



# A4 - NGN RIIO-2

## Stakeholder Engagement Insights

*together*  
we are  
the **network**

# Stakeholder Insights

## 1. Introduction

This Appendix provides detailed evidence to support the core narrative of our Business Plan. It summarises what our stakeholders have told us is important to them and how that has shaped our Plan.

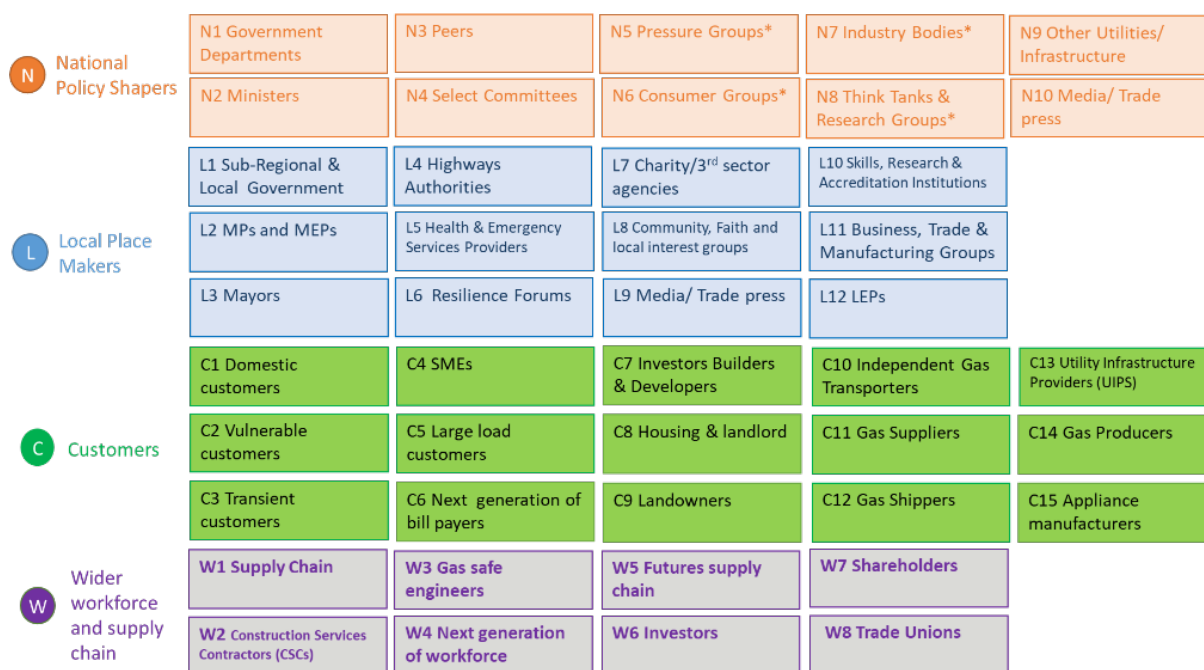
It is primarily aimed at readers who want to gain a deeper understanding of the feedback we received from stakeholders and how we used it during the iterative process of building a meaningful and inclusive Plan. It should be read in conjunction with Appendix 3 – NGN RIIO-2 Stakeholder Engagement Strategy which sets out how we designed a high-quality engagement programme to put customers and other stakeholders at the heart of our RIIO-2 Business Planning and decision making, supported by input, soundings and challenge from our Customer Engagement Group (CEG).

Section 2 outlines our findings on the overarching acceptability of our Plan. This is followed by the comprehensive set of insights we have gained from our stakeholders which have been grouped within key outcome categories:

- Affordability.
- Giving consumers a stronger voice.
- Meeting the needs of consumers and network users.
- Maintaining a safe and resilient network.
- Delivering an environmentally sustainable network.
- Enabling whole systems solutions.
- Driving efficiency through innovation and competition.

Across each of these themes, we set out who we heard from, the mechanisms used to facilitate feedback, a summary of what our stakeholders told us, any nuances in views between different groups and, ultimately, how these insights drove the development of our plan.

We serve a large population of stakeholders who have both varying interests in, and power to influence our services. Wherever we reference ‘stakeholders’ collectively here and elsewhere in our Business Plan, we mean our entire stakeholder community, split into 45 segments as shown in the diagram below, including National policy shapers, Local place makers, Customers, and our Wider workforce and supply chain, from right across our geographically diverse region.



In building our RIIO-2 Business Plan, we used a comprehensive and inclusive engagement programme to reach each of these groups. Sometimes it was appropriate to focus our engagement on a specific stakeholder group to understand their views in depth. For these insights we have clearly set out from whom we heard the feedback to differentiate this segment from the collective term stakeholders.

As well as bespoke engagement designed to gather insights, we have used a wide range of other sources to add detail to the evidence base, including operational data and third party insights. We have been objective in how we have interpreted views rather than seeking to endorse our own priorities.

Our understanding that not all stakeholder needs are equal sits at the heart of our engagement strategy. Whilst we observed that stakeholders reach a consensus on many priorities, there were some topics which polarised opinion. We have been open and honest about these dissenting views and how we have traded-off different perspectives and priorities within our plan.

## 2. Abbreviations used in this document

This appendix uses the following abbreviations to summarise how we have received feedback and from who.

Insight source	(S) Feedback through core engagement programme	(O) Operational data	(T) Third party insights	
Stakeholder group	(N) National Policy Shapers	(L) Local Place Makers	(C) Customers	(W) Wider Workforce

You can find more information on stakeholder groups and the different mechanisms used to engage with this diverse community in Appendix 3 – NGN RIIO-2 Stakeholder Engagement Strategy.

### 3. Overall Business Plan acceptability

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Business Plan Acceptability 2019	1,632
T	N	Business Plan Acceptability benchmarking	-

Towards the end of our engagement programme, we undertook acceptability research to test the acceptability of the business plan and test affordability of proposed bill levels (covered in more detail in Section 4 of this Appendix).

Through this testing, we found that informed acceptability of the plan is high and compares well when benchmarked. Specifically

- When informed of the detail of the plan, nine in ten customers find it acceptable (92% of domestic customers, 88% of non-domestic and 96% of future customers). Acceptability is slightly lower, but still high, among stakeholders (80%)
- Only 1% of domestic customers and 2% of non-domestic customers find the plan unacceptable. No future customers find it unacceptable. Fewer than one in ten stakeholders find it unacceptable (9%)
- Acceptability did not vary significantly across the three bill reduction levels tested, ranging from 90%-93% for domestic customers and 85% to 89% for non-domestic
- Environment and Reliability elements of the plan are commonly linked to high acceptability, suggesting these help to elevate acceptability to higher levels. Safety, while viewed as very important for us to focus on, is more of a hygiene factor – critical to do, but less likely to heighten acceptability - as it has a weaker link to high acceptability of the overall plan.

Broader findings from our acceptability were:

- The plan is seen to provide good value for money
  - 84% domestic and non-domestic customers, and 85% of future customers, feel it provides good value for money
- Our key promises are considered acceptable by a high majority (over 90% for customers and future customers and 80% for stakeholders)
  - Main reasons for not being acceptable relate to concerns that reductions will not be passed on to the customer and that promises need to be followed through with action
- Of our 7 promise areas, safety is considered very important, rated in the top two priorities by all groups
  - Value for money is also rated a high priority among current customers (top for non-domestic and second for domestic)
  - Safety is a strong priority among stakeholders, following by investment in the pipe network
  - Future customers place considerable emphasis on the environment; 42% believe it is the most important priority for NGN to focus on
- Acceptability of performance commitments is high across all of the five performance areas



- For customers/future customers, acceptability is lowest for the Environment and protecting customers most in need (although still at least 80% for both). For stakeholders, safety receives the lowest acceptability score (77%)
- Where deemed unacceptable, environmental commitments are either seen as not stretching or quick enough, or not NGN's responsibility/a priority for action
- Similarly, customers finding the commitments for supporting the most in need unacceptable are divided between those wanting more ambition and those questioning if this is NGN's role
- Trust in us to deliver against the proposed plan is high at over 80%. Of the remainder, most provide a neutral response and very few give a low rating on trust
- Overall a strong majority of customers support the plan, finding it matches their priorities for action

*Summary results for acceptability, affordability and value for money of plan, and acceptability of key promises.*

	Acceptability (uninformed)	Acceptability (informed)	Affordability (uninformed)	Affordability (informed)	Value for money	Acceptability of Promises
Domestic customers	78%	92%	74%	85%	84%	91%
Non-domestic customers	82%	88%	77%	83%	84%	92%
Future customers	83%	96%	67%	80%	85%	97%
All customer measure <sup>1</sup>	79%	92%	74%	84%	84%	92%
Stakeholders	77%	80%	N/A	N/A	73%	80%

We triangulated our Business Plan Acceptability results with those published by water providers during PR19 and, interestingly, found that the opposite can be observed - companies saw acceptability among customers fall slightly when they were given more information about what their plans delivered.

*Uninformed acceptability of draft Business Plans*

Utility Provider	Uninformed acceptability
<b>Northern Gas Networks</b>	74%
<b>United Utilities</b>	86%
<b>Severn Trent</b>	74%

*Informed acceptability of draft Business Plans*

Utility Provider	Informed acceptability	% change – informed versus uninformed
<b>Northern Gas Networks</b>	92%	+18%
<b>United Utilities</b>	83%	-3%
<b>Severn Trent</b>	72%	-2%

<sup>1</sup> The 'all customer' measure presents the aggregated result for all 'customers', including domestic customers, non-domestic customers and future customers. It should be noted that this includes future customers for which it is not possible to devise an accurate sampling frame. There is no demographic profile of the population of potential future customers on which to base target quotas.

The results of our Business Plan Acceptability study are encouraging in that they underpin the success of our extensive, inclusive and high-quality engagement programme in putting customers and stakeholders at the heart of our RIIO-2 business planning. The overall acceptability of our plan is above the high action standard that we set for ourselves (>80%) and favourable compared to industry norms.

As shown in the table below, our acceptability scores compare very favourably with other utility companies' scores. As the sector where acceptability testing research is best developed, the water sector provides the most useful comparison. Across the 17 water companies in England and Wales submitting business plans for PR19, the average acceptability measured was 83% for real-term bill impacts and 77% for nominal bill impacts. Our acceptability score of 92% (bill impact presented in 'real terms') for domestic customers would place it around fourth (top quartile) in this list.

*PR19 Water company Business Plan acceptability scores<sup>2</sup>*

Company	Real-terms	Nominal
<b>Affinity</b>	79% (water only)/75% (dual)	
<b>Anglian</b>	71%	
<b>Bristol</b>	93% (water only)	83% (water only)
<b>Hafren Dyfrdwy</b>	73%	56%
<b>Northumbrian</b>	91%	
<b>Portsmouth</b>	84% (water only)/86% (dual)	80% (water only)
<b>SES</b>	76%	
<b>Severn Trent</b>	85%	
<b>SEW</b>	82% (water only)	50% (water only)
<b>South Staffs</b>		74% (water only)
<b>South West</b>	88% (SW area)/92% Bournemouth	
<b>Southern</b>		79%
<b>Thames</b>	87%	82%
<b>UU</b>		76%
<b>Welsh</b>	93%	93%
<b>Wessex</b>		96% (water only)
<b>Yorkshire</b>	67%	
<b>Average</b>	<b>82.9%</b>	<b>76.9%</b>

This has given us confidence that we have acted on the input provided and resolved challenging trade-offs in order to deliver an acceptable outcome for all of our stakeholder groups.

### ***Customers support our key promises and priority areas.***

Around 9 in 10 domestic (91%), non-domestic (92%) and future (97%) customers found our promises acceptable. Encouragingly, only 1% of domestic, 2% of non-domestic and 1% of future customers found them unacceptable. Stakeholders were a little less positive with 8 in 10 (80%) finding our promises acceptable and 11% finding them unacceptable.

Similarly nine in ten customers and stakeholders felt the promises reflected their views (fairly or very closely) of what we should be delivering (89% domestic, 92% non-domestic and 95% future

<sup>2</sup> Companies used a mix of approaches including presenting bill impacts in real and/or nominal terms Results are presented as set out in Ofwat's draft determinations. Source: Ofwat PR19 draft determinations <https://www.ofwat.gov.uk/regulated-companies/price-review/2019-price-review/draft-determinations/>.

customers and 89% of stakeholder). Of domestic customers finding the promises acceptable, the most common reasons were that they are a comprehensive list covering the most important issues (46%), and that they focus on the customer (20%). This finding builds further confidence that our plan gives consumers a stronger voice.

*“They are investing in pipes, people and reducing bills which is what we want.”*

*“There's a broad range of different things they're trying to achieve, and provided they do achieve these targets, it's an acceptable proposal.”*

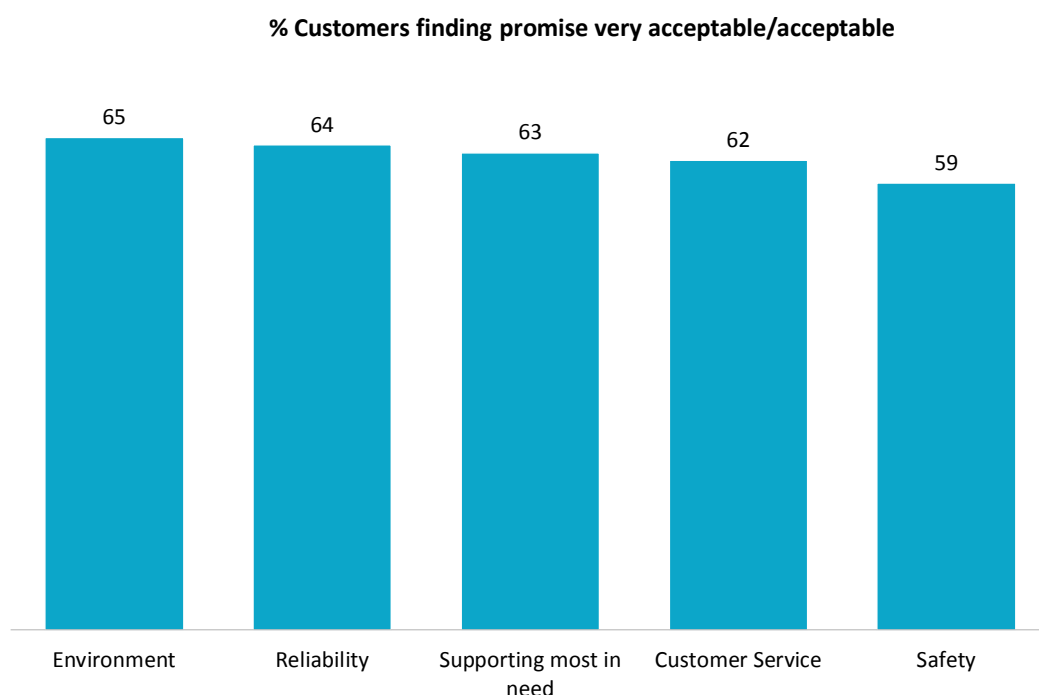
#### *Promises tested in our Business Plan Acceptability study*



To understand what drives acceptability of the plan, we explored the relationship between acceptability of the plan overall, and acceptability of the thematic promises contained within the plan as well as the detailed outputs it proposes. Given the high proportion of customers finding the plan acceptable, we focused on customers who find the plan very acceptable, because differentiating between support and stronger support helps to identify whether there are particular aspects of the plan which elevate support to a higher level.

As indicated below, Environment and Reliability are the performance areas which are more closely linked to high acceptability in the Business Plan. These are also the performance areas that received highest support among the group of domestic customers that find the plan very acceptable overall. Safety, on the other hand, has a weaker link to overall acceptability, suggesting it is more of a hygiene factor – viewed as absolutely central to what NGN does and a paramount requirement, but less likely to drive higher acceptability of the plan.

### Acceptability of promises among domestic customers finding the Business Plan very acceptable



This is supported by further in-depth analysis which shows that outputs from the Environment and Reliability performance areas tend to receive highest support among customers who find the plan very acceptable overall. Supporting vulnerable customers most in need is the area for which the proposed outputs tend to receive the lowest levels of support. However, it is important to note that acceptability is high across all performance areas and all performance commitments.

### Acceptability of outputs among domestic customers finding the Business Plan very acceptable

Output	% finding output very acceptable	% finding output very acceptable (of customers finding BP very acceptable)	Performance area
Reducing shrinkage and leakage	93	100	Environment
Supply restoration following an unplanned interruption	94	99	Reliability
Delay to supply restoration overnight following an unplanned interruption	96	99	Reliability
Trained NGN engineers: Customer and Vulnerability Competency Framework	95	99	Vulnerable
Resolving complaints	95	99	Customer service
Emergency response	95	98	Safety
Business carbon footprint	94	98	Environment
Use of recycled material	96	98	Environment



Amount of spoil to landfill	93	98	Environment
Emergency response standards - repair works, safety impact	90	97	Safety
Re-connecting appliances following an unplanned interruption	93	97	Reliability
Supply restoration following a planned interruption	92	97	Reliability
Notification in advance of planned interruptions	92	97	Reliability
Attending purge & relight jobs	88	97	Reliability
Major incidents	93	97	Reliability
Customer satisfaction with interruptions and connections	93	97	Customer service
Raising awareness of carbon monoxide dangers	95	96	Vulnerable
Repair works, environment impact	93	95	Safety
Energy efficiency advice	90	95	Vulnerable
Raising awareness and reach of the Priority Services Register	92	94	Vulnerable
Alternative heating and cooking facilities during an unplanned interruption	89	93	Reliability
Reinstating customers` premises	91	93	Reliability
Community partnering fund	88	93	Vulnerable
Hardship fund	89	92	Vulnerable
Ongoing Public panel	90	92	Customer Service
Connecting fuel poor households	85	91	Vulnerable
Cyber-security	65	73	Safety

Our results showed that for domestic customers, ‘continuing to offer industry-leading value for money’ is considered to be the top priority (25%), supporting its status as our first promise and a pivotal trade-off criteria in the development of our plan. This was followed by six thematic promises which all received similar levels of importance:

- ‘Providing extra support to customers in vulnerable situations’ (13%).
- ‘Continuing to keep customers safe, by delivering high industry safety standards’ (13%).
- ‘Minimising disruption and enhance communications when upgrading the pipes’ (12%).
- ‘Investing responsibly to deliver high standards of safety, reliability and with our lowest ever environmental impact’ (12%).

- ‘Continuing to deliver the highest levels of customer satisfaction, benchmarking ourselves against top service providers’ (12%).
- ‘Protecting the environment and support a low carbon future’ (11%).

We asked customers to appraise our plan in the round, meaning our detailed thematic promises were evaluated using the same acceptability metric and approval ratings ranged from 89%-93% as follows:

Detailed thematic promise area	% Acceptable / Very Acceptable (All customers)
Reliability	93%
Customer service	92%
Safety	92%
Environment	90%
Supporting customers most in need	89%

We then triangulated these findings with our Infrastructure North partners, Northern Powergrid, Northumbrian Water and Yorkshire Water. On average, our approval ratings were higher than those published by our partners for RIIO-ED1 and PR19, for example, Northern Powergrid reported a range of 79% to 86% for their six key output areas.

#### *Nuances in views between stakeholder groups*

Levels of understanding of proposed outputs were high amongst both domestic and non-domestic customers, but there were some nuances between the two groups:

- **Domestic:** Each measure was understood by at least 90% of customers, except ‘cyber IT and resilience’ (84%) and ‘repair works, environmental impact’ (87%).
- **Non-domestic:** Each measure was understood by at least 93% of customers. ‘Hardship fund’ (93%) and ‘connecting fuel poor households’ (93%) were understood the least.

There were also differences in the levels of support for our proposed targets:

- **Domestic:** More than 85% of customers support the proposed targets for each measure, apart from ‘cyber IT and resilience’ (65% believe the target is sufficient). ‘Use of recycled aggregate’ received the most positive response with 97% supporting the proposed target.
- **Non-domestic:** Customers were least supportive of targets for ‘reinstating customers’ premises’ (68%), ‘hardship fund’ (79%) and ‘cyber IT and resilience’ (79%).

Of the very small number of customers dissatisfied with the plan, the reasons why mostly relate to a desire for more ambitious environmental targets, concern that the plan is not going beyond our basic obligations, or that the promises may lack substance.

*“Environmental reasons – move faster, be a persuader of your industry and government to move faster. You need to show you recognise the importance of climate change. IT /cyber-attacks weren't good enough because you didn't mention working with state actors etc.”*

#### *Nuances in views between stakeholder groups*

Of the very small number of customers dissatisfied with the plan, the reasons mostly relate to a desire for more ambition regarding the environmental targets, concern that the plan is not going beyond NGN’s basic obligations or that the promises lack substance.

### *Impact on the Business Plan*

We are very satisfied that our engagement programme has demonstrated that we have produced a well justified Business Plan which is acceptable and supported by an overwhelming majority of our stakeholders. This advocacy extends to the most of our Business Plan outputs, commitments and promises we have made, however, we accept that the plan has some compromise areas and consequently is not agreeable to every stakeholder. We have noted outputs such as cyber security which attracted comparatively weaker levels of support and will continue to engage, review, and refine our resilience plans as they are developed.

## 4. Affordability

**Insight 1. Bills should be no higher than absolutely necessary; our services should be affordable for all.**

Who we heard it from		How we heard it	Volume
S	C	Citizens' Jury 2019	43
S	N,L,C,W	Priorities Research 2018	815
S	C	Future Customers Research 2018	320
S	N,L,C,W	Business Plan Acceptability 2019	1,121
S	L	MP Bilaterals 2019	13
T	N	PR19 Business Plan Acceptability benchmarking	-
S	L	Strategic Messages Report: Members of Parliament, Local Authorities and Local Enterprise Partnerships	52

Affordability of bills and the expectation that we will deliver exceptional value for money, has been a consistent priority for our customers throughout RIIO-1 and into RIIO-2.

In 2018, customers who were engaged in our priorities research told us that affordability was their second highest priority (after safety), and this has continued to be a key priority in 2019.

We heard that 44% of households in our region sometimes struggle to pay their gas bills; a survey of our Citizens' Jury revealed that 20% of participants strongly agreed and a further 24% agreed that their household frequently had difficulties paying their energy bills. In our 2018 Priorities Research, customers aged over 55 placed more importance on keeping costs down so that bills become affordable than younger customers did. However, our focused engagement with future customers revealed a social concern about the continued impact of austerity making it increasingly difficult for customers in poverty to meet their financial obligations, and future customers want us to factor these concerns into our future plans.

Our bilateral meetings with customer representatives such as MPs also highlighted this sensitive issue. The MPs who represent our region, particularly those in constituencies with higher levels of poverty, told us that concerns over paying bills, alongside frustrations with roadworks, were the most common issues raised by their constituents in regards to energy and utilities. One MP stated that by the time his office becomes aware of any energy bill distress that their constituents are facing, the bills are usually so far in arrears that they become a social services issue and there is little their office can do to help.

We measured the overall acceptability and affordability of our Business Plan during a quantitative phase of Business Plan Acceptability testing which used similar analysis protocols to those adopted by the water sector during PR19 which measured uninformed acceptability as well as informed acceptability. This scrutiny helped us to understand the views of more and less informed stakeholders.

In our research, acceptance of three different proposed bill reductions were tested across the sample: 5% reduction, 7% reduction and 9% reduction. The bill level shown was randomised across the survey sample, ensuring that a broadly equal number of participants saw each bill level. Acceptability was high amongst customers across all three bill reductions tested, ranging from 77% to 80% for domestic and 72% to 89% for non-domestic. It was lower (59% to 73%) amongst future customers, perhaps because this group are unfamiliar with the general cost of living:

### *% Acceptability of the proposed bill*

Bill reduction	Domestic customers	Non-domestic customers	Future customers
5%	77%	89%	68%
7%	78%	85%	73%
9%	80%	72%	59%

The three different bill levels tested were equally affordable to domestic customers: 73% found the 5% reduction affordable, while 75% found both the 7% and 9% reductions affordable.

In total, around three quarters of domestic (74%) and non-domestic (77%) uninformed customers found the proposed bill level affordable, although a slightly lower proportion (67%) of future customers found this. However, informed customers were significantly more likely to endorse our proposal: 85% of domestic, 83% of non-domestic customers and 80% of future customers found the bill level affordable.

We triangulated our bill affordability results with those published by United Utilities, who were fast tracked based on their PR19 draft submission. United Utilities undertook acceptability testing for 2020-25 by providing customers with two bill options (Plan A and Plan B). Plan A proposals tested average household bills £10 greater than draft Business Plan proposals. Plan B had bills £20 lower than the draft proposal and less ambitious service improvements. United Utilities Plan B received informed customer acceptability of 76%, compared with 82% for Plan A and the final bill profile was set between the two options. These results are comparable to the informed acceptability observed in our research.

### *Nuances in views between stakeholder groups*

When we presented our projections for future costs and impact on reducing customer bills at Local Enterprise Partnership and Combined Authority Meetings, Humber LEP expressed the view that SMEs would appreciate the cost reductions and support the proposals. However, in discussion about the trade-off of (modest) cost reductions against further strategic investments that would assist goals such as future energy transformation and innovation, LEPs considered that the benefits of extra investment would probably be greater than the cost reductions. LEPs also noted that it is likely larger businesses would take a more strategic view relating to energy supply and prefer investment in energy infrastructure over a bill reduction.

In a programme of research designed to test the acceptability of our draft Business Plan, a 'Refining the Plan' qualitative stage found that the proposed RIIO-2 6% bill reduction received a lukewarm response from customers. We heard a degree of scepticism around 'promised savings' being passed on to customers by their suppliers, concern as to whether shareholders are comfortable with reduced returns, and a call for investment not to be compromised:

Insights	Voice of the customer – example verbatim
<b>Lack of trust in Suppliers to pass on savings</b>	<i>"Suppliers might put the bill up to compensate"</i>
<b>Scepticism regarding shareholders accepting reduced returns</b>	<i>"My concern would be the return to the shareholder and would it be acceptable to them – I fear not"</i>
<b>Investment in high priority areas should not be compromised</b>	<i>"Reducing bills isn't as important as investing money in environmental and future sustainable fuel; that money that they were thinking about reducing bills, it's a crowd pleaser"</i>

In the subsequent quantitative phase of Business Plan Acceptability testing, a minority of domestic customers found the bill level unacceptable because it was perceived as still too expensive:



*“It’s time for energy companies to absorb some of the costs themselves rather than simply passing them on to their customers.”*

*“Gas bills are too expensive.”*

Our segmentation analysis indicated that affordability declines with income, falling from 85% among households earning in excess of £52,000 a year to 58% earning £10,400 or less. The proportion of this latter group saying the bill level would be unaffordable was 14%.

Once customers reviewed the content of our Business Plan, perceptions of affordability improved. Among domestic customers, the uplift in perceived affordability was most pronounced among lower income customers. Affordability of the plan for domestic customers earning less than £20,800 a year increased by 14% compared with an increase of just 6% for customers earning over £32,200.

#### *Uninformed and informed affordability of the Business Plan*

	Income				
	£10,400 or less	£10,401-£20,800	£20,801-£31,200	£31,201-£52,000	£52,001 or more
Uninformed affordability	58%	70%	78%	84%	85%
Informed affordability	71%	84%	89%	90%	91%
<b>Difference</b>	<b>+13%</b>	<b>+14%</b>	<b>+11%</b>	<b>+6%</b>	<b>+6%</b>

This finding reinforces the value of customer engagement in improving customers’ perceptions of the affordability of our Business Plan.

#### *Impact on the Business Plan*

We’ve worked hard to get the balance right between ambition and affordability in order to deliver a plan that delivers more for less with outputs improving across the board. The benefits delivered in RIIO-1 will be captured in full for customers by the regulatory process: costs will be lower, service targets higher, and shareholder returns and hence customer bills will fall during the next period.

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to reduce the average annual domestic customer bill from £139 during RIIO-1 to £127 in RIIO-2, an 8.6% reduction over the period. This represents a circa £150m saving over RIIO-2 compared to RIIO-1.	7.5 Customer Bills

**Insight 2. Customers' views diverge on whether they expect and are willing to pay more in exchange for delivering their priority performance improvements.**

Who we heard it from		How we heard it	Volume
S	C	Citizens' Jury 2019 (2 <sup>nd</sup> meeting)	45
S	C	Citizens' Jury 2019 (3 <sup>rd</sup> meeting)	43
S	C	Willingness to Pay 2019	2,206
T	N	WTP reports from other utilities	-
S	N,L,C,W	Business Plan Acceptability 2019	1,121
T	N	PR19 Business Plan Acceptability benchmarking	-

We heard that 45% of our Citizens' Jury expected to pay more for NGN to deliver improved performance in their preferred area – whether environment (the top improvement priority), safety, or supporting vulnerable customers – and the same proportion thought that paying more for this was acceptable.

*"We all have to take responsibility for what happens and for what is a relatively small increase to contribute to this"*

However, a similar proportion (48%) of customers expected no impact on their bill or for it to go down if NGN achieved these performance improvements. The remainder (7%) did not know what impact achieving their priority performance improvement would have on bills.

