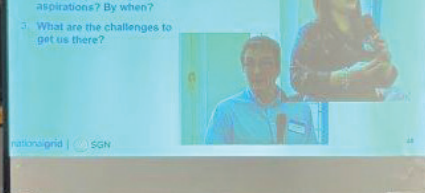


Gas Transmission

**Stakeholder Engagement Incentive
Scheme Submission – Parts 1 and 2**
2019–20

Part 1

- 01 Welcome
- 02 Our engagement strategy
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Welcome to our stakeholder engagement incentive submission 2019–20



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

Thank you for taking the time to read the 2019–20 submission by National Grid's UK gas business. We ensure that Britain's gas is transported safely and efficiently from where it is produced to where it is consumed, balancing supply and demand day-to-day.

During the year we delivered improvements for stakeholders by reviewing our business model, making it clearer and simpler for customers and stakeholders to interact with us. We welcomed our Gas System Operator into the Gas Transmission business of National Grid from December, improving understanding of who has accountability for our interaction with stakeholders, and who is speaking on behalf of National Grid Gas to the industry.

Whole-system publications, such as the Future Energy Scenarios, were already delivered by the Electricity System Operator and this will continue under the new arrangements. We strongly feel that by simplifying our internal structure and aligning our NGG licence activities under National Grid Gas Transmission, we are able to respond more effectively to the changing long-term needs of consumers and stakeholders.

The need for effective engagement has become more important than ever in 2020. Thousands of new customers continue to connect to gas networks every year, and last winter we submitted our 2021–26 business plan to Ofgem to provide reliable, effective and safe energy over the next few years.

The plan was shaped by our stakeholders, and we are keen to continue discussing planned outputs with stakeholders through the year leading to the regulator's final decision on the plans at the end of 2020.

Stakeholder involvement in our work is essential. The gas networks deliver three times as much energy as electricity networks, and 41% of electricity generation came from our network in 2019.

Stakeholders have been both constructive and challenging in a powerful partnership, to shape the gas transmission networks as we consider a future Net Zero. Our stakeholders have also been instrumental in helping Gas Transmission to surmount the very serious impacts we have all felt from the current COVID-19 pandemic.

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

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

- a brief overview of who our stakeholders are, including our increased focus on consumers and new ways of working with our stakeholders
- details of how we have reshaped our organisation to better respond to their needs
- summary of survey feedback we have received from our stakeholders over the year
- the independent evaluation of our stakeholder engagement activities conducted by established experts AccountAbility.

Once again, the Stakeholder Panel Report's valuable feedback on our 2019 submission has been a real stimulus to continue improving our interaction with stakeholders and accelerating change and improvement across our business.

Part One details a number of steps we have taken since last year to improve:

- our new stakeholder ambition, backed up by a Stakeholder Charter signed by myself and members of the National Grid Gas Board
- engaged and adopted best practice from other energy networks and sectors
- developed a strategy to engage end consumers.

The Ofgem Stakeholder Incentive Panel wants to see still more evidence that we have listened to our stakeholders, with greater emphasis on what outcomes we have 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 detail on our activities.

Phil Sheppard
Director of Gas Transmission, UK

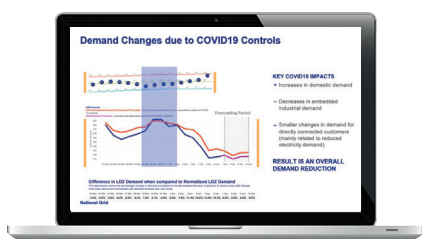
Covid-19 – our response

National Grid donated £400,000 to the National Emergencies Trust (NET) and an additional £100,000 to the Trussell Trust, to help some of the most vulnerable people in UK society hardest hit by the Covid-19 pandemic.

In addition to these corporate donations, National Grid match-funds individual giving to charitable causes and enabled employees to volunteer half a day a week for up to three months following the outbreak.



Since the start of lockdown we have been keeping stakeholders informed and engaged using web-based technology.



Our engagement strategy

The UK energy landscape of which we are a key part is undergoing rapid and fundamental change. As we take steps to decarbonise the gas transmission network and fulfil our commitment to a Net Zero future it is essential we work hand and hand with our stakeholders to understand, shape and deliver the Net Zero ambition for consumers as well as continuing to deliver the high levels of service they require from us.

The transition will mean changing the way we behave and think about how we all heat our homes and provide for the needs of our UK industry and power generation customers. Involving our stakeholders is essential to ensure we are efficiently and effectively delivering the UK gas transmission system that our stakeholders require both now and in the future.

Our engagement strategy ensures that external voices are heard by our organisation and the feedback we receive

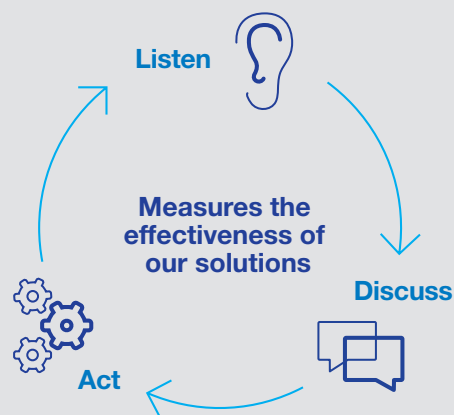
is acted on. Stakeholder expectations of businesses such as ourselves have risen sharply in recent years and we are changing to meet them.

We actively consult on our engagement strategy on an ongoing basis and take seriously the feedback we receive from stakeholders including Ofgem. During engagement we consult stakeholders on our engagement approach and then update our strategy based on the feedback we receive. This is also incorporated into our stakeholder led business planning process.

The engagement we undertook as part of our RIIO 2 business planning process, led by our Director Phil Sheppard, was the largest we have ever undertaken. It has directly influenced our business plan submission and encouraged us to be more ambitious and strategic in both our thinking and our approach to our business planning and stakeholder engagement.

In the past year we have taken active steps to reorient ourselves and the way we operate to focus more acutely on delivering outcomes for stakeholders. We set out on page 5 the steps we took in 2019–20 to improve our engagement strategy in response to feedback from our stakeholders and changing business needs.

Our engagement approach has been embedded for a number of years and is based on the AA1000 Stakeholder Engagement Standard (AA1000SES), an internationally-recognised framework for stakeholder engagement excellence.



This framework is based on the principles of:

Inclusivity

Being accountable to our stakeholders and including them in our decision-making processes:

- ensuring we engage with a representative sample of the appropriate stakeholder segments for each topic of engagement
- including the views of consumers, both domestic and business, when gathering insight, and ensuring that relevant subgroups have appropriate representation (for example, vulnerable consumers, stakeholders in different geographical areas or business consumers with different energy requirements)
- develop a coordinated and tailored engagement programme, using different channels to ensure we are reaching all stakeholders, particularly those harder-to-reach stakeholder groups.

Materiality

Engaging on topics and issues that are most important and relevant to our stakeholders and to us:

- engaging our stakeholders on the most important topics to influence our decisions, actions and performance
- engaging only on topics where stakeholders can genuinely make a difference to our plans, and being clear why stakeholders cannot influence our plans on other topics
- being proportionate in our engagement activities, both in terms of our stakeholders' time and commitment, and when it comes to our own costs and resources
- ensuring identification and prioritisation of topics and issues is evidence based and uses a full range of available sources.

Responsiveness

Acting as a result of what stakeholders have told us:

- using stakeholder input to develop our plans, then sharing these plans with stakeholders to check we've understood their requirements and to be transparent throughout this process
- taking responsibility for what we say we'll deliver and doing even better wherever we can
- acting on feedback to ensure we continuously improve to deliver more effectively and efficiently for our stakeholders
- ensuring we are focused on delivering stakeholder and consumer value, in terms of affordability and/or progression towards Net Zero.

Since 2016 we have used the AA1000SES framework to standardise the way we engage across our gas transmission business.

New developments for 2019–20

Stakeholder ambition

In December 2019 as part of the publication of our business plan we set out our stakeholder ambition. This ambition responded directly to calls from our stakeholders, who throughout the RIIO 2 engagement process told us that the opportunity to shape our plans is something they expect from us on an ongoing basis.

Building on learning and best practice from RIIO 1, learning from others and from building our RIIO 2 plans, our stakeholder ambition is four-fold:

Independent stakeholder group

Our Independent Stakeholder User Group has been in place since 2018. Chaired by Trisha McAuley OBE, the Group played a key role in scrutinising and challenging our RIIO 2 future business plan including our approach to stakeholder engagement.

The Group, which includes representatives from a range of stakeholder categories is now an established part of the governance and external scrutiny of our stakeholder-led engagement approach and we are in discussions with the group about its enduring role as we transition from RIIO 1 to RIIO 2.

1 We want to learn from our stakeholders

we will involve them in every aspect of our business, from shaping our strategic business priorities, to day-to-day running. Allowing stakeholders the opportunity to have their views considered in our decision-making processes

2 We will partner with stakeholders

to solve problems and reach solutions that cannot be reached by any single organisation such as the transition to Net Zero

3 We will work together to build advocacy

on topics where stakeholders have told us we need to use our position in the energy industry to advise and influence on their behalf, in the wider interests of consumers

4 We will embed this approach

across our organisation and make ongoing improvements to the way we engage

Deepened leadership commitment to engagement

In November 2019 all members of the National Grid Board signed a Stakeholder Charter setting out their commitment around engagement.

