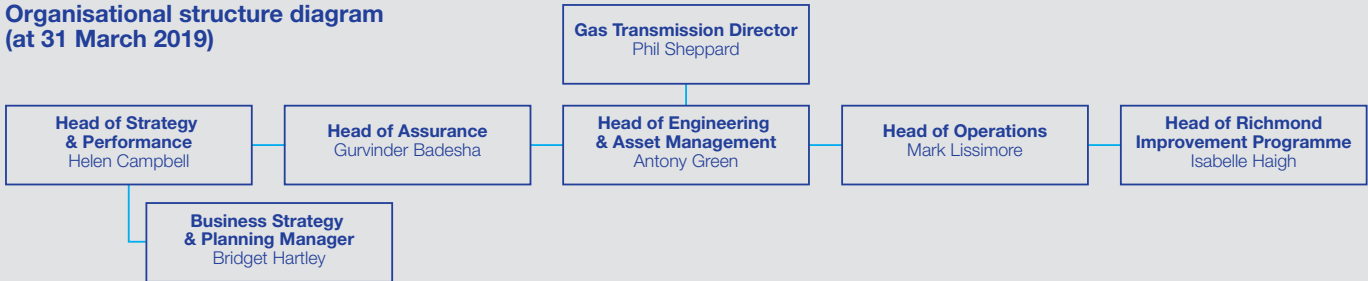


**2,000+**  
So far, we have surveyed more than 2,000 household bill payers across the UK to understand their priorities

Quantitative	Qualitative
<p><b>Willingness to Pay</b> A nationally representative stated preference survey combined with Electricity Transmission Owners, to generate values for different levels of products/services from domestic and industrial consumers. Willingness to pay research requires participants to be able to feel an impact of any change to the service they are being surveyed about. This makes this type of method more challenging, however when combined with other research methods, can be used to triangulate consumer views.</p>	<p><b>Consumer listening</b> We spent time listening to what consumers want us to focus on now and in the future. Covering topics like reliability and the environment, there were three clear messages: 1. We need to help consumers understand the energy industry and our role within it; 2. Reliability should be our top priority; 3. We have a role to play in facilitating towards a decarbonised energy future.</p>
<p><b>Interactive online tool</b> A supplementary source of willingness to pay data, asked in a more interactive way. Using the tool as the focus of a nationally representative study of domestic consumers to understand what consumers value. We will use this tool in an enduring way after RIIO-2 to be able to continue to understand consumer views.</p>	<p><b>Deliberative</b> Working with consumer research experts, using deliberative research techniques, focus groups and consumer workshops as appropriate. To explore important and relevant topics in more detail, to provide more in-depth views than the quantitative channels. Pay now, pay later: We’re scoping a deliberative consumer session to explore pay now versus pay later which picks up who should pay for future costs of the network and takes into consideration impacts on <b>future consumers</b>.</p>
<p><b>Direct survey to Major Energy Users</b> This survey had over 60 responses covering interruptions, information and whole system.</p>	<p><b>Cultural Analysis</b> <b>Innovative</b> approach to understanding culture without direct engagement with consumers, to understand broader consumer attitudes and trends, particularly useful when looking at the needs of <b>future consumers</b>.</p>
<p><b>Acceptability testing</b> To understand consumers’ willingness to pay on our actual business plans.</p>	<p><b>Attitudinal</b> To understand consumers, MPs and, for the first time, small and medium-sized enterprise business consumer attitudes and priorities and to gauge current awareness and perceptions of National Grid. We commissioned with a third party, a high volume, nationally representative survey.</p>

# Our organisation

**Organisational structure diagram (at 31 March 2019)**



“We have brought together our business planning and customer and stakeholder teams in the new Strategy & Performance team.

This will help ensure the views and needs of our stakeholders and customers are listened to and acted on at every stage.”

**Helen Campbell**, Head of Strategy and Performance

## Reshaping our organisation to better respond to stakeholders

In recent years we received critical feedback from our stakeholders that we needed to change to meet their needs. We have expanded the scope of our strategic customer team to cover stakeholders, and created a customer stakeholder team within Gas Transmission business to ensure that listening to stakeholders is central to what we do and to help drive consistent action across our business.

Given the continual need to improve in this respect, we worked in detail with consumers, as they are the ultimate beneficiaries of gas transmission, to find out what our key areas of improvement should be – while still maintaining a laser focus on safety, security and the environment.

As part of this, we re-shaped the Gas Transmission organisation through the second half of 2018–19, aligning these different improvements to make sure Gas Transmission has the right capabilities and processes to deliver a better experience for customers and stakeholders alike. In addition, our operational teams have been shaped around the needs of our assets, including those directly serving our customers.

## Increasing staff capabilities and training

We recognise that to embed a culture of exceeding stakeholder and customer expectations we must provide our staff with the skills they need to do so.

Engaging effectively is a skill. We recognise the value it brings to people and organisations we affect, as well as to our business in being able to plan and manage our operations effectively.

Stakeholder engagement at National Grid is everyone’s business and we want all our teams to have the skills they need to build sustainable relationships to enhance our reputation and help support the delivery of business objectives.

Following the introduction of our Customer Principles in 2017–18, we reviewed and refreshed our stakeholder and engagement and customer training including our induction process for new joiners. Our review revealed the need to make our training more detailed – more about stakeholder engagement than stakeholder management, and our stakeholder engagement scores have shown an increase during 2018–19, moving from 7.96 to 8.07 from three times as many responses as we received in 2017/18.

# Stakeholder survey data 2018/19

Where stakeholders scored us highly they told us they love it when we engage with them in a timely fashion on the topics that matter to them:

“Communicating and keeping up to date with what is happening with the project. Just engaging and helping with local people as well because I work for a local authority. So it’s nice that we’ve got support from National Grid”

“Their communication is dead clear and easy to understand; it is well structured”

“The engagement sessions have been very thoroughly supported by well thought out planning. The team are insightful and always happy to listen.”

**Quotes form our stakeholders about how we engaged with them during 2018/19.**

Key issues coming through for our lower scoring stakeholders is around quicker resolution and turnaround times:

“I sometimes require information from them and they can sometimes be slow in providing that or they’re not able to provide it in the right timescale”

“Well basically it was our drain that was actually damaged by the gas main that National Grid own and it was very obvious what the problem was. At the start I thought they would have said yes we can see what happened and it is our fault so we will put right. It dragged on and they did say it was our fault in the end; it was protracted and we had to have meetings on site and that sort of thing. The whole thing took a bit longer what we thought it would but we did get there end”

“I think it would be a quicker turnaround and more direct responses perhaps”

**We are working on ways to address these issues with the teams directly involved.**



**160**  
Stakeholder survey responses



**8.07**  
average score

**Responding more effectively to complaints**

We know that customers are at the heart of bringing energy to life and should be at the forefront of how we think and act – but we also think about what we do on those occasions when customers are not happy. Not only what we do, but how we make customers feel.

A good complaints process should be standard in any customer focused organisation, helping us fully understand customer experiences and demonstrating that we listen and care. Over the past two years, a team has been making the necessary improvements to support our customer commitment, having recognised in 2017–18 that our complaints process was not working as well as it potentially could do.

It became obvious that different approaches were being used across businesses, and standards had to be better defined to give colleagues full confidence that they were providing the correct level of service. Where complaints crossed business entities, a lack of clear accountability had hampered timely resolutions. Just as importantly, the team also realised that there were cultural barriers to overcome. As a result, complaint handlers have become even clearer on their personal responsibility to exceed customer expectations, even when it involves sharing bad news with stakeholders or colleagues.

Using a structured approach, the team pooled their leadership skills, process improvement experience and customer knowledge to begin delivering process and behavioural changes. A single definition of a complaint has been adopted with policy, training, tools and reporting mechanisms at minimal cost using systems already in place. Customer champions were instrumental in promoting the new process and encouraging colleagues to recognise and report complaints.

Through adopting best practice, teams are finding strategies to swiftly direct complaints to the correct areas, providing an efficient response to customers and saving time internally. Improvements continue to be made and success to date is a testament showing that strong collaborative working means we can make big changes even when it’s very challenging.

As we work to put customers at the heart of our business, so understanding their complaints and taking action to make improvements will deliver big benefits for us and them. Ultimately it will put us in a position where our customers can be more confident when they work with us – so that they are reassured that if things don’t go well as expected, there is a transparent and effective process to help resolve their issues and concerns.

# Independent evaluation of our stakeholder engagement approach

In its annual 'healthcheck' of our engagement approach, assessing our progress against its internationally benchmarked standards, AccountAbility rated Gas Transmission at an overall 74% in March 2019.