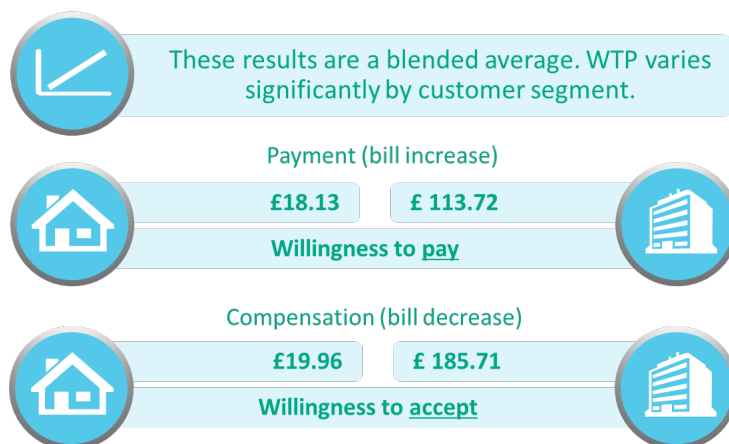
*"I think this is a problem for the business rather than the customer. The customer shouldn't suffer."*

In order to quantify customers' expectations, we undertook a rigorous qualitative and quantitative research programme to measure how much, if anything, customers are willing to pay for changes to service levels across 13 specific Business Plan outputs. We concluded that, on average, domestic households were willing to pay an additional £18.13 on their gas bill for the most improved level of service across every output appraised.

Customers also indicated that they would expect £19.96 in compensation (bill decrease) for deterioration in service levels across the same 13 Business Plan outputs. This was not a surprise; our customers are used to enjoying a very reliable service and customers typically want a greater payment to compensate for the loss of that service than they are willing to pay to improve it further.

#### Willingness to pay headline results

The average bill increase that customers are willing to pay for the most improved level of service across all 13 business plan outputs is:



### *Nuances in views between stakeholder groups*

Our Willingness to Pay research found a positive value for improvements to all service outputs. However, the values were different for each output. The most important improvements were those that minimise customer disruption such as duration of unplanned interruptions, roadworks, and re-instatement.

Our detailed analysis also indicated divergence across the full spectrum of customer segments in terms of which groups expect and are willing to pay more towards improvements. Despite a general appetite for enhancements, some customer groups are significantly less willing or able to pay more: those in rural areas, low income households, and the digitally disengaged. This contrasts with groups who registered a significantly higher than average willingness to pay: ethnic minorities, customers who have suffered a gas interruption in the past, and higher income households.

Notably, 28% of all participants always selected the status quo (no bill increase) in our trade-off exercise, regardless of the improvement options presented to them. We triangulated this finding with monetary values published in similar utilities industry studies and found it to be comparable. The implication of this finding is that despite an appetite for improvement and general acceptance of bill increases amongst our customer base there is a significant minority of customers who do not accept and in all likelihood cannot afford to pay more to achieve desired performance outcomes.

### *Impact on the Business Plan – changes between version 1 and 2*

Our engagement programme has been iterative, meaning our commitments and outputs have changed in each draft of our plan in order to reflect stakeholders' preferences.

We calibrated our first draft Business Plan commitments against the service levels tested in our Willingness to Pay research and found that, on average, customers were willing to pay £0.57 for the responses we had set out to deliver. This is significantly below the maximum £18.13 on their gas bill for the most improved level of service possible.

We triangulated our Willingness to Pay research with customers alongside broader stakeholder feedback, operational data and third-party insights. The expectation that we will deliver exceptional value for money versus provision of services that are affordable for all became a key trade-off in our plan. We tackled this trade-off head on by testing our proposals with stakeholders iteratively, each with varying degrees of ambition and investment implications. This trade-off informed some key revisions to our early proposals, such as low carbon vehicles and improving habitats for wildlife at our permanent sites – these are compromise areas, resolved by setting stretching targets to satisfy stakeholders' ambitions.

We recalibrated our second draft Business Plan commitments against the service levels tested in our Willingness to Pay research and found that on average customers were willing to pay an additional £5.39 for the responses we had set out to deliver.

Whilst we heard a call for stretching improvement and that good value isn't just about the lowest possible price, a significant minority of households reported sometimes struggling to pay their bills.

We acted upon this feedback by carefully adjusting outputs to meet – and in many cases – exceed those proposed by our regulator e.g. compensation levels, re-instatement, major incidents and complaints, whilst simultaneously keeping bills as affordable as possible for our customers by a delivering a meaningful reduction in bill prices.

### *Impact on the Business Plan*

Understanding the degree to which stakeholders are willing to pay more for the outcomes that are important to them has helped to us to prioritise and inform the commitments in specific areas of the plan. However, recognising the imperative to consistently ensure that our services are affordable

and represent value for money, we have committed to these improvements alongside a reduction in bills for our customers.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to reduce the average annual domestic customer bill from £139 during RIIO-1 to £127 in RIIO-2, an 8.6% reduction over the period. This represents a circa £150m saving over RIIO-2 compared to RIIO-1.	7.5 Customer Bills

## 5. Giving consumers a stronger voice

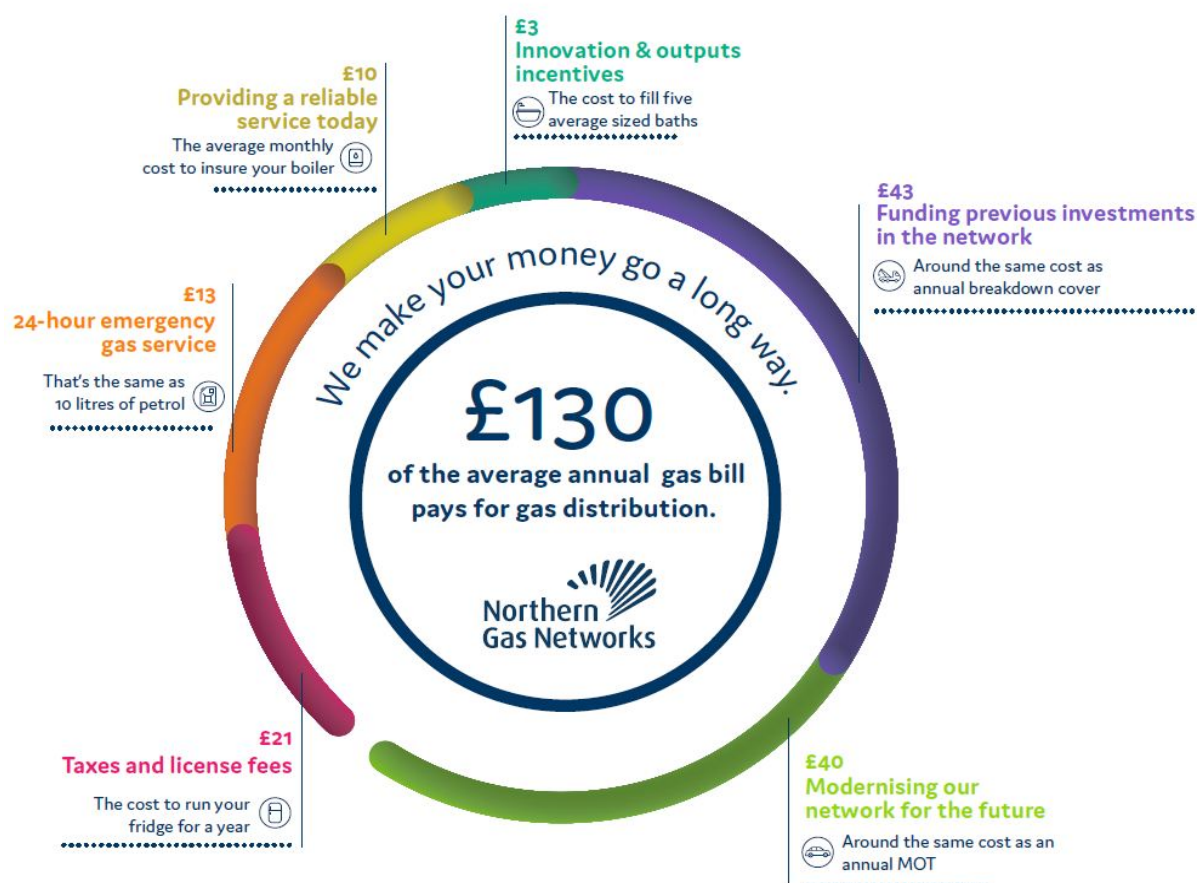
**Insight 3.** Action is required to demonstrate enhanced value for money to stakeholders, with just 52% currently appraising their bill charges positively.

Who we heard it from		How we heard it	Volume
S	C	Willingness to Pay 2019	36
S	N,L,C,W	Centrepiece Survey 2019	6,229
S	N,L,C,W	Business Plan Acceptability 2019	1,121

We convened a focus group of a representative range of domestic customers during a qualitative phase of Willingness to Pay research. During the meeting we shared contextual information in infographic format about the average proportion of a gas bill that covers distribution services, including how bill charges are spent. Customers told us that the infographic carried an important message but that this was diluted by confusing language and monetary comparisons that not everyone can relate to, for instance, the reference to ‘the average monthly cost to insure your boiler’ lead to confusion about whether gas distribution charges included this insurance:

*“Is this what my £130 pays for?”*

*Original bill infographic*

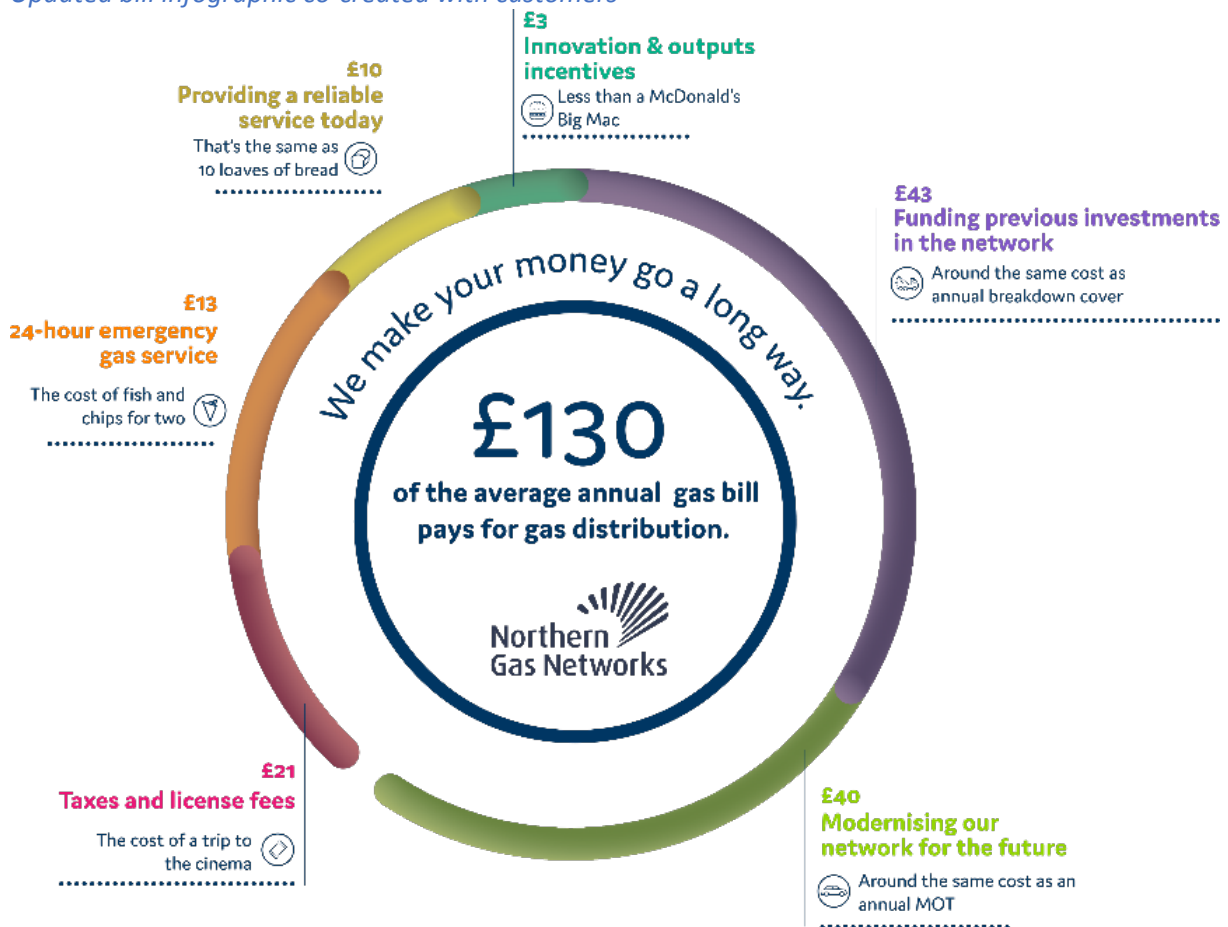


Customers felt that £130 represents good value for money, particularly in comparison to the Supplier component of their gas bill. However, customers recommended changing the monetary comparisons to more consumer-friendly references that were unrelated to gas.



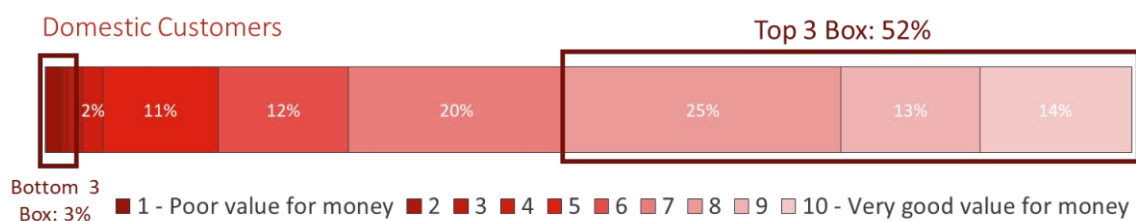
We used this feedback to update the bill infographic and incorporated this into the educational materials presented in our Centrepiece Survey, which quantitatively tested value for money perceptions amongst a wider population of stakeholders.

#### Updated bill infographic co-created with customers



When shown information about the average proportion of a gas bill that covers distribution services, and what those services are, only 52% of respondents in our Centrepiece Survey who expressed an opinion agreed that we provide value for money, and only slightly more were satisfied with the relationship they have with us (56%) or the service we provide (59%), although fewer than 5% are dissatisfied with our service or thought that we provide poor value for money.

#### Value for money perceptions among domestic customers



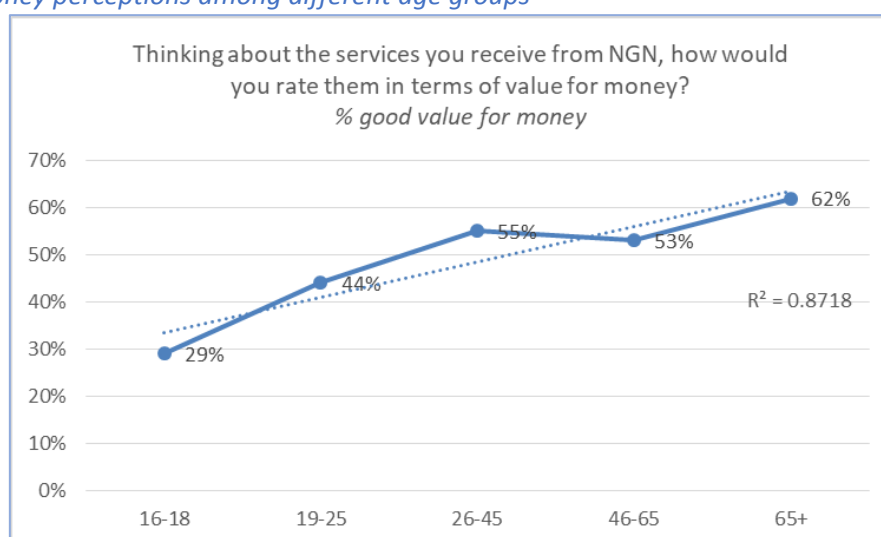
#### Nuances in views between stakeholder groups

More stakeholders took part in our Centrepiece Survey than in any of our research studies in RIIO-1. This large sample enabled a detailed analysis of preferences by stakeholder groups. Customers, who pay for the services we provide, were slightly more positive than wider stakeholders (most of whom were not responding as bill payers) about the value for money of and their satisfaction with the services we provide.

Our Local Place Makers, Business Customers, and Wider Workforce and Supply Chain all rated value for money in line with the average (52%), but only 31% of National Policy Shapers considered that we offer good value for money and only 40% were satisfied with the services we provide because of their lower familiarity (which is associated with higher satisfaction) with the work we do in the areas of Reliability, Excellent Customer Service, and Safety.

Interestingly we have also observed a linear relationship between the age of participants and their value for money perceptions, with future customers giving the lowest scores and 65+ having the most positive appraisal.

#### *Value for money perceptions among different age groups*



As our stakeholders become older, they are statistically more likely to be responsible for paying a gas bill, experience an interruption to their supply, and therefore have reason to contact or interact with us. The positive experiences they report enhance value for money perceptions:

	% Good value for money (Average amongst all stakeholders:52%)
I am completely responsible for paying the bills	61%
Yes, I have had contact with NGN in the past	66%
Experienced an unplanned gas leak/ emergency	70%

#### *Impact on the Business Plan*

The Centrepiece Survey provided us with a statistically robust and representative baseline against which we could triangulate other measurements of value for money. We understood the importance of improving value for money to our customers and set about building a Business Plan that reflected their preferences.

In our Business Plan Acceptability study, 84% of domestic and non-domestic customers, 85% of future customers, and 73% of wider stakeholders perceived our plan offered good value for money (scoring 7-10 out of 10). Only 2% of domestic customers, 4% of non-domestic customers, 1% of future customers, and 4% of wider stakeholders felt it offered poor value for money (score 1-4). All subgroups of customers provided a high value for money rating, with the exception of the digitally excluded (71% versus 85% who use the internet). Value for money ratings were the same across the three bill reduction levels tested.

Response	So we have	Read more at
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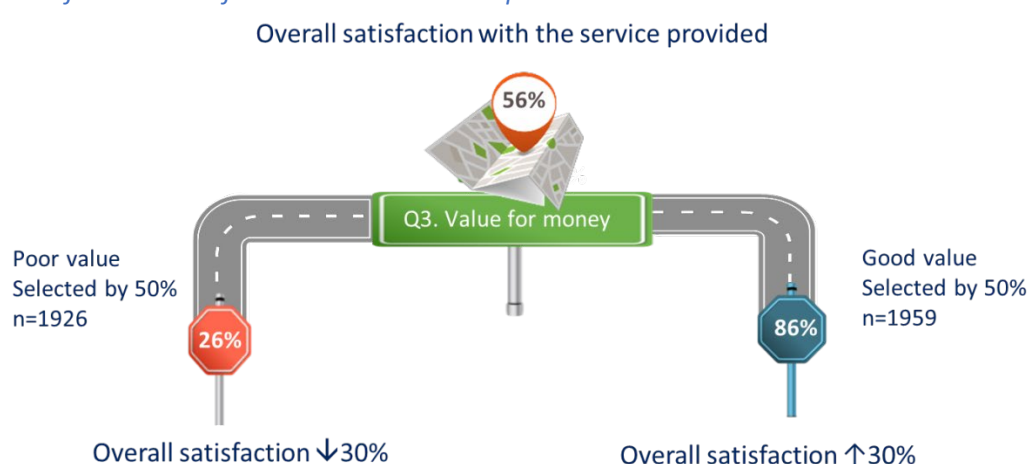
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to reduce the average annual domestic customer bill from £139 during RIIO-1 to £127 in RIIO-2, an 8.6% reduction over the period. This represents a circa £150m saving over RIIO-2 compared to RIIO-1.	7.5 Customer Bills
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**Insight 4. Familiarity with NGN's services drives satisfaction and perceived value for money.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Centrepiece Survey 2019	6,229
O	N,L,W	Stakeholder Satisfaction Survey 2019	513

Advanced Chi-square Automatic Interaction Detector (CHAID) data analysis identified value for money as the key driver of overall satisfaction with the service provided amongst respondents to our Stakeholder Satisfaction Survey. Overall satisfaction amongst stakeholders who have a positive perception of value for money increased from 56% to 86%, however, a poor value perception sees satisfaction drop significantly to 26%.

*Key driver of overall satisfaction with the service provided*



Satisfaction levels were as high as 95% amongst those who perceive that we offer value for money and also provide clear information on business performance and provide a chance to give feedback on topics of interest. This is a powerful insight that highlights the importance of both providing good value for money and also communicating it in order to engender the highest possible levels of customer satisfaction.

However, nearly half of respondents were ambivalent about whether we provide them with clear information about our business performance, provide opportunities to give feedback on the topics that interest them, allow them to give feedback through their preferred method, or make it clear how we have used feedback to change our Business Plans, and of the remainder, opinion was divided about whether they agreed or disagreed that we do these things. There is therefore scope for improvement in these scores which, along with higher familiarity with our services, will increase overall satisfaction and value for money perceptions.

In our Centrepiece Survey, we saw that stakeholders who have had contact with us in the past are more likely to perceive that we provide value for money, and be satisfied with our services and with their relationship with us. The implication of this is that awareness driven by contact and effective service delivery creates an opportunity to demonstrate value for money.

Perception / stakeholder group	Have had contact with us	Have never had contact with us
NGN's services are good value for money (Customers)	68%	48%

NGN's services are good value for money (Wider Stakeholders)	62%	41%
Satisfied with NGN's services (Customers)	75%	56%
Satisfied with NGN's services (Wider Stakeholders)	64%	47%
Satisfied with relationship with NGN (Customers)	74%	49%
Satisfied with relationship with NGN (Wider Stakeholders)	69%	48%

Participants largely told us that they are unfamiliar with NGN and the services we provide. Even when prompted, the service which the largest proportion identified as part of our role was maintaining the gas pipes and keeping the gas flowing but only just over half of customers and only a minority of wider stakeholders (40%) are aware we do this. Smaller proportions of both groups were able to correctly select other services we provide, but 22% said they believe we generate energy, 19% believe we fit new gas appliances, and 16% believe we send customers their gas bills.

Only a minority of respondents feel they're familiar with our role in each of the key aspects of what we do: 31% told us they are familiar with what we do around Safety, 26% around Reliability, 26% around Excellent customer service, 21% around Promoting the environment, 20% around being Community focused, and 20% around Moving to a low carbon network.

Low levels of awareness and familiarity correlate with our strong Reliability record which means that customers only experience supply interruptions once in 40 years for planned interruptions and once in 200 years for unplanned interruptions and therefore only rarely come into contact with us. As a result, overall perceptions of value for money and satisfaction with our services are currently dominated by those who have not had contact with us.

#### *Nuances in views between stakeholder groups*

Stakeholders' satisfaction levels were lower (58%) in our Centrepiece Survey than they were in our monthly Stakeholder Satisfaction Survey (66%) conducted during the same period, because the Centrepiece Survey reached a much broader stakeholder community, including customers and a larger proportion of wider stakeholders who have not previously much contact with us (a factor associated with higher satisfaction levels), whereas the monthly tracking is conducted with our own wider stakeholder database and excludes customers.

Rural domestic customers were more likely to be satisfied with their relationship with us (66%) than domestic customers as a whole (55%). Among stakeholders, 62% of our wider workforce and supply chain (compared with 58% of all stakeholders) are satisfied with their relationship with us, driven by higher familiarity with our network reliability and excellent customer service work, and by rating higher the opportunities to give feedback on topics of interest. However, only a minority (43%) of National Policy Shapers are satisfied with their relationship with us because this group score below average on familiarity with our work on reliability as well as providing clear information on our business performance, which are key drivers of overall satisfaction.

#### *Impact on the Business Plan*

In Section 3.4 of our Plan, we have set out how we will educate and engage consumers about how they can shape the delivery of our services in a way that meets their preferences and creates value for them. We will do this by focussing our activity on engagement that promotes long lasting, trusted relationships.



**Insight 5. During RIIO-2 stakeholders want us to continue to offer meaningful, fair and equal opportunities to shape our business decisions.**

Who we heard it from		How we heard it	Volume
-	-	Appendix X: Stakeholder Engagement Strategy and Approach	-
S	N,L,C,W	Centrepiece Survey 2019	6,229
S	C	Citizens' Jury 2019	136
S	N,C,L,W	Pioneer Workshop Series 2019	107
S	N,L,C	One-to-One Surgeries/Bilateral Meetings	67
S	N,L	Targeted roadshows and events	26

Throughout our RIIO-2 engagement programme we have utilised a wide range of core engagement mechanisms, from in-depth workshops and discussion to quick-and-easy surveys, and we have reached stakeholders from all four of our stakeholder types: National, Local, Customers, and Wider workforce and supply chain.

We have built on our RIIO-1 engagement practices and have gained an enhanced understanding and knowledge of the full spectrum of our stakeholder community, the ways they prefer to be engaged, and how to incorporate these into how we do business. While the primary purpose of our stakeholder engagement programme has been providing insights to inform our business planning and delivery in the RIIO-2 period, engagement has also had wider and longer lasting value beyond this which will inform the way we engage and collaborate in the future. In particular, we have learned that there is enthusiasm from many stakeholders to have deeper and more enduring relationships with NGN in the future. We know that, for many of our stakeholders, nothing beats a named individual and regular, face-to-face contact. In our Engagement Preferences research, 55% of our stakeholders told us they most valued face-to-face meetings. During our Bilaterals and Roadshows, many of our stakeholders, particularly Local Authorities, told us that they want regular meetings with us ranging from quarterly to annually.

We triangulated these findings with messages underpinned through engagement with four specific groups of local place makers – Elected Mayors, Members of Parliament, Local Authorities and Local Enterprise Partnerships/Combined Authorities. Our Local stakeholders told us that on the basis that these meetings were the first time many of these stakeholders had spoken to NGN, calls for more consistent, ongoing and strategic opportunities for dialogue were identified as a priority.

A standardised set of metrics were used across 10 mechanisms in order to understand stakeholders' perceptions about the engagement process and we observed divergent views across the four levels of engagement applied as the foundation of our suite of engagement mechanisms:

- **Inform:** Informing stakeholders of our intentions and updating them along the journey.
- **Consult:** Providing an understanding of customer and stakeholders' high level priorities.
- **Involve:** Linked to priorities, clarifying preferences relating to our outputs.
- **Collaborate:** Co-creating and refining the most material options in our plan.

Our Centrepiece Survey was a significant component of our engagement programme, contributing 6,229 online and telephone consultations with a broad range of stakeholders. We observed much lower scores on all engagement metrics from stakeholders taking part in this mechanism compared to our Pioneer Workshops – which were at the 'Involve' level, and comprised more detailed deliberative engagement on specific topics of interest with a small audience, conducted face-to-face.

### *Stakeholder feedback received about the engagement process by mechanism*

Asked on a 1-10 scale where 1 is very dissatisfied and 10 is very satisfied	Centrepiece Survey average	Pioneer Workshops average
NGN provides me with clear information about their business performance	5.4	7.3
NGN provides me with opportunities to give feedback on the topics that interest me	5.6	7.6
NGN allows me to give feedback through my preferred method	5.8	7.8
NGN makes it clear how they have used feedback to change their business plans	5.5	7.5

A representative group of customers took part in our Citizens' Jury – a collaborative and distinctive approach to public engagement, which differs from other forms of consultation because it gives participants time to learn about and discuss issues in depth before coming to a considered view. The Citizens' Jury mechanism succeeded in creating a safe space for engagement that gave people time to listen and engage as they grew in confidence, demonstrated by 90% of participants wishing to continue to engage through similar mechanisms.

We also heard that longitudinal engagement, such as our Citizens' Jury meeting on three separate occasions, is effective in driving more inclusive and thereby meaningful outcomes. We asked participants to rate a series of metrics about the quality of the engagement in their first and last meeting and found that overall perceptions improved across the series.

### *Summary of Participant Evaluation: Citizens' Jury (Questions asked on a 5 point scale)*

Question	Session 1	Session 3	Change
1. I understood the purpose of the panel and my role.	4.3	4.7	+0.3
2. The information presented was clear and easy to understand.	4.3	4.5	+0.2
3. Information was presented in a fair and balanced way.	4.2	4.3	+0.1
4. I learnt a lot about the subject.	4.4	4.6	+0.2
5. There was enough time to discuss the issues properly.	4.0	3.8	-0.2
6. I was given enough information to form opinions on new subjects.	4.0	3.9	-0.1
7. I felt like I could ask questions.	4.4	4.6	+0.2
8. I felt comfortable taking part in the discussions.	4.5	4.6	+0.1
9. I felt my opinions were listened to.	4.6	4.6	-
10. I was given enough opportunity to express my views.	4.5	4.5	-
11. My views changed or developed through listening to others.	3.9	4.1	+0.2

We specifically engaged on our future RIIO-2 Engagement Strategy at the fourth meeting of our Citizens' Jury. During that session, participants were asked to consider what they thought about the future of the group and whether it should have an ongoing within NGN's business engagement framework. The overwhelming response from participants was that the group should continue to meet and that they, individually, would want to be part of it.

*"Yes – would be interested to track progress and what the impact is."*

*"Because of a sense that we are making a difference."*

*“It is real people’s views – understand reasons for choices – panel understanding inform what is said to NGN and shows NGN not frightened of views.”*

During a discussion on what would make this engagement mechanism continue to be meaningful, members were keen to ensure that they could take a leading role in defining the agenda for future meetings.