National Grid Gas Transmission board Stakeholder Charter

This charter is based on our RIIO-2 stakeholder strategy

Ambition

- we want to **learn from our stakeholders**, we will involve them through every aspect of our business
- we will **partner with our stakeholders** to support the transition to Net Zero, to solve problems together
- we will work together to **build advocacy** on topics where stakeholders have told us we need to use our position in the energy industry to advise and influence on their behalf, in wider interest of consumers
- we will **embed** this approach across our organisation and **make ongoing improvements** to the way we engage

Approach

We will:

- be outcomes focused
- ensure Inclusivity including with hard to reach and vulnerable stakeholders
- focus on materiality (focusing on topics most important and relevant to our stakeholders)
- be responsive and systematic
- be stakeholder focused at all levels of the organisation
- give consumers a voice
- triangulate insight appropriately
- retain an independent stakeholder group to hold us to account
- be transparent in our performance against defined targets

Commitment of the Board

We recognise that engaging our stakeholders is key to delivering our vision to exceed the expectations of our stakeholders, both now and in the future. Therefore as board members we will commit to:

- the ambition and approach outlined in stakeholder strategy
- approving the stakeholder led business priorities on an annual basis
- tracking and monitoring key stakeholder engagement performance metrics twice a year
- being actively involved in stakeholder engagement activities
- assuring that across our business at all levels we continue to build and further embed stakeholder engagement

Signatures to the charter

Nick Shaw, Chris Giffitt, Alan Baker, Faten Syg, Clive Elphick, Alexander Hines

Acting on feedback and learning from others to improve our approach to engagement

As part of our commitment to continuous improvement as a business we review the efficacy of our engagement approach on an ongoing basis. This process, led by the customer and stakeholder engagement team involves:

- A review of key external performance measures relating to stakeholder engagement gathered throughout the year including satisfaction surveys and the stakeholder engagement incentive.
- Consideration of feedback from a range of stakeholders, organisations and stakeholder panels.
- Benchmarking our performance against other networks and other industries.
- Horizon scanning of best practice approaches.

In August 2019 as part of our annual formal review of our engagement approach, we conducted a lessons learned review exercise to examine both what had worked well and where we needed to improve.

We then developed an engagement strategy action plan to address areas for improvement.

Key elements of this plan can be summarised as follows:

- Bringing forward learnings from RIIO 2 enhanced engagement into business as usual.
- Establish links and learn from leading networks on regional engagement, measurement of social value and other best practices.
- Establish links and learn from other sectors beyond our own.

- Pilot proactive engagement with local authorities around Gas Transmission assets to understand local priorities and create additional stakeholder value.

The Action Plan was agreed in full by our Senior Leadership Team in autumn 2019 and implemented in 2019–20.

In addition to learning from our stakeholders we also look to deepen relationships and identify opportunities for future partnership working for the benefit of our stakeholders. Details of collaboration we have been involved in such as Decarbonising Scotland with SGN can be found in Part 2, page 14.

Below is a summary of what we learned and what we implemented. Each meeting was attended by a senior leader in our business, as part of our commitment to improvement.



Phil Sheppard and Helen Campbell welcome Avian Egan and Colm O-Duibhir of Gas Networks Ireland to National Grid House



“This is about recognising where we are as a business and the steps needed to take to move up to enable us to deliver more value to the individuals and organisations we impact. We are restless in our ambition to become stakeholder-led as a business and I’ve really enjoyed listening to others in our sector and beyond describe the approaches they’ve taken and what might be applicable for us.”

Helen Campbell, improvement action plan sponsor

Gas Networks Ireland

We contacted GNI to gain a different stakeholder perspective – outside of the UK but still from within the gas industry. GNI was keen to learn about our approach to improving customer experience. We shared our experience of engaging on our future business plan.



Engagement approach

We held two bilateral meetings with GNI including a ‘lunch and learn’ session in our Warwick HQ in November 2019. National Grid also met with GNI in January.

Both parties shared engagement plans and strategies.

Output >>

We introduced a key stakeholder quarterly forum in January 2020 to ensure better coordination of engagement across our gas transmission business and ensure we are acting on feedback (see page 08 for more details).

WPD

WPD are recognised leaders in the field of stakeholder engagement and have been ranked number one in the Stakeholder Engagement Incentive for the past 7 years.



Engagement approach

We visited WPD offices in Castle Donnington in January 2020. We heard about their effective engagement approach including:

- making engagement everyone’s business
- acting on stakeholder feedback
- partnership working to deliver social impact.

Output >>

Customers and stakeholders are one of our six key focus areas.

We plan to attend WPD’s consumer vulnerability conference in October 2020.

We shared our experience of consumer engagement with WPD.

Anglian Water

Anglian Water was rated first for customer service by Ofwat in 2018–19. It was also named BITC Responsible Business of the Year 2017.

We operate a number of key assets in the East of England and are keen to identify opportunities for collaboration with other stakeholders and sectors.



Engagement approach	Output >>
We visited Anglian Water's offices in December 2019 and kept in contact via regular monthly catch up calls.	We learned the importance of 'seeing is believing' when embedding the concept of delivering more value for stakeholders. We resolved to increase the number of leadership visits to see this in action. A National Grid leadership site visit to Wisbech was planned but was postponed due to the lockdown.
Both parties shared plans and strategies.	We are sharing our successful approach to innovation with Anglian Water and are planning an ideas sharing/collaboration session.
	This is an engagement approach we could apply nationally whilst we might also identify collaboration opportunities in the area as we have a presence in their patch.



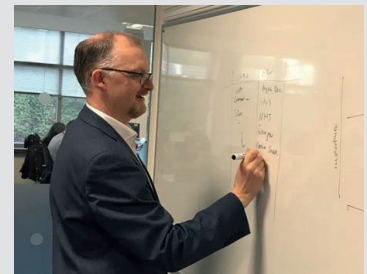
Engagement manager Daisy Benson and Isabelle Haigh, Head of Plant Operations with Karen Barclay and Grant Tufts of Anglian Water

SGN

SGN have undertaken regional engagement successfully for a number of years. They have developed a tool for measuring social value across their activities.



Engagement approach	Output >>
We held two bilateral meetings with SGN to understand their approach.	We piloted engagement beyond business as usual in the East of England and are looking to develop this nationally. We shared our emerging thinking on the topic and were subsequently invited to attend a roundtable with other energy networks hosted by SGN on approaches to social return on investment. We played an active part in the meeting and a follow up session is planned in June. In addition we are working with our Electricity Transmission colleagues to develop and pilot a social value measurement tool on major projects.



Stakeholder mapping ahead of local engagement around key assets

Cadent

Cadent has performed well in a number of areas including regional engagement. This is an opportunity to learn and potentially implement.



Engagement approach	Output >>
We held two bilateral meetings with Cadent in October and November 2019.	Increased our engagement with local authorities and regional bodies such as Local Enterprise Partnerships.
We visited Cadent's offices in October 2019 and heard how they are engaging at regional level. We also heard how they are using data to better understand the challenges faced by vulnerable groups leading to more effective interventions.	We agreed to hold regular catch up meetings with their regional engagement team to share opportunities to collaborate for the benefit of stakeholders.



Peterborough Town Hall. In 2019–20 learning from other networks and utilities we piloted engaging local authorities in the East of England (around key gas transmission assets) on topics such as Net Zero, skills and apprenticeships



David Duguid MP for Banff and Buchan on a site visit to St Fergus Gas Terminal on 6 March 2020

Our stakeholders

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	Examples of stakeholders engaged	Engagement approach
Political	Hydrogen All Party Parliamentary Group, Policy Connect, Policy Exchange, Onward, IPPR, Bright Blue (Policy Connect runs Carbon Connect)	Engage closely, input into consultations and working groups
Scotland specific stakeholders (beyond Scottish Government)	Pale Blue Dot (in relation to hydrogen projects). Scottish Hydrogen and Fuel Cell Association, University of Edinburgh, NGS Scotland,	1-1 meetings, topic-based meetings
Regional bodies and regional business groups	Local Enterprise Partnerships, Economic Development agencies, East of England CBI, Institute of Directors East of England, FSB East of England	1-1 meetings, topic-based meetings
Education and Skills	Warwick University, Local schools and colleges around assets	Attendance at events, local visits
Industry bodies	Energy UK, Renewable Energy Association, IGEM, Energy Networks Association	1-1 meetings, topic-based meetings
Other sectors	Anglian Water, Western Power Distribution, Barclays, Amazon	1-1 meetings, topic-based meetings
Supply chain	UK boiler manufacturers	1-1 meetings, topic based meetings
Interest Groups	Extinction Rebellion, Green Alliance, WWF, ClientEarth	1-1 meetings, topic based meetings
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, producers and terminal operators	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

Consumer engagement strategy

Delivering gas safely and affordably to consumers matters to us. We learnt from our experience of engaging with consumers as part of our RIIO 2 business plan enhanced engagement and in 2019–20 we ramped up our direct engagement with this key stakeholder group.

This year we expanded the tools and methods we used to gather consumer views and increased the range of topics we engaged on:

Engagement channels and methodologies

Direct engagement and research with those who use the energy we transport and are impacted by our activity, this includes both domestic consumers and different types of business consumers, many of whom depend upon a reliable and efficient energy supply for the success of their business.

We used a range of channels and methodologies to engage consumers to build our business plan and used them in

2019–20 to inform our business planning on other key topics, such as the future of heat (see page 16 in part 2):

- quantitative research with nationally-representative samples of household consumers, including acceptability testing and/or willingness to pay research where appropriate
- qualitative research to help shape quantitative studies and allow more detailed exploration of certain topics with targeted groups of consumers
- quantitative and qualitative research with business consumers of all types
- using consumer trend data and specific research studies to help predict future trends and make sure our plans balance the needs of current and future consumers

- using innovative approaches like interactive online 'gamified' tools to help explain who we are, what we do, and understand what consumers want from us
- consumer listening events to hear first-hand what consumers want from us.