This was an increase on 2018 and continued to place us in the Advanced category, meaning that we demonstrated 'Proactive engagement and highly integrated and systematic processes across the organisation'.

"National Grid continues to build on its strategic and proactive stakeholder engagement approach, based upon a comprehensive stakeholder engagement strategy. The organisation has demonstrated an embedded culture across the organisation, as well as relevant tools and processes to facilitate leading stakeholder engagement practices." **AccountAbility**

We also received a 'B' rating from Transparency International, placing us in the top quartile of UK companies in how we interact with the political process and related matters such as exchanges of employees between the public sector and the company.



However, we recognised that these standards are benchmarks, representing a platform on which to improve further. We continuously improve and compare ourselves with companies both within and outside our sector, and this was part of the foundation of our new structure for 2019.

	2019	2018	2017
Overall score	74%	72%	69%
Commitment and Integration	78%	75%	69%
Purpose, Scope and Stakeholders	74%	74%	71%
Plan the Engagement Process	73%	70%	69%
Prepare the Engagement Process	74%	72%	72%
Implement the Engagement Plan	76%	74%	69%
Review and Improve	71%	68%	64%



Ian Cartwright, National Grid's Director of Capital Delivery, helps children with a science project at Goxhill Primary School (North Lincolnshire, near our Humber Pipeline Replacement construction site).

## Our stakeholder engagement activities in 2018/19 – key highlights



**8.07**  
highest ever GAS SSAT score to date, including highest ever Gas Stakeholder responses, triple the number of Stakeholder responses compared to last year



**x3**  
Industrial and Domestic Consumer Priorities identified



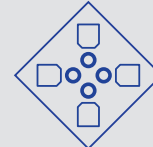
**x8**  
Engaged across 8 Stakeholder priorities



**>100**  
Outcomes for stakeholders



**2,000**  
household bill consumers surveyed across UK to understand consumer priorities



**>30**  
Engagement Methods used

# Part 2

- 11 Introduction to Part 2
- 12 Outputs and outcomes from engagement
- 14 Safety and security
- 15 Keeping the gas flowing
- 16 Facilitate the debate
- 17 Customer service
- 19 Stewardship



# Introduction to Part 2



**Phil Sheppard**  
 Director of Gas Transmission  
 and National Grid Gas Board Member

**We have structured our engagement approach and our submission around the issues our stakeholders have told us are important to them.**

**We also take account of wider trends such as the need to maintain public trust in businesses, and increasing demands that companies should contribute to society and prove greater stakeholder value.**

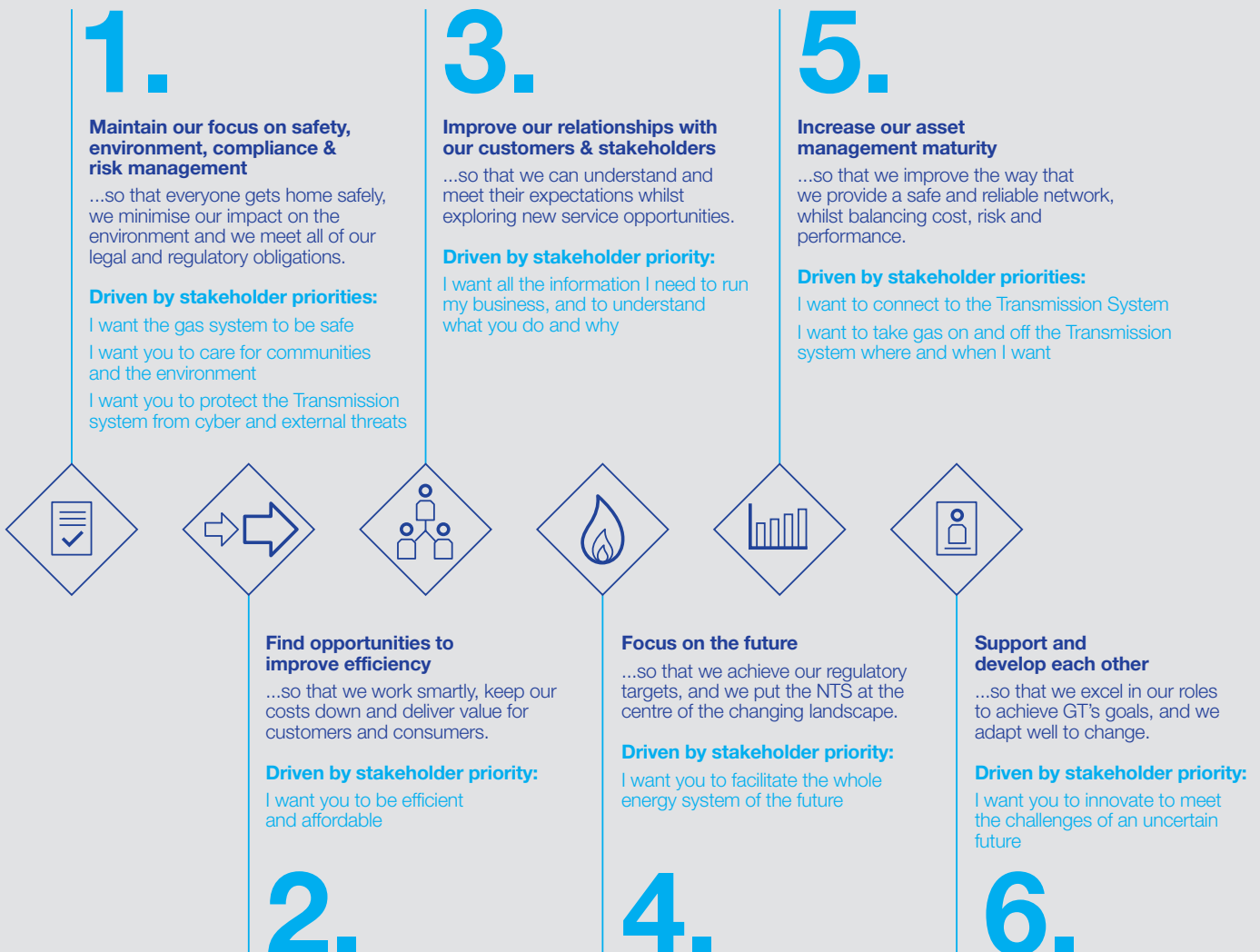
Increasingly, we are incorporating these views into our business strategy and have made them central to what we should include in a stakeholder-supported business plan for the 2020s.

It will take time to become the best we can possibly be in stakeholder engagement, but we have committed significant energy to the task, and our new structure is aligned to achieving that objective.

As you will see from Part 2 of this submission, we have already made multiple improvements to the benefit of stakeholders, and we look forward to continuing our improvement journey throughout 2019/20.