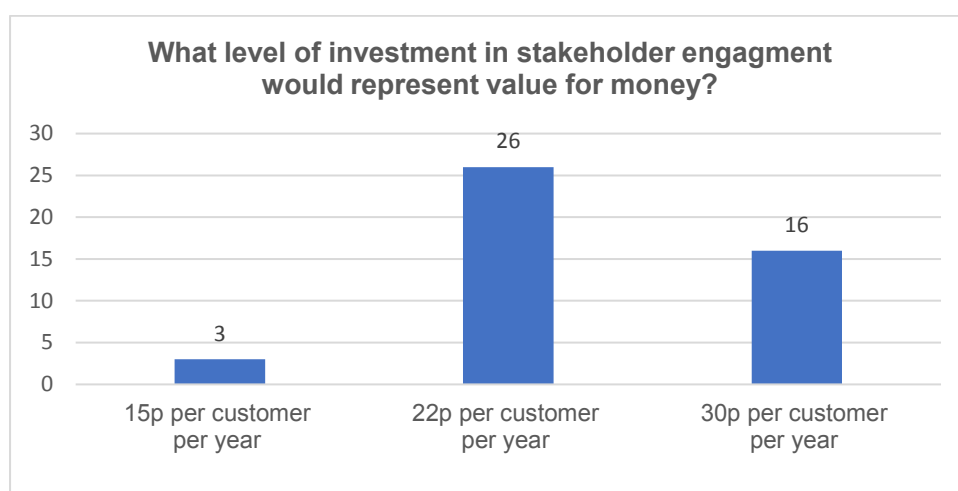
*“Panel would like the right to suggest topics for the agenda”*

*“Rather than company setting agenda... a more shared collaborative agenda setting process with the panel”*

*“Suggestion from panel members sent in advance”*

Finally, the Citizens’ Jury considered our RIIO-2 Engagement Strategy as a whole, with a particular focus on what represented value for money for them. Alternative scenarios were presented on the scale and kind of engagement that the business could undertake and associated costs. The feedback, represented in the chart below, showed a majority in favour of an investment that represents a total cost of £3m over the course of the RIIO-2 period.

#### *Summary of Participant Evaluation: Citizens’ Jury*



#### *Impact on the Business Plan*

As a gas distribution company, our core purpose is to build and care for networks. But our most valuable networks are those between people – it is these that drive our values, our decisions, and the improvement of our services. The world will continue to change for our stakeholders throughout RIIO-2. In turn, our business and the services we provide will need to continue to evolve in anticipation of these changing needs.

During RIIO-2, we will continue to tailor our engagement approach according to the preferences of our stakeholders, and to ensure that we offer meaningful, fair, and equal opportunities to shape our business decisions. In particular, we commit to providing a number of enduring engagement mechanisms that will ensure a continuity of our approach from year to year.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	<p>Committed to levels of investment supported by our customers, that will deliver a range of enduring engagement mechanisms:</p> <ul style="list-style-type: none"> <li>• A Citizen's Jury meeting three times a year, with collaborative agenda setting through an annual conference</li> <li>• Key account management to Local Place Makers, at a frequency that suits them.</li> <li>• Hot topic workshops tailored to stakeholders' interest and expertise.</li> </ul>	3.4 Moving forward, together

## 6. Meeting the needs of customers and network users

### Customer experience – our supply interruptions proposition

**Insight 7.** Our focus should be on minimising disruption to our customers’ normal daily activities by reducing the average duration of supply interruptions.

Who we heard it from		How we heard it	Volume
S	C	Willingness to Pay (1st Phase)	36
S	C	Willingness to Pay (2 <sup>nd</sup> phase)	2,206
S	N,L,C,W	Unplanned Interruptions Pioneer Survey 2019	1,278
S	N,L,C,W	Priorities Research 2018	815
T	N	Citizens Advice’s 2019 report Counting on it	-
S	N,L,C,W	Business Plan Acceptability 2019	1,216
S	C	Citizens’ Jury 2019	136
O	C	Operational data: customer complaints	90,000
S	L	Strategic Messages Report: Members of Parliament, Local Authorities and Local Enterprise Partnerships	52

In our Business Plan Acceptability study we informed participants that, on average, we restore gas supplies to customers’ premises after an unplanned interruption within 8.77 hours, representing the second best performance across all Gas Distribution Networks during RIIO-1. We tested this performance and our promise to restore gas within 24 hours for 100% of cases; 94% of domestic, 88% of non-domestic, and 89% of future customers, and 93% of stakeholders supported this output.

Through our extensive engagement stakeholders have indicated that they are very satisfied with the overall service we provide. They understand that a supply interruption is a relatively rare occurrence on our network, with the customers experiencing a planned interruption only once in 40 years on average, and an unplanned interruption just once in 200 years.

*“Can’t complain about once in 40 years?!” Domestic customer*

However, our engagement has reminded us how important maintaining an uninterrupted gas supply is in minimising disruption to our customers’ normal daily activities. We heard from both domestic and non-domestic customers that they are reliant on their gas supplies for heating and hot water at home, and for heating and operational activities at work.

82% of domestic customers describe gas as essential to the running of their homes and they, more than non-domestic customers, tend to assume that their supply will always be there for them when they need it because it usually is. Domestic customers told us that daytime interruptions had a high impact for those at home during the day, particularly the elderly or those with young children.

Business customers using gas for operational purposes also explained that supply interruptions have financial impacts all year round. In our Bilaterals, MPs frequently shared a concern about the impact that works (planned or unplanned) have on local commerce, particularly small businesses and mainly stemming from anxiety over a loss of gas supply impeding companies’ ability to trade.

We triangulated these findings with Citizens Advice’s 2019 report *Counting on it – Cross sector minimum standards of support for people with mental health problems* to understand a broader perspective, and noted that for some people, having a stable routine is vital to maintaining good mental health and, conversely, that service disruption can be very destabilising.



We heard that unplanned interruptions have very different impacts on our stakeholders depending on the time of year they occur. An interruption during the winter has a significantly higher impact:

Group	Spring	Summer	Autumn	Winter
Stakeholders (% large or very large impact)	20%	15%	31%	73%
Customers only (% large or very large impact)	18%	12%	30%	76%

In winter, customers who only using gas for heating incur the extra expense of sourcing electric heaters and the higher cost of heating premises that way. Therefore, customers value the prompt restoration of supply, or temporary measures while awaiting this.

Stakeholders said that any interruption lasting over 12 hours is likely to have a significant impact on their household. In our Pioneer Survey, we told our stakeholders that we currently reconnect 92% of homes within 24 hours, and 85.9% within 18 hours. 57% were satisfied with this performance, and most of the remainder were ambivalent (40%) rather than dissatisfied. This represents a significant opportunity for improving customer satisfaction.

Domestic customers were particularly concerned with the average duration without supply:

*“Eighteen hours is a long time, isn’t it?”*

#### *Impact of supply interruptions by duration*

Group	1-4 hours	4-8 hours	8-12 hours	12-24 hours
Stakeholders (% large or very large impact)	16%	25%	43%	54%

Not surprisingly, satisfaction with restoration times following unplanned interruptions goes down as they get longer, with 64% of respondents in our Pioneer Survey being satisfied with restoration within 4 hours in the summer but only 22% saying they would be satisfied if restoration took more than 24 hours. Equally unsurprising was the finding that satisfaction is lower in the winter when only 56% said they would be satisfied with restoration within 4 hours, and only 15% would be satisfied with the gas being off for more than a day.

An important learning from this is that stakeholders have a limited tolerance of supply interruptions as almost half of customers (44%) would not be satisfied with restoration time longer than 4 hours in the winter or over 8 hours in the summer (48%), showing that they are highly dependent on their supply; domestic customers in particular tend to have few contingencies in place for disruption in an unplanned scenario (such as electric heaters or food that can be heated without gas). This is consistent with the high impact that they have told us interruptions have on their home and working lives, and how that impact increases the longer they are without gas.

The type of day when an unplanned supply interruption occurs has some effect on the number of customers who feel this would have a large or very large impact; weekends are the worst time for 49% of customers, followed by bank holidays (39%) and school holidays (37%). Only a quarter of customers feel that they would be badly impacted by a supply interruption on a weekday, perhaps because the remainder would be out at work or school, or could easily go elsewhere, and school holidays and bank holidays mostly occur in warm summer months when customers are more tolerant of the gas being off.

Out of 13 Business Plan outputs tested in our Willingness to Pay study, improved performance on the average duration of unplanned interruptions was the most valued output by domestic customers

by a statistically significant margin. On average, our domestic bill payers said they are willing to pay an additional £3.66 on their bill to achieve the greatest improvement which would be providing an alternative source of gas supply if supply is not restored within 2 hours. Lesser improvement levels (alternative supply if restoration is not within 8 or 12 hours) still attracted support, which implies that customers strongly support a reduction in the average duration of supply interruptions.

#### *Willingness to pay to reduce duration of unplanned interruptions*



Reducing the average duration of unplanned interruptions was also the second most highly valued output among SMEs. We triangulated this finding with our wider evidence base; 55% of customers in our Citizens' Jury panel also told us that it is acceptable for their bills to increase to fund improved reliability/reduced unplanned interruptions, which supports the overall importance of this output.

The impetus to improve performance on duration of unplanned interruptions is also drawn from a detailed review of our Emergency and Repair Customer Complaints dashboard. The time taken to fix the gas escape accounts for 15% of complaint volumes in this category which, along with the gas supply being interrupted at all (14%), mean that an enhanced output is likely to have a positive influence on the volume of complaints received in RIIO-2.

Emergency and repair root cause	% volume
Time take to fix escape	15%
Communication about scope of works	15%
Unexpected gas interruption	14%
Quality of reinstatement	13%
Poor driving/parking	7%
Traffic delay	7%
Staff attitude	7%
Noise	6%
Mud and mess	6%
Further work to be done	5%

#### *Nuances in views between stakeholder groups*

Some domestic customers taking part in our Citizens' Jury told us they prioritise safety as a thematic priority ahead of reducing the average duration of supply interruptions:

*"If they need to disrupt the service for it to be safe, for them to work safely, I'd prefer for it to be safe and take as long as it takes."*

26% of panellists said it was unacceptable for bills to increase to reduce unplanned interruptions, and 19% said that no improvement was needed to the current level of reliability.

In our Willingness to Pay research, some domestic customer segments such as ethnic minorities and vulnerable customers – those with poor smell, of pensionable age, blind or partially sighted and/or those with hearing difficulties – placed significantly more importance on minimising the average duration of supply interruptions than the average. We triangulated these findings with data collected in our Unplanned Interruptions Pioneer Survey and the same groups were among those

most likely to say an interruption of over 12 hours would have a large or very large impact on them, in addition to customers with a physical impairment or young children aged 5 or under.

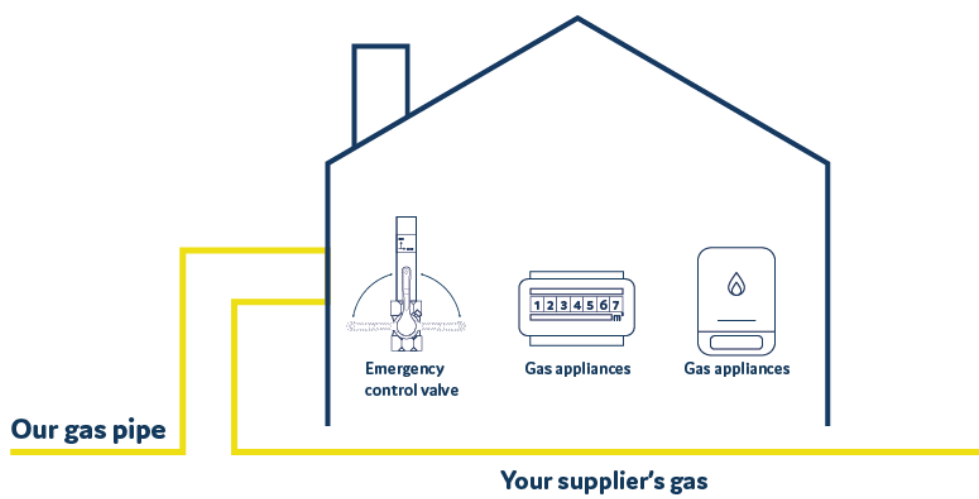
#### *Impact on the Business Plan*

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to monitoring our performance in responding to all unplanned interruptions through RIIO-2 and have implemented a bespoke target of <11 hours for the average time it takes for us to re-connect customers to the Emergency Control Valve (ECV). Recognising the importance to our customers, we have committed to a voluntary compensation payment if we fail to reconnect within the same day.	4.2.2 Gas there when you need it

**Insight 8.** When their gas supply is interrupted unexpectedly, customers want to be reconnected and able to use their appliances as soon as possible.

Who we heard it from		How we heard it	Volume
S	C	Citizens' Jury 2019	136
S	N,L,C,W	Business Plan Acceptability 2019	1,216
S	N,L,C,W	Unplanned Interruptions Pioneer Survey 2019	1,278
S	N,L,C	Vulnerable Customers Strategy Stakeholder Feedback Survey 2019	11

Citizens' Jury participants were provided contextual information regarding performance on restoring supply to the ECV, a safety mechanism on a gas service pipe connecting a gas meter to the gas mains:

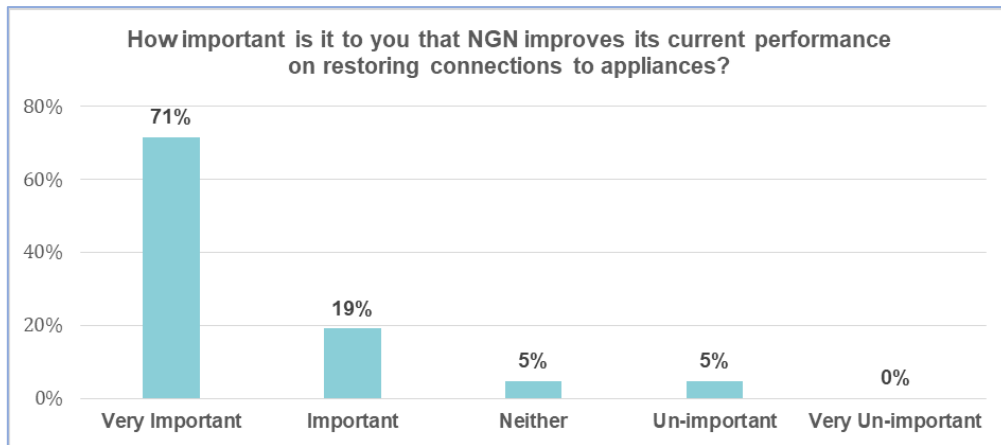


#### Performance on restoring supply to the ECV versus appliances

RIIO-1 Performance: Emergency and repair works		<8 hours
Gas supply restored to meter		81%
Gas supply restored to appliance		Approximately 20%

The panel were asked if they felt we should improve, maintain, or reduce our current performance and the majority responded that our priority should be re-focused to improving the speed with which we restore gas to appliances:

*"Because the job is not complete (as far as the customer is concerned) until connection to appliances are restored" Domestic customer*



To achieve quicker connection times there was considerable support for the proposal that we upskill our frontline staff who respond to emergency and repair situations so that they are also able to restore gas supply to customers' appliances:

*"It's like getting on a bus with no driver. If it's attached but not working, that's not fixed. Train them up to complete the job."*

Customers accepted the anticipated £200,000 cost of the training that would be required for us to avoid having to send out a separate crew to their property to restore appliances, citing improved restoration times, reduced disruption and other social benefits associated with a quicker service.

In the early stages of testing the acceptability of our Business Plan we asked customers to appraise a proposal to restore gas supplies to 90% of appliances within 2 hours of gas being restored to the ECV or within 2 hours of a time agreed with the customer, supported by a commitment to pay £20 compensation if either of these promises are breached. The panel reported that the proposal was easy to understand, credible given that some households live in remote areas and may take longer to reach, and a positive addition to the Business Plan. The quantitative phase of acceptability testing supported the conclusions drawn from the qualitative research with 93% of domestic, 100% of non-domestic, and 83% of future customers, and 81% of wider stakeholders supporting the new output.

Almost all stakeholders (around 95%) in our Unplanned Interruptions Pioneer Survey reported that if an appliance stops working again after we restore the gas supply to a property we should, as we currently do, support vulnerable customers by arranging for an engineer to attend, arrange for alternative cooking and heating facilities until the appliance is fixed, and cover the cost of a new appliance from a hardship fund. This was also supported by respondents to our Vulnerable Customers Strategy Stakeholder Feedback Survey.

Three quarters of stakeholders who took part in our Unplanned Interruptions Pioneer Survey said that we should consider extending the promise to arrange for an engineer to attend to all customers, while 55% think that alternative cooking or heating facilities should be offered to everyone, but less than half believe that all customers should be given access to a hardship fund to cover the cost of a new appliance.

Extending such services to all customers would represent an enhancement to the 'purge and relight' service level commitments we already provide by extending our existing enhanced customer journey for gas supply restoration for customers in vulnerable circumstances to all customers.

#### *Nuances in views between stakeholder groups*

Improved performance on time taken to reconnect gas to appliances received widespread support with no statistically significant variation in results observed by stakeholder groups or divergent views heard qualitatively.

### *Impact on the Business Plan*

Response	So we have	Read more at
OFGEM FRAMEWORK EXCEEDED / STAKEHOLDER EXPECTATIONS: MET/EXCEED	Introduced a bespoke target to restore gas to appliances within 2 hours of either gas being restored to the ECV or the time convenient to our customers.	4.2.2 Gas there when you need it

**Insight 9.** If we don't meet our service standards, customers expect us to go beyond minimum requirements and compensate them appropriately.

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Unplanned Interruptions Pioneer Survey 2019	1,278
S	N,L,C,W	Planned Interruptions Pioneer Survey 2019	1,380
S	N,L,C,W	Customer and reinstatement Pioneer Survey 2019	1,911
S	C	Gas Distribution Network GSOP	2,095
S	C	Business Plan Acceptability 2019 – Qualitative	55

### *The unplanned interruptions customer journey*

Stakeholders taking part in our Unplanned Interruptions Pioneer Survey were informed that we are currently obliged to pay £30 to domestic customers and £50 to business customers for every 24 hours their gas supply is interrupted within 24 hours of the disruption, but that during RIIO-1 we voluntarily doubled the amounts paid to £60 and £100 respectively and intend to do this again during RIIO-2. 59% of all survey participants were satisfied with these compensation levels but the fact that this level only represents a small majority implies that there could be support for us to enhance our offering even further above and beyond the minimum requirements.

However, a large majority of stakeholders (81%) agreed that there should be a cap on the amount of compensation we give to each customer and two thirds supported the cap being set at £1,000. The implication of this is that stakeholders would prefer to retain the cap from RIIO-1 for RIIO-2.

### *The planned interruptions customer journey*

We also engaged with stakeholders about our planned interruptions customer journey. During a planned interruption, we usually cut off the gas at 8am and aim to restore it around 6pm (in time for cooking evening meals and children's bath times). Any additional time without gas constitutes an unplanned interruption. In our Pioneer Survey we heard that if we're not able to get customers gas supply back on at the time we said we would, the majority (64%) expect an updated estimate of when the gas will be back on and a reason for the planned works overrunning. Half of our stakeholders expect a compensation payment, but only a quarter want a written apology.

Where a planned interruption overruns beyond the communicated end time we asked respondents in favour of compensation when they felt it should be triggered i.e. how long after the estimated restoration time. The table below indicates that 60% of customers would not expect compensation if their gas supply is restored up to hour late, however, 20% expect compensation to be awarded immediately following the original estimate being breached.

Trigger for compensation to be paid	% of customers and stakeholders agree
Immediately after the original estimate has passed	20%
After an additional hour	19%
After an additional 2 hours	19%
After an additional 3 hours	9%
After an additional 4 hours	10%
After an additional 5 hours	4%
After an additional 6 hours	5%
After an additional 7 hours	1%
After an additional 8 hours	2%
After up to 12 hours has passed	6%
After up to 24 hours has passed	4%



### *Reinstatement of a customer's premises*

Key learning that we gleaned from customers in relation to the restoration of supply included the need to improve our reinstatement quality and speed of work after supply restoration. Customers told us that if we fail to begin the reinstatement until after the estimate given, they prefer an updated estimate (45%) or an apology (40%) to compensation (27%). If we complete the reinstatement later than anticipated the need for an update decreases (-6%), however, the expectation of an apology increases (+7%) although the proportion of customers preferring to be compensated remains about the same. Currently there is no cap on the amount of compensation a customer can receive for an ongoing delay in reinstatement work, yet 71% of customers support the introduction of one.

### *Payment methods*

Through our consultation we also improved our understanding of customers' compensation payment preferences. For compensation triggered by supply interruptions, 83% favour a personal payment rather than a gift voucher (9%), a charitable donation (6%) or a gift such as flowers or a hamper (1%). If we fail to complete reinstatement works in a customer's premises within 5 working days, a majority (65%) still prefer a personal payment.

### *Overall acceptability*

In the early stages of Business Plan acceptability testing we convened deliberative workshops and conducted depth interviews with a range of domestic, SMEs and vulnerable customers in which we explored the acceptability of our current standards. Customers supported our proposals and perceived the level of compensation to be generous and therefore indicative of our confidence in our ability to deliver our restoration commitments, negating the need to pay compensation:

*"That's why they're going to give you more money because we're confident that actually, that's what that says to me" Domestic customer.*

### *Nuances in views between stakeholder groups*

Interestingly, within the area of reliability, significantly fewer customers (5%) than wider stakeholders (14%) feel that it is important we make sure levels of compensation are right if the gas supply is interrupted, even though it is customers who are directly impacted.

Our customers were significantly more satisfied (64%) with the level of compensation paid if we can't restore their gas supply within 24 hours than Local Place Makers (45%). Encouragingly, customers who had experienced a gas interruption in the past and therefore had a frame of reference for the disruption caused were significantly more satisfied (69%) with the current provision than the aggregated average for all stakeholders.

Our stakeholders were significantly more likely to endorse a cap on the amount of compensation paid to domestic customers than businesses. Our Industry regulator Ofgem has determined that in RIIO-2 there will be no cap on the compensation paid to customers in this scenario. We are obliged to follow this determination despite it conflicting with the preferences of our stakeholders.

### *Impact on the Business Plan*

The implication of these findings is that not all customers expect a compensation payment when service standards are not met and our RIIO-2 commitment is likely to exceed the expectations of many of our customers. Despite committing to exceed the minimum requirements set out by Ofgem we are aware that not all of our customers are entirely satisfied with the amount of compensation we have committed to pay. This is a compromise area and we believe that we have arrived at a level which is fair and will ensure the region is getting value out of the not insignificant investment (paid for from customers' bills) in providing compensation when service standards are not met.

Response	So we have	Read more at
<b>OFGEM FRAMEWORK: EXCEEDED /</b>  <b>STAKEHOLDER EXPECTATIONS: COMPROMISE</b>	<p>Made a commitment that in RIIO-2 if we cannot restore gas within 24 hours we will pay:</p> <ul style="list-style-type: none"> <li>• £60 Domestic – no cap.</li> <li>• £100 Non Domestic – no cap.</li> </ul>	4.2.2 Gas there when you need it
	<p>Made a commitment that in RIIO-2 if we cannot reinstate a customer's premises within 5 working days we will pay:</p> <ul style="list-style-type: none"> <li>• £100 Domestic – no cap.</li> <li>• £200 Non Domestic – no cap.</li> </ul>	
	<p>Made a commitment that in RIIO-2 we will restore gas to the appliances within 2 hours of re-connecting gas to the ECV, provided we have access to the appliance. If the customer is not at home, we will offer 2-hour appointment slots for the engineer to attend the job and an engineer tracking option. If we fail, we will pay £20 compensation.</p>	

**Insight 10. We should make further efforts to ensure that customers are aware of our Guaranteed Standards and how to claim against any failures to meet them.**

Who we heard it from		How we heard it	Volume
S	C	Business Plan Acceptability 2019 – Qualitative	55
T	N	Citizens Advice Report on Guaranteed Standards Performance 2015/16-2017/18	N/A
S	L	MP Bilaterals	13
T	N	Guaranteed Standards of Performance – Phase 1 report (literature review)	-

Whilst satisfied with the provision of compensation, customers participating in the early phases of our Business Plan Acceptability study felt we should use automation to reduce the effort required to obtain payments:

*“I think what they are already doing is good – I like the idea of compensation but would prefer them to do this for me” Domestic customer.*

This feedback is consistent with the perspective of Citizens Advice who continue to encourage network companies to make further efforts to make their customers aware of the Guaranteed Standards and how to claim against failures to meet them. In its *Standard Issue* report, the performance of gas and electricity network companies is compared against the Guaranteed Standards of Performance. This concludes that networks paid out just over £17.2 million in compensation to customers over the three year period 2015-2018, including voluntary payments, but that £2.6 million was not paid to gas customers as they did not claim it. Citizens Advice has since reiterated its call for Ofgem to introduce automatic compensation for all of the Standards.

We triangulated this feedback with third party insights which synthesised a literature review of GDN research, GDN strategies regarding customers in vulnerable situations, and reports from other bodies working in the interests of these customers. Research has reiterated that communications need to show what customers are entitled to as awareness is currently too low and some customers don’t have the capacity to claim. The report concludes compensation payments should be automatic wherever practicable, as a requirement to make a claim is an unnecessary barrier.

*“I think the compensation that you have to claim yourself, it does favour the supplier because firstly you’ve got to know about it, firstly you’ve got to remember that you know about it which is again sometimes a little bit of a chore if you’re elderly; you’ve got to know who to contact and again, the energy infrastructure providers are not always common knowledge, are they?”*

Despite overwhelming support for automated payments, stakeholders appreciate it is currently unclear how all GSoPs could be automated and have asked us to review compensation options if this is rolled out, given that vouchers are not always appropriate.

In our MP Bilaterals we heard strong support for our proposal to exceed our regulatory requirements by introducing automatic compensation payments to customers.

***Delivering ahead of RIIO-2:***

In the GDNs Collective Responses to Guaranteed Standards of Performance –Phase 1 report, it was flagged that GSoP3 (described below) is set to change during RIIO-RIIO-2 in order to ensure that payments are made automatically in future.

In October 2018 we began our programme of going above and beyond minimum requirements ahead of RIIO-2 by providing alternative heating and cooking within four hours of a supply interruption for PSR customers and by prioritising compensation payments to these customers (GSOP3).

Since January 2019, we have also been making proactive payments for failure to notify customers about planned works within the required time limit (GSOP13). We are proud to be the first GDN to make these payments consistently, and have shared our approach with other network operators.

Standard	Standard
GS3. Heating and cooking facilities for priority domestic customers	GS13. Notification in advance of planned supply interruptions
Description	Description
If you are registered on your supplier's Priority Service Register and your gas supply is interrupted, you will be provided with alternative heating and cooking facilities within 4 hours, or if more than 250 customers are affected, within 8 hours. (8pm-8am excluded).	When the GT carries out planned work to replace pipes or maintain the integrity of the gas system, they may need to interrupt your gas supply, if so your GT will inform you of the date they expect to interrupt you and the reason why your supply needs to be interrupted, at least 5 working days before the interruption occurs.
Compensation for failure	Compensation for failure
If the GT fails and you inform them of their failure within 3 months of the interruption you will receive a payment of £24.	If the GT fails and you inform them of their failure within 3 months of the interruption you will receive a payment of £20 if you are a domestic customer.

**Insight 11. Planned-work customers are largely in agreement that the process of turning their gas supply back on is working well, however communication could be improved.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Planned Interruptions Pioneer Survey 2019	1,380
S	C	Gas Distribution Network GSOP PLW Report	271
S	N,L,C,W	Business Plan Acceptability 2019	1,216
O	C	TTI Customer Satisfaction 2013-2019	300
O	C	Complaints received– April 2018 – March 2019	2,097
S	C	Willingness to Pay 2019	2,206

Approximately 60,000 customers are notified annually about a planned interruption to their gas supply. Most of these occur as a result of our mains replacement activities. The principle difference between planned and unplanned works is customers can be notified about the interruption in advance which allows them to plan mitigation responses.

*Key differences between planned and unplanned interruptions*

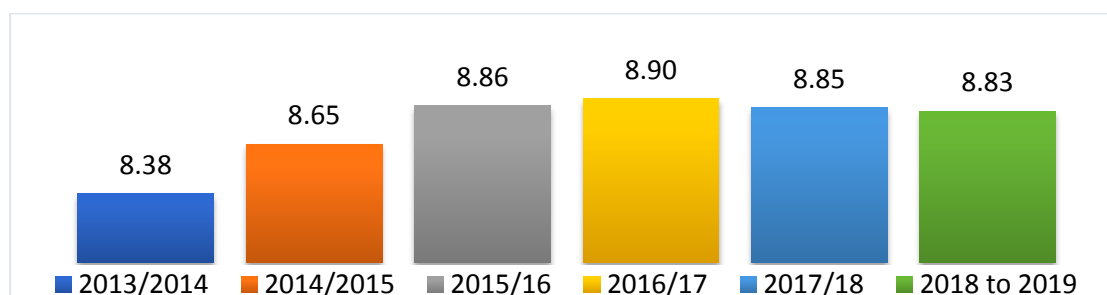
	Planned interruptions	Unplanned interruptions
Driven by	98% mains replacement activities 2% pipe alterations and diversion	Emergency and repair work
Main difference from customer perspective	Customer is notified prior to interruption	Customer does not receive prior notification
Number of customers affected per year	c. 60,000	c. 12,000 (excluding major incidents)

In a collaborative piece of research undertaken on behalf of all gas distribution networks by an independent market research agency, we heard that 74% of customers who had experienced a planned interruption did not feel the process of getting their gas supply back on once we had replaced the gas main could have been improved.