Through our programme, by using the appropriate channels and by engaging on the appropriate topics, we will make sure we gather representative insight from:

- hard-to-reach groups (both consumers and other stakeholders)
- vulnerable and/or fuel poor consumers
- different types of business consumers (e.g. high versus low energy dependency)
- current and future consumers.

Triangulation

It is inevitable that our diverse stakeholders will not always agree – particularly on contentious issues. We have developed an approach to help us translate and respond effectively to conflicting feedback we receive from stakeholders.

This involves enhancing our existing customer/ stakeholder relationship management tools to systematically capture all the input we've received, from stakeholders, consumers, research studies or secondary sources, and then assessing it against a set of principles to determine how we shape our plans. This is done on a topic by topic basis. The decision-making principles we use are:

- **Impact:** where stakeholders are impacted more heavily by a particular topic, their views are given more weight.
- **Recency:** recent evidence is given more weight.
- **Robustness:** this covers several areas but (for example) insight from a more representative or more informed group of stakeholders would carry greater weight.

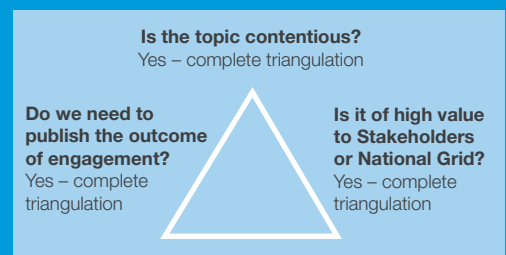
Triangulation approach

- Identify which topics need to be triangulated and complete the process.

For each topic that is to be triangulated:

- List all relevant engagement activities and assess the robustness of them. This gives us a view of how much we can rely on the outcomes of that engagement.

- Map the impact of each stakeholder for these activities.
- Look at the views of highly impacted stakeholders and compare these with medium/low impacted views.
- Identify any consensus or differences.



- **Consistency:** although outlying views are always considered, less weight is given to a small number of conflicting views if the majority of other views are aligned (assessed in conjunction with impact).
- **Relevance:** more weight is given to inputs relating directly to the topic in question, than to more general insights.

More on how we actively engaged consumers on the future of domestic heating in Part 2 page 15

A stakeholder-focused organisation



Making our business easier to deal with

In December 2019 we welcomed our Gas System Operator colleagues into the Gas Transmission business of National Grid, in response to a great deal of feedback from our stakeholders. This followed 8 months after the Electricity System Operator (ESO) became a legally separate business within the wider National Grid Group to remove any perceived conflicts of interest and offer greater transparency of the ESO operation.

Realigning the licensed gas businesses visibly under a single entity (National Grid Gas Transmission) has already made our business clearer and simpler for customers and stakeholders who interact with us. It has provided a clearer identity and voice, and improved understanding of who has accountability for our interactions with stakeholders, as well as across the gas industry itself.

Whole energy system thinking still plays an important role across our business and we continue with work across National Grid on the work that ESO produces, such as the annual Future Energy Scenarios.

We feel very strongly that by simplifying our internal structure and aligning both asset and gas system operation activities, we will be better prepared for the RIIO 2 period, and able to respond more effectively to the changing long-term needs of consumers.

Creation of Gas Quarterly Stakeholder Forum

As part of our regular review of stakeholder feedback and reflection on our approach to engagement we recognised the need to take a more strategic approach to our management of stakeholder relationships.

Our stakeholders often have multiple interactions with us on different topics across our business which survey feedback has shown can result in dissatisfaction. Following our ongoing engagement with Gas Networks Ireland in November 2019 (see page 4) and reflection on stakeholder feedback we created a high level quarterly stakeholder forum to help address this and embed strategic relationship management across gas.

This way of working will complement the transition to our enhanced engagement approach in RIIO 2.



In 2019 we created a customer and stakeholder gas hub to highlight external feedback and engage teams around our new organisation. Leaders in our business visit the hub on a regular basis to help drive action. Josh Bates Gas Customer Operations Manager gave GNI a tour when they visited as they were keen to learn best practice

Embedding engagement best practice across our organisation

Since 2018 we have had a stakeholder engagement business management standard in place. This standard is closely modelled on the internationally recognised AA1000SES standard and it covers all aspects of the engagement process.

This standard which sits alongside our customer standard (as part of a suite of standards to help drive excellence in business performance) helps ensure consistency and efficiency in engagement approach across our teams and business operations.

Individual teams develop required capabilities against the BMS standard. Business wide progress against the standard is overseen by our Gas Transmission customer and stakeholder engagement team and action plans developed to support effective delivery.



Stakeholder surveys and online engagement tools

Focus on improving stakeholder satisfaction and acting on feedback

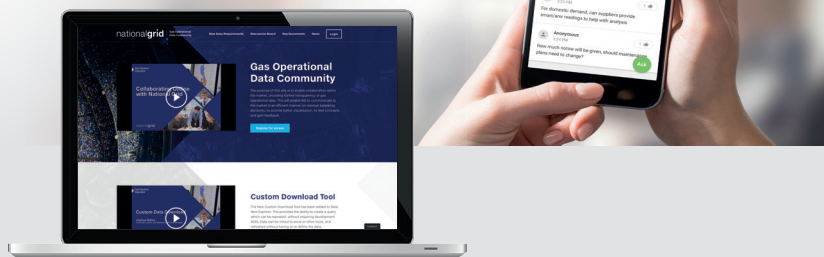
In 2019–20 we received 98 gas stakeholder survey responses out of 183 surveys issued, giving a 54% response rate. We focused surveys on more meaningful interactions and engagements, and sought feedback from over 100 different external organisations. The resulting feedback covered a variety of events and types of stakeholders, from academics attending decarbonisation workshops to parish councils affected by our construction work:

- When split into specific survey areas, all Gas Transmission teams scored an average 8 or higher.
- Asked whether they felt their feedback would be acted on, 71 respondents replied Yes and just 6 replied negatively (21 answered 'unsure').
- Over half of the responses (50) scored National Grid Gas Transmission 9 or 10 and only 7 respondents scored 6 or below.
- We investigate and act on all feedback. Unless the respondent is anonymous, they are contacted to discuss and resolve any ongoing issues.
- Expressions of dissatisfaction and formal complaints are addressed promptly via our Gas Transmission complaints process, modelled on best practice.
- We contacted Perth and Kinross Council following a 3 score to understand their dissatisfaction. This resulted in a more positive working relationship.
- Stakeholder survey scores and responses are discussed with individual teams and reviewed by senior leaders including the UK Executive Director Nicola Shaw and Director of Gas Transmission, Phil Sheppard.
- Quarterly survey performance meetings are held to identify trends and develop action plans.

Engaging and collaborating with customers and stakeholders online

"I do think the web based community forum where you can share feedback is particularly good"

SSE



We launched an innovative data community website in 2019 to enable online collaboration within the gas market, providing further transparency of gas operational data. This will enable National Grid Gas Transmission to communicate to the market in an efficient manner on residual balancing decisions, to provide better visualisation, to test concepts and gain customer feedback.

- Over 300 stakeholders and customers are registered to use the site.
- We have used the website to conduct stakeholder votes for example identifying where new data was required. Examples of topics where we have sought stakeholder views online include instantaneous demand, day in brief, prices, trading, gas quality and projected closing line pack.
- Stakeholders have also used the site to raise topics of interest where they would like more information or discussion. Recently these have included pressure forecasts and data downloads.



Craig James, Physical Operations Manager leads a team workshop on improving customer and stakeholder satisfaction

"It's really positive that the majority of stakeholders surveyed in 2019–20 trust that individuals and teams across National Grid Gas Transmission will listen to and act on what they say. We are working to embed a culture of listening and to provide teams with tools and skills needed to respond effectively, so that in future all our stakeholders feel this way."

Daisy Benson, Stakeholder Strategy and Delivery Manager

Gas Transmission satisfaction survey results 2019–20



98
Stakeholder
survey responses



8.4
average score

Independent evaluation of our stakeholder engagement approach

As part of our commitment to continuous improvement and to ensure the way we engage our stakeholders keeps pace with rising stakeholder expectations, we invite an external agency to conduct a detailed independent assessment of our engagement approach on an annual basis.



We ran a series of 'customer cafes' in 2019–20 to engage Gas Transmission teams about customers and stakeholders and the importance of acting on feedback

"National Grid has demonstrated a well-defined and clear stakeholder-led strategy and approach, resulting from previous years' work and efforts of using the AA1000 Principles as a framework for stakeholder engagement strategy. The organisation has since been developing the tools and processes to implement that strategy."

AccountAbility

- This process involves a detailed review of internal documents and strategies relating to engagement, as well as a series of interviews with internal business leads on their engagement with stakeholders.
- Our performance is benchmarked against the internationally recognised benchmark the AA1000 Stakeholder standard.
- We disseminate the report widely within the business and use the findings to identify areas for future targeted improvements to our engagement approach.