**Phil Sheppard,**  
 Director of Gas Transmission

**Gas Transmission has six strategic priorities for 2019/20, all driven by stakeholder priorities**



# Outputs and outcomes from engagement

Engagement Topic	Cost	Result of Engagement (OUTPUT)	Stakeholder Benefit (OUTCOME)
<b>SAFETY – 'I want the gas system to be safe and I want you to protect the Transmission system from cyber and external threats'</b>			
<b>Working with Landowners to improve safety</b> <i>Key Engagement Methods:</i> Local Authority Visits, Site Visits, Presentations, Survey, Emails and Phone/TCOON.	£7k	8.4 out of 10 in this year's customer satisfaction survey and 7.9 out of 10 for customer. Additional Stakeholder personas created. Increased attendance at Local Authority Visits compared to last year.	Increased visibility of safety practices and safety implications around the pipeline for Stakeholders. Shared good practice with Stakeholders during landowner engagement. Support local developers and builders to deliver safe projects.
<b>Cyber Security</b> <i>Key Engagement Methods:</i> NEW UK Gas Sector Cyber Exercise, workshops, conferences, bilateral meetings, webex, emails and site visits.	£5.7k	NEW BEIS identifies National Grid as a vital partner for future collaboration in the world of Cyber following National Grid's significant role in delivering the Cyber Security Exercise for the UK Gas sector in Tallinn in December 2018. NEW Develop the Cyber taxonomy and share with the Distribution Networks. NEW Completed risk assessments for all Distribution Networks with a view to adopting a standardise approach to move to manual high efficiency gearboxes which could have a huge cost savings.	Significant benefits for Stakeholders which could reduce attack surface by removing non-strategic valve remote functionality and completing it more efficiently than defaulting to separate telemetry systems. NEW National Grid sharing best practice with Stakeholders by demonstrating the huge potential to have a standardise approach to cyber on shared sites. NEW Moving to manual, high efficiency gearboxes is 35% cheaper (150k per site) than installing a duplicate telemetry system (230k per site). Already shared with Distribution Networks.
<b>KEEPING THE GAS FLOWING – 'I want to take gas on and off the Transmission System where and when I want'</b>			
<b>EU Brexit – TSO Engagement</b> <i>Key Engagement Methods:</i> TSO Engagement Workshop at National Grid Strand Office, Weekly TSO TCOONs, Bi-lateral meetings.	£4.5k	NEW Pictorial representation of pre-and post Brexit arrangements agreed. NEW Consistent market foundations by design from all Gas TSOs. NEW Post Brexit (longer term arrangements) with all Gas TSOs.	NEW 'Keep the gas flowing' (Security of supply) for all Brexit scenarios. NEW Transparent ways of working has built stronger relationships with all European TSOs. Trusted relationship with regulator, NEW continual reassurance and consistent messaging to all European regulators.
<b>Bacton Engagement</b> <i>Key Engagement Methods:</i> Workshops, Bilateral Meetings, Webinars, Emails, Slido, 1-2-1's.	£7.3K	Understood Stakeholder needs, from which 5 options were created through feedback. 61% of Stakeholders voted for the 'New Design Terminal' out of the 5 options presented of which is the option to pursue. Input from a wide range of stakeholders including Community Representatives, Distribution Networks, Industry Trade Body, Interest Group, Shippers/Suppliers, Producers/Terminals/interconnectors.	Stakeholder benefits include Stakeholder led strategy. Reduced complexity. Quick delivery limits local impact. Future proof and efficient. Estimated cost significantly cheaper than other four options.
<b>Blending Service</b> <i>Key Engagement Methods:</i> Workshops, Conferences, Bilateral Meetings, Webex, Emails, Site Visits.	£4.5K	Gained an understanding of the production challenges that are faced by certain operators upstream of the NTS and the operators understand National Grid's operating envelope. A shared understanding of how National Grid will work collaboratively together with the relevant parties to progress the different streams of work. Early view of the regulatory questions that need to be considered to put a blending service in place.	The stakeholders that are facing the production challenges have benefitted from the engagement as they now have a new option to manage those challenges. The Engagement has set National Grid on a path that could lead to the admission of a wider range of gases into the NTS, benefitting customers and stakeholders by improving security and availability of supply and potentially resulting in lower gas prices.
<b>Network Capability</b> <i>Key Engagement Methods:</i> Workshops, Bilateral Meetings, Webex, Emails.	£4.1K	A number of varied scenarios created via engagement with key stakeholders. Various network configurations considered, from improved flexibility and resilience to reductions in capability.	Stakeholders now understand how the capability of the network, underpins our future ability to meet the energy needs of Great Britain. Influence Network Capability strategic options for now and for the future.
<b>Richmond Challenge Group</b> <i>Engagement Methods:</i> NEW Quarterly workshops with experienced experts in asset management and transformational change from different sectors such as ARUP Group, Amazon, Isle Utilities, IBM and Northumbrian Water.	£5k	NEW Lessons learned and risks identified from experienced representatives from other companies/sectors that are involved in asset management or transformational change. NEW The programme was reviewed based on tabled topics, bringing a new lens of experience to bear on the Gas Transmission transformation scope with a new agile based approach. Adopted stakeholder management approach of bringing detractors inside the team to incorporate their views.	Clear articulation of the strategic goals for our customers and stakeholders. Effective transformation approach to deliver the goals. A more focused spend on prioritised changes (value led). A realistic benefits management approach.
<b>Richmond Reference Visits</b> <i>Key Engagement Method:</i> NEW Visits to four utility companies with asset management, investment management, portfolio management experience. Including three large change programmes using the Scaled Agile Framework.	£1k	Minor adjustment of priorities based on learning from other companies. Confirmation of the value of our agile approach, with adoption of some minor changes. Confirmation of business architecture as a suitable reference for detailed design and for ongoing business support.	Use of Copperleaf C55 as an appropriate system for investment management and portfolio planning which will result in improved experience for customers and stakeholders. Higher delivery efficiency of the Richmond programme compared to previous transformation programmes in National Grid.
<b>Industry Policy Engagement</b> <i>Key Engagement Methods:</i> Bilateral meetings, Webex, emails, workshops, 1-2-1s, forums	Negligible	Agreement on adoption of common policies for various engineering specifications (6 so far). Review of Gas Transmission policies and identification of similar industry policies. Gap analysis and identification of opportunities for alignment Alignment of GT policies towards industry standards where full adoption was not suitable	Economies of scale for supply of common materials and parts across the gas industry leading to lower costs. Lower cost of policy maintenance for all members. Increased compliance by Gas Transmission. Simplification of Gas Transmission standards, made easier for all stakeholders. Agreed a single policy with ENA, GIS, ISO so all members have greater alignment of NGGT policy.
<b>TRANSPARENT – 'I want all the information I need to run my business and to understand what you do and why'</b>			
<b>Information Data Provision</b> <i>Key Engagement Methods:</i> Workshops, Conferences, Bilateral Meetings, Webex, Emails, HACK, Online Community.	£600k	An established online community with over 250 registered customers. Data on votes/stakeholder views on what matters the most and to guide on enhancement projects. Agile process to receive feedback which helps feed into projects & stakeholder priorities. Allocated ownership to people, brought in a customer as a contractor to help shape delivery. Community platform that enables outcomes to be delivered.	Quick response to customer needs and wants via online community. Opportunity for the industry to trial new data formats/visualisations, online discussions forums, vote for project enhancements. Instantaneous demand solution voted as no.1 priority – Enduring solution now in place. Opportunity for the industry to trial Gas Quality information & After the day data before implementation.
<b>Consumer Listening / Narrative</b> <i>Key Engagement Methods:</i> NEW Consumer Listening, Surveys, Workshops.	£2.3K	NEW Quantitative research involved 1,000 domestic consumers and 600 business consumers. NEW More than 2,000 household bill payers surveyed across the UK. Consumer priorities identified and confirmed. Consumer priorities voted in order of importance.	Focus groups in place to identify consumer topic areas. NEW Implementation of an animation to illustrate exactly what National Grid do in order to build on consumer understanding.
<b>AGILE – 'I want to connect to the Transmission System'</b>			
<b>Project CLoCC</b> <i>Key Engagement Methods:</i> Conferences, Bilateral Meetings, Webex and Workshops.	£2.5k	Project CLoCC held its final stakeholder conference last year Sept 2018 at National Grid's training facility in Eakring. Over 35 key stakeholders including distribution networks, Ofgem, European network providers such as Gas Networks Ireland, and potential NTS customers from biomethane, shale and electricity generation communities. Project CLoCC appeared in IGEM Magazine as an example of Best Practice.	NEW Delivered a new gas customer connections portal – includes online application forms, indicative cost estimates, track status updates, mapping functionality, simplified visualisation and reduced upfront fees.
<b>Centrica Connection</b> <i>Key Engagement Methods:</i> Bilateral Meetings, Emails, Telephone, Webex and Webinars.	Negligible	Centrica presented National Grid with an interesting challenge and a first for us as a business. 7 months to deliver a new connection including a new HP-IP pressure reduction skid. Established a Senior collaborative Steerco (Senior level) with senior leaders within Centrica Continual day to day engagement required in order to have any chance to meet required deadlines.	Despite countless challenges associated with delivering in such a short time, the team were able to convert the existing single gas supply to Centrica's existing OCGT site into a dual supply, but they also completed the work ahead of schedule. Learnings identified include: NEW Triage process – introduced to ensure all Stakeholders made aware of and agree next steps for any Customer Connection project. NEW Additional UNC categories – added to increase the range of services we can offer outside of the formal process.
<b>LEAD THE DEBATE – 'I want you to facilitate the whole energy system of the future'</b>			
<b>Market Balancing Services</b> <i>Key Engagement Methods:</i> Workshops, Conferences, Bilateral Meetings, Webex, Emails.	£6.5k	User pain points identified and worked to further understand and prioritise potential enhancements. Formulated a set of business requirements (including number of users impacted, occurrences, timescales, costs, frustration, productivity, trends, inefficiencies). Long term strategy validated and agreed with Stakeholders.	Engagement has enabled National Grid to develop a longer term strategy for the Gemini system which is fully based on stakeholder feedback. Strategy now addresses stakeholder frustrations whilst ensuring plans for future system provision are in line with users requirements.