*“The service to our house was excellent, thanks. Including warning and communication.”*

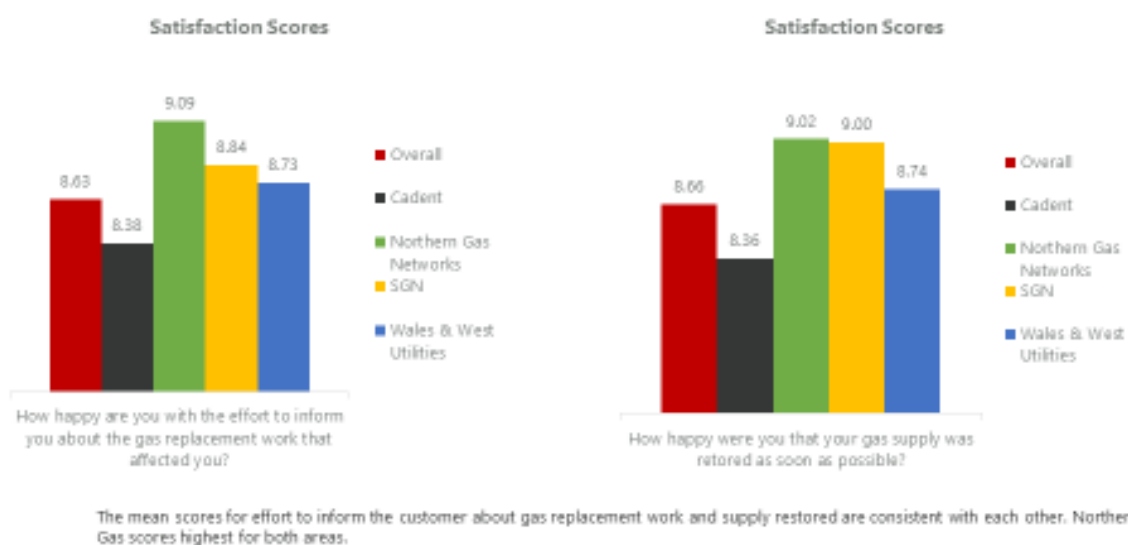
*“It was important that the team were friendly, approachable polite and listened to our concerns and they were. The quality of "making good" to tarmac and garden was very good, thank you.”*

This feedback correlates with positive planned interruptions customer satisfaction scores reported in regulatory surveys during RIIIO-1, with our overall satisfaction score averaging 8.80.



This data is supported by benchmarking performance derived from a joint GDN GSOP Standards Survey which shows that our performance in keeping customers updated about planned works and restoring their supply quickly achieved higher customer satisfaction scores than that of any other regional network.

## Overall



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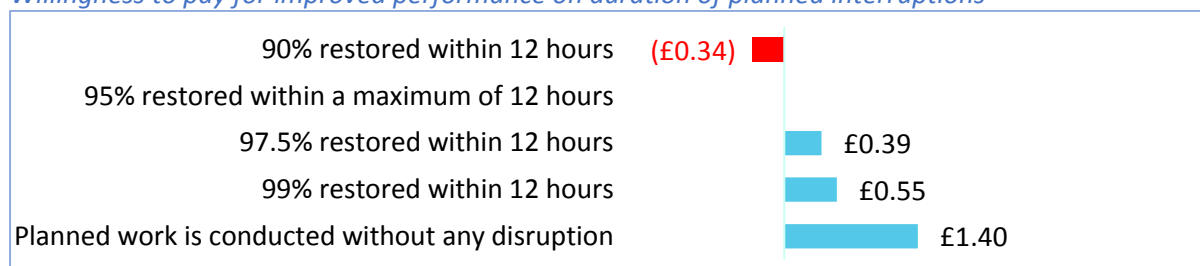
We looked at our customer satisfaction results in more detail to understand if there are any parts of the end-to-end customer interruptions journey that are comparatively weaker, and found that site tidiness is the lowest performing metric on average with a score of 8.19 followed very closely by speed of completing the re-instatement (8.20).

*Planned Interruptions –metrics (highlighting denotes areas of strength/potential improvement)*

Question	Average score 2013-2019
Supply restored	<b>8.80</b>
Advance notification	<b>8.93</b>
Site tidiness	<b>8.19</b>
Communication	<b>8.69</b>
Speed of making good excavation	<b>8.20</b>
Skill and professionalism	<b>8.93</b>
Overall quality of work	<b>8.84</b>

Satisfaction with the duration of planned interruptions is not measured in the regulatory customer satisfaction survey, so for completeness we included this output in our Willingness to Pay study to understand its relative importance to our customers. Of 13 outputs tested it ranked sixth for domestic customers and fourth for SMEs, making it a lower priority than reducing the average duration of unplanned interruptions. On average, domestic customers are willing to pay £1.40 for the optimal level of service: planned work is conducted without any disruption to their supply. This would necessitate the provision of alternative supply, such as bottled gas. There is a significant incremental increase in domestic customers' willingness to pay for this option compared to the next best level – 99% of properties being restored within 12 hours.

### Willingness to pay for improved performance on duration of planned interruptions



We tested the re-connection of the gas supply to the ECV and customers' appliances – such as boilers, heaters and cookers – within 12 hours of a planned interruption in our Business Plan Acceptability study in parallel with a promise to pay £20 compensation if we fail. 92% of domestic, 88% of non-domestic, 92% of future customers and 87% of wider stakeholders supported this output.

### Nuances in views between stakeholder groups

Despite our leading industry performance on customer satisfaction, sometimes our customers have reason to complain about planned works. We analysed 2,097 complaints received between April 2018 and March 2019 to understand why this was. Of all the complaints received, those relating to replacement or repair works accounted for 52% of annual complaint volumes. This equates to 1,098 customers out of 60,000 (2%) directly impacted (and notified) of planned works. The top root cause of complaints is unsatisfactory communication (39%) – a significant contributor compared to other key issues; poor reinstatement quality (9%), access issues (8%), and poor staff attitude (8%).

In a collaborative piece of research undertaken on behalf of all gas distribution networks, of the minority of customers who told us that the planned interruptions process could be improved, the main request was for more proactive communication updates. An update by text/phone or email (20%) was preferred to the ability to choose a time slot (17%), or other (9%). This is a consistent finding across all Networks. For customers who stated 'other' they would like an indication of when the supply is likely to be restored or to be told if there are any changes. Customers are forgiving about unavoidable problems but some had experienced communications-related issues such as not being informed that engineers would return to turn on the gas.

We also heard that 63% of customers would prefer to be told face to face when their gas is being turned on. 28% of customers would prefer a text, 18% a phone call, and 7% would prefer to be notified via email. Preferences varied by age: the majority (51%) of customers under 65 would prefer a text or face-to-face (48%) and 73% of those aged 65+ stated they would prefer face-to-face communication for advising when their gas will be turned back on.

### Impact on the Business Plan

Response	So we have	Read more at
<b>OFGEM FRAMEWORK: EXCEEDED</b>	Committed to supply restoration to the ECV and appliances following a planned interruption within 12 hours, every time. We will introduce penalty incentivises for performance to restore supply faster than in RIIO-1.	4.2.2 Gas there when you need it
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to enhanced compensation for customer if we fail to provide written notification of works seven days in advance.	



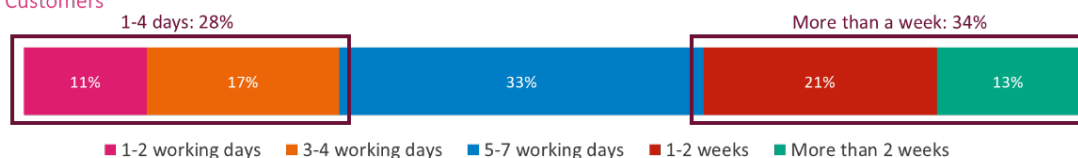
**Insight 12.** 7 days’ notice of a planned interruption typically meets stakeholders’ needs, however, customers in vulnerable circumstances should receive extended notice, and a 48 hour reminder prior to work starting builds resilience amongst customers experiencing a planned interruption.

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Planned Interruptions Pioneer Survey 2019	1,380
S	N,L,C,W	Business Plan Acceptability 2019	1,216

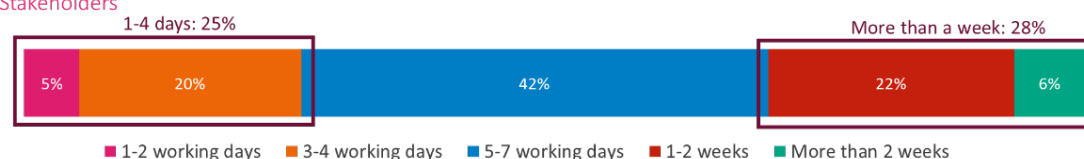
In our Planned Interruptions Pioneer Survey, the preferred notice period for impacted customers was 5-7 working days (33% of stakeholders say they expect this), although another third want more notice than this and 28% would be happy with less. Compared with customers, a greater proportion of wider stakeholders expect 5-7 working days’ notice (42%). This finding suggests that our commitment to offer 7 days’ notice meets a majority of stakeholders’ needs.

#### *Advance notification expected (Pioneer Survey)*

##### *Customers*



##### *Stakeholders*



We tested the provision of 7 days’ notice in combination with an enhanced compensation payment in our Business Plan Acceptability study and 92% of all domestic, 94% of non-domestic and 89% of future customers, and 87% of wider stakeholders supported the output.

We also heard that more than three quarters of stakeholders would like a reminder between the initial notification and the day of the interruption, with most wanting this either 24 hours (44%) or 48 hours (37%) in advance. This suggests that stakeholders may appreciate our standard 7-day notice commitment being enhanced by a reminder also being sent and that this should be delivered 48 hours in advance. As the purpose of this service is to remind those who had forgotten, this time span would incorporate those who preferred 24 hours, allowing them all to make the contingency plans required.

We triangulated these views with the 2019 report *Counting on it – Cross sector minimum standards of support for people with mental health problems* published by Citizens Advice, who are experts in supporting vulnerable individuals. This calls for staggered advance notification of service outage via multiple channels as a minimum standard because people with mental health issues can struggle to remember if warned of an outage too far in advance, and also often avoid opening their paper mail.

#### *Nuances in views between stakeholder groups*

A minority of customers (more likely to include future customers and more affluent households) and wider stakeholders reported that notification 10 days in advance would go further to meet their expectations. However, on balance we heard that the process of turning customers’ gas supply back on is working well, meaning that 7 days represents the best overall value to customers as a whole.

A substantial minority (over 40%) of participants told us that they believe certain groups of customers in vulnerable circumstances – customers with physical challenges and households with young children or members aged over 65 – should be given a longer notice period before we turn the gas off. These are the same groups that survey participants told us we should prioritise for support during unplanned interruptions. Vulnerable customers are more likely to support longer notice periods for customers in vulnerable circumstances.

42% of participants also feel that we should give primary care facilities like GP surgeries, hospitals and nursing homes more notice than the current standard. However, a quarter either believe that all customers should be treated the same or don't know whether certain groups should be prioritized.

*“It should be the same for all – why would you not tell someone when you know?”*

A common message we heard from MPs during our engagement programme is that on the rare occasion they hear from their constituents about us it is often linked to complaints about disruption related to pipe replacement (planned works). These complaints mostly revolve around road closures and the impact they have on local traffic flows. Philip Davies, MP for Shipley, stated that we could improve our approach in the next regulatory period by providing more advance notice to communities about upcoming works and also by being more considerate of local institutions such as schools and community centres when determining the most suitable time to perform works.

### *Impact on the Business Plan*

Response	So we have	Read more at
<b>OFGEM FRAMEWORK: EXCEEDED</b>	Committed to provide notification at least 7 working days prior to work commencement, with enhanced compensation for customers if we fail. We will notify all identified vulnerable customers 15 working days prior to start of work and offer face-to-face appointments to provide additional support.	4.2.2 Gas there when you need it  Appendix A7 – RIIO-2 Vulnerability Strategy, Section 5

**Insight 13. Nobody likes having to wait at home for a tradesman or a delivery to arrive, but when it is inevitable, customers told us they expect us to offer an appointment service.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Planned Interruptions Survey 2019	1,380
S	C	Willingness to Pay 2019	2,206
O	C	Operational Field Trial	TBC
S	N,L,C,W	Innovation Event 2019	12
S	N,L,C,W	Business Plan Acceptability 2019	1,216

In our Planned Interruptions Pioneer Survey, 74% of customers told us that they would expect us to offer an appointment service to book a time for engineers to visit their property if we needed access to perform safety checks. In this scenario, a resounding 88% said they would be likely to use such a service.

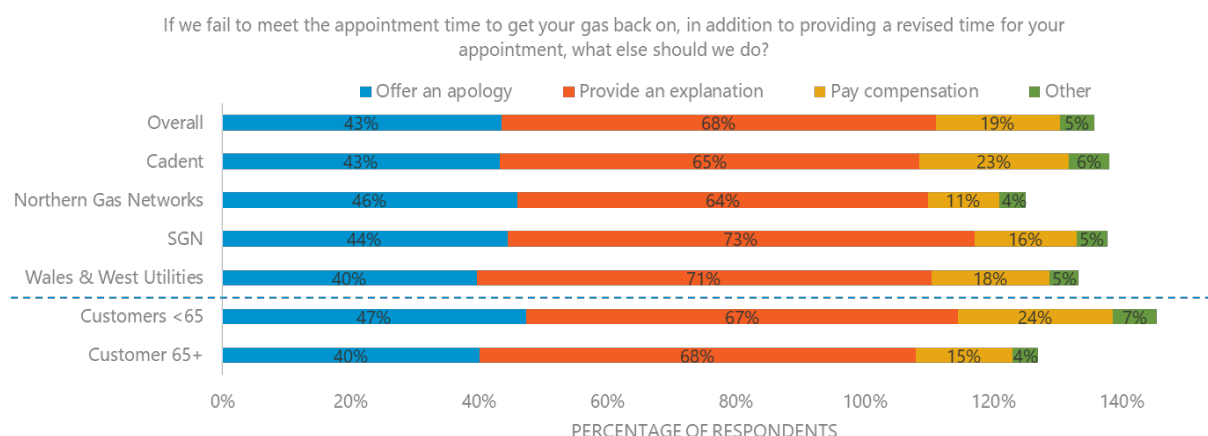
We triangulated this finding with feedback obtained at an Innovation Event with stakeholders who told us that we should be more focussed on customer experience when innovating and improve how we utilise digital technology to communicate works and strategies with our customers. To explore this further, we trialled an “off-the-shelf” system that allows the customer to track the whereabouts of the engineer and to contact them when they are on their way to attend a purge and relight job. The trial resulted in a significant reduction in missed appointments and led to an overall enhanced experience for both customers and engineer.

Following positive feedback from customers and wider stakeholders and the benefits of the new appointment system observed in the field trial we tested customers’ willingness to pay for this new service, traded off against competing service enhancements and outputs. Of the 13 outputs reviewed, a ‘2-hour appointment service’ was ranked fifth by domestic customers who, on average, are willing to pay an additional £1.47 to secure 2-hour appointment slots.

We were surprised to hear that an appointment service was the most desirable improvement (more so than reducing the duration of the interruption itself) tested amongst SMEs who are willing to pay an additional 1.86% on their gas distribution bill towards its availability. These insights emphasise the importance to customers of being in control of when they provide access to their properties and the empowerment that awareness of the anticipated arrival time affords them to make necessary arrangements and minimise disruption.

We tested the provision of 2-hour time slots for attending purge and relight jobs following a planned interruption, supported by an app that customers can use to track engineer locations in our Business Plan Acceptability study and 88% of all domestic, 86% of non-domestic, and 81% of future customers, and 87% of wider stakeholders supported the output. Based on these insights, we are currently working towards rolling this out throughout our network.

These compelling findings were triangulated with data from research conducted in collaboration with other GDNs that tested appointment setting for gas restoration and more specifically, the implementation of a new GSOP. The graph below indicates that at a national level 68% of customers would like to be provided an explanation if the appointment time is not met, 43% of customers expect an apology, and 19% would like compensation.



### Nuances in views between stakeholder groups

Women, ethnic minorities, and customers aged 65+ were the most willing to pay more for a 2-hour appointment service and although still positive the digitally disengaged were less willing to pay relative to the average, possibly owing to some concerns about accessibility of the information.

Although there is widespread support for an appointment service, our customers have different communication preferences, meaning a range of methods are required for accessing the service: email (56%), through our website (45%), phone call (43%), mobile app (34%), or text message (32%). Compared to the average appeal of each channel, some socio-demographic customer segments have a significantly higher demand (↑↓represents a difference of 8% or more); future customers expect the largest number of channel options and the over 65s the fewest.

Segment	Email	Through our website	Mobile app	Phone call	Text message
<b>Average</b>	56%	45%	34%	43%	32%
Male					
Female					
16-18		↑	↑		↑
19-25		↑	↑		
26-45			↑		
46-65			↓		
Over 65		↓	↓	↑	↓
Vulnerable		↑	↑		
Fuel poor					

### Impact on the Business Plan

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Made a commitment that if we do not have access to the appliances, we will leave a notification card asking the customer to call us. When they call, we will agree a 2-hour appointment slot and an engineer tracking option to complete the purge and relight. In addition to a new phone application a range of communication channels will continue to be available so that none gets left behind by new technology or services, such as our digitally disengaged customers.	4.2.2 Gas there when you need it

**Insight 14. Reinstating our excavations after engineering works more quickly than during RIIO-1 is important, but not at the expense of quality.**

Who we heard it from		How we heard it	Volume
S	C	Customer and Reinstatement Pioneer Survey 2019	1,911
S	N,L,C,W	Planned Interruptions Pioneer Survey 2019	1,380
S	C	Citizens' Jury 2019	136
O	C	Operational data: customer complaints	90,000
S	C	Willingness to Pay (2 <sup>nd</sup> phase)	2,206
S	N,L,C,W	Business Plan Acceptability 2019	1,216
S	L	MP Bilaterals 2019	13

We tested our RIIO-1 minimum standard of reinstating the condition of customers' premises following engineering work within 5 working days of completion in our Business Plan Acceptability study. 91% of all domestic, 68% of non-domestic, and 91% of future customers, and 80% of stakeholders supported the output. This is a strong endorsement of the current standard by domestic customers, but less so by wider stakeholders. We triangulated this finding other evidence sources and found divergent views on whether we needed to go above and beyond the regulatory standard.

In our Citizens' Jury forum we heard that 85% of participants felt it is important that reinstatement is completed within the minimum Ofgem standard of 5 working days because works cause traffic disruption, and are a risk to pedestrians, particularly children and the elderly. However, about half wanted to see improvements beyond this standard: 52% of our Panel told us that our restoration target should include weekend days. In contrast, the other half (48%) suggested that five working days achieved a reasonable balance between weekday disruption, weekend noise and cost:

*"Their current level of performance is satisfactory and investment could be better used in different areas".*

Whilst interest in moving to calendar days did appeal to many members of the Panel, a consensus was not reached on support for further stretch to reinstatement targets. Only 12% of customers felt that we should reinstate within 2 calendar days.

Our Customer and Reinstatement Pioneer Survey gave us an opportunity to explore the views of customers who had experienced a reinstatement in the past. Of the quarter of customers who recall us carrying out reinstatement work at or near their home, 80% told us that they thought the work was completed within 5 days, a third within 2 days, and 18% said it was done in a day or less. These perceptions are below the expectations of all of those who participated in the survey of how long it should take us to reinstate the area, for instance 52% recall the reinstatement being completed within 3 days compared with 69% of participants expecting this level of service.

Reinstatement within:	Recall (cumulative)	Expectation (cumulative)
1 day or less	18%	30%
2 days	34%	52%
3 days	52%	69%
5 days	80%	90%
Up to 1 week	100%	100%

Only around half (52%) told us that they would be satisfied if we completed the reinstatement within 2 calendar days, and this only rose to 64% for completion within 1 day. This supports other findings that completing reinstatements faster is not the only driver of customer satisfaction.

Concerns over quality were a key driver for many customers who indicated they did not want to see more stretching targets on reinstatement times. These concerns were raised by both our Citizens' Jury and participants of our Business Plan Acceptability focus groups. In the early stages of Business Plan testing domestic customers and SMEs asserted that when the emergency repair had been dealt with, re-instatement within 5 days was sufficient and that quality should be the priority:

*"Do it right, don't do a rushed job!"*

Quality as an equally important driver of satisfaction on reinstatement is borne out through analysis of our complaints data. Poor quality was the top root cause (16%) in complaints received about reinstatement throughout RIIO-1.

*"It's more important that jobs should be done well rather than hurriedly."*

Complaints about reinstatement quality across all complaint categories (replacement, emergency and repair, and connections) had reduced continuously from an index of 145 in 2014 to 17 in 2017 but then increased, along with other complaints, to 121 in 2018. The table below indicates the proportions of complaints received during RIIO-1 linked to quality of re-instatement within each category.

Complaint category	% of complaints received during RIIO-1 linked to quality of re-instatement
Replacement (planned works)	16%
Emergency repairs	13%
Connections	9%

Poor quality of restoration works was also raised in our MP Bilaterals by Mary Glindon, the MP for North Tyneside, as an issue that disappointed her constituents, although she recognised that sometimes NGN might be blamed for poor work done by other utilities. More broadly, our MPs stated that we must deliver road and pavement resurfacing work to the highest possible quality, setting the industry standard for other utility companies and GDNs to follow.

Respondents to our Planned Interruptions Pioneer Survey were unanimous that we should guarantee the quality of the construction work involved in restoring any parts of a private property we have affected (for example, a driveway) to its previous condition and our commitment to guarantee this for 2 years exceeds stakeholders' expectations.

#### *Nuances in views between stakeholder groups*

Support for stretching targets on the speed of reinstatement was observed among participants of our Willingness to Pay Study. For domestic customers, restoration of land once gas works have been completed was one of the most highly valued outputs (ranked third out of 13 outputs), with the average household willing to pay an additional £0.47 for reinstatement within 3 days, £0.98 for 2 days, and £1.92 to secure restoration within 1 day (the best level of service).

In our WTP assessment, urban domestic customers responded more favourable than those living in rural areas to significant improvements in the speed of reinstatements, however, customers living in both locations appraised the output highly compared to other outputs.

Non-domestic customers attached less importance than domestic customers to stretch targets with an enhanced reinstatement output ranking sixth.

#### *Impact on the Business Plan*

Despite customers and stakeholders finding the minimum standard acceptable, we will set out to exceed their expectations in RIIO-2 because doing so will minimise disruption and lead to better

customer outcomes. Quicker reinstatement will reduce roadworks which will have other positive consequences such as improved safety and air quality. However, acceleration will not be at the expense of quality – we will safeguard the quality of our construction work.

Response	So we have	Read more at
<p>OFGEM FRAMEWORK: EXCEEDED</p> <p>STAKEHOLDER EXPECTATIONS: MET/EXCEED</p>	Gone beyond the minimum requirements of 5 working days and committed to reinstating customer's premises within 3 calendar days (excluding bank holidays) with enhanced compensation if we do not deliver.	4.2.2 Gas there when you need it



**Insight 15. We should continue to provide industry-leading support to customers when large-scale unplanned incidents occur.**

Who we heard it from		How we heard it	Volume
S	N,C,L,W	Safety and Reliability Pioneer Workshop 2019	14
S	N,L,C,W	Unplanned Interruptions Pioneer Survey 2019	1,278
S	N,L,C	Vulnerable Customers Strategy Stakeholder Feedback Survey 2019	11
S	N,L,C,W	Business Plan Acceptability 2019	1,216
S	C	Willingness to Pay 2019	2,206

We heard from stakeholders at our Pioneer Workshop that they are impressed with what we do beyond our statutory obligations when responding to unplanned, large-scale interruptions.

Communication was key: they told us that regular updates are appreciated, even when a time for the restoration of supply remains unknown, along with information about what customers should do. Such communication should be over multiple channels to meet different customers' preferences or needs. They also told us that co-ordination with local agencies and community groups leveraged support, which should be available to all customers in the impacted area, not just those in vulnerable circumstances.

*“When you look at managing the scope of what you don't have to do but you're choosing to do for the right reasons, I think that's pretty impressive.”*

According to the results of our Unplanned Interruptions Pioneer Survey, as soon as a major incident occurs, the services that the greatest number of stakeholders want us to provide are a dedicated helpline and additional support for customers who need it most. However, fewer than half feel that this needs to be available immediately (46% for the helpline and 38% for customers in need), although around 83% say they should be provided within 8 hours and 93% within 24 hours. Fewer than 1 in 5 stakeholders think that we should supply any of the other additional services proposed immediately. One stakeholder organisation that participated in our Vulnerable Customers Strategy Stakeholder Feedback Survey also suggested this.

In line with what stakeholders told us elsewhere about the impact of a supply interruption increasing with its duration, a majority think we should provide a number of additional services within 8 hours of the incident occurring, although the proportions in favour of some of these are only just over half; electric heaters for all customers (67%), hot food and drink (64%), cooking facilities for all customers (64%), electric kettles (60%), hot water bottles (60%), electric blankets (53%), and a community drop-in centre where they can ask questions face-to-face (53%). Only a minority (48%), however, think that we should provide shower facilities within this time frame.

There is much stronger support for us providing these services within a day of the start of the incident, though, with 87% supporting the provision of electric heaters within this time, 82% hot food and drink, 84% cooking facilities for all, and around three quarters feeling we should provide the remaining services (electric kettles, hot water bottles, shower facilities and a community information centre).

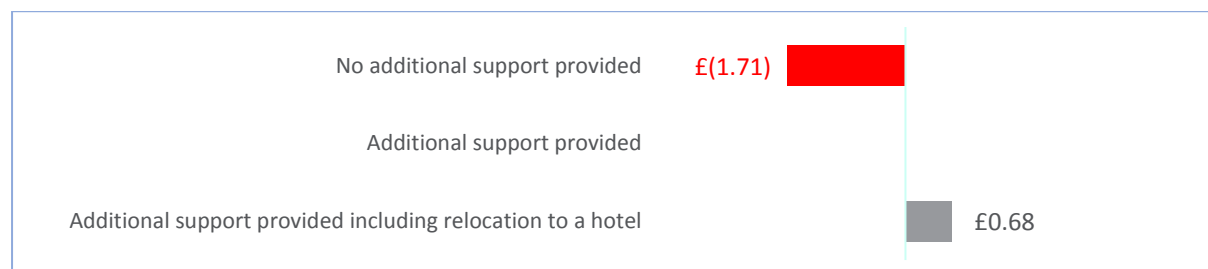
We were therefore surprised that only around half of our stakeholders told us that they are satisfied with the time frames within which we provide support: on-site customer support immediately; alternative cooking and heating equipment (bespoke to customer needs where appropriate) for everyone within 8 hours, and hot food for everyone, external resilience support, and access to a hardship fund within 1 day. However, only very small numbers said that they are dissatisfied with these time frames (6% or fewer).

There was no real consensus among stakeholders as to whether the impact on them of a supply interruption would change if a large number of others customers were also affected: the greatest proportion (39%) didn't know, although a larger proportion felt that they would be more affected (35%) than less affected (26%). This does, however, imply that the additional support we provide during major incidents is valuable.

In our Willingness to Pay study we tested 'extra support provided in an unplanned large scale gas interruption' which received a relatively low level of support among domestic and SME customers compared to other outputs. On average, domestic customers were willing to pay an additional £0.68 for the 'best level of service', described as:

- Customer Care Officer - door knocks asap after the incident occurs.
- A community drop-in centre setup.
- Hot food and drinks.
- Shower facilities.
- Additional support for those customers who need it.
- Customers relocated to local hotels where appropriate.

The Willingness to Pay results underlined the importance of maintaining our current standards as domestic customers expect to receive significant compensation (£1.71) for a detriment in service compared to the status quo:



We tested our proposed major incident standards in our Business Plan Acceptability study and found that 93% of all domestic, 100% of non-domestic, 84% of future customers and 80% of wider stakeholders supported the output.

#### *Nuances in views between stakeholder groups*

Some customer segments – ethnic minorities (£0.94), customers in vulnerable circumstances (£0.83) and customers who had experienced a large scale supply interruption in the past (£0.81) – were willing to pay more than average for the most improved level of service.

25% of stakeholders told us that we should only support customers on the Priority Services Register during major incidents.