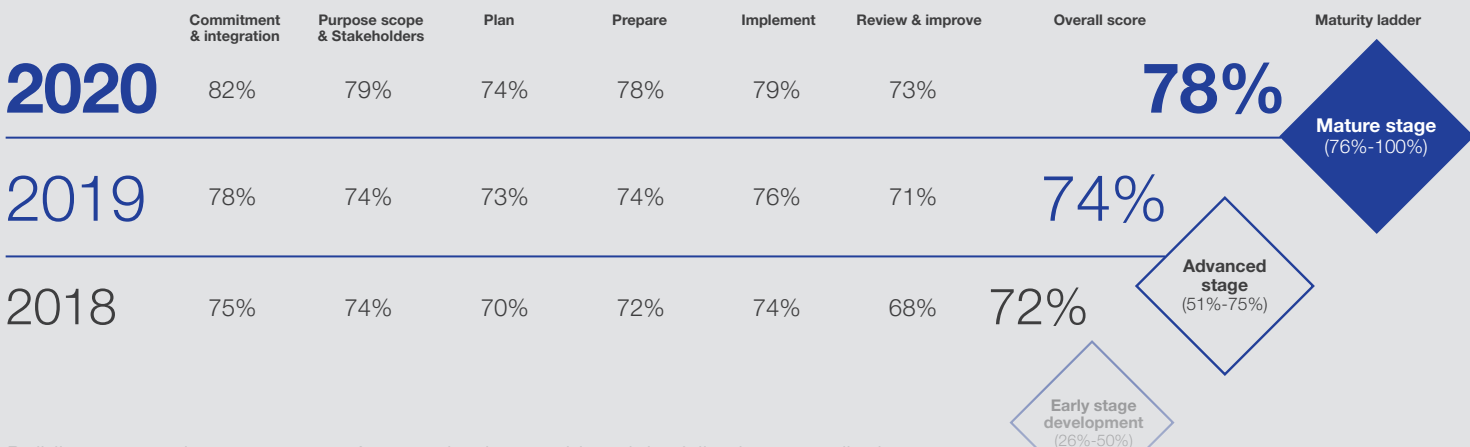
Healthcheck reveals improved performance in 2019–20

In 2019 we appointed AccountAbility to carry out this function for us. It's annual 'healthcheck' report assessed our progress against the AA1000 Stakeholder Engagement Standard and rated Gas Transmission at an overall 78% in 2020.

This was an increase on 2019 and moved us up from Advanced to **Mature** stage of the Maturity Ladder.

Key facets of Mature on AA1000SES Stakeholder Ladder

- Strong performance in reactive and proactive engagement.
- Medium to long-term relationship with stakeholders with a view to inform, empower, collaborate and partner.
- Where appropriate, with clear purpose, scope and objectives.
- Formal strategy in place and strong awareness throughout the organisation.
- High senior management involvement, commitment and understanding.
- Clear link of engagement process to decision making, governance and reporting.
- Highly integrated and systematic tools and processes embedded across organisation.



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



Part 2

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Introduction to Part 2

The decarbonisation of the energy system will be absolutely essential to achieve the UK's target of achieving Net Zero greenhouse gas emissions by 2050. National Grid Gas Transmission has to be at the heart of progressing this. We have a unique role in the process in that we are instrumental in overcoming potentially the biggest obstacle – removing carbon from providing heat.



During the lockdown, Gas Transmission Director Phil Sheppard addressed staff on developments around the business on a weekly basis via a virtual townhall using video conferencing. We also engaged customers and stakeholders virtually using video conferencing.



National Grid shaped the debate on future skills in a Net Zero world, publishing a report on 11 Feb 2020. The report which followed active engagement with trade unions and other stakeholders found diversity must underpin the Net Zero workforce.

We have made a step change in the strategic direction and scale of our stakeholder engagement so that our approach and delivery is equal to our task of decarbonisation.

Part 2 of this submission outlines a number of key themes which have underpinned our proactive stakeholder engagement in 2019–20.

There is no 'silver bullet' answer, and we will need to take into account the needs of stakeholders, most of all consumers who will need a practical and affordable way of heating their homes and businesses. Different stakeholders (regional decision-makers, as well as consumers) will have many different circumstances to overcome such as geographical location, age, type and ownership of properties.

This in turn means we must work closely in exploring solutions with government, Ofgem, consumer representatives and different branches of our own and other industries. We must work closely with the devolved governments and regional and city authorities. Together we must identify a pathway which can deliver energy transition at the lowest cost and least disruption to consumers.

We recognise we need to do more to communicate the actions we are taking, and we have also stepped up our work to involve stakeholders in workshops around the country – in the 12 weeks of 2020, we held six stakeholder workshops to investigate how Gas Transmission can help to meet Net Zero.

The broader range of stakeholders that we involve, the better we can all identify and manage the challenge of high levels of uncertainty about the future direction and pace of change.

The past year has confronted us with unique long-term and short-term challenges; one which we made central to our strategic framework, and one which was totally unexpected.

First, our commitment to Net Zero carbon emissions by 2050 – which we made last summer – means we are making far-reaching decisions about the future of the transmission network and how we might re-purpose our assets, ultimately transporting low-carbon gases to help meet the UK's target. This has included intensive work with stakeholders on how to build a new hydrogen economy.

However, in March, we had to focus our resources and join businesses across the world in tackling the serious impact of the Covid-19 pandemic. This was fundamentally about keeping the gas flowing and interacting with stakeholders in a new and essential way, as well as looking after the safety of our people. We continued with our customer and stakeholder forums, moving meetings onto digital platforms and even increasing attendance and participation.

These unique circumstances are the latest example of how we continue working on the need to maintain stakeholder trust in our business, and address increasing demands that companies should contribute to society and provide value to the public and society at large.

We continue to incorporate these views into our business strategy and place them at the heart of our future plans. Part 2 of this submission shows where we have made multiple improvements for the benefit of our stakeholders, in line with the aspirations and views they have expressed.

I thank all of our stakeholders for continuing to support us through these difficult times, and for their constructive approach to helping us shape our progress towards Net Zero.

Phil Sheppard,
Director of Gas Transmission

Working with stakeholders across the globe to unlock the potential of Hydrogen

Interview with Antony Green, Project Director Hydrogen Transportation

2019–20 saw a significant ramping up of our commitment to help the UK economy and society meet the Net Zero challenge.

In Gas Transmission, this has meant increasing the volume and intensity of effort – by senior leaders and teams across our business – to engage stakeholders involved in the development of hydrogen as a low carbon fuel. A significant milestone in this process was the appointment of Antony Green as Project Director, Hydrogen. We spoke to him in February 2020 and asked him to look back over the previous momentous year of engaging with stakeholders on Hydrogen and Net Zero.

Q&A

National Grid Gas Transmission is committed to achieving Net Zero greenhouse gas emissions by 2050. But what's the connection with hydrogen?

The UK has committed to delivering Net Zero greenhouse gas emissions by 2050. The largest challenge we have in meeting this objective is decarbonising heat, as more than 8 out of every 10 households depend on natural gas to heat their homes.

Biomethane could substitute up to 10–15%, but hydrogen is critical to delivering Net Zero. Without it, consumers could face a great deal of disruption. So, in 2019–20 we asked ourselves and stakeholders “can we put hydrogen into the transmission network?” We commissioned HSL to investigate, and they've said yes: but we have to resolve a number of factors with our stakeholders first.

In leading this project, National Grid is looking to become a more stakeholder-led kind of business. What does that mean to you?

First and foremost, we've had to engage with distribution network colleagues, understanding their needs and risks.

More recently, I've been talking with a lot of upstream providers. That's essential, because we can't produce the hydrogen ourselves. We've also talked to our directly supplied customers, as part of their route to Net Zero.

What do you see as being a benefit for stakeholders of engaging with us?

It's partly about understanding the future for their businesses. If you're sitting downstream of us, you need to understand when we are likely to be able to provide hydrogen: it could be within a 5 to 10 year framework or it could be even longer before people will be asked to decarbonize.

Which teams are engaging on hydrogen?

Two-way engagement started out of the innovation team, but we've since reached out into our engineering functions, and the gas system operator which is part of Gas Transmission. Our quality assurance team is also talking to future providers, so the work has really gathered pace. We've now put questionnaires out into the market, asking when they'll be hydrogen-ready?

On internal engagement of hydrogen, can you describe the “hydrogen hub” in Gas Transmission?

Yes, it was a grouping of common minds. Dozens of people attend, and we're using it as a two-way channel to act on feedback. So now we can reach out into a community internally and externally, in a feedback loop.

Is senior leadership bought in to engagement on this topic?

Yes. For example, in December Phil Sheppard and I went to Houston, Texas, to visit Praxair, which I believe has the largest hydrogen transmission pipeline in the world. We both came back with a really good understanding of what it takes to run a hydrogen transmission network.

And we've spent quality time with Group CEO John Pettigrew in the Hydrogen Hub, on a wider perspective of how our hydrogen projects interact with the wider world.

What difference has being Project Director made in terms of engaging with stakeholders that you couldn't do before?

Stepping aside and taking on the project director role gives me the time and space to engage with stakeholders. We're all trying to solve the same problem. It means that I can work on finding out what end consumers want. For example, are they comfortable that they might need a hydrogen ready boiler in years to come? As consumers,

we don't like things being done to us: so, bringing forward that voice is really important.

Is this engagement having an impact on the business as a whole?

Yes, I think the changing focus to be more outward and more responsive is absolutely critical. And I do think that's going to be a long-term shift. We realise and understand our impact on others, and equally their potential impact on us – the only way to progress is continual dialogue.

The journey to Net Zero is not overnight: to do it at lowest cost to the consumer, we're going to have to collaborate heavily. The traditional boundaries of the markets are going to move.

Can you think of any examples where engagement has resulted in us changing our decisions?

Yes, one of the things we've been looking at in the hydrogen world was how responsive would our network be to different participants. One of our suppliers, Sustainable Pipeline Solutions, said they have a hydrogen ready pipe. So, we now have their assets sitting within our hydrogen test loop. It could allow us to make connections more efficiently and with less environmental impact.