## Outputs and outcomes from engagement (continued)

Engagement Topic	Cost	Result of Engagement (OUTPUT)	Stakeholder Benefit (OUTCOME)
<b>LEAD THE DEBATE (continued) – 'I want you to facilitate the whole energy system of the future'</b>			
<b>Gas Operational Forum</b> <b>Key Engagement Methods:</b> Workshops, Conferences, Bilateral Meetings, Deep Dive Sessions, NEW Query Surgery, Webex, Emails.	£20k	65 actions taken and 100% completed, wider distribution list that's beyond 500 Customers and Stakeholders. An average increase of 36% of attendees at the Operational Forum from previous years. 7.9 out of 10 in Stakeholder Satisfaction. <b>NEW</b> Practical Constraint Management scenario game – Stakeholders have an opportunity to step in National Grid's shoes on constraint actions with real life scenarios. <b>NEW</b> Regular 'Interesting Days' agenda item as requested by Stakeholders, increase transparency on balancing and constraint actions throughout the year with GNCC Network Managers in attendance.	<b>NEW</b> Practical Constraint Management scenario game – Shared industry wide, which stakeholders now use within their control rooms as part of their training. <b>NEW</b> Wider industry experts as guest speakers for example Gassco. Gas Networks Ireland, BEIS and ICE Endex. Shippers can fully understand commercial and physical decisions to help make better business in the future.
<b>Gas Future Operability Planning</b> <b>Key Engagement Methods:</b> Workshops, Conferences, Bilateral Meetings, Deep Dive Sessions, Webex, Emails.	£1.4k	<b>NEW</b> Targeted engagement approach, stakeholder led focus topic areas. Widening our Stakeholders base through engagement, from 1,000 GFOP registered stakeholders in 17/18 to just under 2,500 registered stakeholders this year.	Clear vehicle for Stakeholders to discuss and quantify gas transmission network needs, future operational challenges and uncertainties to help inform their business needs for today and tomorrow.
<b>Gas Markets Plan (GMAP)</b> <b>Key Engagement Methods:</b> Workshops, Conferences, Bilateral Meetings, Deep Dive Sessions, Webex, Emails.	£3.2k	<b>NEW</b> A stakeholder-led, 2–10 year plan to facilitate future market framework challenges which builds on the conclusions of the Future of Gas Programme. Unanimous view that a forum to discuss and agree such a plan would advance the energy transition. Stakeholders believe 2–10 years represents the right period.	Consensus on the need to include ambitious decarbonisation targets among objectives of the Gas Markets Plan. Construction of new evidence base for future Government energy policies.
<b>Future Energy Scenarios (FES)</b> <b>Key Engagement Methods:</b> Annual Conference, Live Stream, Webinars, Call for Evidence Consultation, Webinars, Bilateral Meetings, Website, Newsletters, HACK, Email and Social Media.	£70k	331 stakeholders attended (65% being Gas/Dual), 170 stakeholders followed the conference via live stream, 240 different organisations represented. 98% said that the format of the conference met expectations and 96% said that the content met expectation. <b>NEW</b> Online call for evidence ran during September 2018 to offer all interested parties an opportunity to feed into FES 2019. <b>NEW</b> FES 'Hack' to brainstorm ideas on how National Grid can improve FES documents and engagement. 99.5% said the content and format of workshops met expectations.	<b>NEW</b> Afternoon sessions for stakeholders to have a questions and answer panel of FES analysts. <b>NEW</b> Extended exhibitions areas to give stakeholders the opportunity to meet the team. <b>NEW</b> Team visible polo shirts to make it easier for stakeholders to identify National Grid employees. <b>NEW</b> FES 'Hack' to brainstorm ideas on how National Grid can improve FES documents and engagement. 99.5% said the content and format of workshops met expectations. Stakeholders that didn't attend had the opportunity to log on via webinars in a cost effective, 112 stakeholders attended (62% being Gas/Dual), representing 96 organisations, 2,143 webinar page visits.
<b>CUSTOMER SERVICE – 'I want you to be efficient and affordable'</b>			
<b>Ops Liaison Meeting</b> <b>Key Engagement Methods:</b> Face to face 1-2-1 tailored engagement approach, Email and Phone.	£8.3k	230 Actions taken and 100% completed. 1-2-1 tailored approach, varied meeting location (Customer Site or NG HQ) . 8.63 out of 10 in Stakeholder Satisfaction.	Enhanced stakeholder relationships established with points of contact within National Grid. <b>NEW</b> Opportunity to meet wider gas ops team and network control room managers (including GNCC tour). Safe environment to provide honest feedback and opinions.
<b>Asset Protection Engagement</b>	Negligible	200 local stakeholders addressed at the RTP1 Conference in June 2018, agricultural businesses and land tenants engaged at county agricultural shows, 1-2-1 tailored meetings with farmers and local authorities.	Prevention of dangerous and costly third-party pipeline incidents.
<b>STEWARDSHIP – 'I want you to care for communities and the environment'</b>			
<b>Environment Emissions</b> <b>Key Engagement Methods:</b> Workshops, Conferences, Bilateral Meetings, Webex, Emails, Calls Site Visits.	£7.3k	Sharing best practice on topics that stakeholders have told us that are important to them such as climate change and carbon emissions. Venting – maintenance and operability polices reviewed with stakeholders to help shape and improve. <b>NEW</b> Partnership with the National Physical Laboratory to track/reduce fugitive emissions. Improved performance from the inspections from Environment regulators, double the amount of excellent ratings from last year, reduced amount of actions identified and zero breaches.	Targeted engagement approach with environmental regulators on key topics on behalf of stakeholders. Environment and consumer on the forefront of the long-term view of compressor compliant strategy following workshops. Venting reduced by 1000 tonnes compared to last year following the new and improved maintenance operability polices.
<b>Warm Homes Fund</b> <b>Key Engagement Methods:</b> Fund guidance to stakeholders, call for applications, 1-2-1 meetings, conference presentations, site visits.	£49.3m	In the UK, we continue to focus on addressing fuel poverty through our voluntary investment with Affordable Warmth Solutions Community Interest Company.	<b>NEW</b> Allocated a further £49.3m to our Warm Homes Fund bringing the total to £107m since July 2017 and the installation of 32,000 first-time central heating systems to many vulnerable households across England, Scotland and Wales.
<b>Jericho Foundation and YMCA Birmingham</b> <b>Key Engagement Methods:</b> 6 week trial, engagement include tailored skill based workshops and bilateral.	£6.5k	<b>NEW</b> Partnership with Jericho Foundation and YMCA Birmingham. 55% personal journey steps and actions completed. 99 hours of employee volunteering.	From a 6 week pilot in the UK, the stakeholder benefits include: 6 Participants were invited to sign up to the trial, but we were able to impact the lives of 19 people through workshop offerings such as CV writing and mock interviews. 2 individuals achieved employment. 1 individual housed.
<b>Cultural Analysis</b> <b>Key Engagement Methods:</b> Deliberative research, listening sessions	Negligible	The key opportunity themes of what is expected from a responsible and sustainable business. Inviting intervention and collaboration from business and consumers and providing strong collective leadership and partnerships with other businesses and industries to achieve shared goals.	Inviting Stakeholder Intervention Consumers Powered Collective Leadership
<b>Active in Local Communities – Donations/Skills/Education</b> <b>Key Engagement Methods:</b> On-site engagement, community days, workshops, website, YouTube, residential work, meetings, emails and phone calls	£6.5k	Goxhill Community day – welcomed members of the community to meet the project team, site tour, closer look at construction machinery. Science was made simple for Paull Primary School students when National Grid hosted two special workshops to show what real-life scientists and engineers do for a living.	Building an evidence base for future Government policies National Grid has supported St Andrew's Hospice in Grimsby with £20,000 to help fund the installation of LED lighting, which will significantly reduce energy costs and the organisation's carbon footprint. LED lighting will reduce St Andrew's energy bill by more than 40%, meaning the money saved can be used to improve the hospice for its patients and staff.
<b>INNOVATION – 'Innovating to meet the challenges of an uncertain future'</b>			
<b>Hydrogen Engagement</b> <b>Key Engagement Methods:</b> Conferences (Presenting/Exhibiting), Call for Ideas, Newsletters, Social Media, Site Visits, Demo Events and Meetings and Webex.	£15k	Launched a programme of works known as 'HyNTS' – four projects identified: 1) Feasibility of Hydrogen in the NTS project with the HSE which is identifying the technical challenges to overcome with hydrogen in our network. 2) Project Cavendish working alongside Cadent and SGN looks at the region around the Isle of Grain, established a number of opportunities for conversion to hydrogen. 3) Aberdeen Vision (2% Hydrogen at St Fergus) project, led by SGN at our St Fergus gas terminal to understand the feasibility of injecting up to 2% hydrogen into the natural gas mix.	Allowing our stakeholders to understand the options and feeding into the wider UK level debate about the roadmap for hydrogen. HyNTS programme is unlocking the potential of the NTS to transport hydrogen with a long term benefit to our stakeholder to have a decarbonised gas system. Building an evidence base for future Government policies.
<b>Project GRAID Engagement</b> <b>Key Engagement Methods:</b> Conferences (Presenting/Exhibiting), Call for Ideas, Newsletters, Social Media, Site Visits, Demo Events and Meetings and Webex.	£50k	Demonstrations days at Pannal and Bacton Terminal, sharing best practice with representatives of all gas distribution networks. <b>NEW</b> Opportunity to have discussions with the pigging community globally at a conference in Houston Texas, Progressive conversations were companies from Belgium, Canada, US, Mexico, Africa and Australia on operating GRAID within their networks.	Predicted savings of around £60m over a 20 year period. 2,000 tonnes of carbon saved annually. <b>NEW</b> Considering a smaller GRAID robot which could enter distribution networks or owners of any underground network.
<b>Innovation Portfolio via Conferences (e.g. LCNII)</b> <b>Key Engagement Methods:</b> Industry Events/Conferences (Presenting/Exhibiting), Call for Ideas, Social Media and Meetings/Webex.	£100k	Excellent platform to share new knowledge generated across the networks and find creative ways to collaborate. With support from the Energy Networks Association (ENA), NGGT have been involved in several calls for Network Innovation Competition ideas. The most recent of these calls focused on a joint gas and electricity Network Innovation Competition call for the 2019 NIC competition.	Stakeholders are able to engage with us to understand where we face challenges and help understand how these can be overcome with new and innovative techniques. Our stakeholders benefit from our continued engagement which unlocks new opportunities for us to innovate to drive efficiencies in cost and time and increase safety. Through engaging via a wide range of challenges we can ensure we attract the best most innovative of organisations that can ultimately deliver the greatest value for our stakeholders.