#### *Impact on the Business Plan*

The implications of these findings are that our current major incident standards exceed customers' and stakeholders' expectations both in terms of their scope and the speed with which they are provided. In RIIO-2 our proposal is to continue to provide the same level of support.

Response	So we have	Read more at
<p>OFGEM FRAMEWORK: EXCEEDED</p> <p>STAKEHOLDER EXPECTATIONS: MET/EXCEED</p>	<p>We will deliver an enhanced major incident support framework during 'gas-off' incidents impacting over 250 customers. This will also be provided on a case-by-case basis for smaller incidents.</p>	<p>4.2.1 A truly great customer experience for everyone</p>

**Insight 16. A dedicated phone line and electric heaters are the most critical means of supporting customers in vulnerable circumstances during an incident.**

Who we heard it from		How we heard it	Volume
S	N,C,L,W	Safety and Reliability Pioneer Workshop 2019	14
S	N,L,C,W	Unplanned Interruptions Pioneer Survey 2019	1,278
S	N,L,C,W	Planned Interruptions Survey 2019	1,380
S	N,L,C	Vulnerable Customers Strategy Stakeholder Feedback Survey 2019	11
S	C	Willingness to Pay 2019	2,206

**Unplanned Interruptions Customer Journey**

When we asked stakeholders in our Unplanned Interruptions Pioneer Survey about their views on how we could provide additional support to customers in vulnerable circumstances during unplanned supply interruptions, they rated most of them positively although there was a minority view that some were ‘not really necessary, particularly a face-to-face visit at home (26% – more than the 22% who considered this ‘essential’), and an electric kettle and microwave delivered to the home (18%). However, they only considered that two of our proposals are ‘essential’ – a dedicated phone line (55%) and electric heaters delivered to the customer’s home (47%) – rather than ‘nice to have’. More of them told us that our other proposals were nice to have than essential. These included:

Support mechanism <i>Rank ordered by % essential</i>	% of stakeholders saying ‘essential’	% of stakeholders saying ‘nice to have’
A dedicated phone line	55%	38%
Electric heaters delivered to their home	47%	44%
A key contact who will support them throughout	39%	50%
A text message or email to check in update them on progress	43%	50%
A phone call to check in and update them on progress	42%	50%
Hot food and drink delivered to their home	40%	49%
Blankets, electric blankets and hot water bottles delivered to their home	37%	51%
Electric kettle and microwave delivered to their home	33%	49%
Referral to other organisations for additional support	33%	55%
A face to face visit at home	22%	53%

In our Unplanned Interruptions Pioneer Survey we heard that 69% of our customers have experienced supply interruptions to other utility services, most commonly electricity (43%), followed by water and telephone/broadband (32%) although short interruptions to those are more easily not noticed. Nearly all of these customers said that the support we provide during a supply interruption is better than (57%) or at least the same as (39%) their experience of support from other utilities.

**Planned Interruptions Customer Journey**

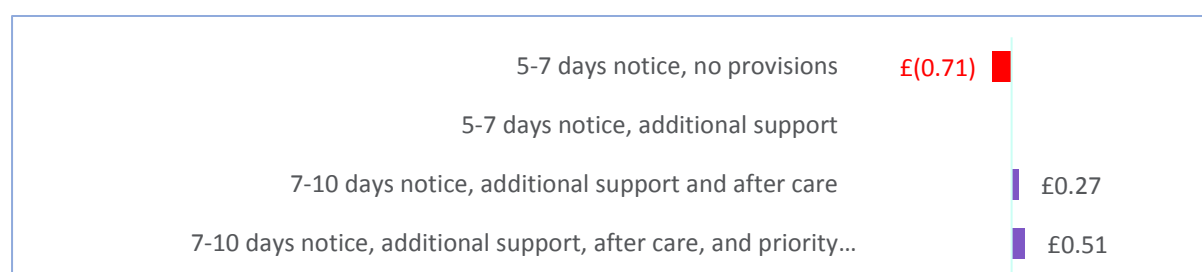
Respondents to our Planned Interruptions Pioneer Survey also had similar views on the most important support mechanisms (apart from the dedicated phone line which was not included in these proposals) with many being described as nice to have (44% to 54%) rather than essential (13% to 40%), although the proportions choosing both of these are slightly lower than for unplanned interruptions because more (11% to 42% for planned interruptions compared with 7% to 26% during unplanned interruptions) described them as not really necessary. Half did, however, feel it is essential that we reconnect these customers' gas supplies first, or at a time agreed with us, although 10% think that even this is not really necessary.

The implication of these findings is that the majority of our customers do not feel that it is essential to provide much additional support to those in vulnerable circumstances, other than to ensure that they are kept safe, informed and warm, and so our commitments will exceed their expectations.

In our Willingness to Pay study we tested providing additional support to customers in need of it during planned interruptions and it received a relatively low level of support among domestic and SME customers compared to the other 12 outputs appraised. On average, domestic customers were willing to pay an additional £2.38 for the best level of service described as:

**Advanced Notification:** 7-10 days' notice  
**Additional support provided:** Cooking and shower facilities, hot food and alternative accommodation in hotels  
**Priority reconnection:** Priority reconnection for customer who need extra support  
**Customer support after interruption:** Receive energy efficiency advice and Carbon Monoxide safety advice, or referral to other support services

The Willingness to Pay results highlight the importance of at least maintaining our current standards as domestic customers who expect to receive more compensation (£0.71) for a detriment in service than they are willing to pay to improve it beyond current standards.



### ***Prioritising customers in vulnerable circumstances***

Stakeholders identified households containing those facing physical challenges, and those with members over 65 or young children as the categories of customers in vulnerable situations we should prioritise during an incident, although only just over half of respondents selected each of these. The next highest priorities are those in with poor mental wellbeing or in financial hardship, whom 30% of respondents say we should prioritise. Only small proportions of customers feel we should prioritise those experiencing rural vulnerability (17%) or temporary vulnerability (11%). 4% feel that none of these groups should be prioritised.

### ***Nuances in views between stakeholder groups***

We interviewed a significant number of customers in vulnerable circumstances in our Pioneer Survey series, which helped us to understand their unique perspective on the most useful forms of support.

Vulnerable customers had similar expectations to the wider customer base and placed the greatest value (beyond being kept safe) on a dedicated phone line, alternative heating, proactive updates,

and provision of hot food. Significantly more vulnerable customers felt that having hot food delivered was essential compared to non-vulnerable households.

#### *Support mechanisms considered to be essential during an unplanned interruption*

Support mechanism <i>Rank ordered by % essential</i>	% of vulnerable customers saying 'essential'	% diff compared to non-vulnerable customers
A dedicated phone line	60%	+4%
Electric heaters delivered to their home	53%	+7%
A phone call to check in and update them on progress	47%	+7%
Hot food and drink delivered to their home	46%	+10%
A text message or email to check in update them on progress	46%	+2%
A key contact who will support them throughout	42%	+5%
Blankets, electric blankets and hot water bottles delivered to their home	38%	+1%
Electric kettle and microwave delivered to their home	38%	+7%
Referral to other organisations for additional support	31%	+3%
A face to face visit at home	21%	+3%

In our Planned Interruptions Pioneer Survey, we asked the same question and changed the frame of reference to a planned supply interruption. Vulnerable customers gave similar responses to our wider customer base about the type of support they needed, but they felt more strongly that blankets, electric blankets, and hot water bottles delivered to their home are essential (+9% compared to other customers). We heard that the most compelling need is for customers in vulnerable circumstances to have their gas supply restored first, or at a time agreed with us – a majority view among all customer groups.

#### *Support mechanisms considered to be essential during an planned interruption*

Support mechanism <i>Rank ordered by % essential</i>	% of vulnerable customers saying 'essential'	% diff compared to non-vulnerable customers
Gas supplies reconnected first, or at a time agreed with us	56%	6%
A text message or email to check in update them on progress	39%	2%
A key contact who will support them throughout	37%	4%
Electric heaters delivered to their home	34%	7%
Blankets, electric blankets and hot water bottles delivered to their home	31%	9%
Referral to other organisations for additional support	28%	3%
Hot food and drink delivered to their home	27%	6%
A phone call to check in and update them on progress	26%	2%
Electric kettle and microwave delivered to their home	19%	5%
A face to face visit at home	10%	0%

#### *Impact on the Business Plan*

More than any other priority in our plan, social responsibilities have polarised opinion amongst our stakeholders. Through extensive engagement, we have learned that it is difficult to gain consensus on which vulnerable customer segments are perceived to be most in need of support. This uncertainty, combined with strong existing performance on supporting customers in vulnerable circumstances, constrains the extent to which customers are willing to pay for additional

improvements to our current offering if investment would have a significant bill impact. Notwithstanding these challenges, our stakeholders agree that we have a social responsibility to reach out to customers who find themselves in vulnerable circumstances, and to support them.

In RIIO-2 we will continue to support customers in all of these types of vulnerable situations.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	<p>In addition to our major incident support framework, committed to:</p> <ul style="list-style-type: none"> <li>- A dedicated 24/7 vulnerable customer hotline. Through RIIO-1, we have enhanced our customer contact routes, and in 2014 established a 24/7 approach to all customer contact handling. Our commitment is that, no matter what time they contact NGN, and through no matter which channel, they will receive a response from an NGN colleague. For RIIO-2, we are looking to enhance this service further, by offering a dedicated hotline for any customer registered on the Priority Services Register (PSR), or who might identify themselves as vulnerable</li> <li>- Bespoke training and a formalised competency framework for colleagues across the network, to help them recognise signs of vulnerability and provide appropriate support and referrals; and</li> <li>- Help for those who need it most - a comprehensive suite of support that we provide during “gas-off” incidents e.g. alternative heating and cooking within four hours of a supply interruption for PSR customers.</li> </ul>	<p>4.2.3. Help for those who need it most</p> <p>Appendix A7 – RIIO2 Vulnerability Strategy</p>
STAKEHOLDER EXPECTATIONS: MET/EXCEED	<p><b>Enhanced the planned interruptions customer journey for customers in vulnerable circumstances</b></p> <ul style="list-style-type: none"> <li>- <b>Site survey:</b> Follow-up standard site surveys to identify issues of vulnerability not registered on PSR</li> <li>- <b>Notification:</b> Notify all identified vulnerable customers 15 working days prior to start of work.</li> <li>- <b>Work execution:</b> Carry out work in accordance with any locally agreed requirements to minimise impact on vulnerable customers. Customer Care Officers (CCOs) on site to address issues as they arise</li> <li>- <b>Gas supply isolation:</b> Provide support as identified through site survey – heating/cooking/alternative accommodation/ temporary hot water.</li> <li>- <b>Gas supply restoration:</b> Vulnerable customers prioritised reconnection or at a time agreed with CCO. If “in-house” difficulties occur e.g. gas boiler will not relight, use referral routes or hardship fund to ensure that we do not “leave any customers behind” in the short or longer term.</li> <li>- <b>Reinstatement:</b> Reinstatement to timescales and arrangements agreed with CCO to address specific vulnerable customer needs.</li> <li>- <b>Follow-up:</b> Final follow-up check by CCO in the days following work completion. Referral to partner organisations for any additional support, if needed</li> </ul>	<p>Appendix A7 – RIIO2 Vulnerability Strategy</p>



**Insight 17. We should make every contact with customers count by raising awareness of our services and providing additional support during the same interaction.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Planned Interruptions Pioneer Survey 2019	1,380
S	N,L,C,W	Social Pioneer Workshop 2019	19
S	C	Willingness to Pay 2019	2,206

*Planned supply interruptions*

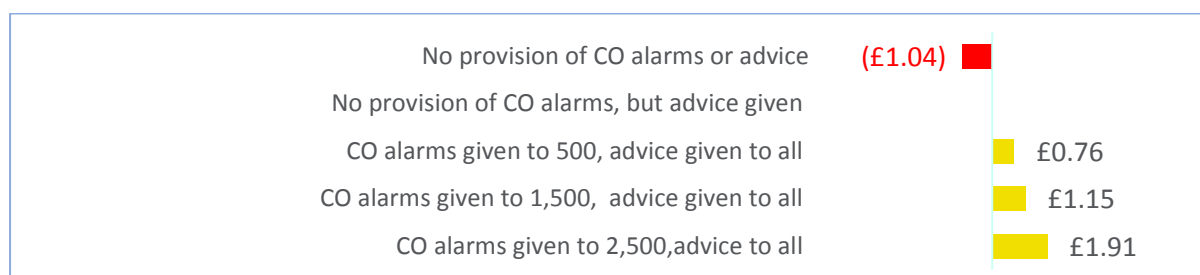
Closing the communication loop that began with the advance notice of planned works is important to stakeholders; more than three quarters of respondents to our Planned Interruptions Pioneer Survey told us that they expect us to confirm to customers when their gas supply has been restored. Doing this would therefore leave them with a good impression of NGN.

In addition to confirmation that we've finished the work, a significant minority also see this customer touchpoint as an opportunity to drive other successful outcomes by making every contact count through providing Carbon Monoxide safety information (26%), energy efficiency advice (21%), information on low-carbon heating options that are alternatives to gas (19%), or a map of the newly-laid pipes (18%).

Our interpretation of this feedback is that an update at the end of the customer journey is a basic, but very important need and whilst other integrated support built into the same conversation with customers may be useful, it is likely to exceed expectations.

*New gas connections*

In our Willingness to Pay study we tested the installation of Carbon Monoxide (CO) alarms and safety advice which received a high level of support from domestic customers and SMEs. On average, domestic customers are willing to pay an additional £1.91 to achieve the most improved level of service evaluated in our trade-off – 2,500 alarms and additional safety advice provided to new connection customers each year.



This feedback is a positive endorsement from our customers and stakeholders for enhancing routine engagement with customers (connecting a new supply) by integrating free safety advice and equipment.

We triangulated this with feedback from stakeholders attending our Social Pioneer Workshop who said that we should offer advice and signpost additional support during the provision of fuel poor connections. We heard that the type of 'intervention' offered as part of a 'make every contact count' strategy should be tailored to individual need and circumstances. This supports two other insights reported in this Appendix:

- [Stakeholders want to see us providing appropriate advice and signposting to customers in vulnerable situations, including fuel poverty.](#)

- [Stakeholders want to see a continued focus on raising relatively low levels of awareness of carbon monoxide to save lives.](#)

#### *Nuances in views between stakeholder groups*

Some groups were willing to pay significantly more for the most improved level of service for installation of Carbon Monoxide (CO) alarms and safety advice: ethnic minorities (£2.70) and customers aged under 45 (£2.47) compared to other groups. The digitally disengaged (£0.81), rural, (£1.06) or customers aged 65+ (£1.46) were willing to pay less than average, though..

In our Business Plan Acceptability research, a minority of stakeholders (9%) found our safety promises unacceptable. We heard some opposition to our proposal to install Carbon Monoxide alarms for all new connections on the basis that they should be made available to a wider selection of customers, such as those in vulnerable circumstances:

*“We should provide all low income and also vulnerable customers these, instead of supplying them only to the new connections!”*

#### *Impact on the Business Plan*

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to providing bespoke training and a formalised competency framework for colleagues across the network, to help them recognise signs of vulnerability and provide appropriate support and referrals	4.2.3 Help for those who need it most

## Our customer satisfaction and complaints proposition

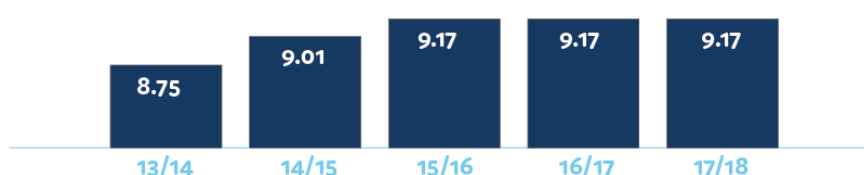
**Insight 18.** Customers recognise our strong customer service throughout RIIO-1 and want to ensure that existing levels of performance are at least maintained in RIIO-2.

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Business Plan Acceptability 2019	1,216
S	C	Willingness to Pay 2019	36
S	N,L,C,W	Centrepiece Survey 2019	6,229
S	C	Citizens' Jury 2019	136

In our Business Plan Acceptability study we informed participants that in RIIO-1 we achieved the Service Mark Accreditation with the Institute of Customer Service and a customer satisfaction score of 9.2/10, higher than all other Gas Distribution Networks and well-regarded companies such as John Lewis (8.8) and Apple (8.0).

### *Customer satisfaction with interruptions and connections*

## Customer Satisfaction Scores - NGN



93% of all domestic, 94% of non-domestic and 92% of future customers and 93% of stakeholders (more than 9 in 10 overall) supported our vision to continue to achieve the current levels of customer satisfaction about how we handle interruptions and connections in RIIO-2.

*“Outstanding customer service record for this industry – maintain”.*

In the qualitative phase of our Willingness to Pay study, we heard from domestic and SME customers in rural and urban locations who suggested that our customer satisfaction performance already meets expectations and considered it to be a lower priority for improvement than other thematic areas such as safety and the environment. The implication of this is that customers feel we should maintain current service standards and only make further improvements where the cost of doing so is negligible to bill payers.

*“Reading this, if what you read is true, that customer service seems pretty good. To me, rather than improve that customer service, I would rather they spent money on getting cleaner gas”*

*“I think if they improved reliability instead, it’ll pay them back in the long run. There’ll be fewer people calling on their hotlines, there’ll be less of the hassle that comes with that”*

Whilst these findings do not, of course, mean that our customer service levels are as good as they could be or even meet all customers’ expectations, they do indicate that they are in line with industry norms, and therefore diverting resources from other areas to improve them may not deliver benefits that customers value.

We are reliant on feedback from customers to indicate if we are delivering consistently with what we set out to achieve. Where we get it wrong, we want to learn from this and ensure that we embed

the necessary actions to improve our service going forward. We heard support for our promise to facilitate an enduring Customer Panel – 90% of domestic customers endorsed this approach to collaborating on customer service initiatives moving forwards.

### *Nuances in views between stakeholder groups*

At the end of our Willingness to Pay customer focus groups, we asked a number of informed customers to consider how much investment (time and resource) they thought we should allocate to five thematic areas in the next Business Planning period from 2021. They were provided with 10 counters – the more counters they allocated to each one, the more important the thematic area was.

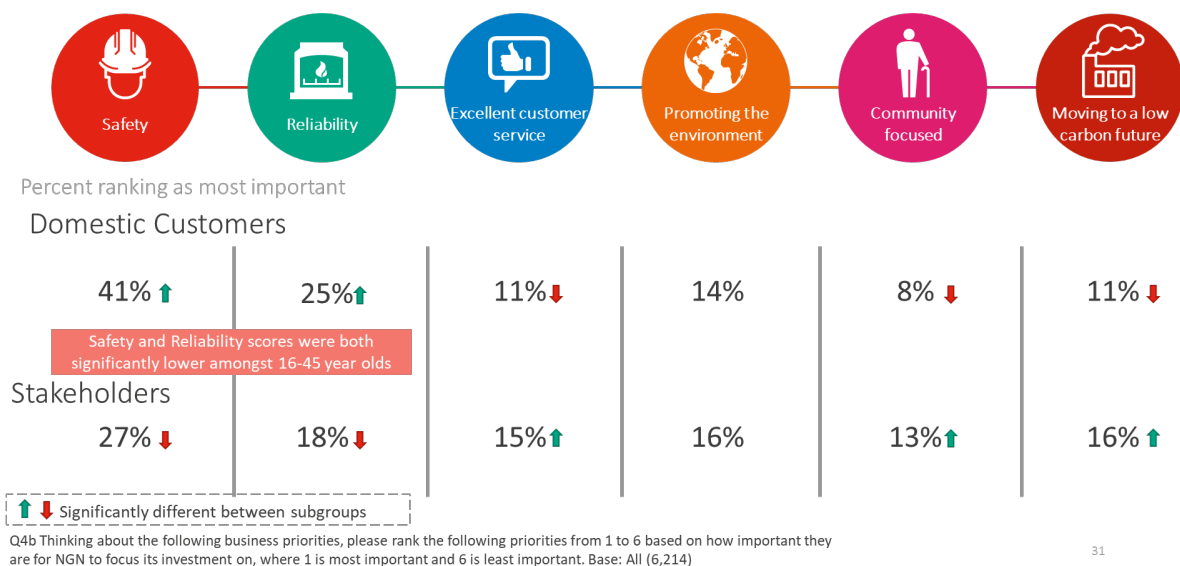
In total, significantly more counters were allocated to safety across the four customer groups than to any other thematic area, supporting quantitative results observed in our Centrepiece Survey. There was no real difference between the other thematic priorities, although we did hear divergent views – rural customers placed greater importance on the environment, and SMEs placed less emphasis on investment to support customers in vulnerable circumstances.

Thematic area	Domestic rural (Washington)	Domestic urban (Washington)	Domestic urban (Leeds)	SMEs (Leeds)	Total (All customers)
Customer service	6	7	6	10	29
Interruptions	6	5	4	10	25
Environment	11	2	8	7	28
Vulnerable	7	9	10	2	28
Safety	10	17	12	11	50

In our largescale Centrepiece survey we asked stakeholders to think about six business priorities (listed below) and rank them from 1 to 6 based on how important they are for us to focus its investment on, where 1 is most important and 6 is least important.

1. **Safety** – I want you to keep operating a safe network.
2. **Reliability** – I want you to make sure that I have gas when I need it.
3. **Excellent customer service** – I want you to feel like you're putting me first.
4. **Promoting the environment** – I want you to have a positive impact on the environment.
5. **Community focused** – I want you to have a positive impact on the community.
6. **Moving to a low carbon network** – I want you to prepare the gas network for a low-carbon future.

Stakeholders ranked safety as their most important priority, followed by reliability. Significantly more domestic customers and in particular 16-45 year olds rated safety and reliability as most important compared to other priorities. Customer service received 11% of the vote among domestic customers and 15% from wider stakeholders, placing it behind safety, reliability, promoting the environment, and at the same level as moving to a low carbon future.



### Impact on the Business Plan

We will continue to enhance the customer experience, and to maintain our position as the industry's leader in customer satisfaction.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to aiming to continue to achieve the current levels of customer satisfaction in the upcoming business period but will adopt a revised questionnaire and methodology for calculating performance to better understand areas to improve on. We also use more channels of communication to gain more feedback from every customer demographic.	4.2.1. A truly great customer experience for everyone
	Committed to establishing our Citizens' Jury and Customer Engagement Groups as enduring mechanisms for engagement during RIIO-2.	3.4 RIIO-2 Engagement Strategy

**Insight 19. We should strive for continuous improvement on complaints by a) setting targets based on calendar days and b) working towards an agreed solution within 60 minutes.**

Who we heard it from		How we heard it	Volume
S	C	Willingness to Pay 2019	36
S	C	Citizens' Jury 2019	136
S	C	Future Customers Priorities Research	305
S	N,L,C,W	Unplanned Interruptions Pioneer Survey 2019	1,278
S	N,L,C,W	Business Plan Acceptability 2019	1,216

In our Business Plan Acceptability study, we shared contextual information with stakeholders about our RIIIO-1 complaints performance to inform their assessment of the acceptability of our proposals.

We receive around 1,800 complaints per year. Of these:

- 78% are resolved within 60 minutes of initial contact.
- 84% are resolved within one calendar day.
- 98% are resolved within 31 calendar days.
- 0.25% are repeat complaints (i.e. on average, 5 repeat complaints per year).
- 0% develop into an Energy Ombudsman decision against NGN, following a customer dispute.

95% of all domestic, 90% of non-domestic, and 87% of future customers, and 100% of wider stakeholders accepted our proposal to at least maintain the current level of performance for resolving complaints, with an aim to further increase the number of complaints resolved within 60 minutes, on both weekdays and weekends.

In support of this feedback, 95% of Citizens' Jury customer panel members told us that they were satisfied with our performance in handling complaints, and timing was a notable element in this:

*"Timing seems very impressive for addressing complaints."*

83% of panel members told us there was value in introducing a 1 hour standard to drive continuous improvement in complaints handling performance, but only 5% of them were willing to pay more to achieve this.

*"You are doing exceptional in complain handling, above most companies. I think maintaining is best as you are already doing brilliant"*

#### *Nuances in views between stakeholder groups*

Some customers (22%) questioned whether it was worth introducing a 1-hour resolution standard; they were uncertain how achievable this is or whether it is expected by customers.

38% of customers on our Citizens' Jury told us that improved handling of customer complaints was an acceptable reason for their bills to increase but an equal proportion said it was not, and 25% said that there was no need for improvement.

#### *Impact on the Business Plan*

Response	So we have	Read more at
<b>OFGEM FRAMEWORK: EXCEEDED</b>	We will measure our performance against an enhanced metric, based on calendar days, and we have committed to agreeing a resolution of a complaint within an hour, even on weekends. We will deliver this at no extra cost to customers.	4.2.1 A truly great customer experience for everyone

STAKEHOLDER EXPECTATIONS: MET/EXCEED		
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**Insight 20. Customers prefer communicating with us by email and telephone, although a range of channels are required to ensure no one gets left behind**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Customer and Reinstatement Pioneer Survey 2019	1,911
T	N	Citizens Advice's 2019 report <i>Counting on it</i>	-
T	N	Keep Me Posted – the consumer's right to choose.	-

Not many of our customers have reason to contact us; fewer than a quarter of those responding to our Customer and Reinstatement Pioneer Survey believe that they have previously done so, although a further 12% are not sure. The main reasons for initiating contact are interruptions to gas supplies, roadworks or reinstatement of land, or to obtain a new connection to the gas network.

Whilst low levels of past contact are indicative of few customers having a need to contact us because of the network's reliability and stability, it is surprising that only 40% say that they would contact us proactively if there was an unplanned gas leak or emergency and a further 32% say it is unlikely that they would contact us in this situation. An expected reason for this is low awareness of NGN and our role in providing emergency response for the network.

At most, only a quarter of respondents feel that they will contact us in the future for other reasons, although this may at least reflect the fact that these other situations do not often arise.

A majority tell us that they would prefer to telephone us about an unplanned gas leak or emergency, reflecting the urgency of this situation, and the certainty inherent in this method of communication that the issue has been logged. Although webchat also offers this, only 7% say they would use it in this scenario.

For all other contact reasons, email is the preferred communication channel although telephone is also still very popular. Communication by letter would be the preferred channel for about 15% of customers in all situations, with webchat, text and social media only preferred by fewer than 10% even though 20% of respondents are 25 or younger. This finding suggests that the nature of the contact is a greater driver of preferred contact method than customer demographics and so is unlikely to change substantially during RIIO-2.

Contact scenario	Stakeholders likely to contact us	Preferred communication channel
An unplanned gas leak or emergency	40%	Telephone (45%)
To make a complaint	26%	Email (39%)
A planned interruption to their gas supply	25%	Email/Telephone (32%)
A gas connection to the network	24%	Email (33%)/ Telephone (31%)
To give positive feedback	24%	Email (41%)
To make a general enquiry	23%	Email (36%)/ Telephone (34%)
To identify where our pipes run from the street to their meter	22%	Email (34%)
Roadworks or reinstatement of land	19%	Email (34%)

We triangulated these findings with Citizens Advice's 2019 report *Counting on it – Cross sector minimum standards of support for people with mental health problems*, which notes that phone calls can be challenging for people with mental health conditions, characterised by heightened levels of stress and anxiety. It says that the communication needs of this vulnerable group can be addressed by providing an accessible service which aims to make it easier for customers to engage with their provider via a communication channel that suits them, and to make phone calls less stressful. It



recommends offering a minimum of two different communication channels, with a freephone service so vulnerable customers don't have wait in a long queue and can speak to specialist staff, and for customers to be offered a written follow up if actions are agreed during a phone conversation, as minimum standards.

More than 4 in 5 of our stakeholders told us that they would be less likely to contact us if they saw media coverage about NGN or the work we are doing; while this seems counter-intuitive in terms of awareness of our role in emergency response, it may reflect the benefit such coverage would have in reassuring stakeholders and building their understanding of our work so that they would have less need to make enquiries proactively and thus reduce inbound contact.

### *Nuances in views between stakeholder groups*

The need to provide a range of communication methods to stakeholders is further underpinned by research undertaken by the Keep Me Posted campaign which believes that it is every consumer's right to choose, without disadvantage, how they are contacted by banks and other financial service companies, utility companies, media companies, and other service providers.

Independent research demonstrates that 81% of adults want to choose how they receive important information such as bills and statements. This issue affects everyone, and particularly the vulnerable in our society. The research also reveals that the people who often have the greatest need for paper statements and bills are the older generation, the disabled, and those who lack access to the internet or basic digital skills.