Are there any interactions which have led to you not taking something forward?

We are approached a lot, and we only have a finite amount of money. Whatever innovation we progress will need to deliver to the consumer. We have a very strict “Stage Gate” process and lots of innovation projects don't go ahead because we just don't see the consumer benefit. The bar is set high.

We're sharing our knowledge far and wide, because safety is absolutely critical. That's the standard we want to maintain.



Hydrogen stakeholder engagement in 2019–20

Our engagement approach

Over the past year, we focused on exploring the opportunities and challenges presented by getting hydrogen in the UK gas transmission system at sufficient scale to contribute to the government's Net Zero objectives. We engaged with stakeholders nationally and internationally to learn from existing projects and develop our own solutions, developing stakeholder understanding of hydrogen-related developments and ensuring that stakeholder views and ideas are heard and shared across our business.

Date/ location/ event	Purpose	Engagement Output	Engagement Outcome	Audience	Stakeholders	Costs
Jan 2019–Feb 20 London Bi-weekly telephone, call and monthly meeting – Project Cavendish	Feasibility study looking to explore how to decarbonise London and the south east of England through hydrogen, including heating, power generation and transport.	Outline of technical feasibility of producing hydrogen on the Isle of Grain to decarbonise the South East, including sizing of hydrogen production, new pipeline sizing, costs, and potential regulatory or funding mechanisms	Leading a project that is the only credible hydrogen hub for the South East of England, includes National Grid building a new 25km hydrogen pipeline that is included as an option in our RII0-2 submission	100+	Ofgem, BEIS, UK Distribution Networks, industry in South East esp. power generation, including viewers of the ENA portal (all work will be published online)	£178k NIA funded
12 Apr 2019 Video – Hydrogen in the NTS	Share National Grid Gas Transmission hydrogen programme with customers and stakeholders	Summary of Cavendish and feasibility of hydrogen in the NTS and Aberdeen Vision	Share our work on how we are working to decarbonise the UK's gas networks at least disruption to consumers	100+	National Grid Gas Transmission customers and stakeholders	£0
23 Apr 2019, Warwick Telephone – Severn Trent	Meeting to discuss hydrogen production at Severn Trent facilities	Understanding of how sewage treatment products include ammonia which can be utilised to produced hydrogen	Collaboration opportunity between Severn Trent and networks, especially to push forward a renewable gas project Severn Trent is applying for	10	National Grid Gas Transmission, Severn Trent	£0
17 May 2019, Warwick	Learning how SNAM (Italian Transmission owner) injected 5% hydrogen into distribution network to their customers	Understanding of how SNAM injected small consistent hydrogen blend to customers	Knowledge share from EU TSO	10	National Grid Gas Transmission, SNAM	£0
10 Jun 2019, Warwick Meeting – ENTSG hydrogen strategy paper	National Grid data input into hydrogen compatibility	Understanding of what information EU are looking for to determine EU wide strategy for hydrogen conversion	EU collaboration, we aligned strategy paper with European stakeholders leads to easier transition and less disruption for consumers. UK voice in European hydrogen strategy	40	National Grid Gas Transmission, ENTSG	£0
06 Sep 2019, Minworth Meeting – hydrogen production at Severn Trent	See how Severn Trent produce biogas today and how hydrogen could be produced	Letter of support for Severn Trent green gas project	Opportunity to trial creation of hydrogen from renewable gas leading to future savings for consumers	20	National Grid Gas Transmission, Wales and West Utilities, Severn Trent	£0
17 Oct 2019 Gas Operational Forum	Share National Grid Gas Transmission hydrogen programme with customers and stakeholders	Sharing of National Grid's hydrogen work with industry	Informed and reassured stakeholders. Providing an opportunity to challenge and find out more about the programme	50	National Grid Gas Transmission, gas distribution networks, shippers	£40
15 Nov 2019, Warwick Telephone – Dolphyn Project	Understanding of Dolphyn project scope and objectives	Information on GB's largest scale electrolysis project	Understanding of aspirations, timescales and scope to inform our Net Zero roadmap	2	National Grid Gas Transmission, ERM	£0

Case Study

Engaging parliamentarians on hydrogen

National Grid joined the All Party Parliamentary Group (APPG) on hydrogen as a sponsor. The APPG focuses on raising awareness of, and building support for large scale hydrogen projects – such as conversion to a hydrogen domestic gas grid – that will enable the UK to meet decarbonisation targets.

Outputs

APPG ambitions for year two activity include:

- holding a formal select committee style inquiry
- organising a visit of MPs, Peers and advisors to a site/sites deploying hydrogen conversion technology
- convening a Hydrogen Summit, in Westminster or outside of London
- delivering a second hydrogen showcase
- engagement with the forthcoming Low Carbon Gas consultation
- engagement with COP26.



We held a hydrogen workshop with SGN and the Scottish Government, November 2019

Stakeholders:

MPs, other energy networks, trade unions, stakeholders with an interest in hydrogen and decarbonisation

Cost:

£5,000



Suki Ferris, National Grid Gas Transmission Director presenting on how hydrogen can shape the future of heat at the EUA NEEG Meeting, Thames Tideway Offices



Gas Transmission Director Phil Sheppard and Antony Green, Project Director visit Praxair and see hydrogen transmission, Houston, Texas



Long term strategy manager Dr Danielle Stewart chairs one of the workstreams in the BEIS-led Hydrogen Programme Development Group and has presented on our hydrogen projects at conferences and seminars through 2019–20

Date/ location/ event	Purpose	Engagement Output	Engagement Outcome	Audience	Stakeholders	Costs
15 Nov 2019, Warwick Telephone – hydrogen in Australia	Overview of hydrogen landscape in Australia, and more information on hydrogen blending project in Adelaide – HyPSA	Information on Australia green gas development	Building hydrogen knowledge base. Developing a network of experts to share knowledge and experience	2	National Grid Gas Transmission, HyPSA	£0
15 Nov 2019 Cardiff/ Swansea Bi-weekly telephone call and monthly meeting – Net zero South Wales	Project kick off: Net Zero project with 11 work packages and 7 suppliers looking to decarbonise South Wales to Net Zero by 2050 through decarbonised electricity and hydrogen.	Overview of Net Zero South Wales project and National Grid role	National Grid GT leading two work packages on project to decarbonise south Wales	10	National Grid Gas Transmission, Wales and West Utilities	£62k NIA funded
22 Nov 2019, Warwick Meeting – 2020 Olympics	Meeting to discuss Tokyo Gas hydrogen production plans for 2020 Olympics	Overview of Tokyo Gas hydrogen strategy	Building hydrogen knowledge base. Developing a network of experts to share knowledge and experience	5	National Grid Gas Transmission, Tokyo Gas	£0
25 Nov 2019, Warwick Telephone – Hydrogen Storage	Meeting with Edinburgh University on Hydrogen Storage project	Meeting with Edinburgh University on Hydrogen Storage project	National Grid Letter of support for Edinburgh University Hydrogen Storage project	3	National Grid Gas Transmission, Edinburgh University	£0
25 Nov 2019, Glasgow Hydrogen workshop	Decarbonising Scotland – exploring role of hydrogen and gas networks	Understand the aspirations for hydrogen in Scotland and the role of gas networks	Shared ideas and further collaboration with NG	48	National Grid Gas Transmission, Scottish Government, SGN	£2362
13 Feb 2020	Presentation at Energy Utilities Alliance on National Grid hydrogen programme	Sharing of National Grid's hydrogen work with industry	Informed and reassured stakeholders of the progress being made. Setting out how stakeholders can engage with us going forward	40	National Grid Gas Transmission, EUA, Gas Distribution Networks, Thames Water	£40
26 Feb 2020, Birmingham Future Networks and Heat Conference	Presentation of progress and Q&A on developing workstreams for hydrogen	Gathering new ideas and challenges/responses to current hydrogen development programme	Strengthen the development of hydrogen's application in industry, transport and providing heat	100+	Industry, regulatory stakeholders, consumer reps, academics	£0
17th March 2020 Hydrogen Blending Webinar	Following a request during a 'Shaping the Bacton Terminal Strategy' workshop from stakeholders to further explore the possibilities of blending we hosted a webinar to explore how hydrogen could be incorporated into the NTS, therefore achieving Net Zero carbon emissions	Identification of impacted and interested stakeholders, to help further target and improve engagement and identify potential future collaboration opportunities to develop skills for the hydrogen economy	Informed stakeholders of the possibilities around blending, the options been looked at, the opportunities for the supply chain and the timescales being considered	12	12 stakeholders attended, including customer, supply chain or consultant, shippers, energy networks, industry body	£0

Case Study

Engagement on pioneering hydrogen projects

We have worked with stakeholders at opposite ends of the country to make the first steps towards a zero carbon gas grid. Partnerships with stakeholders in Aberdeenshire, Cumbria and the South East have all featured prominently in 2019–20 and led to a number of beneficial outputs, mainly funded through the National Innovation Allowance.

- In North East Scotland, we have worked closely with SGN and the energy consultancy Pale Blue Dot to look at how we could repurpose part of the national transmission system to transport hydrogen and help with carbon capture and storage.
- Under the name Project Cavendish, we collaborated with regional and industry partners on a review of potential to use existing transmission to supply hydrogen to London and the South East including generation, storage, transport and CCS. By the end of March 2020, we were nearing completion of the technical feasibility of producing hydrogen at scale to decarbonise London and South East England by 2040.
- At Spadeadam in Cumbria, we set up a test rig with NGN, DNV-GL and other partners as part of Hydrogen Flow Loop, a trial to test the physical reality of transporting hydrogen in

transmission pipelines. This will be the subject of wider research and trials in 2020–21.