# Safety and security – ‘I want the gas system to be safe’ and ‘I want you to protect the Transmission system from cyber and external threats’

**Stakeholders said:** Keep improving the safety and security of the network.

**What we did:** Relentless pursuit of safety improvements, within and beyond our business.

## Working with stakeholders on emergency preparedness

- **Objective of engagement:** Ensuring network resilience
- **Who we are engaging:** customers, stakeholders and gas distribution networks
- **How we engage:** meetings, simulation exercises and training events
- **Outcome:** Stronger resilience against incidents

The Gas Transmission network in Britain is interconnected with other gas networks in neighbouring countries, with direct links to Belgium, the Netherlands and Ireland as well as Norwegian gas fields.

That’s why National Grid engages with Gas Networks Ireland in preparing for potential emergencies. Both countries engaged together in Exercise Zeus, which involved role-playing a variety of

gas supply emergencies to ensure that operational teams are well drilled if they have to respond to real-life restrictions. The process also enabled improvement of real-time supply and demand data.

In addition to the two national transmission systems, 300 participants took part in the Network Emergency Coordinator (NEC) industry exercise, which incorporated some of the lessons from the extreme weather challenges presented by the ‘Beast from the East’ in March 2018.

National Grid Gas Transmission held 47 training events and 32 smaller-scale exercises throughout the year, many of them involving customers and other stakeholders who would be affected in any large incident.

In addition, improvements in stakeholder engagement during emergencies were identified, such as the need to improve mutual understanding of gas shippers’ role in emergency planning.

## ‘See It, Own It’ at Bacton

We introduced a safety intervention system at Bacton Gas Terminal in Norfolk, using community support as an incentive to improve safety performance.

If an employee sees something that could potentially present a safety risk, they must either intervene immediately and report their actions post-event, or report the issue via a ‘See It, Own It’ card.

Either way, each report results in a £1 donation to a local charity chosen on site. Scheme donations from Bacton employees during 2018/19 exceeded £1,000.



**>£1k**  
scheme donations  
from Bacton employees

## Working with stakeholders on resilience

Alongside pipeline corrosion, third-party damage by contractors presents the highest risk to National Transmission System gas pipelines. The role of local authority planners and agricultural land-owners is essential in preventing excavation accidents and other intrusion on pipelines.

In June 2018, we spoke to the Royal Town Planning Institute (RTPI) conference in the context of ‘The Infrastructure Debate’, appearing alongside Cornwall County Council. We were also the sole energy company to have a presence on the information stands surrounding the event.

We also attended national and regional agricultural events, such as the National Ploughing Championships, to promote the importance of ‘dial before you dig’ and other initiatives which reduce the risk of third-party damage on pipelines.



Working with local land planners is essential to protecting infrastructure against third-party damage from development. In June 2018, our Protection Officer Kam Liddar spoke to the Royal Town Planning Institute conference.

## Collaborative approach to improving safety

National Grid Gas Transmission is absolutely committed to the safety of the public, our employees and those stakeholders in contact with our operational work.

However, we do not develop good practice in isolation: engaging with our stakeholders is fundamental to maintaining our excellent safety record (we achieved a record low figure in lost-time injuries during 2018–19, at 0.07 injuries per 100,000 hours worked).

We have joined forces with the Infrastructure Client Group (ICG) – which includes the HS2 Ltd, Tideway and Highways England among others – to make a step change in the safety, health and wellbeing of workers involved in major projects.

As part of the group, we have now committed to tackling seven areas identified as posing a ‘significant risk’ to the industry’s workforce. The areas are people and mobile plant; mental health; striking buried pipelines and other services; lifting operations; HGV operations; hand-arm vibration related disease: and public safety.

Working together through the ICG will maximise our ability to identify and deliver the best solutions to these risks, providing consistency for clients and suppliers, with knock-on benefits for customers and consumers in terms of greater safety.

## Pipe bridge challenge solved with good relationships

Good stakeholder relationships helped speed up refurbishment work on a rare pipe bridge in Cambridgeshire.

There are only two bridges on the National Transmission Network, and the team in Gas Transmission Delivery ran into a problem during concrete repairs on the Tydd Gote Pipe Bridge.

They were using a pontoon platform to work on the bridge safely, but the height of the water meant that every time they had to switch sides, they would have to dismantle it and rebuild it, potentially several times a day. This threatened to make it a slow job – adding cost to the project. Thanks to work with local stakeholders, the local Internal Drainage Board reduced the level of the water using a nearby pumping station, enabling safer and faster completion of the project.

We’d negotiated extensively with the Internal Drainage Board, updating them and keeping them involved in our works for many months before we started.

**“We already had an excellent relationship with the local Internal Drainage Board team. They were extremely helpful with our request and were happy to help us out. This not only saved the project time but also reduced risk”**

**Jason Allsop**, Senior Project Delivery Engineer

## Keeping the gas flowing – ‘I want to take gas on and off the Transmission System where and when I want’

**Stakeholders said:** Continue improving the resilience and flexibility of the gas transmission system.

**What we did:** Worked with stakeholders on how to consolidate and improve our terminals, compressors and transmission pipelines

### Securing a third of the country’s gas supplies

- **Objective of the engagement:** a stakeholder-supported plan to improve Bacton Gas Terminal and improve gas supplies through eastern and southern England
- **Who we are engaging:** residents, businesses, community groups, gas distribution networks and producers
- **How we engage:** regional workshops, webinar, face-to-face meetings
- **Outcome:** costed, customer-led options for stronger infrastructure

Our terminal at Bacton marked its 50th anniversary in July 2018 and served Britain well through the record cold temperatures in Southern England during the ‘Beast from the East’ last year, supplying a third of the country’s gas supplies.

However, it is beginning to show its age in terms of asset health and obsolescence of components.

We now need to understand our customers’ needs from the terminal for the long-term future.

Our shared interests are likely to focus around common objectives:

- Support the delivery of our customers’ business strategies
- Make the right investment decisions so that costs are appropriate
- Deliver the right outcome for the local community and environment
- Deliver efficient and affordable gas supplies for consumers
- Support security of supply

During the winter of 2018/19 we engaged with stakeholders so that we properly understand their needs and how our plans might affect them in future. These included residents and businesses in the community, North Norfolk Council, New Anglia Local Enterprise Partnership, gas distribution networks and producers.

As a result we have generated several costed, customer-led options which will form the basis of our plans for the 2020s and beyond.