### *Impact on the Business Plan*

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	<p>Committed to provide, in support of Citizens Advice's guidelines:</p> <ul style="list-style-type: none"> <li>Staggered advance notification of service outages (standard 7 days and 15 days for customers in vulnerable circumstances) via multiple channels.</li> <li>A dedicated freephone 24/7 hotline, for any customer on the Priority Services Register, or who might identify themselves as vulnerable, where people don't wait in a long queue and speak to specialist staff.</li> </ul>	<p>4.2.2 Gas there when you need it</p> <p>4.2.3 Help for those who need it most</p>

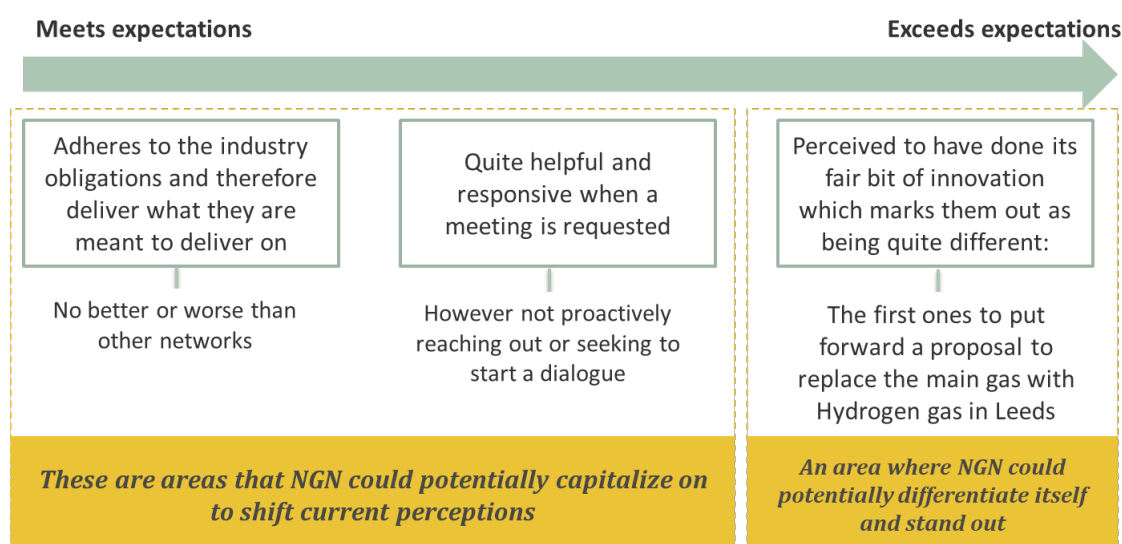
**Insight 21. Our market service customers such as gas shippers and independent transporters could be better served through account management and enhanced responsiveness.**

Who we heard it from		How we heard it	Volume
S	C	NGN Persona Research 2016	8

We conducted a series of in-depth interviews with shippers and suppliers in order to understand their overall satisfaction with their relationship with us, any key challenges experienced or changes required, and good and bad practices.

We heard that costs are a top priority amongst shippers and suppliers. There is a common perception that transporters are not fully transparent when it comes to costings and how these change. Clarity and support is needed regarding charges involved around potential thefts and Post Emergency Metering Services (PEMS). Shippers and suppliers currently feel they are often “out on their own” in this area, so keeping them up to date with customer history and providing clarity around charging responsibilities is key and flexibility is needed whilst remaining within regulations in terms of chasing unpaid charges, responsibility, and ownership.

Stakeholders reported that when compared with other utilities providers we typically meet rather than exceed expectations and they highlighted innovation as an area where we could differentiate our offering.



Shippers and suppliers told us that they can feel ‘out of the loop’ when customers contact us, requiring higher levels of customer effort from them. Although data protection restrictions are understood, we heard that we should improve (compared to other gas networks) the service we provide for shippers and suppliers by efficiently and consistently updating them when we have had direct customer contact, specifically regarding PEMS and potential thefts, or unregistered sites. These stakeholders also told us that we could do more to show that we are flexible and understand their needs.

On balance, these stakeholders are happy that what we do works and that when issues arise and are escalated, we are known for resolving the problems, but they feel that we struggle to deal with and implement anything related to the connections that is new, and do not notify shippers or suppliers when contacted by the end-consumer despite having a system that logs the calls.

**Impact on the Business Plan**

Response	So we have	Read more at
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STAKEHOLDER EXPECTATIONS: MET/EXCEED	Introduced bespoke standards for our market service customers which set time commitments for resolving queries and see us deliver a more consistently good service.	4.2.1 A truly great customer service for everyone
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**Insight 22. Customers want to see improved communication throughout the connections process and enhanced outputs on the time taken to deliver.**

Who we heard it from		How we heard it	Volume
S	C	Citizens' Jury Meeting 3 2019	43
S	C	Customer Feedback Analysis Y13Q4M3 Report	-
O	C	Customer complaints 2018-2019	248
S	C	Domestic Customer Connection Experience Survey 2019	147

In our Citizens' Jury we heard that 54% of domestic customers thought it is important that we improve our overall connections performance. Customers told us that their top priorities were delivering the connection (the key element for 40% of customers, after discussion), and providing a start date for the work once payment has been made (38%).

*"If a customer is paying for new connection he's expecting everything to go fast and smooth. So it's important to do the job fast."*

Many Citizens' Jury domestic customers struggled to express an opinion about connections as it was significantly outside their field of experience or their expected future experience.

Satisfaction survey feedback provided by customers who had experienced our connections service enabled us to identify our key strengths and areas for improvement. Customers have been very satisfied throughout RIIO-1 with the transactional element of our service (quotations) but want to see improved communication throughout the process, and enhanced outputs on the time taken to deliver. We triangulated these conclusions with a bespoke Domestic Customer Connection Experience Survey which identified similar priority areas for improvement.

*"Speed up the process from acceptance to installation"*

*"Be more precise when indicating time of visit e.g. 10-12"*

*"Communicate that there will be 2 teams attending, so there is no panic when they leave site"*

A review of our operational data revealed that the most common reason for complaints about our connections service in the last financial year has been communication issues.

*Complaints received regarding a gas connection between April 2019 and March 2019*

Root cause (Connections)	%
Communication issue	52%
Reinstatement quality	7%
Staff attitude	5%
Price	4%
Traffic Management	4%
Dispute charges	3%
Quality of work	3%
Reinstatement delay	3%
Site tidiness	3%
Access issues	2%
Delay in completing engineering	2%
Signing and guarding	2%
Damage to property	1%
Reinstatement – Quality	1%
Poor driving	1%

Scheduling	1%
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Communication issues include, but are not limited to, keeping customers updated, inclusivity and accessibility of communication channels, and the usefulness of information provided by planners:

*“It’s important that you keep your customers informed at all times”*

*“You have closed by the time I get home from work”*

*“Do you have webchat?”*

Whilst communication issues have driven complaint volumes, advanced statistical analysis revealed that the time taken to provide a quotation, schedule works, and complete works are key drivers of overall satisfaction. We heard that 83% of our connections customers are either fairly or very satisfied with the time it took from application to completion. This leaves room for improvement, particularly as any increase in satisfaction on this metric is likely to have the greatest influence on customers’ overall satisfaction.

*“The start date is too far away – reduce the time between quote and completion”*

10% of customers taking part in our Domestic Customer Connection Experience Survey said they were dissatisfied or very dissatisfied with the overall time taken. The implication of these findings is that improved outputs on the overall time taken need to be combined with honest conversations with customers to manage their expectations, for example, explanations around why work might only take an hour even though they have waited up to 6 weeks (standard connection) for it to commence (a common observation from customers) might reduce a perception that they are not getting good value for money:

*“12 week wait and the guys were here one and a half hours”*

#### *Nuances in views between stakeholder groups*

We heard that only 17% of customers did not feel that the current connections process (which does not specify a timeframe for delivery) met their expectations.

*“I think the timeframes are acceptable, especially in comparison to similar providers (i.e. telecoms) timescales.”*

#### *Impact on the Business Plan*

Our extensive and inclusive stakeholder management has driven us to raise the bar in many areas. Customers who want to connect to or change their connection to our network will see significant improvements in service as we introduce an online quotation and booking service and a streamlined, tailored offline service, with reduced timescales across the process.

Response	So we have	Read more at
OFGEM FRAMEWORK: EXCEEDED  STAKEHOLDER EXPECTATIONS: MET/EXCEED	For standard connections, committed to go beyond minimum requirements to provide quotes within 3 working days and start dates within 10 working days, together with an online booking service and a key customer contact throughout the journey.	4.2.2. Gas there when you need it

## Socially responsible and saving lives

**Insight 23.** Stakeholders want us to support all individuals in vulnerable situations, including residents who are “off grid”.

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Social Pioneer Workshop 2019	19
S	N,L,C,W	Social Pioneer Survey 2019	1,018
S	N,L,C	Vulnerable Customers Strategy Stakeholder Feedback Survey 2019	11
S	N,L,C,W	Business Plan Acceptability 2019	1,216
S	C	Future Customers Priorities Research	305
S	L	MP Bilaterals 2019	13

We heard that our services and support for customers in vulnerable circumstances must be made accessible to *all* of those customers. Expert stakeholders at our Pioneer Workshop told us that they believe unanimously that NGN should support all such residents in their area, not just gas customers.

*Q: Who should NGN’s vulnerability strategy support?*

Option – Slido Social Pioneer Workshop 2019 Poll	Votes (n=17)
Only customers who are connected to the gas network	0%
Customers connected to the gas network and residents who are ‘off grid’	100%
Not sure	0%

Of the 2.7 million households and around 6.8 million customers that whom we serve, around 554,000 households (20%) are on the Priority Services Register.

We heard from respondents to our Vulnerable Customers Strategy Stakeholder Feedback Survey that awareness of the additional support we offer is poor in inner city areas amongst those who qualify for and would benefit from this. Respondents also told us that we could be more ‘joined up’ in how we identify vulnerable customers and ‘make every contact count’ in terms of communication, raising awareness, and the range and scale of support provided by collaborating with other service providers and funding sources.

Overall, stakeholders told us that they support our strategic approach based on:

1. Awareness of vulnerable customers and their needs.
2. Accessibility to services and support for vulnerable customers.
3. Action to protect, support and serve vulnerable customers.

Stakeholders encouraged us to work with key community partners and health and care organisations to encourage vulnerable customers to register on the Priority Services Register.

In our Business Plan Acceptability study, 92% of domestic, 91% of non-domestic and 100% of future customers, and 94% of wider stakeholders supported our proposals for raising awareness of and the reach of the Priority Services Register during RIIO-2.

Respondents to our Vulnerable Customers Strategy Stakeholder Feedback Survey said that we need to ensure that our website meets the Government's minimum standard (Web Content Accessibility Guidelines 2.1) and that relevant documents are in accessible formats and/or there is a transcription

process in place. One stakeholder suggested partnering with the RNIB to help achieve this, and this was also a concern for Mike Hill, the MP for Hartlepool.

### *Nuances in views between stakeholder groups*

The wider group of customers and stakeholders who responded to our Pioneer Survey were less certain about the most appropriate reach for support with just 40% agreeing that we should continue to support off-gas communities, although only 14% disagreed with our doing so.

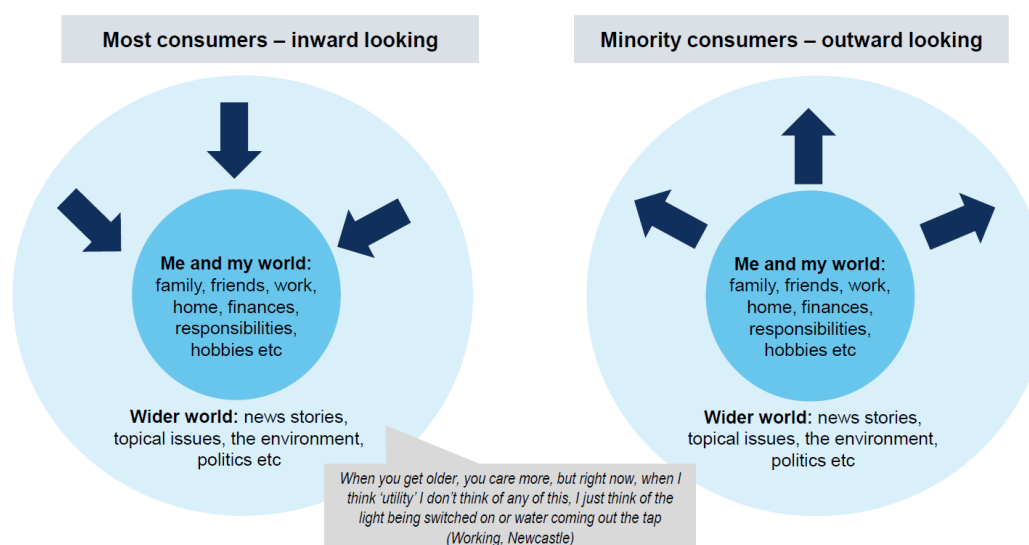
Some customers felt that the best way to support those who are off grid was by connecting them, rather than through other initiatives such as Warm Hubs. Some of our MPs agreed, suggesting that our Vulnerability Strategy should be ambitious in extending the gas grid by connecting homes to the gas network, particularly in rural areas and that we must strive to work more closely with existing local support agencies.

In our Vulnerable Customers Strategy Stakeholder Feedback Survey, some stakeholders also told us that we should look for ways of identifying vulnerable customers that do not rely on them self-referring to be on the Priority Services Register.

We also heard that future bill payers are quite inwardly-focused, although a minority were willing to pay a little more for 'greater good'.

*"No one wants to spend their hard earned money on this stuff."*

### *Future Customers Priorities Research – an inward looking perspective*



### *Impact on the Business Plan*

As a responsible organisation, we recognise, and have a responsibility to support, communities and individuals facing difficulties, both directly impacted through our operational activities and also more broadly within the communities we serve in our network.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to use the 'AAA' framework of Awareness-Accessibility-Action, developed with stakeholders, to help us support all customers in vulnerable circumstances.	Appendix A7 – RII02 Vulnerability Strategy

STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to actively promote and seek out members of our communities who are eligible for the Priorities Services Register, targeting an additional 5,000 registrations per year. We will also deliver enhanced services such as offering a dedicated hotline for anyone registered on the Priority Services Register or who might identify themselves as vulnerable.	4.2.3. Vulnerable Customer Support
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**Insight 24.** It is difficult to gain consensus on which vulnerable customer segments are perceived to be most in need of support. Customers and stakeholders want to see provision of bespoke relevant support that is driven by individual circumstances.

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Social Pioneer Workshop 2019	19
S	N,L,C,W	Social Pioneer Survey 2019	1,018
S	N,L,C,W	Innovation Event 2019	12
S	N,L,C	Vulnerable Customers Strategy Stakeholder Feedback Survey 2019	11

### 5 areas of focus for vulnerability

There are several useful definitions of vulnerability that our national stakeholders have helped us to identify as being relevant in developing and delivering our strategy, including those provided by Ofgem and organisations such as the Money Advisory Trust.

We have developed five broad categories which support our colleagues to recognise and embed our strategy:

1. Physical challenges.
2. Mental wellbeing.
3. Temporary vulnerability.
4. Rural vulnerability.
5. Financial hardship.

Respondents to our Vulnerable Customers Strategy Stakeholder Feedback Survey showed strong support for our existing 5 areas of focus for vulnerability.

However, our local stakeholders have also highlighted that we need to be careful not to restrict our definition or understanding of the circumstances that can contribute to vulnerability, and also that the causes of vulnerability can change, making it more important that we are agile and quick to respond.

*“Humanise decisions instead of ticking boxes as circumstances fluctuate.”*

Although only a very small proportion (5%) of respondents to our Social Pioneer Survey suggested types of vulnerability not specifically included within these five broad categories, their proposals enrich our understanding of the complex nature of vulnerability. Some of these fit within the existing categories, others less so:

Category	Types of vulnerability
Physical challenges	Elderly (particularly isolated or single elderly people) Serious illnesses Cold home-related health problems
Mental	Dementia
Temporary vulnerability	Young children Working parents Temporary housing
Financial hardship	Those moving into Universal Credit (a temporary vulnerability)
Other	Learning disabilities Autism Marginalised communities Ethnic background

	Digitally disenfranchised Socially excluded Limited English Private organisations playing key roles in the community
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We also heard at our Pioneer Workshop that customers' vulnerable circumstances fluctuate, which is a vulnerability in itself; that some widely-used definitions are inadequate; and that there are many unique situations. They also told us that these customers don't always like to admit that they are in vulnerable circumstances or have developed coping strategies and so don't believe they are.

*"NGN should help in any situation where life or property is at risk: everything falls into that."*

The implication of this feedback is that we should ensure that these types of vulnerability are included in the training colleagues receive in recognising and understanding vulnerability so that they can continue to take into account individual circumstances and respond accordingly.

### ***Prioritisation of vulnerable customer groups***

This is an area where there is no clear consensus. In our Social Pioneer Survey, a quarter of respondents were clear that we should be supporting customers in all five of the categories of vulnerability, but half identified one or more categories which they feel should not be a focus for us, although opinions are divided on which ones. Physical challenges were identified by the largest proportion (21%) as an area where we should not focus, driven by the responses of non-customers. This contrasts with respondents to our Unplanned Interruptions Pioneer Survey (mainly domestic customers) who were most likely to identify this category and households with residents over 65 (which we include in the physical challenges category) as the customers we should prioritise during supply interruptions. Only 11% feel we should not focus on customers in temporary vulnerability.

### ***Our current vulnerable customer support outputs***

Only a very small proportion of the respondents to our Social Pioneer Survey disagreed that we should continue with our current initiatives to support the community and customers in vulnerable situations, and although only around half actively agreed that we should do so, this proportion is larger than those who are ambivalent, except in the case of supporting communities off the gas grid which mostly comprises those suffering from rural vulnerability, perhaps because this involves households who are not considered to be our customers.

<b>Social outputs</b> <i>Rank ordered by % continue</i>	<b>% of stakeholders who agree we should continue to do this</b>	<b>% ambivalent</b>	<b>% of stakeholders who disagree we should continue to do this</b>
Educating people about how to avoid harm from Carbon Monoxide	55%	38%	7%
Supporting community projects through grants	52%	40%	8%
Sharing advice on how to save energy	50%	41%	10%
Making sure colleagues are trained to recognise and support customers in vulnerable situations	48%	42%	10%
Supporting communities off the gas grid	40%	46%	14%

Similarly, very few respondents disagreed that it is important that in the future we help customers to save money, ensure that they feel safe in their homes, provide excellent customer service, or support the communities we serve, and more agreed with these activities than were ambivalent.

Outcome <i>Rank ordered by % continue</i>	% of stakeholders who agree this is important	% ambivalent	% of stakeholders who disagree this is important
Ensuring that customers feel safe in their homes	54%	37%	9%
Providing an excellent customer experience	53%	40%	7%
Supporting the communities we serve	53%	40%	7%
Helping our customers to save money	46%	42%	12%

### *Nuances in views between stakeholder groups*

Customers were more in agreement than wider stakeholders that we should help customers to save money, ensure that they feel safe in their homes, provide excellent customer service, or support the communities we serve, and more agreed with these activities than were ambivalent.

At our stakeholder Innovation Event we heard a challenge that we should consider the extent to which our definition of vulnerability is effective and whether it unnecessarily 'labels' customers as vulnerable who do not feel that they are and/or do not need additional support.

### *Impact on the Business Plan*

More than any other priority in our plan, social responsibilities have polarised opinion amongst our stakeholders. Through extensive engagement, we have learned that it is difficult to gain consensus on which vulnerable customer segments are perceived to be most in need of support. This uncertainty, combined with our existing strong performance in this area, constrains the extent to which customers are willing to pay for additional improvements to our current offering, should this be required. Notwithstanding these challenges, our stakeholders agree that we have a social responsibility to reach out to customers who find themselves in vulnerable circumstances, and to support them.

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Understood that vulnerability is complex, transitory and multi-faceted. It cannot be pigeon-holed and prescriptive, but must be looked at through a flexible, wide-eyed, and innovative lens. We will maintain our inclusive service provision through a continued commitment to attain the BS1 18477 Standard, which we have held since Jan 2019. To reach our customers in most need, and make sure that no-one is left behind, we will also provide support to our unique Community Partnering scheme.	4.2.3. Help for those who need it most  Appendix A7 – RIIIO-2 Vulnerability Strategy

**Insight 25. Stakeholders want to see a continued focus on raising relatively low levels of awareness of carbon monoxide to save lives.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Social Pioneer Workshop 2019	19
S	C	Citizens' Jury 2019	136
S	N,L,C,W	Business Plan Acceptability 2019	1,216
S	N,L,C,W	Centrepiece Survey 2019	6,229
S	C	Willingness to Pay 2019	2,206

We heard that stakeholders expect us to be a community-focused organisation that supports those most in need. 95% of customers in our Citizens' Jury felt it is important that NGN supports initiatives that have broad social benefit, including but not limited to, those addressing fuel poverty and Carbon Monoxide awareness.

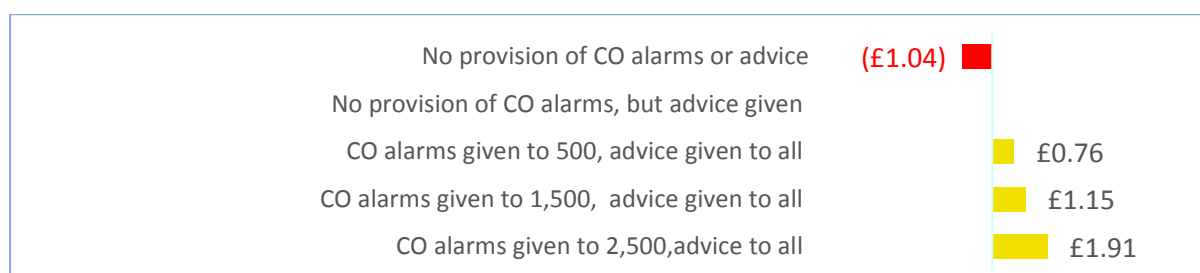
*"NGN, as a monopoly, have a social and moral role to do this."*

Stakeholders attending our Pioneer Workshop told us that awareness of the risks of Carbon Monoxide (CO) is very low. 27% selected Carbon Monoxide awareness-raising initiatives as the most important social initiative for NGN to be involved in, the second highest option after fuel-poor connections. The main reason given was 'people die of this so it's important', although the majority of deaths from Carbon Monoxide poisoning are not related to gas appliances.

*"[NGN] should provide carbon monoxide monitors for vulnerable customers"*

Stakeholders felt that it was essential we continue to work in this area because it saves lives. They suggested a wide range of initiatives that we could fund or promote including posters for GP surgeries, encouraging letting and estate agents to flag the issue more strongly, and influencing national policy makers in mandating for new builds. We heard that we should use every opportunity to promote the message and be creative in identifying new channels for doing so (e.g. festivals, supporting national awareness schemes to push the message via health insurance providers).

In our Willingness to Pay study, we tested the Installation of Carbon Monoxide alarms and safety advice and it received a high level of support from domestic customers and SMEs. On average domestic customers are willing to pay an additional £1.91 to achieve the most improved level of service evaluated in our trade-off – 2,500 alarms and additional safety advice provided to new connection customers annually.



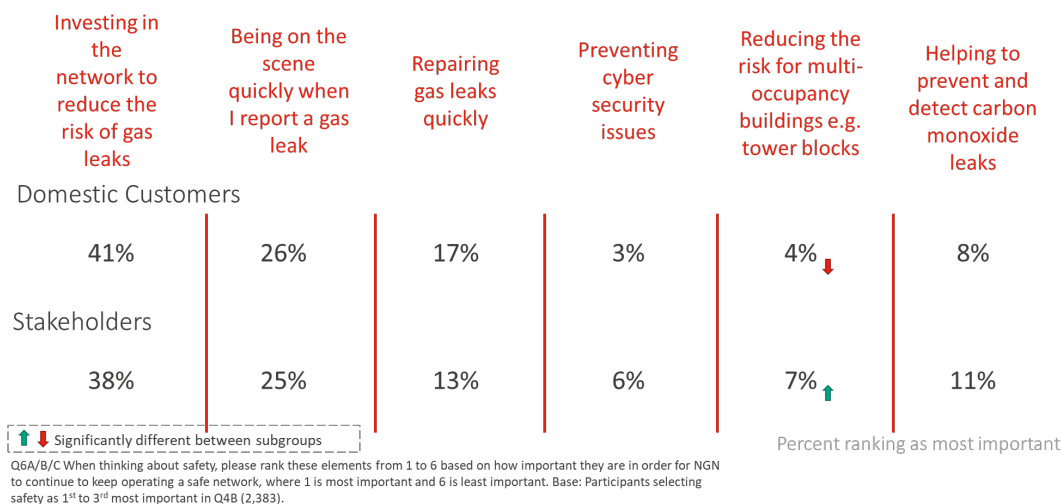
This feedback is a positive endorsement from our stakeholders for us using our business as usual channels to extend the reach of our carbon monoxide awareness programme.

We asked participants in our Business Plan Acceptability study to evaluate our plan to raise awareness of the dangers of Carbon Monoxide and 95% of domestic, 100% of non-domestic, and 93% of future customers, and 82% of wider stakeholders supported our proposals.

### Nuances in views between stakeholder groups

While customers saw the value of this work, it is not clear whether they felt it is NGN's role or something that they should be paying for.

In our Centrepiece Survey, stakeholders ranked helping to prevent and detect Carbon Monoxide leaks as less important than investing in the network to reduce the risk of gas leaks, or responding to and repairing gas leaks promptly.



### Impact on the Business Plan

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to delivering 10,000 completed household surveys per year. We remain well-placed to deliver our CO safety and awareness programme. This service will be available to all customers and not just those identified as vulnerable.	4.2.3. Help for those who need it most
STAKEHOLDER EXPECTATIONS: MET/EXCEED	We will increase awareness further through: <ul style="list-style-type: none"> <li>• Training 100 community partners per year.</li> <li>• Providing free Carbon Monoxide detectors as part of our welcome pack for new domestic connection customers.</li> </ul>	

**Insight 26. Stakeholders want to see vulnerability training given equal importance to the safety and technical competency training provided to our first-call engineers.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Social Pioneer Workshop 2019	19
S	N,L,C	Vulnerable Customers Strategy Stakeholder Feedback Survey 2019	11
S	N,L,C,W	Business Plan Acceptability 2019	1,216

We heard from stakeholders that some customers do not apply for the help they need because they feel they cannot cope with the disruption involved with works, and that private landlords of fuel-poor tenants in unconnected homes need help to understand the benefits of installing gas (and showing their tenants how to use the system) to keep their property damp-free. Stakeholders also told us that customers receiving fuel-poor connections need support in how to use their gas boiler and in how to select appropriate tariffs.

Respondents to our Vulnerable Customers Strategy Stakeholder Feedback Survey told us that we need to make the most of every contact with customers in vulnerable situations, including occasions when we gain access to their homes, by carrying out additional checks and offering advice. Respondents also told us that we should build on the awareness-raising work we have been doing with colleagues during RIIO-RIIO-1 and commit to fully training our staff on supporting people with dementia and other challenges.

*“While I applaud the creation of dementia champions and dementia friends, this is a programme of awareness and is inadequate as training”.*

We told participants of our Business Plan Acceptability study our proposals for training our engineers to identify and help customers in vulnerable situations and 95% of our domestic, 100% of our non-domestic, and 90% of our future customers, and 94% of our wider stakeholder population supported our proposition.

### *Impact on the Business Plan*

Our draft Vulnerable Customers Strategy is based on taking ‘action to protect, support and serve vulnerable customers’.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to creating a Customer and Social Competency Framework, to mirror the existing framework for safety and technical competencies. We will develop this in collaboration with National Energy Action and the Institute for Customer Service. The training will range from basic knowledge about customer services minimum standards, the Priority Services Register and vulnerability strategy, to training to deal with specific types of vulnerability such as dementia, visual impairment, age and safeguarding. We will also tailor our training to the needs of specific areas across our network which will be identified via research.	4.2.3. Help for those who need it most  Appendix A7 – RIIO-2 Vulnerability Strategy

**Insight 27. Stakeholders want us to meet or exceed the number of fuel-poor gas connections provided during RIIO-1.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Priorities Research 2018	815
S	N,L,C,W	Social Pioneer Workshop 2019	19
S	C	Citizens' Jury 2019	136
S	N,L,C,W	Centrepiece Survey 2019	6,229
S	N,L,C,W	Business Plan Acceptability 2019	1,216
S	L	MP Bilaterals 2019	13

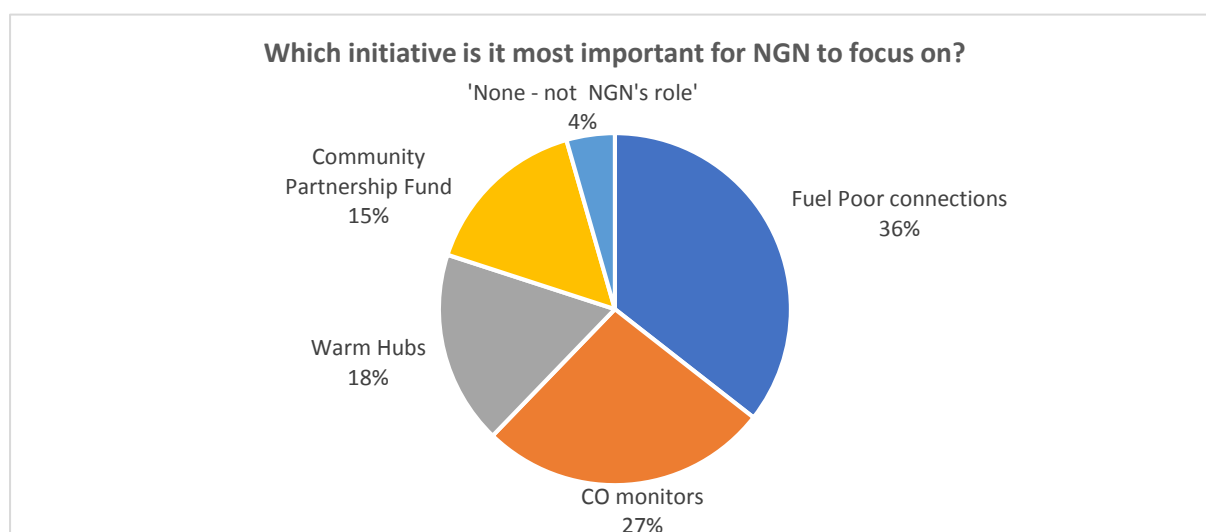
In our 2018 Priorities Research, customers told us that fuel poor connections were the most important social initiative for NGN to be involved with, with 37% selecting this as the top priority because it is 'most related to core business' and offers a 'longer term solution'.