Thanks to the support of stakeholders both in conducting the work and in their response to findings, the projects will inform practical industry-wide development of hydrogen as a mainstream fuel.

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

Engaging stakeholders on decarbonisation of heat

Heat is the single biggest source of UK greenhouse gas emissions and accounts for almost half of final energy consumption

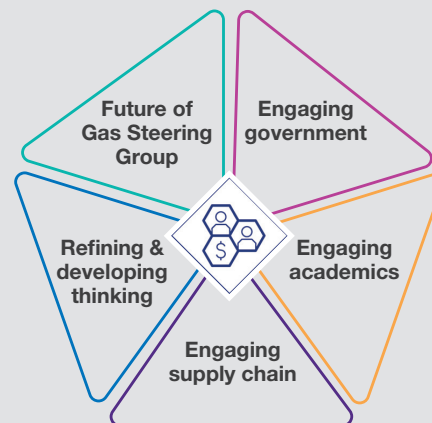
Why it matters

Decarbonisation of heat will affect consumers, industrial and commercial stakeholders substantially, with impacts in turn affecting the role of gas in their future Net Zero energy system. By working together with the gas networks, regulators, consumer representatives, industrial, power, transport and heat sectors, we aim to meet Britain's decarbonisation ambitions and ensure a smooth and just transition. During the transition to Net Zero emissions, flexible domestic appliances such as hybrid heating systems will become commonplace, and we want stakeholders to shape this future with us.

Our engagement approach

We have adopted a UK-wide approach to heat engagement, which incorporates both gas and electricity, and considers the customer and consumer viewpoint on what they will need and what they can afford in the future.

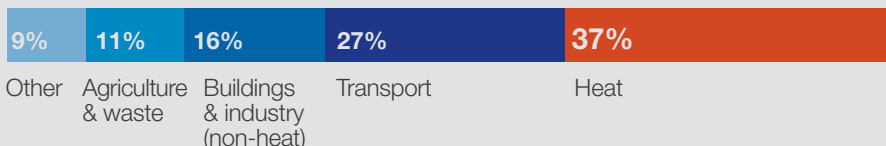
We are collaborating proactively with the other energy networks, with government and broader industry to develop a joint workplan, providing the information required to determine the best future pathway to decarbonise heat. Internally, we have worked with our cross-business Corporate Affairs team to raise awareness, carry out consumer research and seek views from different sectors.



As a result, we believe that we will develop a rounded plan which better represents the perspectives of different groups, including those which have very different views from the traditional industry consensus.

UK emissions across different sectors

Source: "UK Greenhouse Gas Emissions by Sector", published by BEIS: February 2020



Malcolm Arthur, Alex Ferguson and Dr Danielle Stewart represented National Grid Gas Transmission at the Future of Heat Conference in Birmingham, February 2020

80%

of homes rely on natural gas for heating, as do many businesses, commercial properties and public buildings, including schools and hospitals.

Future of Gas steering group: 27 stakeholders from across the gas industry and beyond are working collaboratively to help National Grid, UK Gas transmission meet the Net Zero challenge

Future of Gas Steering Group

We created a Future of Gas steering group during 2019–20, to pilot our programme to ensure that gas assets and markets can make their fullest contribution to delivering an efficient and affordable decarbonised gas market for consumers.

Containing twenty seven stakeholders, the group has collectively put consumers at the heart of its decisions about facilitating their energy future, especially when it comes to providing heat.

As we develop the detailed plan, we will be considering the best tools to make it tangible, articulating the consumer benefits of each change project. The steering group represents a co-ownership and collaboration far in advance of anything we have attempted before on this topic, and we will continue to learn and improve from each step of the process.

Engaging with a broad range of stakeholders on decarbonisation of heat

Date	Event description	Purpose	Engagement Output	Engagement Outcome	Stakeholders
Apr 2019	Bilateral meeting with shadow energy minister Alan Whitehead	Understand stakeholder perspective	Share opportunities that the gas networks can bring to help solve the decarbonisation of heat challenge	Help to build momentum and cross-party consensus on decarbonising heat	Shadow energy team
May 2019–Mar 2020	Bilateral Engagement with UK Government	Policy development	Contributing engineering expertise to Government plans	A shared ambition to undertake practical trials and demonstrations of hydrogen as a clean fuel	Business, Energy & Industrial Strategy Department (BEIS): Ministers, civil servants, National Grid senior leaders
May 2019	Future of Heat Conference – hosted by NG director Phil Sheppard and Head of Strategy & Performance, Helen Campbell	Bringing together stakeholders to share our thinking on the future of heat, together with the challenges the UK face that we must solve together	Communicating the environmental, social and commercial impacts of different approaches to providing heat	Informed stakeholders on the challenges faced in the decarbonisation of heat. Opportunity to challenge our thinking. Signpost how to get involved in working with us to solve the challenge collaboratively	BEIS, EON, CBI
May 2019	Westminster Forum: Modernising & decarbonising the UK Energy Sector	Understanding stakeholder views towards decarbonisation	Policy development informed by stakeholder views	Understanding of progress on policy development around decarbonisation of energy. Collective view of the challenges and the actions needed to inform policy. Workplan to help government answer their questions to support policy development	BEIS, Committee on Climate Change, Ofgem, Wales and West Utilities, ADE
May 2019	Energy & Utility Forum: Decarbonisation of Heat dinner with James Heap MP	Developing a network of experts to share knowledge and experience. To understand the challenges being addressed by government to inform our workplan	Identified the need to increase visibility of hydrogen as a realistic option for solving some of the UK's decarbonisation challenges	Development of a targeted stakeholder engagement approach to raise awareness of the potential for hydrogen in the journey to Net Zero	Upstream producers, gas distribution networks, supply chain, government
May 2019	National Grid Parliamentary Roundtable	Gather, respond to and enable political and consumer priorities	Focused discussion on potential of hydrogen, who should pay, and how to ensure potential consumer impacts considered	Understanding of political and consumer priorities to inform our strategy. Commissioned consumer research on the options of providing heat and how these might be funded	James Heap MP, Matt Western MP, Antoinette Sandbach MP, Lord Teverton, Citizens Advice, Committee on Climate Change
May 2019	CBI Future of Heat Roundtable	Sharing our vision for the future of heat, the challenges faced and how we are approaching these challenges. Understanding the views of stakeholders on these topics	Greater understanding to inform our strategy and government policy. Further roundtables agreed	Further development of National Grid's Future of Heat Strategy and roadmap to Net Zero	BEIS, Energy UK, ENA, ESC, ADE, Scottish Power, Cadent, Lendlease, Mott MacDonald, EDF, EON, EDM metering
Aug 2019–Mar 2020	Bilateral meetings	Understanding the needs of vulnerable consumers and how their needs should be taken into consideration through the transition to net zero	Citizens Advice had improved awareness of National Grid's approach and the challenges faced. We gained some great insight into consumer issues and how the decarbonisation agenda could exacerbate these if not undertaken sensitively	Further consumer research was undertaken on consumer choices and funding options for heating homes.	Citizens Advice, National Grid senior leaders, Policy teams
Aug 2019	Meeting with UK trade unions	Understand their views towards decarbonisation of heat and the opportunities and challenges they see	Trade unions are supportive of our hydrogen programme and requested our involvement in the hydrogen all party group	National Grid sponsored the All Party Group for Hydrogen	TUC, Prospect, Unite, Unison
Sep 2019	Bilateral meeting	Understand their views towards decarbonisation of heat and explain our position. Understand their views towards decarbonisation of heat and explain our position	Support the need to do more policy development on domestic heating and changes to consumer behaviour. Greater awareness and mutual understanding	We undertook consumer engagement on options on decarbonisation of heating. Keen to collaborate with National Grid in future	World Wildlife Fund, Friends of the Earth
Sep 2019	Attendance at British Science Festival	Understanding the needs of stakeholders and explain our position	Greater awareness and mutual understanding	Development and publication of the 'Building the net zero energy workforce' report	Cadent, Citizens Advice
Oct 2019	Association of Decentralised Energy	Understanding the needs of stakeholders and explain our position	Policy development	Incorporating local solutions such as biomethane production into wider Net Zero programme	Association of Decentralised Energy
Nov 2019–Mar 2020	CBI Heat Commission (2 meetings so far) at the invitation of CBI	Influence the Commission's thinking: having a technology neutral, consumer focused approach where there may be a role for gas and electricity	Policy development – how have we changed our thinking	Policy paper on Heat in development aimed at influencing government policy	CBI, University of Birmingham Cadent, KPMG, Energy Systems Catapult
Dec 2019	Bilateral meeting	Understanding the views of those that differ from ours	REA agree with National Grid position that heat decarbonisation will require a mosaic of solutions	REA are commencing a report on the role of hydrogen, biomethane and other local carbon gases in decarbonisation	Renewable Energy Association
Jan 2020	Bilateral meeting with GTS (Dutch Gas TSO)	Understand stakeholders' views in this area	Informs policy development	Strengthened planning for interaction with EU stakeholders after Brexit transition period	GTS
Feb 2020	Decarbonisation of Heat Workshop	Share our work and findings to date to inform and align with stakeholders	Aim to describe potential heat pathways and outline main barriers	Aligned, evidence based findings to support BEIS with their policy development	Mott McDonald, BEIS
Feb 2020	Future of Heat Conference	Share our work and findings to date and set out challenges ahead. Gain stakeholders views on these	National Grid speakers on two panel sessions: 'Examples of design and innovation for energy flexibility' and 'How gas has a roadmap to 2050 Net Zero'	Further cross-industry work on best solutions for consumers, e.g. through ENA Gas Goes Green programme	Various across energy industry
Mar 2020	IPPR (virtual) roundtable on Zero Carbon Housing	Contribution to policy development on how to best meet needs of current and future consumers	Roundtable will feed into a report recommending practical policies to develop large, national low carbon heating retrofit programme	Government awareness and better-informed participation in shaping industry plans and the role gas can play	BEIS, house-builders, planners, academics, consumer representatives

Consumer engagement

Our touchstone in decarbonising heat is to implement it in a way that works best for consumers. Against this backdrop, we commissioned a piece of consumer research in 2019–20 to help gather the required evidence base to inform policy development.