### Securing supplies in the event of a no-deal Brexit

The UK’s planned exit from the EU has a direct impact on the legal and regulatory framework for several gas Transmission System Operators (TSOs) in Belgium, the Netherlands, Ireland and the UK. Throughout 2018–19, National Grid Gas Transmission engaged with infrastructure companies in the European Union to plan for protection of gas operations and

trading in the event of a no-deal Brexit (still a possibility to take place on 31 October 2019, at the time of writing).

Also involving BEIS, a meeting with European gas networks took place in London to ensure that relevant commercial agreements and operational arrangements would remain resilient and protect consumers, if no deal were agreed before the UK exited the European Union.

### A stakeholder-led model for anticipating future needs

**Our stakeholders said:** Stakeholder and customer requirements are changing: create a clear vehicle where we can discuss and quantify gas transmission network needs, future operational challenges and uncertainties.

**What we did:** Created and refined our Gas Future Operability Planning documents.

Gas Future Operability Planning is a pioneering example of a programme that has been created by stakeholders and has changed National Grid Gas Transmission’s ways of working.

The framework provides an overview of how changes in the energy landscape, identified in the System Operator’s Future Energy Scenarios (FES), impact upon future gas system operability. We flag where solutions are being investigated and where there are opportunities for collaborative solution development with our stakeholders.

The essential design of the framework emerged from a stakeholder-led workshop in 2016, with customers, shippers and regulators all contributing. We have taken the lead from our stakeholders throughout the development of the framework

With the framework now in full implementation, we work with all interested stakeholders to ensure the right commercial options (rules), operational arrangements (tools) and physical investments (assets) are considered across the National Transmission System.

Anything we want to engage stakeholders on is detailed in the Gas Future Operability Planning report, a dynamic document which responds to known and projected future changes.

The framework has focused on three key themes:

- Supply Uncertainty – increasing reliance on imports, balance of supplies
- Demand Uncertainty – Combined Cycle Gas Turbine connections
- Within-day Variability – supply and demand customers being more commercially responsive in how they use the network.

As we have extended awareness, we have seen the number of subscribers to the GFOP distribution list rise steadily from 1,030 in March 2018 to 2,427 by the end of the year.



**136%**  
increase of registered stakeholders compared to 2017/18

## Facilitate the debate – ‘I want you to facilitate the whole energy system of the future’

**Stakeholders said:** Play a leading role in the whole energy and decarbonisation debate.

**What we did:** Engaged stakeholders in securing a safe, resilient and sustainable future for gas networks.

### Enabling the future of gas networks

- **Objective of engagement:** enable a cleaner gas transmission system
- **Who we are engaging:** Government, customers, shippers and producers
- **How we engage:** introductory workshops and a tailored Future of Gas forum
- **Outcome:** a co-ordinated approach to managing gas market change to benefit consumers and the environment.

The Gas Markets Plan fulfils a commitment in our Future of Gas programme (2016 to 2018), to facilitate the future markets, in collaboration with our customers and stakeholders, to deliver the right outcomes for the benefit of consumers. Our stakeholders told us they strongly support National Grid initiating the plan, for the industry to develop through an on-going engagement and delivery model.

We have initiated a stakeholder-led plan to be proactive in managing gas market change through the energy transition. The aim of the plan is to deliver efficient, cost-optimal gas market solutions for consumers. This will be achieved by stakeholders collectively putting consumers at the heart of decisions about facilitating what the future of gas looks like.

A stakeholder engagement forum will be proactive in coordinating the approach

to key initiatives across the industry in the plan: it will focus on the gas market and NTS reforms needed to address the challenges of the energy transition, across a 2–10 year rolling period (from 2019).

A broad range of stakeholders consider that the plan’s development will facilitate the energy transition in ways that deliver best value for consumers, and we look forward to joining those stakeholders to develop the detail of the plan.

Stakeholders said	What we did/ are doing
A long-term plan for gas market frameworks would advance the energy transition, given the uncertainty about the future role of gas as the UK progresses towards meeting 2050 carbon targets.	In 2018, we tested the concept of the Gas Markets Plan with a wide range of stakeholders. There was strong support for National Grid Gas initiating the plan, to develop it collaboratively with stakeholders. We then: <ul style="list-style-type: none"> <li>• held an interactive workshop with 19 stakeholders in March 2019 to start to develop the detail of the plan.</li> <li>• discussed valuable insights about the major developments (policy, regulatory and technical) likely to impact gas markets and the signs that those developments are beginning to happen.</li> <li>• tested our thinking on how to continue engagement. Stakeholders see value in a Forum that provides an overview of the extensive change happening in the gas industry. They want it to be held in different locations and to avoid duplication with existing groups.</li> </ul>
There should be a clear route for a broad group of current and future industry participants to be engaged in developing the Gas Markets Plan.	We need to understand a broad range of perspectives in a focused environment, and held the first Future of Gas Forum in May 2019. It will bring together traditional and non-traditional market participants, potential new entrants, consumer representatives, BEIS and regulators. We have asked for views on potential topics, and ways of enabling smaller or non-traditional stakeholders to provide inputs to the plan. We’re also planning education materials on subjects such as gas blending, hydrogen and Carbon Capture, Use and Storage.
Consumer benefit needs to be articulated and at its heart.	The aim of the plan is to deliver efficient, cost-optimal gas market solutions for consumers. This will be achieved by stakeholders collectively putting consumers at the heart of decisions about facilitating their energy future. <p>As we develop the detailed plan, we will be considering the best tools to create a tangible plan that articulates the consumer benefits of each change project.</p> <p>A steering group of senior-level experts will begin to meet this year, to advise on priorities.</p>

### Hydrogen – how we are interacting with stakeholders to explore cleaner gas networks

**Our stakeholders said:** Accelerate your planning for a low-carbon energy future

**What we did:** Quickened the pace on exploring biogas and hydrogen in the context of a more flexible future energy network

- **Objective of engagement:** Co-ordinated planning for a cleaner gas transmission system
- **Who we are engaging:** customers, stakeholders, researchers, environmental organisations and gas distribution networks
- **How we engage:** partnership projects, seminars, exhibitions, face-to-face meetings
- **Outcome:** Live innovation projects to introduce low-carbon hydrogen to the National Transmission System (NTS)

- Gas Transmission ran a wide-ranging technical project with the Health & Safety Executive in early 2019 to better understand the potential impact of hydrogen on national transmission assets. Known as Project HyNTS (hydrogen on the national transmission system), we communicated the methods and findings at a series of seminars and conferences, including the HSE Future of Gas II event in February 2019.
- As well as looking at the physical capabilities of the NTS, we will evaluate work that is taking place in the UK and Europe on hydrogen and conduct a gap analysis for the NTS. This will see us working with counterparts across Europe such as Gasunie (Netherlands) and Snam (Italy).
- Project Cavendish: This project is focused on the Isle of Grain in Kent, which is home to the Grain LNG terminal owned by National Grid Ventures. National Grid Gas Transmission, Cadent and SGN are working with partners Arup to examine whether existing infrastructure could

be used to supply hydrogen to London and the South East of England. We’ll be undertaking design and modelling work to assess the potential CO2 reductions that could be achieved and looking into the business model options with stakeholders and customers alike.

- Aberdeen Vision: Aberdeen Vision is led by SGN, with support from National Grid Gas Transmission and runs until September 2019. Its aim is to study the potential of blending 2% hydrogen at the St Fergus reception terminal and the viability of building a hydrogen pipeline from St Fergus to Aberdeen.



**£192m**  
estimated financial value of removing emissions across London and the SE

*Our hydrogen innovation projects received funding via Ofgem’s Network Innovation Allowance*

## Customer Service – ‘I want you to be efficient and affordable’

**Stakeholders said:** Bridge your stakeholder engagement across to incorporate end consumers.

**What we did:** Introduced a new consumer engagement programme and started to develop an industry narrative co-created with consumers.

**The single largest shift in our focus on stakeholders during 2018/19 has been our approach to consumer engagement, which we have elevated as a core part of our enhanced stakeholder engagement.**

We have built a consumer engagement strategy, supporting implementation through a series of consumer listening sessions and the co-creation of an overall consumer narrative with a cross-section of consumers in different parts of the country.

With the increasing importance of understanding how National Grid Gas Transmission can add value to the community and how our work relates to customer and consumer bills, we realised during 2018 that there was a growing need to engage consumers and help them to shape our plans.

Research we commissioned from Populus, in 2017 and 2018, indicated that consumers were unclear about National Grid's role in gas transmission, making it difficult for us to have the important conversations we need to have about what matters to people and the investments they think we should be making.

We initiated a programme of consumer listening sessions where all levels of staff, including the Director of Gas Transmission, hear directly from consumers about what matters most to them. These are having an active influence on our plans and our wider day-to-day work.