*"Give people the ability to manage their energy themselves."*

In our 2019 Centrepiece Survey, a majority of customers thought that the most important thing we should be doing within 'Being community-focused', is providing low cost or free connections to those who need it (43%), followed by going the extra mile to support customers in vulnerable situations (35%), and helping people understand how to be more energy efficient and reduce their energy bill (22%). Domestic customers had the same priorities as wider stakeholders.

We triangulated these findings with what we heard in our Citizens' Jury and found a consensus for prioritising fuel poor connections among our core outputs.

*Importance attributed to our core obligations by our Citizens' Jury*



In our Business Plan Acceptability study, we informed participants that our RIIO-1 target was 2,000 fuel poor connections per year. However, since the previous planning period, the definition of fuel poverty has been changed at a national level, which means that fewer people are considered to be fuel poor and they are harder to reach. We then asked respondents to evaluate a reduced RIIO-2 commitment of 1,000 connections which, although lower, would be more focused and target the customers most in need. 85% of domestic, 71% of non-domestic, and 88% of future customers, and 95% of wider stakeholders supported this proposition.

In our MP Bilaterals, Mary Glindon, the MP for North Tyneside, emphasised how important she feels it is that vulnerable people are connected to the gas network, while Kevan Jones, the MP for North Durham, is keen for the feasibility of connecting smaller off-gas communities, such as one in his constituency, to assist with alleviating fuel poverty there.

### *Nuances in views between stakeholder groups*

The 5% of stakeholders who found the promises presented in our Business Plan Acceptability study unacceptable did so because they wanted to see more ambitious targets and investment:

*“More effort on behalf of customers rather than garnering profit for shareholders.”*

*“15 + 30 grand is far too low to target energy poverty whereas on the other side you give such households a £350 a year discount?”*

In our 2018 Priorities Research, although similar proportions (42-43%) of customers and wider stakeholders told us that we should exceed the number of fuel poor connections we had delivered in RIIO-1, these segments varied in the proportion who felt we should make fewer connections which in turn impacted the proportions who stated that we should maintain the number of connections being made; 11% of customers but only 2% of wider stakeholders felt we should reduce our fuel-poor connections.

### *Impact on the Business Plan*

Fuel-poor gas connections is a key trade-off area in our Business Plan. We set out to meet the minimum standard of 1,000 connections in the first draft of our Business Plan. However, we have revised this target to be responsive to clear feedback from our customers and wider stakeholders that we need to be more ambitious, by setting out an intention to deliver up to 2,000 per year. We will do this whilst also retaining our commitment to ensure that all fuel-poor connections deliver tangible benefits to those customers in the form of cheaper bills.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: COMPROMISE	Committed to a delivering a minimum 1,000, and have an ambition to deliver 2,000, free connections to off-grid, fuel-poor customers per year throughout RIIO-2. This is a compromise area in our plan. We have set ourselves what we believe is a realistic target based upon the narrowing definition of who can qualify for the scheme.	4.2.3. Help for those who need it most



**Insight 28. Stakeholders want us to ensure that, when we deliver a free gas connection, this results in benefits to those customers in the form of cheaper bills.**

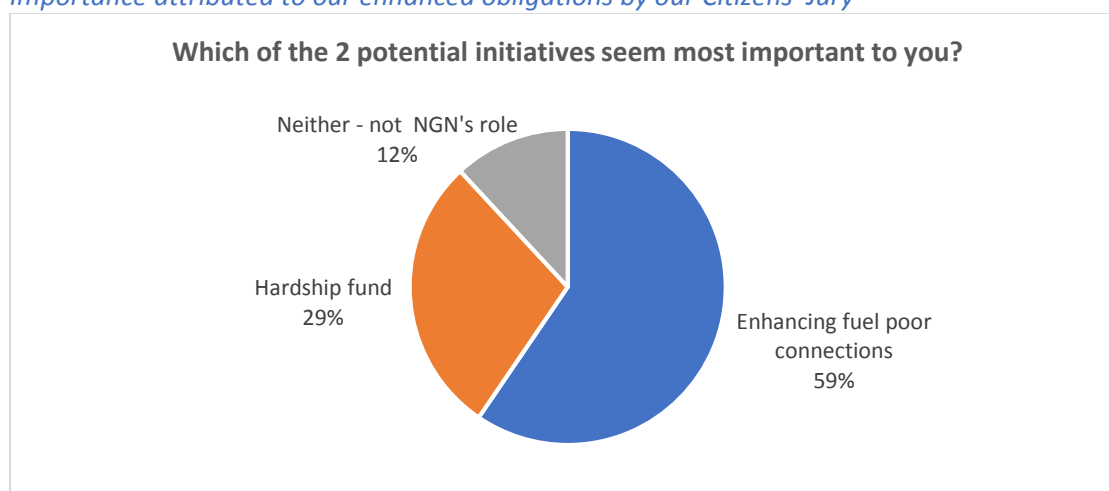
Who we heard it from		How we heard it	Volume
S	N,L,C,W	Social Pioneer Workshop 2019	19
S	C	Citizens' Jury 2019	136

In our Social Pioneer Workshop, we asked stakeholders what more we could do to support individuals and communities living in fuel poverty, other than providing new connections. Stakeholders' proposals focused on delivering advice during the connection to ensure that households know how to use their new heating system safely and economically (timers etc.).

*"Give people the ability to manage their energy themselves."*

59% of customers taking part in our Citizens' Jury told us that if we were to go above our core obligations in relation to supporting customers in vulnerable circumstances, they would prefer that we enhance the current target for delivering fuel poor connections by having to demonstrate that the connections actually deliver real financial and social benefits to customers.

*Importance attributed to our enhanced obligations by our Citizens' Jury*



Given that some stakeholders feel that the quality of support provided is more important than quantity, they proposed that we should develop a new mechanism to measure the benefits delivered by gas connections, as well as a wide range of support services being deployed to satisfy both short- and longer-term needs.

*Nuances in views between stakeholder groups*

If we were to go above our core obligations in relation to supporting customers in vulnerable circumstances, 29% of customers told us that rather than enhance the current target for delivering fuel poor connections by having to demonstrate that the connections actually deliver real benefits to customers, we should introduce a new hardship fund, but a further 12% felt that neither of these were NGN's role.

Enhancing outputs on fuel poor connections was the most popular initiative among the Panel because it is perceived as most relevant to our core business. There were, however, concerns raised about the value of doing this when the long term future of gas as an energy source is uncertain:

*'Why make new connections if the [gas] business is in long term decline'.*

A number of panellists also questioned whether tackling fuel poverty should be funded through general taxation, rather than initiatives like this.

### *Impact on the Business Plan*

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Introduced new assurances, including but not limited to, only claiming the full Fuel Poor voucher value should the desired customer benefit be achieved.	4.2.3. Help for those who need it most

**Insight 29. Stakeholders want to see NGN staff providing advice or referrals on energy efficiency in addition to Carbon Monoxide awareness when undertaking our normal activities.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Social Pioneer Workshop 2019	19
S	N,L,C,W	Social Pioneer Survey 2019	1,018
S	N,L,C,W	Business Plan Acceptability 2019	1,216

In our Social Pioneer Workshop, we heard that most stakeholders (92%) believed that our staff should provide advice or referrals on energy efficiency.

*Q: When undertaking its normal activities, in addition to Carbon Monoxide awareness, which, if any, of these topics should NGN staff provide advice or referrals on?*

Slido voting option	Votes (n=12)
Energy efficiency	92%
Safeguarding	50%
Energy supplier switching	42%
Fire safety	8%
Nothing	8%

They also told us that living in hard-to-heat homes with poor energy efficiency rating (particularly older properties, and homes without cavity wall insulation which is a common construction type in parts of the NGN region where rural houses are built of stone) was a source of fuel poverty, and that customers in private rented accommodation might fear that asking their landlord to improve energy efficiency could lead to eviction.

Gas and/or electricity suppliers are best placed to provide energy efficiency advice according to respondents to our Social Pioneer Survey, with 47% identifying suppliers for this role, 36% choosing NGN, and local and national charities only selected by a minority. A quarter felt that none of these should be supplying this advice.

Encouragingly, 78% of those who have received energy advice say that they have acted on it in various ways (some not relating to gas usage):

*“Put heating on low through the winter to keep the house warm constantly and save money”*

*“We have installed wall/loft insulation”*

*“I turn down the heating when the windows are open”*

*“I have stopped using standby mode”*

In our Business Plan Acceptability study, 90% of domestic, 94% of non-domestic, and 89% of future customers, and 94% of wider stakeholders supported us providing advice or referrals on energy efficiency in addition to carbon monoxide awareness when undertaking our normal activities.

#### *Nuances in views between stakeholder groups*

Some customers told us that they were initially uncertain why NGN (rather than energy suppliers or other organisations) should be involved in this area; although 4% retained this view, the majority agreed that we should be once they understood more about the structure of the energy industry.

However, 62% did not feel that their gas bill should be used to support such work and that it should be funded through other means such as taxation.

*“Shouldn’t everyone in society be helping with this?”*

When asked what role we should play in educating customers about energy efficiency, 57% told us we should invest in this either by colleagues giving personalized advice at customer' homes or by funding partners (particularly Local Authorities, charities such as Age UK, housing associations and Citizens Advice) to do this, although a further 25% proposed we make advice available on our website, which is a passive option that does not incur significant additional cost. Consistent with only around a third believing we are best placed to provide this advice, 17% felt that we should not do anything in this regard.

These views about how we should provide energy efficiency advice are somewhat inconsistent with how respondents (less than a third of whom are aware of ever having received energy efficiency advice) stated that they would like to receive energy efficiency advice themselves; via the NGN website (51%) and by email (39%) being the most popular. Only a minority claimed to want personal advice either face-to-face (23%) or over the telephone (16%).

While supporting the delivery of energy efficiency advice, the Chair of the CEG felt that NGN should be careful about obscuring Carbon Monoxide awareness messages in the execution of our 'make every contact count' strategy, as Carbon Monoxide is a matter of potential life or death.

Another stakeholder organisation attending our Pioneer Workshop told us that energy efficiency advice was not a primary concern for those struggling to eat:

*"If you're in food poverty you'll be in fuel poverty too, but when you're visiting a food bank you're in crisis so probably not in the right mind-set to benefit from energy advice."*

#### *Impact on the Business Plan*

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	<p>Committed to provide customers who are interested with advice on improving energy efficiency in their homes. This will be delivered via our usual business activities:</p> <ul style="list-style-type: none"> <li>Achieving 1,000 referrals per year through our energy efficiency partner organisations.</li> <li>Training 100 community partners to provide energy efficiency advice.</li> </ul>	4.2.3. Help for those who need it most

**Insight 30. Stakeholders want NGN to deliver support and key message through effective and trusted collaboration with other partners, taking care to avoid duplication with other utilities or social services.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Social Pioneer Workshop 2019	19
S	N,L,C,W	Social Pioneer Survey 2019	1,018
S	N,L,C,W	Business Plan Acceptability 2019	1,216
S	L	MP Bilaterals 2019	13

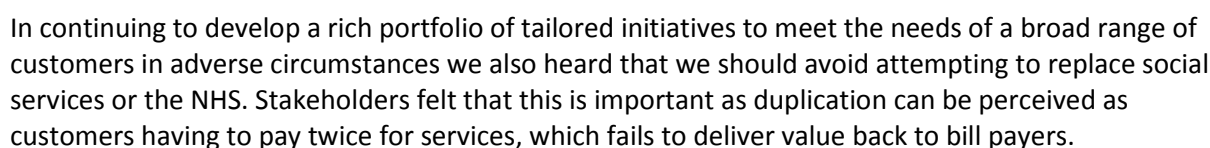
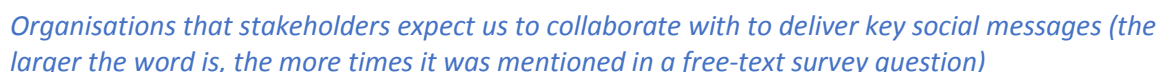
We heard from stakeholders that the most effective way of identifying and supporting vulnerable customer groups was through partners whom customers trust, because such organisations can have relationships and use the right language in a way that NGN as a ‘corporate’ cannot.

*“Corporates like NGN have a process, a certain language, with formalities, which vulnerable people simply do not understand.”*

Stakeholders asserted that we should partner with community-based organisations to reach specific customer segments and with national organisations to promote key messages more effectively and efficiently. We heard that we should co-ordinate with our Infrastructure North partners to avoid duplication of effort and achieved greater benefits.

In our Social Pioneer Survey we asked stakeholders which organisations were best placed to reach those most in need and would therefore be appropriate collaboration partners. A wide range of organisations were spontaneously mentioned including, but not limited to, consumer groups, other utilities, health and emergency services providers, charity/third sector agencies, community/faith and local interest groups, housing and landlord, gas suppliers, and business groups.

Organisations that customers expect us to collaborate with to deliver key social messages (the larger the word is, the more times it was mentioned in a free-text survey question)



85

In our Business Plan Acceptability study we set out our plans for continuing our Community Partnering Fund for groups with innovative ideas for pilot projects, which support fuel poverty. We heard that 88% of household and non-domestic customers, and 94% of future customers and wider stakeholders supported our proposition.

#### *Impact on the Business Plan*

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to continue supporting our unique Community Partnering scheme. Launched in 2015, we initially made £50,000 available for charities to bid for, that would both meet our core strategic objectives and also respond to the needs of the specific charity. The fund is worth £50,000 per year, which is also matched by Northern Powergrid. We will also train 100 community partners per year in CO, PSR, and energy efficiency in order to reach a wider range of customers.	4.2.3. Help for those who need it most

**Insight 31. Opinions varied about whether we should provide direct support to those in financial hardship and, if so, in what situations.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Social Pioneer Survey 2019	1,018
S	C	Citizens' Jury 2019	136
S	N,L,C	Vulnerable Customers Strategy Stakeholder Feedback Survey 2019	11
S	N,L,C,W	Business Plan Acceptability 2019	1,216

In our Social Pioneer Survey, we heard that stakeholders felt we should implement additional initiatives to support vulnerable customers: 35% thought these should support those facing financial hardship, while 29% wanted to see support for those in rural hardship. Customers' views differed somewhat: the prime concern was for those struggling with mental wellbeing where 18% wanted additional support, followed by physical challenges (17%).

One stakeholder organisation that participated in our Vulnerable Customers Strategy Stakeholder Feedback Survey told us that we should directly subsidise fuel bills for the most vulnerable customers.

In our Business Plan Acceptability study, we informed participants that we intended to join forces with an existing hardship fund to make £30,000 available a year to customers most in need of support. This fund will make money accessible to customers who have been unable to find help via existing routes to buy a new boiler after it has been decommissioned due to safety concerns. 89% of domestic, 79% of non-domestic, and 85% of future customers, and 82% of wider stakeholders supported our proposal.

*Nuances in views between stakeholder groups*

In our Pioneer Survey, a majority of customers (58%) told us that they either did not agree that NGN should implement further initiatives to support customers facing financial hardship, physical challenges, mental challenge, rural vulnerability or temporary vulnerability, or did not know whether we should.

59% of customers participating in our Citizens' Jury told us that if we were to go above our core obligations in relation to supporting customers in vulnerable circumstances they would prefer that we enhance the current target for delivering fuel poor connections by having to demonstrate that the connections actually deliver real benefits to customers, rather than introduce a new hardship fund (although 29% of customers did support this).

In our Business Plan Acceptability research, 2% of domestic customers and 3% of non-domestic customers found our promises for supporting customers most in need unacceptable. Some customers feared support wouldn't go far enough to help vulnerable customers and/or held concerns that it is not our role to provide the scale of support proposed.

*"£30,000 isn't enough. Insufficient financial support for vulnerable customers"*

*"Don't want to subsidise other people - they should pay for/support themselves"*

*"Not NGN's responsibility – up to Government/supplier"*

The Chair of the CEG felt that, given NGN's role in the community, we should do more to support those most in need and, specifically, the levels of investment in the proposed hardship fund should be reconsidered and revised upwards.



### *Impact on the Business Plan*

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Tripled our hardship fund to £150,000 per year which will support customers in desperate need of direct financial help, recognizing how important socially responsible efforts are to our customers and wider stakeholders. Through our experience in RIIIO-1, we occasionally serve customers who are in desperate need of direct financial help, and have been unable to identify help through existing funding routes. Access to this fund will have a strict set of criteria, to ensure that we are not duplicating any other available funding streams.	4.2.3. Vulnerable Customer Support

**Insight 32. Customers support our staff taking up to 2 days paid leave to volunteer in the community to support a range of relevant causes.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Social Pioneer Survey 2019	1,018

Three quarters of customers and nearly half of the wider stakeholders who took part in our Social Pioneer Survey agree with our employee volunteer scheme. Many of these do so just because it seems to be a good idea, although a few identify outcomes around helping the company integrate with the community and more specific work-related benefits:

*“If your employees are volunteering they can help people understand what NGN provide when they need support from NGN”*

*“Volunteering helps the community and makes employees happier and more productive”*

*“It is good for employees to gain experience in other areas and is also good for staffing volunteering organisations so it is a win-win situation”*

A third of survey participants thought that colleagues should be able to request more than the current 2 days per year that is available for volunteering, although most of the remainder told us either that they think 2 days is the right amount or that 1 day would appropriate.

Reflecting the range of opinions on colleague volunteering, around half of respondents think that colleagues should be able to support any charity, but a quarter feel that this NGN-paid time should be spent on initiatives that align with our social objectives. Another quarter didn't know.

*“There should be a personal choice who you volunteer for to make sure that you are passionate about the time you spend volunteering for them”*

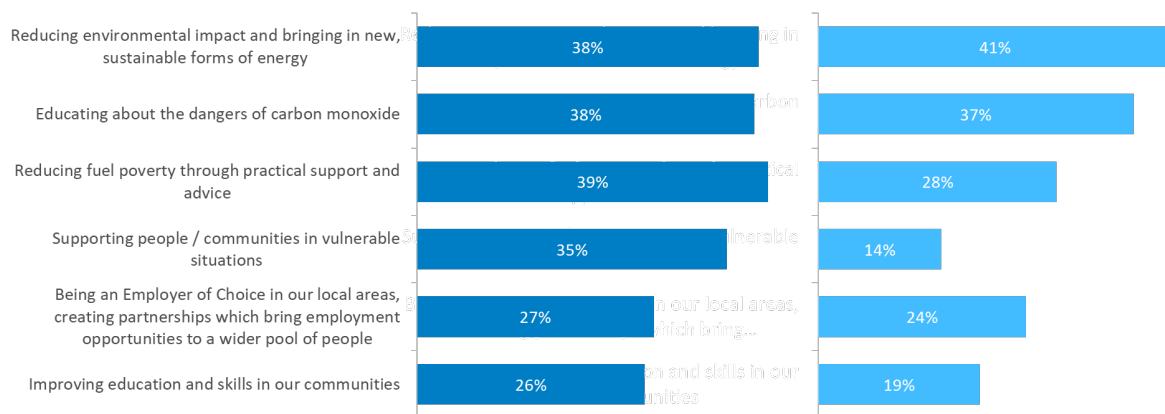
*“Because it makes no sense for a business to pay for employees to volunteer for a charity that is not relevant to the company”*

When asked to select which area/s respondents expected our volunteering policy to support, expectations were broadly spread across six different areas:

Volunteering area <i>Ranked by % support</i>	% stakeholders expecting us to support this
Driving down our environmental impact and paving the way for new, sustainable forms of energy	40%
Educating about the dangers of carbon monoxide	37%
Reducing fuel poverty through practical support and advice	35%
Supporting people/communities in vulnerable situations	27%
Being an Employer of Choice in our local areas, creating links and partnerships which bring employment opportunities to a wider pool of people	25%
Improving education and skills in our communities	23%

*Initiatives that are customers and wider stakeholders would expect our volunteering policy to support*

<i>Customers</i>	<i>Wider stakeholders</i>
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Domestic customers demonstrated significantly more backing than wider stakeholders for us supporting communities in vulnerable circumstances through our volunteering policy. This finding goes straight to the heart of stakeholder feedback – we shouldn’t be seen to be replacing social services or the NHS.

More generally, these findings show that customers and wider stakeholders do not have a clear consensus about the application of our volunteering policy.

#### *Nuances in views between stakeholder groups*

Most of those who disagree with the employee volunteer scheme (26% of customers and 53% of wider stakeholders) did not have a common answer for why they did not support it. Some simply think it is not the employers’ role to give their staff paid time away from their core jobs.

*“It’s not voluntary if they’re getting paid”*

*“Some of your workers will be unfit, unable or just unwilling to volunteer. Not all volunteer work is of equal worth. Instead, give your employees more free time and those who want to volunteer will.”*

A minority of customers and wider stakeholders mentioned that although they agree volunteering in the community is extremely worthwhile, they believe individuals should do this in their own time.

While far more customers felt that employees should be allowed to volunteer for any charity they want (49%) during their paid volunteering days than have this limited to supporting initiatives that align with our social objectives (21%), this preference was reversed amongst wider stakeholders, of whom 44% felt that this time should be used to support initiatives aligning with NGN’s social objectives compared with 38% supporting volunteering for the employee’s charity of choice.

#### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: COMPROMISE</b>	Committed to continuing our policy of enabling our staff to take 2 days’ paid leave each year to undertake volunteering activities in the local community. At least one day will be dedicated to supporting our social priorities e.g. Carbon Monoxide awareness and tackling fuel poverty.	4.2.3. Help for those who need it most

## 7. Maintaining a safe and resilient network

### Safety first

**Insight 33.** When we shared with our stakeholders our overarching strategy for minimising safety risks they confirmed that safety and reliability were their highest priorities. They also indicated that this is an area with little room for compromise – safety is an absolute – which clearly aligns with our own priorities.

Who we heard it from		How we heard it	Volume
S	N,C,L,W	Safety and Reliability Pioneer Workshop 2019	14
S	N,L,C,W	Priorities Research 2018	815
S	N,L,C,W	Centrepiece Survey 2019	6,229
S	C	Citizens' Jury 2019	136
S	N,L,C,W	Business Plan Acceptability 2019	1,216

Stakeholders identified two high-level safety and reliability priorities to which all policies, decisions and activities should contribute:

1. Preserve life.
2. A reliable supply without detriment to safety.

We heard from all stakeholders that safety is their top priority for us. 41% of customers put 'Keep operating a safe network' first, although a further 24% identified the importance of reliability ahead of safety. Safety was in the top three choices for 76% of customers in one survey and 100% of customers in another.

*"Safety is super important given that gas can be so dangerous"*

70% of our Citizens' Jury told us that improvements in safety performance were an acceptable reason for increases in their bill.

Safety was the area that the largest proportion of respondents (28%) to our Centrepiece Survey told us they feel should be important in our plans; followed by reliability (24%). 14% of both group ranked promoting the environment top, 12% want us to prioritise moving to a low carbon network, 12% chose excellent customer service, and just 9% think our top priority should be having a positive impact in the community.

94% of those who responded didn't think that there were other areas we should prioritise.

We informed our Citizens' Jury that in RIIO-1 we established a clear cost benefit analysis case to remove all of the remaining 46 gas holders in our network. These assets are extremely old and are no longer used, but cost a lot to repair and maintain and represent a potentially increasing safety risk. We heard that our gas holder plans aligned with stakeholders' expectations that we will deliver a safe and resilient service over the RIIO-2 period and reduce costs and deliver greater value to consumers wherever possible.

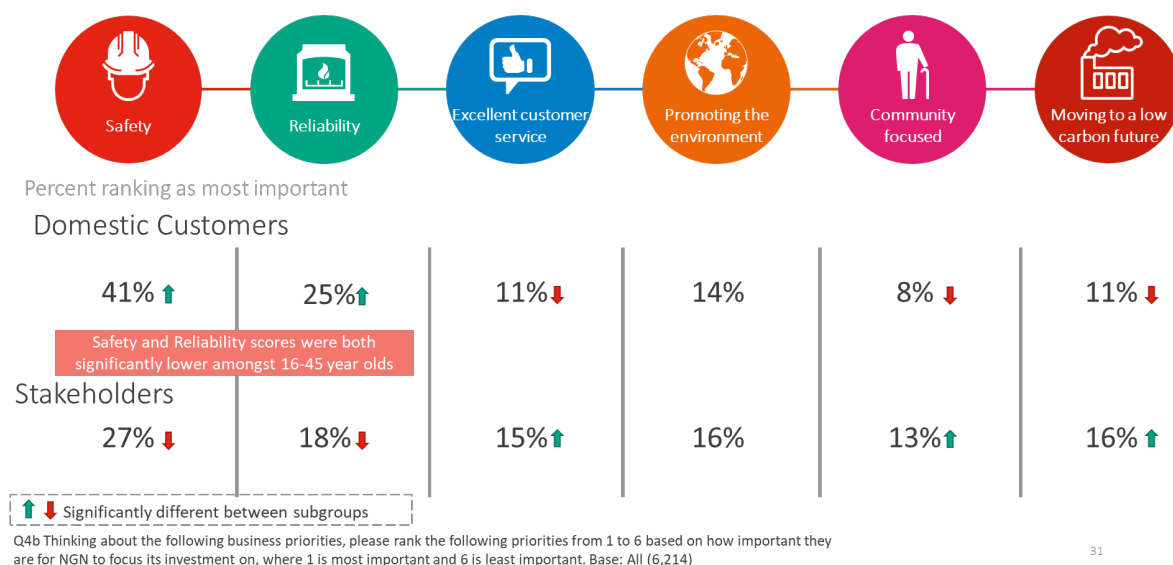
### *Nuances in views between stakeholder groups*

13% of customers chose 'Having a positive impact on the environment' ahead of safety or reliability, while others prioritised excellent customer service, moving to a low carbon network, and having a positive impact on the community.

Significantly more customers (41%) than wider stakeholders (27%) in our Centrepiece Survey chose safety as their top priority, and significantly more customers chose reliability (25% compared with 18% of wider stakeholders) too, perhaps because they are directly impacted by supply interruptions.

However, customers were significantly less likely (11%) than wider stakeholders (15%) to rank excellent customer service as their top priority.

#### Customers and stakeholders most important thematic priority – Centrepiece Survey 2019



Whilst concern about our impact on the environment has grown across our community in recent years, within our Business Plan Acceptability testing we found that only our future customers (aged 18-25) tended to view this as their highest priority (compared to safety amongst other stakeholders).

#### Impact on the Business Plan

To ensure that we are delivering the necessary levels of service for stakeholders, we are proposing to measure the impact of this expenditure across 5 key output areas:

- Network Asset Risk Metric:** Provides a monetised risk metric that assesses the overall health and performance of our network assets both today and in the future.
- Iron Mains Replacement:** The Health and Safety Executive (HSE) initiated an Enforcement Policy in 2002 for the decommissioning of all iron gas mains within 30 metres of buildings.
- NTS Offtake Capacity:** Our statutory and licence obligation to maintain enough capacity to meet our forecast 1 in 20 peak day demand.
- Gas Holder Demolition:** A programme to remove assets that are extremely old and are no longer required to operate the network.
- Cyber Resilience and IT Business Security:** Increased risk from both cyber and other attacks.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to delivering a risk benefit of £25m as a result of our asset interventions over the 5 years of RIIO-2. We will report on progress and any deviations annually.	4.3.1 A safe and sound service
STAKEHOLDER EXPECTATIONS: COMPROMISE	Committed to abandoning 2,144km of tier 1 iron mains and all tier 2a pipes above the Risk Action Threshold during RIIO-2, in line with our mandated responsibilities.	
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to efficiently booking offtake capacity to deliver on our capacity obligations and manage the whole systems impact of our demand requirements. We will actively engage with industry to ensure the capacity arrangements are fit for purpose and consider the ability of the regime to support the future.	