As part of this project, we have held consumer workshops in Hull, Taunton, Dumfries and London – with participants drawn from diverse socio-economic backgrounds.

Initial feedback from these workshops suggests a lack of consumer awareness on the contribution of heat to GHG

emissions; concern about the cost of achieving Net Zero (with government support highlighted as being essential); and many wanting the transition to low carbon heating to be fair, with no community being left behind.

We have made this feedback central to our ongoing programme.

Engaging with the gas market to meet the Net Zero challenge

A new plan to enable Net Zero gas transmission

Overall, gas makes up 41% (2019) of the power consumed in the UK, heating over 80% of our homes and providing the energy needs for more than half of UK industrial activity. With this in mind, National Grid hosts The Future of Gas (FOG) Forum and Steering Group which embraces a range of industry partners and stakeholders, and leads the conversation about how gas could fit within the cleaner energy future that we're all aiming for.

Based on the stakeholder feedback received, National Grid Gas Transmission launched the Gas Markets Plan (GMAP) in 2019, its vision of how we might evolve our approach to market change through to 2030. Nobody can change the rules that govern the way Britain's gas system works overnight but, by working with stakeholders as a cross-industry partnership, we can make the changes which best serve and provide value to consumers.

Three ways UK gas could change

From December 2019, the Gas Markets Plan proposed further collaborative work in three initial areas of focus, to ensure that we can make real progress in defined areas. These are:

- considering important market aspect to enable the switch to H2 as part of Net Zero
- considering how we can work with market participants to help them take advantage of more flexible gas quality standards, enabling new gases on the system whilst continuing to deliver energy to our consumers in a way that works for them
- and finally balancing – creating and a system which can incentivise shippers to put cleaner types of gas into the network.

"Collaborative working between stakeholders across industry will be crucial in making sure the gas system and markets deliver consumer value throughout the energy transition."

Helen Campbell
Chair of Future of Gas Steering Group

During the Future of Gas programme, we explored how the gas system could change out to 2050. Since the conclusions in March 2018, we have focused on exploring what could emerge in the next decade in collaboration with industry and stakeholders. We have identified an initial set of likely and potential future transformations over the next 2-10 years.

Identified **likely** and **potential** future transformations

Likely future transformations



Reducing unabated natural gas end-usage demand
Over the past decade, we have seen annual gas demand decline. With increased levels of energy efficiency and the need to decarbonise, demand for natural gas as it is used today will reduce.



Changing natural gas supply mix
With the decline in UKCS supplies expected to continue, the UK's dependence on imports is expected to continue to rise.



Changing natural gas to power needs
The growth of renewables is changing the primary role of gas-fired power generation. Gas is moving from being a steady generator of electricity across the day to one that is more flexible and commercially-responsive. This shift is expected to continue.

Potential future transformations



Increased hydrogen production and consumption
Hydrogen, alongside other technologies, is expected to play a significant role in the decarbonisation of heating (and other sectors).



Shale production
Shale flow, which has been explored in Lancashire, could provide an additional domestic supply of natural gas to the UK.



Gas and electricity interactions
The potential for power-to-gas (hydrogen) and growth in hybrid heat pumps could lead to a large change in the ways gas and electricity markets interact.



Increased biomethane and bioSNG production and consumption
Biomethane and bioSNG could play a role in providing a low-carbon alternative to natural gas, and in helping to decarbonise transport.



EU future energy trends
It is expected that the next European gas package will help progress towards decarbonisation. Depending on their priorities, member states may choose to take different pathways to decarbonisation. This could impact how gas is brought on and off the transmission system.

Introducing the gas markets plan

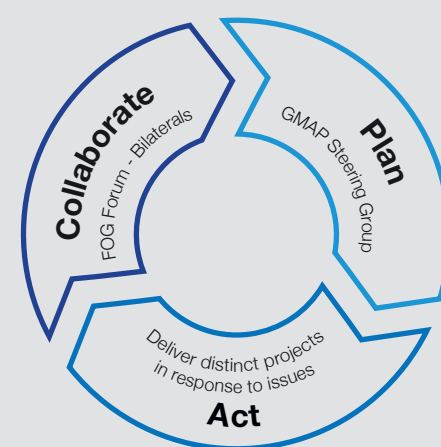
- The report explains how National Grid will collaborate with industry to explore these topics and identify what it could mean for the future gas market frameworks.
- This publication was produced with involvement and active collaboration from broad range of stakeholders with local and international perspectives over the course of 2018–19.
- National Grid Gas Transmission has been collaborating with industry, decision makers and stakeholders to develop the Gas Market Plan, including hosting a workshop, our first Future of Gas Forum, and launching our Future of Gas Steering Group.
- The GMAP identified three areas of focus for the industry in 2020: Gas Quality, Hydrogen and Balancing.

Engagement approach

- The GMAP process has brought together a broad range of stakeholders who have local and international perspectives, to prepare today for the gas market frameworks of the future.
- To do this we use pre-set and ad-hoc methods to gain stakeholder feedback including the FOG steering group, FOG Forum, Project Stakeholder Scoping days and Project Working Group meetings, as well as 1:1 meetings.
- GMAP has been designed to be stakeholder led, which means we are looking to work with industry experts wherever we can to inform our thinking through the various stages of development.

This includes:

- Gaining input into topics we should be considering "Should we look at hydrogen or CCUS today?"



- Identifying future gas market issues e.g. technology developments and gas use changes.
- Future projects to take forward that explore the options and solutions to any issues.

Highlights of market engagement on the future of gas 2019-20

Engagement table

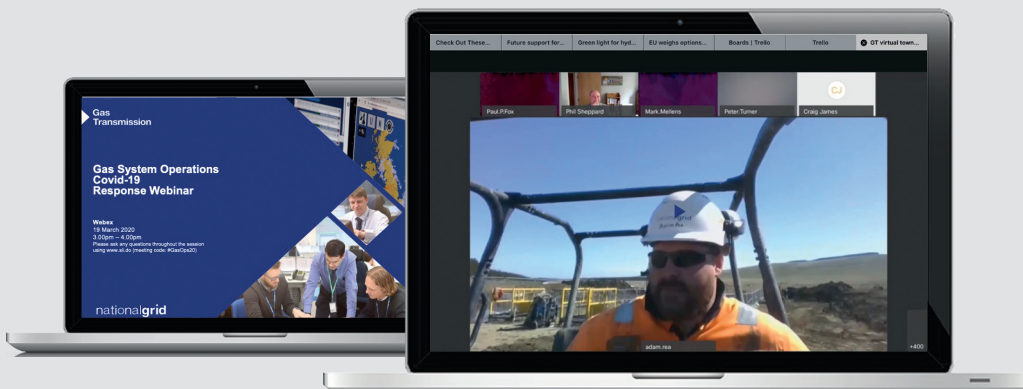
Date/ location/ event	Purpose	Engagement Output	Engagement Outcome	Audience	Stakeholders	Costs
May–Oct 2019 ENA Pathways Project, London	Help shape a single narrative and pathway to Net Zero and outline short-term steps the gas networks should take to facilitate decarbonisation	Document helped inform our decarbonisation planning and the requirement through the RIIO2 period. It also helped inform policy makers on some of the wider industry requirements beyond networks	Shared views. Awareness of the potential role for gas, key messages, impacts on policy and transition needed, shared widely. Events in Westminster and in most regions of GB	100+	Industry wide, along with BEIS and OFGEM	£34k NIA funded
Jun 2019, Feb 2020, biannual. National Grid Future of gas forum, London, Birmingham	Engage a wide range of stakeholders on the future role gas can play, with specific emphasis on the role markets will need to play in this. Provides a platform for stakeholders across the industry to engage	Gathered feedback and input that has helped to shape the Gas Markets Plan, an initiative that is proactively driving market change	Awareness increased and feedback received. Continued growth with more industry stakeholders involved. Opportunities for collaboration on market solutions of the future	35 76	All groups: GDN, industrials and power sector, consumer groups, innovators	£10k
Feb 2020, tri-annual. National Grid Future of gas steering group, London	Provide strategic direction for the gas markets plan	All feedback was directly built into the outputs of the gas markets plan	Senior representative from the gas value chain including consumer and environment. Ensuring the most important future issues are considered	23	Broad representation from across the industry, including BEIS and OFGEM	£0
2020 monthly meeting Gas Futures Group, London	Meeting with other gas networks to consider collaboration opportunities related to future of gas	Oversaw projects such as Pathways and supported a Bright Blue report. Supporting BEIS in considering the network R&D plan for hydrogen (known as HPDG) and developed the Gas Goes Green programme	Wide range of benefits from awareness raising to project development, to making the best use of the networks resources to develop solutions	4 Gas Dist. Co.	Other gas distribution networks	Approx £30k
2020 meeting ENTSOE Market Development / G2020 groups	Meeting with other EU Gas networks to consider views on the future of gas and gas network. Reviewing evidence and developing positions to engage policy makers and regulators on future rules	Numerous position statements agreed at the EU TSO level plus a Roadmap to 2050 for gas	Pan EU-wide discussions and approaches to the future of gas. Vitrally important given the need for a liquid, harmonised market and network due to the large cross board flows of gas	Up to 44 TSO	Other EU Gas networks	Approx £484k per year