An associated challenge is to create relevant, engaging and concise narratives to be the springboard for more meaningful conversation with consumers. In the first quarter of 2019, we developed this narrative across four workshops, evolving ideas between them. We also sought help from consumers where narration is part of their day job (including a stand-up comic!)

The narrative avoids commercial promotion of National Grid, and is instead about educating an audience with little to no idea on what we do and don't do. Once up to speed, we can then go on to engage on particular topics – from bill break-down to why we're building a pipeline. It will help us introduce ourselves in future research and engagements to any audience, where knowledge of us is likely to be low, especially among hard-to-reach stakeholders.

The output was a shortlist of options that introduce gas transmission, to go through online testing with a few thousand consumers during Spring 2019.

### Getting the right outcome for our customers

**Our stakeholders said:** Find ways of completing connections more quickly.

**What we did:** Accelerated our engagement and connection process, changing scope and technical solutions.

Centrica, the owners of an existing gas turbine power generating facility at Brigg and Peterborough, presented us with an interesting challenge and a first for us as a business. They were constructing new fast-response gas engine generating facilities at each of the existing gas exit connections at Brigg and Peterborough and needed them ready and working for the beginning of October 2018.

The units would be capable of starting and delivering full power within two minutes and would operate in conjunction with their existing generator set to fulfil new electricity capacity market contracts.

The normal period to design, procure, build, install and commission a gas off-take is a minimum of 18 months: in this case, we responded to the customer challenge and returned to undertake a new feasibility study which introduced significant time pressure to deliver through the first half of 2018/19, against the original October 2018 deadline.

The delivery team thus had seven months to deliver a new connection including new pressure reduction equipment, additionally engaging with our customer on changes to scope and technical solutions. Despite countless challenges associated with delivering in such a short time, the team were able to convert the existing single gas supply to Centrica's existing open-cycle gas turbine site into a dual supply, ultimately completing the work ahead of schedule.

### A more transparent gas transportation system

**Our stakeholders said:** Improve the coherence of the Gemini system for gas transporters.

**What we did:** Improved the way we work with Xoserve.

Xoserve is the central data service provider to gas shippers, transporters and suppliers. We recognised that Xoserve were a key enabler in delivering better value to the wider gas industry, and have worked to improve the responsiveness of the two organisations when they work in harness. Initiatives included:

- Improving the process for responding to enquiries, so that simple queries are answered quickly
- Reacting to customer feedback about issues with the Xoserve service desk through customer surveys
- Running an interactive session at a gas operations forum to understand customer pain points
- Completing an analysis of 56 pain points and building a plan of mitigations to improve the overall service.

### More affordable energy supplies for hard-to-reach consumers

While patterns of gas demand are changing and the network has largely reached its fullest extent, there are still areas of Britain where lower-income communities have no access to mains gas. This can present particular financial challenges to consumers, where gas would be their most inexpensive and practical option. We engaged with Scottish Gas Networks (SGN) and the local authority as SGN sought to get households around Fort William in the Highlands on to affordable gas networks for the first time, bringing both health and financial benefits to those previously dependent on solid fuels or oil heating.

A number of perceived benefits from a mains gas supply were raised during a research project during summer 2018

which included improved choice of energy supply and provider, reduced energy costs and greater value for money. The topic of improved reliability and greater efficiency was also raised among participants which covered the elimination of fuel shortage and supply issues, minimising business costs and improving competitiveness along with improved heating and cooking systems for domestic customers.

The timing of this study is driven by a gas connection to a new manufacturing plant in the area. Liberty's Aluminium division owns and operates the only remaining aluminium smelter in the UK – based in Fort William. Liberty is planning investment to build a factory to make alloy wheels.

### Stakeholder work at Brisley saves £2million

A coordinated approach to stakeholder management has helped make the most of an outage on Feeder 2 and saved up to £2 million during 2018.

We worked with our customer, Cadent to put the plans in place for the work – winning their confidence that we could manage a six-week outage.

Brisley offtake was successfully commissioned as part of our National AGI Replacement Campaign’s transformation of Feeder 2 sites between Bacton and Kings Lynn. In less than three months, the site had undergone the Gas Transmission equivalent of open heart surgery resulting in the following successes:

- Removal of above-ground pipework, eight valves, associated pipe supports and access platforms; replacing with a buried block valve and offtake arrangement consisting of two 900mm valves.

- Work to ensure that planned works further down the Feeder 2 pipeline will have no impact on Cadent’s supply.
- Use of 3D modelling to rehearse critical activities such as lifting operations to enhance operational safety on site.
- Use of off-site fabrication to minimize works carried out on site, improving safety, efficiency and quality of project.
- Innovative project progress reporting and intensive customer engagement to reassure Cadent of National Grid’s ability to achieve a switch-on date of 13 September, saving additional costs and risk associated with a temporary bypass arrangement to maintain Cadent’s supply.
- Excellent team work between National Grid, J Murphy & Sons, Premtech and Cadent.

“Of particular note has been the stakeholder management led by Shaun – would you trust someone to take one of your key sites offline for six weeks and risk supplies to hundreds of thousands of customers? Well, after personally meeting Shaun and the team, and weekly intensive progress reports, they did, and in addition the commercial savings were around £2million.”

Chris Bates, Cadent

### STEM and apprenticeships

Aimee Mowat won the ‘Exceptional Enterprise and Initiative’ award at the 2019 Apprenticeship Awards

Aimee, Gas Transmission mechanical apprentice at St Fergus, is in the final year of her apprenticeship and has already completed her Level 3 Terminal BTEC in Mechanical Engineering with Distinction. She is now studying towards her final year of HNC in Mechanical Engineering with South and West Cheshire college.

Aimee will soon be entering her first post role as a fully qualified Mechanical Technician, joining her team at St Fergus and is looking forward to continue applying her knowledge and skills to the role.

Alongside Aimee’s award success, the National Grid Academy were also presented with an Employer award for ‘Large Business of the Year’ for their collaborative partnership approach with the college and both were collected at an evening ceremony held in March 2019 at the college campus in Ellesmere Port to coincide with this year’s National Apprenticeship week.



Aimee Mowat collecting her award at the 2019 Apprenticeship Awards

### Customer Low Cost Connections

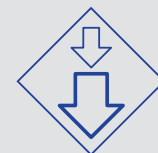
Several year ago, we recognised that new sources of gas, such as biomethane, compressed natural gas and shale gas, had the potential to complement the UK’s conventional supply. We wanted to open up the NTS to these emerging customers, but the process was too long and expensive. We set up Project CLoCC to halve the cost, cut connection time to less than a year – and give customers more choice and flexibility than ever before.

During our three-year initiative, the project team worked tirelessly to challenge every aspect of our connection process. This is what they achieved:

1. Created an online portal where customers can track their connection from start to finish and get an estimate of likely costs in minutes.
2. Developed a suite of standardised connection designs, covering pipe diameters of 80, 200 and 300mm. This saves customers months of bespoke design work.

3. Removed obstacles for emerging customers. Exit connections no longer need a remotely operable valve, we’ve made oxygen specification more flexible, and reduced application fees by up to 88%.

Next, we selected a pilot customer – an anaerobic digestion plant called Somersset farm – to trial the process. For the first time, we proved that biomethane connections are viable to the NTS, and gave a glimpse of how our network can be used to help decarbonise transport, heat and power generation.



**50%**  
reduction in cost of connection versus historical approach



**£100m**  
savings for customers, assuming 100 connections are made over the next 20 years

### £107 million so far to help fight fuel poverty

Around 4 million UK households are in fuel poverty, unable to heat their home to the temperature needed to stay healthy. As well as being on low incomes many of these households are also faced with the additional burden of relying on heating systems that are expensive to run. Their location or property type may mean they cannot benefit from existing mandated schemes.

For many, gas is the most cost-effective fuel and the best way to ensure fuel-poor households have access to affordable energy supplies. We’re providing support

for those in fuel poverty (i.e. low income and high costs) through the Warm Homes Fund (WHF). They enable local authorities to reduce energy consumption, improve affordability and have a positive effect on greenhouse gas emissions – in many cases modern heating systems are replacing solid-fuel or inefficient older gas fires.

In 2018/19, 40 applicant organisations progressed through to contract discussions. During 2018/19 we allocated a further £49.3m to our Warm Homes Fund bringing the total to £107m since July 2017, and the installation of 32,000 first-time central heating systems for vulnerable households.