Continuing to engage with stakeholders through Covid-19

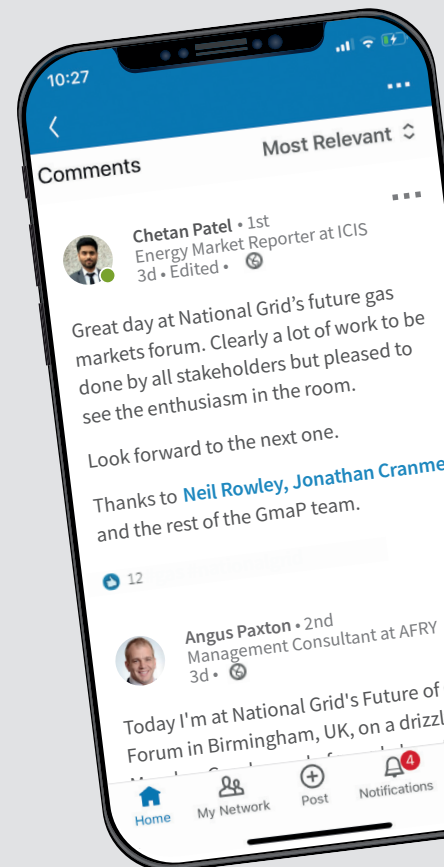
The restrictions introduced to manage the Covid-19 pandemic in March 2020 provided a unique challenge to our ability to enable stakeholders continued access to us and our business. Our programme of one-to-one interactions, stakeholder workshops and visits to our operational sites had to stop overnight, and our non-operational staff worked at home from 17 March onwards.

Despite this challenge we immediately shifted our engagement to on-line channels – both our own and those preferred by stakeholders – as well as expanding our existing programme of webinars on their main priorities such as decarbonisation and RIIO-2.

We were able to find new innovations through our move to virtual delivery of engagement, such as live links with operational sites during webinars, and better use of our own social channels such as Twitter and LinkedIn, moving more to visuals and story-telling rather than text-based messaging. We plan to carry out and respond to research, through 2020, about how we are interacting with our stakeholders during these unique and challenging circumstances.



Stakeholder feedback



Working with European stakeholders to decarbonise gas

It is vital that National Grid has close relationships with European stakeholders, as we operate as part of an interconnected European energy market.



We collaborate with other industry participants to understand and address current and potential operability, network design and planning issues. This helps us to provide the best service and value we can to Great Britain's (GB) consumers.

In addition we work closely with European stakeholders to consider future market reform to further enhance market liquidity, security of supply and the decarbonisation progression.

Our engagement has focused on the following:

- solutions to meet climate change targets – to ensure GB's gas industry contributes effectively to the UK and Europe meeting the objective of achieving a Net Zero economy by 2050
- emerging gas legislation and regulation – to influence proposals so we can protect GB consumers from unnecessary burdens, and ensure that new requirements are designed to achieve positive market change
- compliance with and reporting on network codes – to contribute to the effectiveness of the European Gas Target Model
- preparedness for GB leaving the European Union (Brexit) – to plan for No Deal scenarios, identifying potential risks to ensure gas continues to flow to GB consumers.

Who we engaged:

- We have continued to represent National Grid at meetings of the European Network of Transmission System Operators (ENTSO), at its Board, General Assembly and in Working Groups.
- We are a valued contributor to its emerging thinking on the energy transition, supporting ENTSOG in formulating its representations to ACER, the European Commission and other European institutions.
- Similarly, we have engaged with Gas Infrastructure Europe through its General Assembly and Work Groups.
- We are a member of the Florence School of Regulation and engage on relevant topics with other interested stakeholders, for example a Florence School of Regulation event to discuss how many gas markets could there be in a decarbonised European energy market.
- We have instigated bilateral meetings with the European Commission (EC), UK Permanent Representation to the EU and Members of the European Parliament to advocate for the importance of mutual cooperation between GB and the EU on energy market arrangements post-Brexit, as well as discussing our approach to the challenges of the energy transition.
- We've contributed to the United Nations Economic Commission for Europe's (UNECE) papers on the role of gas in sustainable energy.
- On Brexit, we host regular calls with other EU TSOs to share information about Member State preparations for gas transmission across the EU market, as well as contributing to the BEIS-chaired Markets Operability and Trading Board.

Benefit to stakeholders

Our European stakeholders value our prioritisation of European engagement at a time of political uncertainty due to Brexit and during a period of emerging market change due to the energy transition.

We have used a low cost engagement approach that has resulted in trusted relationships which support us in delivering secure, safe, reliable gas supplies to GB consumers.

Engaging on methane reduction

Since March 2019, GIE and Marcogaz have been working together on "potential ways the gas industry can contribute to the reduction in methane emissions". This started with the production of a lengthy report in March 2019 presented to the various working groups and consortia within the industry, including a presentation at the United Nations (UN) Gas Experts session (Madrid Forum).

- Work has continued within GIE and Marcogaz to create an action plan for the delivery of the recommendations made within the report, with a training session held in Vienna in November 2019 to bring in Eastern Europe.
- Working group sessions have accelerated since then, as there has been increased focus on methane emissions from the EC and UN.
- We are involved in two distinct streams of work:
 - the development, dissemination and delivery of the action plan across member states (through GIE and Marcogaz) and the creation of a 'taskforce' by the UN to set principles around Monitoring, Reporting and Validation (MRV) of methane emissions across all UN countries. This is a significant workstream.
 - similarly, National Grid Gas Transmission has started the process of becoming signatories to the Methane Guiding Principles, which would give us a seat at the table for all future regulatory discussions around methane regulation.

Engaging widely across the UK on Net Zero, vulnerable consumers and future skills

Bridget Hartley, Business Planning & Strategy Manager looks back over the year

Thinking over the past year, what have been your stakeholder engagement highlights?

The Scottish Government's definitely been one stakeholder where I'm really proud of the progress we've made, and we've moved on from our initial discussions about the future of gas and their energy strategy. We've built that relationship over a few years and now really feel like we're a trusted partner, with Phil Sheppard on their networks advisory group. We have hosted workshops with them and SGN on hydrogen in Scotland, and met with SGN, Pale Blue Dot and other companies that they see are key to the energy transition in Scotland. So for me it's been a mutually beneficial stakeholder engagement journey, starting from scratch.

You've engaged all around the UK – why is that important?

"Because they have different priorities and different strategies, and that means different challenges. So in Scotland, they talked a lot about the electricity connection charges which make a lot of Scottish wind prohibitively expensive. And that's one of the reasons they're into hydrogen. They've got different decarbonisation targets, and a very stretching 2030 target. They also have a lot of fuel-poor consumers off the gas grid, and want to know whether we can help. Stakeholder needs can vary widely and we need to respond to that. We've been engaging stakeholders in Wales which has got a lot of biogas and doesn't necessarily see hydrogen as quite the central solution that others do.



We built on relationships we've established with Scottish stakeholders to support their Net Zero ambition

Do you see more of an inclination from the National Grid business to be receptive to stakeholder views, different views, maybe even opposing views?

I think there's a recognition that Net Zero is this big challenge – as North Sea gas was 50 years ago – and you just can't do it in isolation. So, you have to get the upstream stakeholders linked up with the transmission system linked up to consumers. So, if you're going to use a transmission system going forward, you've got to get that whole end to end linked up. I think there's general understanding of that.

On the specific subject of vulnerability, obviously as a transmission operator we haven't got a priority services register for vulnerable consumers. How do we respond to stakeholders on that?

Our approach to consumer vulnerability has definitely evolved, influenced by what stakeholders have told us. Some think it should be an absolutely central role for us: some think we shouldn't have anything to do with it. Some people think that consumers should fund anything we do about vulnerability: other people think that consumers shouldn't fund any of it. So we've got real diversity of thought out there in our stakeholders. Where we've got to is that consumers shouldn't pay for the support we are providing. And I think that's significant.

Because we are that one step away from it, it's not really an obligation in the terms it would be for a distribution network. And the other place we've got to is that National Grid has a high degree of corporate social responsibility. So there's recognition that gas transmission will fully support whatever National Grid decides to do in terms of essential initiatives to support vulnerable consumers, whether it's for new customers, whether it's disadvantaged people or a charity that supports social mobility. That is where it sits now.



Highlights of 2019–20

- We engaged stakeholders proactively about the future of Theddlethorpe terminal to ensure decommissioning was done in a way that was responsive to local needs. We sought views of local authorities and other key stakeholders impacted via roundtables and webinars. We will continue to engage with stakeholders as plans develop.
- Learning from energy distribution networks and other utility companies, we piloted engagement with local authorities around key Gas Transmission assets in the East of England to understand how we can support them on their local Net Zero and skills agendas. We increased their awareness of our business operations, apprenticeship opportunities and community fund by creating bespoke local briefing notes and sign-posting information to local officials.
- Following a series of bilateral meetings with SGN we participated in an energy network roundtable on consumer vulnerability and a webinar on supporting disabled consumers with Scope (both in February 2020).
- As part of our commitment to increasing the number of women in engineering we sponsored Warwick University Sprint Programme, providing NGGT speakers, mentors and coaches need cost info.