# Stewardship – ‘I want you to care for communities and the environment’

## Gas Transmission and environmental stakeholders Safety, Health & Sustainability Strategic Stakeholder Engagement

**Our Safety, Health and Sustainability team support us in our regular engagement with interest groups, our supply chain and investors who provide valuable insight into our approach and commitments to reducing our business’s carbon footprint and our approach to environmental stewardship.**

We engage with environmental non-governmental organisations including the Wildlife Trust, Field Study Council and Groundworks, the community volunteering charity TCV and the RSPB, who have worked with us on ensuring that environmental value is incorporated into decision making and that our sustainable approach to land management is stakeholder-led.

We have also started to incentivise sustainability in the way we evaluate tenders and share ideas on sustainability through our contractor resource forum.

Environmental engagement has not been restricted to environmental stakeholders: SHS also engage with investors who have told us there is a greater focus from the financial community on ensuring climate change risk and opportunities are embedded into business plans. They expect us to align with the Paris agreement and Sustainable Development Goals (SDGs).

We have also engaged with the Scottish Environment Protection Agency discussing the roll-out of their “One planet prosperity strategy”, providing valuable strategic insight for further consideration and assessment in planning the future of gas networks.

Regular engagement with the environmental regulators has provided Gas Transmission with insight in its approach to reducing and managing emissions across the gas turbine fleet. Positive feedback has been received from the biannual network review, which is supported by the exemplary record of compliance through the operational risk appraisal (OPRA) appraisal system used by the environmental regulators. The Network Review is an opportunity to assess performance with regulators and commit to further investment in the National Transmission System to further reduce its impact on the environment.

Gas Transmission currently has an excellent rating with all three environmental regulators according to OPRA scores, publicly recorded in our compliance scheme’s public registers. As our environmental regulators are responsible for permitting our combustion equipment, we engage with them at the design stage when investment is required, both at national level and with the individual local inspectors of the respective installations.



HRH The Princess Royal visiting National Grid Gas Transmission’s Humber Pipeline Replacement project on 1 April 2019, where employees showcased the environmental, education and community benefits linked to our construction activity on both sides of the Humber.

### Engaging communities around the Humber estuary

Local councillors, land managers and school-children were invited to the Feeder 9 construction site in Goxhill (North Lincolnshire), when HRH The Princess Royal visited the Humber Pipeline Replacement Project.

National Grid employees used the opportunity to demonstrate and explain the engineering, environmental, community and educational activities associated with our pipeline replacement work under the Humber, which will secure 20% of Britain’s gas supplies. Children from Goxhill Primary School joined in, taking part in science and safety learning activities at the site’s training suite.

We speak to the parish councils on both sides of the river at least monthly, updating them on progress and meeting them at least on a six-monthly basis. We briefed Paul parish council through Spring 2019, ahead of the tunnel boring machine emerging on the north side of the river. Our work has been recognised with a gold award in the Considerate Constructors Awards.

We’re doing what we can to promote STEM subjects and engage with schools locally, including Science Equipment Grants, female project team members talking to girls about women in engineering, school careers events and Science Made Simple events with primary schools.

Through our observation card system on site we’ve donated around £13,000 to local charities. This incentivises employees to improve site safety by linking observations to raising money for favoured causes. Since the start of the project, the Programme has raised over £75,000 for good causes on both sides of the Humber.

Our contribution to communities around the Humber goes well beyond financial support. Ganton School caters for children and young adults in Hull and the East Riding who have complex learning

difficulties. Our staff have been supporting the school achieve its aims for the past year through our observation card donations scheme, but now we’ve taken it one step further by creating a Cycle Safari within the school’s grounds.

The Safari is a crucial part of Ganton School’s Eco Project, which is designed to engage pupils in enterprise and work experience. Now complete, the Cycle Safari will be a venue for micro events for local charities, mum and toddler groups, nurseries, Scout groups and other schools. Ganton School pupils will run these events as a business to generate money for other eco projects at the school, gaining work valuable experience in the process—something that is central to the Eco School Project’s mission of improving self-esteem and confidence among pupils.



**£13k**  
donated to local charities through our observation card system

### GT Ecology Survey work

Liaison with ecological experts, environmental regulators and landowners has been essential and has led to material changes on our sites. It has seen us making provision for wildlife such as water voles, marsh harriers and other wintering birds.

In consultation with Natural Resources Wales, the Scottish Environmental Protection Agency and the Environment Agency, planned work included undertaking mitigation works such as installation of close board fencing around entire sites to reduce audible impact, installing natural drainage systems and setting aside fields as foraging land to mitigate areas taken up by building activity.

### Engagement on improving compressors

Stakeholder engagement is fundamental to gaining consent when upgrading our compressor stations. At Peterborough and Huntingdon, major works are required to meet stringent new environmental requirements: through the project design stage, we have involved neighbouring residents, local government and statutory bodies to ensure that we can address local impacts and concerns.

We attended a series of meetings with local parish councils to canvas opinions on design objectives and customer requirements, delivered an information session for elected council members at Peterborough, and fielded project specialists at residents' engagement meetings to answer local questions.

Our key learning from the process to take forward into our future planning engagement is the extent to which local issues and concerns can be significant even when dealing with national-level infrastructure, necessitating a flexible process which adapts to meet the differing needs of different sites.

This process has helped us to make changes in response to local views before securing the necessary consents. This proved the case in Peterborough, where extended local discussions took place on key design issues, whereas at Huntingdon potentially sensitive environmental factors needed detailed consideration. All necessary consents for both projects were secured, and conditions discharged, enabling projects to successfully progress to the build stage.

### Partnership with Jericho/YMCA

**Our stakeholders said:** Use your role to improve social mobility.

**What we did:** We launched a digital platform to support social mobility.

There are many people in our communities who are in need and want to improve their lives but do not know where to turn for help or even know where to start.

Grid for Good is an emerging flagship programme sponsored by our CEO John Pettigrew, launched this year to help people access what they need, when they need it, and in the most effective way possible. At its core is a digital based platform that can be accessed by desktop and mobile devices to support those with social mobility issues to get back on their feet and start the journey to achieving a brighter future.

In the first quarter of 2019 we partnered with Jericho and YMCA in Birmingham, to run a small trial of the digital platform for a six-week period. The charities worked with individuals to create a step-by-step plan to help them achieve their most important goals.

The platform also provides people in need with some basic goods and services, incentives, rewards and tailored skills-based workshops – all delivered through employee volunteering to provide support, guidance and encouragement where needed.

The trial has delivered some great results and we are about to run a pilot of the programme for three months where we will be working with three charities and 12 participants. Although this is a group-wide initiative, some successes of the six-week pilot in the UK were:

- 19 people's lives improved through workshop offerings
- 55% personal journey steps and actions completed
- Two individuals achieved employment, and one individual housed
- 99 hours of employee volunteering on the Grid for Good project.



**19**  
people's lives improved through workshop offerings



**99**  
hours of employee volunteering on the partnership project



Fundraising for a local children's ward by teams working on the Peterborough Compressor Upgrade Project.

### Encouraging engineering and STEM careers/ partnership with the Smallpeice Trust

National Grid Gas Transmission works with independent education charity The Smallpeice Trust to give primary schools across Britain the opportunity to participate in free Science, Technology, Engineering and Maths (STEM) days in schools.

Typically, this programme gives primary school students a chance to "learn through fun" during a one-day programme of activities delivered by the Trust. Working in small teams, the students aged 9 and 10, are encouraged to develop their creative thinking and team working skills as they tackle four interactive projects.

We have also hosted school groups visiting our Warwick HQ, including the Gas National Control Centre (GNCC) – so that students understand better the workings of how we move gas around Britain, and think in a new light about engineering careers.

### Engaging on technology to reduce emissions

Beyond the Network Innovation Allowance regime, we have taken on an innovation project to reduce the volume of gas released to atmosphere in the operation of the National Transmission System, responding to our stakeholders' key priorities that we should "care for the environment and communities". Undertaken in partnership with the National Physical Laboratory (NPL), the project looks to track fugitive emissions.

The analysis suggested that around 265 tonnes of emissions could be avoided per year across all NTS compressor sites (maximum possible). This provides a benefit to consumers of £54,251 per year based on a wholesale price of 38.7p.

The value of the avoided emissions also equates to a non-traded carbon benefit to consumers of around £424,000 per year.



**265**  
tonnes per year of emissions avoided



**£424k**  
non-traded carbon benefit to consumers through avoided emissions



Pre-built pipeline sections for the pioneering Humber pipeline replacement, which will secure 20% of the country's gas supplies. Gas Transmission has engaged schools, local consumers, councils and voluntary groups to derive substantial community benefit from the project.



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