<p>STAKEHOLDER EXPECTATIONS: MET/EXCEED</p>	<p>Committed to accelerating our gas holder removal programme to ensure that none of these assets are connected to the network by the end of RII0-2. We will demolish four holders a year at an overall cost of approximately £16.0m. These assets are no longer required and have become increasingly unreliable and expensive to operate and maintain. This commitment will ensure the benefits of removing the remaining holders are realised as soon as possible.</p>	
<p>STAKEHOLDER EXPECTATIONS: MET/EXCEED</p>	<p>Committed to increasing the overall cyber security and cyber resilience of the network by:</p> <ul style="list-style-type: none"> <li>• Publishing and delivering a Business IT Security Plan.</li> <li>• Publishing and delivering a Cyber Resilience Plan.</li> </ul>	

**Insight 34. Customers showed, in principle, support for an accelerated programme of pipe replacement, in order to achieve improved safety and reliability, and reduced environmental impacts.**

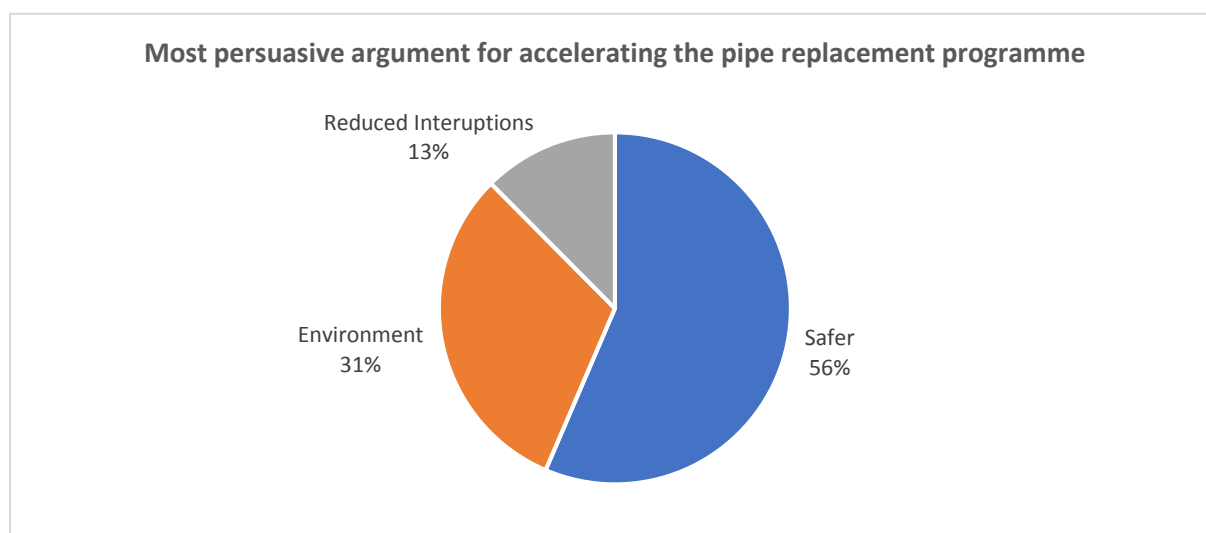
Who we heard it from		How we heard it	Volume
S	C	Citizens' Jury 2019	136
S	N,L,C,W	Centrepiece Survey 2019	6,229

We heard that the majority of customers agreed that we should invest in exceeding the mandated levels of pipe replacement in order to achieve improved safety, reduced environmental impacts and increased reliability sooner and therefore have these benefits for longer. Of these, safety was seen as key with 82% of customers citing this as their main reason for replacing pipes.

*“Get on with it now for longer-term benefit”*

Following discussions about the relative importance of the different benefits of pipe replacement, our Citizens' Jury was asked to rank the three identified benefits in order of which was the most convincing argument to them personally for increasing investment in the pipe replacement programme. The results of this preferential vote are displayed below.

*The relative importance of the different benefits of pipe replacement to our Citizens' Jury*



Investment in the network was also the top priority within the area of reliability for customers taking part in our Centrepiece Survey, with 47% selecting this element, followed by getting customers back on gas as quickly as possible when their supply is interrupted (35%), making sure customers are looked after until we can get them connected again if their supply is interrupted (13%), and making sure levels of compensation are right if the gas supply is interrupted (5%).

*Nuances in views between stakeholder groups*

Some customers were concerned that, given the uncertainties about the future of gas, the replacement pipes might turn out not to meet requirements in the long term. We heard that some customers therefore felt a range of initiatives might be more appropriate:

*“Don’t put ‘all eggs in one pipe replacement basket’ “*

Compared with customers, wider stakeholders placed much more importance on investing in and maintaining assets.

### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: COMPROMISE</b>	We will replace 2,144km of Tier 1 iron mains in line with the Health and Safety Executive's expectations, whilst also increasing the volume of work related to steel pipes and larger diameter bands of iron main where there is a clear cost-benefit to do so.	4.3.1 A safe and sound service



**Insight 35. Attending gas escapes within one hour is the most important safety response and stakeholders want us to set targets for 1 and 2 hour response that are higher than our performance in RIIO-1.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Priorities Research 2018	815
S	N,L,C,W	Safety Pioneer Survey 2019	2,943
S	N,L,C,W	Centrepiece Survey 2019	6,229
S	N,L,C,W	Business Plan Acceptability 2019	1,216

In our Centrepiece Survey, we heard that our most important safety activity is investing in the network to reduce the risk of gas leaks (41%), followed by being on the scene quickly when a gas leak is reported (27%), repairing gas leaks quickly (17%), helping people to prevent and detect Carbon Monoxide leaks (8%), preventing cyber security issues (4%) and reducing the risk for multi-occupancy buildings e.g. tower blocks (4%). However, we heard that although some of these outputs are not the top priority this doesn't mean stakeholders think they shouldn't be delivered at all.

Our 2018 Priorities Research also attested to the importance of attending uncontrolled gas escapes within one hour to customers and wider stakeholders, ranked as being around twice as important as any other priority.

#### *Relative importance of Business Plan outputs among informed domestic customers*



We tested the continuation of our existing 1 and 2 hour emergency response targets in our Business Plan Acceptability study and found that 95% of all domestic, 89% of non-domestic, and 93% of future customers supported this standard, although backing amongst wider stakeholders was lower at 75%.

Some customers participating in our Citizens' Jury were unsure how either the target or current levels could be exceeded, or what the cost would be to achieve such coverage.

*"Is it realistic to hit 100%?"*

*"What is the cost of hitting 100%?"*

A total of 88% of respondents in our Safety Pioneer Survey told us that the target of attending 97% of controlled gas escape within 2 hours is in line with (55%), slightly exceeds (20%) or significantly exceeds (13%) their expectations.

*“I think it’s reasonable to attend 97%. I don’t think 100% is achievable. Your actual 99%+ is excellent.”*

Despite these expectations, only 62% would be satisfied with attendance within this time frame in warm, summer months, and this only increases to 77% if attendance is within 1 hour. Unsurprisingly, these satisfaction levels are lower during cold months when just 52% would be satisfied with attendance within 2 hours, and 71% would be within 1 hour. Fewer than half would be satisfied at any time of year once it takes more than 2 hours for the engineer to attend.

In our Safety Pioneer survey, we heard that our target of attending 97% of uncontrolled gas escapes within 1 hour meets (69%) or exceeds (13%) a large majority of stakeholders’ expectations. However, 18% of respondents think this target should be higher.

*“Attending should be considered an emergency. 97% is a good level. 100% would obviously be better and should be the target.”*

*“Vital – life or death”*

Similarly, our actual performance of attending 99.76% of these emergencies within an hour meets (75%) or exceeds (14%) respondents’ expectations. nevertheless, 11% still feel that we should be doing better although some explained that this is because they think the time frame should be shorter which indicates that there may be an appetite for understanding and reporting performance in more granular detail such as within 30 minutes/within 45 minutes in the future.

*“Depending on the situation and how far away the person is, it should a lot quicker if the situation is really bad”*

#### *Nuances in views between stakeholder groups*

Customers’ expectations about our targets and performance levels were considerably lower than those of wider stakeholders, which meant there was lower support for our proposed response standard amongst wider stakeholders (75%) compared with domestic customers (95%). In line with this, only 43% of wider stakeholders felt that NGN’s target of 97% met their expectations with 41% expecting it to be higher; 46% also told us that our performance level of 99.76% did not meet their expectations, with 35% expecting it to be higher.

In our 2018 Priorities Research the over 55 age group felt that attending uncontrolled gas escapes within 1 hour was much more important than did those aged 35-54 who, in turn, rated this target much more important than did customers aged 18-35.

#### *Impact on the Business Plan*

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: COMPROMISE	Committed to meeting the minimum standard for attendance at gas escapes while aiming to continue to outperform it during RIIO-2. During RIIO-1 we led the industry with an average of 99.8% and over 99.9% of gas escapes attended within the 1- and 2-hour standards respectively.	4.2.2 – Gas there when you need it

**Insight 36. Customers and wider stakeholders want to see improved performance on repairing controlled gas leaks (where the flow of gas to the property has been stopped and the smell of gas has disappeared) within 12 hours of an escape being reported.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Priorities Research 2018	815
S	N,L,C,W	Safety Pioneer Survey 2019	2,943
S	N,L,C,W	Business Plan Acceptability 2019	1,216

We tested maintaining our RIIO-1 target of 64% of any repair works being completed within 12 hours in our Business Plan Acceptability study and found that 90% of all domestic, 89% of non-domestic, and 83% of future customers, and 69% of wider stakeholders found our proposal acceptable.

Despite strong support for maintaining our target, fewer than half of the respondents to our Safety Pioneer Survey are satisfied that in 63.2% of cases we stop gas escaping from our mains and service pipes in the street within 12 hours of them being reported:

*“Response times should be much quicker and a higher percentage.”*

The implication of these findings is that although we are meeting our regulatory target, customers’ and wider stakeholders’ overall satisfaction could be improved further by introducing a stretch-target in repairing controlled gas leaks.

We benchmarked our current performance and currently 68% of repairs are completed within 12 hours, meaning we are the top performing gas distribution network on this measure overall.

Despite having a reasonable level of understanding about the challenges involved in repairing a gas leak, only a minority find the main reasons why escapes are not stopped within 12 hours acceptable, although in all cases most stakeholders expect that the maximum time to stop the escape from when it was reported would be longer than 12 hours.

Reason	% stakeholders who find this an acceptable reason why an escape is not stopped within 12 hours
Workload prioritisation: engineering teams are sent to higher risk escapes first	41%
Timing our works to minimise noise impact by not digging at night.	32%
Minimising impact on traffic flow by not digging holes during the busiest times	28%
Being unable to pinpoint the exact spot from where the gas is escaping	26%
NGN cannot physically stop the gas escaping within 12 hours, due to engineering difficulties.	25%

#### *Nuances in views between stakeholder groups*

43% of customers but only 27% of wider stakeholders found that prioritising a higher-risk incident was an acceptable reason for not repairing a leak.

#### *Impact on the Business Plan*

Ofgem has removed this safety performance output, so we are no longer required to set a target and measure performance against it. However, we have listened to our stakeholder community and will maintain this commitment throughout RIIO-2.

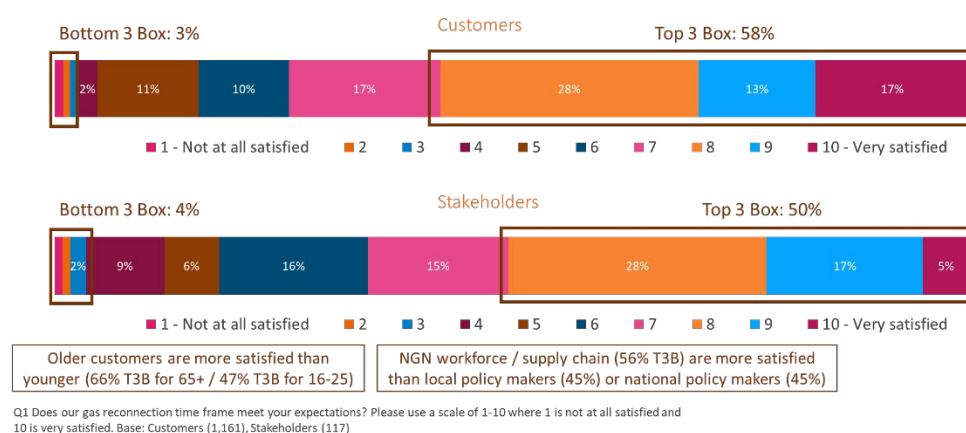
Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: COMPROMISE	During RIIO-2, we will continue to improve by repairing more than 64% of controlled gas leaks within 12 hours. We will also reduce leakage from our network and the carbon impact associated with this by improving our performance on 7- and 28-day repairs.	4.2.2 Gas there when you need it

**Insight 37. Customers and stakeholders want to see improved performance in restoring supply to customers within 24 hours following an interruption.**

Who we heard it from		How we heard it	Volume
T	N	Citizens Advice Report 2019: Guaranteed Standards Performance 2015/16-2017/18	N/A
S	N,L,C,W	Unplanned Interruptions Pioneer Survey 2019	1,278

In a review of our Guaranteed Standards Performance, Citizens Advice reported that we restored supply to between 75% and 90% of customers within 24 hours following interruptions from 2016-2018, but that three other network companies did better than this, reconnecting 91-99% within this timeframe (GS1a). In our Unplanned Interruptions Pioneer Survey, we informed participants of our regulatory target to reconnect affected homes within 24 hours of the gas going off and that we currently reconnect 92% of homes within this timeframe, with 85.9% reconnected within 18 hours. 58% of customers told us that our time frame for reconnection met their expectations.

*% satisfaction with our gas reconnection time frame - Unplanned Interruptions Pioneer Survey*



*Nuances in views between stakeholder groups*

The proportion of wider stakeholders who said that our timeframe for restoration met their expectations (52%) was lower than the proportion of domestic customers who said this. 16-25 year olds were the least satisfied with our current performance.

*Impact on the Business Plan*

Response	So we have	Read more at
<b>OFGEM FRAMEWORK: EXCEED</b>	Committed to restoring gas to the emergency control valve on the same day. If we fail to restore their supply within 24 hours (Guaranteed Standard 1), we will pay £60 compensation to domestic and £100 to non-domestic customers for every 24 hours they are off gas from that point.	4.2.2 – Gas there when you need it
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>		

**Insight 38. Stakeholders advocated a proactive approach to educating customers on gas safety.**

Who we heard it from		How we heard it	Volume
S	N,C,L,W	Safety and Reliability Pioneer Workshop 2019	14
S	N,C,L,W	ENA Future of Gas Joint GDN Workshop	37
S	N,L,C,W	Business Plan Acceptability 2019 – qualitative	18

We heard that stakeholders want us to communicate with the public about gas safety e.g. where their shut-off valve is in their home, and also outside the home if they smell gas.

They also emphasised the importance of helping householders, contractors, farmers and other utilities to dig more safely near gas pipes through education/information or encounter works).

*“Let us help you make it safer.”*

In a collaborative national workshop run by the ENA aimed at exploring stakeholders’ views of how the opinions of customers, including customers in vulnerable situations, should be taken into account in the context of trying to achieve a decarbonised energy system, we heard widespread support for the gas networks to continue to deliver gas safety education.

*“I think that some of the work that has been done on Carbon Monoxide awareness has been really important as well and for that to carry on and be more focused on vulnerable customers as well will be really important”.*

***Nuances in views between stakeholder groups***

In the earliest stages of our Business Plan Acceptability study we asked customers to appraise the importance of our proposal to raise awareness of Carbon Monoxide. Whilst proactively increasing awareness was perceived as very important, customers reported a desire to see us taking greater action, for instance, by installing Carbon Monoxide alarms in customers’ properties.

Overall Measure	Response	Concerns/Issues
Raise awareness of carbon monoxide	<ul style="list-style-type: none"> <li>Highly important and drives acceptability.</li> <li>Emotive – seen as the Silent Killer (but recognize awareness could be better).</li> <li>Easily understandable and gets attention.</li> </ul>	<ul style="list-style-type: none"> <li>Prefer action versus raising awareness.</li> <li>Fitting alarms or supporting an alarm installation programme would be much more compelling.</li> </ul>

***Impact on the Business Plan***

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to training 100 community partners per year to deliver CO awareness in our region. We will also provide free carbon monoxide detectors to all customers who have a new connection to the gas network.	4.2.3 Help for those who need it most

**Insight 39. Customers outlined that they would like to explore further the gas network's role in reducing the risk in Multi-Occupancy Buildings (MOBs) and receive more information about the outcome of inspections and Carbon Monoxide safety.**

Who we heard it from		How we heard it	Volume
S	N,C,L,W	Safety and Reliability Pioneer Workshop 2019	14
S	C	MOB Residents Survey (Kirklees event in Huddersfield)	4

We heard that stakeholders did not want to make recommendations about changes in policy for MOB safety in RIIO-2 without knowing more about the existing risk model.

*"[The] thing I feel is a little bit political and a little bit knee-jerk is the stuff on multi-occupancy buildings, which takes us into a different place in terms of risk, it takes us into a consequence rather than likelihood."*

Stakeholders found it hard to come to conclusions about what NGN should do as they did not have sufficient information about the risk model.

*"I don't think it'd be right for any of us here to say that NGN should change their policy without us knowing if there's any problems with it".*

*Q. Is NGN doing enough to ensure safety in MOBs? (Safety and Reliability Pioneer Workshop 2019)*

Slido voting option	Vote % (n=12)
Yes, more than enough	0%
Yes, they are doing enough	17%
No, they should be doing more	17%
Not sure	67%

Stakeholders told us that we should engage with residents of MOBs to understand whether they feel less safe living there and therefore whether a change in approach is required.

*"[Post-Grenfell] the perception of risk has absolutely changed. But has the risk changed? I think the risk always is what it is, it's whether you're aware of it or not."*

Stakeholders speculated that NGN has relatively few MOBs compared with other gas distribution network (GDN) regions, therefore, MOB policies should be managed nationally to ensure consistency and shared expertise.

Stakeholders also told us that policies should be consistent throughout GB and GDNs should therefore co-ordinate their responses and liaise nationally with other emergency services and landlord associations regarding appropriate practical changes and best practice such as the installation of remote valves in high risk or all MOBs.

We also heard that occupants as well as landlords need to be involved in education, because they need to know what to do (if they smell gas, if there's a fire), and understand the risks (likelihood and consequences). Stakeholders taking part in our Pioneer Workshop perceived an opportunity to change the way we communicate our safety inspection programme, seeing it as an opportunity to notify occupants in advance of an inspection and then follow-up and explain the outcome – making every contact count. Whilst this outcome may improve perceptions of safety and trust, some stakeholders were concerned that notifying customers of (potentially more frequent) inspections could unnecessarily induce fear.

*"I don't know that [MOB occupants] are aware of how frequently they're inspected anyway."*

*“I think it should be done but it’s got to be done in a very careful way otherwise people’s perceptions [of their safety].”*

Stakeholder feedback influenced our iterative and meaningful engagement approach, prompting engagement with customers living in MOB. We partnered with Kirklees Neighbourhood Housing who had a programme of upcoming engagement around environmental improvements which enabled us to reach and consult these customers.

Kirklees residents reported that security in their homes, knowing how to switch off the gas supply in an emergency, knowing their appliances are insured, and where all the fire exits in the building are very important to their sense of safety. We heard a unanimous view that we need to do more to let MOB residents when we’ve carried out regular checks on their building; letter drops being the preferred option given notice boards might not be effective due to antisocial behaviour in the flats. Beyond promoting general safety messages, residents also expressed an appetite to know more about Carbon Monoxide safety.

#### *Nuances in views between stakeholder groups*

In our Centrepiece Survey, within the area of safety, reducing the risk for multi-occupancy buildings e.g. tower blocks was not a priority for stakeholders. It received 4% of the vote, achieving parity with preventing cyber security issues and was ranked significantly below repairing gas leaks quickly (17%), followed by being on the scene quickly when a gas leak is reported (27%) and most importantly, investing in the network to reduce the risk of gas leaks (41%).

#### *Impact on the Business Plan*

We consider that the measures we have in place to manage risk on our MOB assets are robust and fit-for-purpose. Given this, we do not consider that the introduction of a new licence condition in RIIO-2 (relating to MOB record-keeping) would generate further benefit for our customers and we are confident that our approach adequately accounts for our business risk associated with MOB.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to increase our investment on replacement, refurbishment or isolation of risers in MOB on a planned or reactive basis from £0.1m in RIIO-1 to £0.56m in RIIO-2. We will share information and learnings relating to MOB with other stakeholders such as emergency responders and building owners. Information is shared with other GDNs through the Replacement Forum. We will continue to ensure our MOB practices are consistent with best practice and leverage off the new analytical capabilities of our systems.	4.3.1 A safe and sound service



**Insight 40. Category 2 responders would like to see us going above and beyond the minimum standards and being more proactive with resilience planning.**

Who we heard it from		How we heard it	Volume
S	L	Category 2 Responders Survey 2019	6
S	N,C,L,W	Safety and Reliability Pioneer Workshop 2019	14
S	L	Key Resilience Partner Interviews 2019	3

Northern Powergrid, the electricity Distribution Network Operator covering most of the NGN region, and the Durham and Darlington Local Resilience Forum Co-ordinator both told us that we fulfil our function of contributing to and supporting other Category 2 responders when required “very well”, a view echoed by participants in our Category 2 Responders Survey. However, these ‘Cat 2’ stakeholders nevertheless perceive that NGN plays its resilience role in ‘do minimum’ mode and would welcome fuller participation and more proactive engagement and relationship building, for example, through arrangements that reduce the burden on Cat 2 responders where possible; and review and discussion of future proposed engagement plans, and discussion of the intricacies of Local Resilience Forums and the CCA (Civil Contingencies Act 2004). Collaboration on planning responses was seen to be key.

We heard that resilience partners find it useful when NGN attended LRF meeting and contribute by:

*“Sharing of information with Local Resilience Forums on its role, structures, operational capability, etc. to educate partners and enhance their understanding of its role”*

Resilience partners attending our Safety and Reliability Pioneer Workshop requested that we attend ‘patch-level’ Local Resilience Forums (LRFs) to build relationships and share and gain knowledge, a view echoed by Northern Powergrid who do attend all of these. Partners also suggested that we consider attending Tactical Co-ordinating Group meetings in person during incidents, and get more involved with LRF working groups.

***Impact on the Business Plan***

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to taking a more active role in Resilience Forums and working groups across our region, thereby improving community contingency planning and response to emergency situations.	5.1.4 Our Plan for RIIO-2

**Insight 41. Stakeholders expect to see improvements to the overall cyber security and cyber resilience of the network.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Business Plan Acceptability 2019	1,216
S	L	Category 2 Responders Survey 2019	6

RIIO-1 has seen significant growth in the number and types of cyber threats that we might encounter. We have witnessed the gas network becoming more inter-connected and exposed to these threats and cyber constitutes one of the key resilience issues identified by Ofgem.

We tested our cyber resilience and IT security proposition in our Business Plan Acceptability study and 65% of all domestic, 79% of non-domestic, and 77% of future customers, and 63% of wider stakeholders supported the output. This represents a relatively low level of advocacy compared to other outputs in our plan. This is likely to have been influenced by a significant proportion of respondents not feeling that they were sufficiently well informed to evaluate our proposition; 31% of domestic customers, 18% of future customers and 25% of wider stakeholder simply said they 'don't know', although not surprisingly, all non-domestic customers felt that they understood the proposition.

Half of the stakeholders responding to our Category 2 Responders Survey did not feel that they knew enough about cyber security and our proposed response to make a judgement about its sufficiency, echoing the feedback from our customers. Of those who did, two participants considered the response to be sufficient while one did not.

We heard that we should consider creating an alert and escalation system so that stakeholders that could be affected by a Cyber Security incident are informed of possible wider effects. Stakeholders also stressed the importance of collaborating with other responders to ensure that cyber security is an integral component of business continuity management.

*"I would like to see an alert / escalation system so stakeholders which may be affected by a Cyber Security on an organisation incident are informed of possible wider affects"*

Other points made in our depth interviews with Category 2 Responders were:

- The importance of sharing and collaboration to bring a collective response and skill set.
- There are a number of initiatives already going on from which we may be able to benefit from.
- Anything to strengthen cyber response is positive, but it is hard to answer if the proposed actions are sufficient without a lot more context and background.

#### *Nuances in views between stakeholder groups*

In our Centrepiece Survey, within the area of safety, preventing cyber security issues was not a priority for stakeholders. It received 4% of the vote, the same as reducing the risk for multi-occupancy buildings i.e. tower blocks and was ranked significantly below repairing gas leaks quickly (17%), followed by being on the scene quickly when a gas leak is reported (27%) and most importantly, investing in the network to reduce the risk of gas leaks (41%).

#### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to delivering a cyber resilience plan and a business IT security plan covering the RIIO-2 period that will increase our resilience to these risks. We expect to increase expenditure in both of these areas during RIIO-2.	4.3.1 A safe and sound service

## 8. Delivering an environmentally sustainable network

### Taking a leading role in promoting the environment

**Insight 42.** Our stakeholders want us to be an environmental leader by driving behavioral change and adopting stretch targets, and targets for a longer period into the future to reduce our Business Carbon Footprint.

Who we heard it from		How we heard it	Volume
S	C	Citizens' Jury 2019	136
S	N,W,C	Environment Pioneer Workshop 2019	8
S	N, L	Whole Systems Strategy and Environmental Action Plan Workshop 2019	12
S	N,L,C,W	Futures and Environment Pioneer Survey 2019	2,685
S	N,L,C,W	Business Plan Acceptability 2019	1,216
S	L	MP Bilaterals 2019	13
S	L	Strategic Messages Report: Members of Parliament, Local Authorities and Local Enterprise Partnerships	52

Our stakeholders have made it clear that they expect us to go above and beyond meeting our obligations; 35% want us to be a company that puts the environment at the heart of every decision we make and be recognised for great environmental performance, and 27% want us to be a company who considers the global and local environment and works to protect it.

It is clear that climate change is a key priority for the Local Authorities we engaged in our programme, some of which are taking steps to declare a climate emergency (Harrogate, Leeds), as well as putting carbon reduction strategies in place and developing specific measurable targets. Councils have therefore reacted positively to our plans, urging us to play a full role in supporting local stakeholders to meet their carbon reduction ambitions, recognising that this can only be done through a partnership approach, ongoing dialogue and aligned investment.

We heard that reducing the environmental impact of our operations is very important to customers. In our Citizens' Jury it secured 30% of the vote, ahead of safety (25%), vulnerability (18%), reliability (16%) and customer service (10%), making it the most valued improvement that could be made taking into consideration our current performance. 73% of customers told us that we should be a leader in the gas sector in reducing our environmental impact. When evaluating our draft outputs:

*"It is all about reducing impact – for us and for future generations"*

Several customers explained that as gas is inherently polluting, therefore we should be working harder than other types of organisation to select environmentally-friendly options.

*"Gas distribution and supply affects the environment greatly. They should do more than others at being green."*

Stakeholders at our Pioneer Workshop and from the Joseph Rowntree Foundation told us that as we are an 'anchor' organisation, we should set an example for minimising operational emissions, and that as a large organisation in the region, our activities have a relatively large impact whether good or bad.

Stakeholders who took part in our Pioneer Survey believe that we have the right portfolio of outputs:

- ✓ Reducing our carbon footprint.

- ✓ Making a positive impact on air quality.
- ✓ Using our resources responsibly.
- ✓ Building a home for nature on our sites.
- ✓ Working considerately and leaving the local environment clean and tidy.

In our Business Plan Acceptability study, we asked participants about our proposal to send less than 1% of our spoil sent to landfill during RIIO-2. 93% of domestic, 95% of non-domestic, and 88% of future customers, and 96% of wider stakeholders supported this output.

We also asked them about a proposal to reduce our non-shrinkage Business Carbon Footprint by 25% from 2017/18 levels by the end of RIIO-2, and reduce key Scope 3 emissions by 15% over the same period. 94% of domestic, 97% of non-domestic, and 95% of future customers, and 93% of wider stakeholders supported this output, demonstrating considerable support.

However, local place makers, in particular, felt we should go further to ensure our longer-term targets were in line with local ambitions. During our Whole Systems and Environmental Action Plan workshop, they told us that a target for net zero emissions by 2050 did not reflect local carbon budgets, which are more stretching.

### *Nuances in views between stakeholder groups*

Only a few (6%) of those who took part in our Future and Environment Pioneer Survey thought that there are other things that we could be doing for the environment. Of the remainder, more believed that there is nothing we could be doing than the proportion who were unsure.

The very small number of suggestions made for what else we could do which are not actually already part of our plans were diverse, and often outside our remit:

*“Making an attempt to encourage limiting use of gas and awareness for customers of their usage”*

*“Supporting regenerative agricultural research which locks carbon in the soil”*

Nearly a quarter of customers (24%) stated that they did not want to pay more (and 5% wanted to pay less) for NGN to manage environmental impacts. A similar proportion (22%) felt we should do the ‘bare minimum’ in this area and just aim to meet our regulatory obligations.

In our MP Bilaterals, Philip Davies, the MP for Shipley, told us that he feels reducing carbon emissions should be secondary to minimising costs and providing a good level of service, given the fact that many of his constituents are already struggling to pay their energy bills.

However, in line with recent messages on the environment from Greta Thunberg and young people globally, some future customers, as well as wider stakeholders, who participated in the qualitative phase of our Business Plan Acceptability study stated that our targets should be uncompromising in scope and speed:

*“Change is far too slow. There is not time. I am willing to accept many disruptions and costs if it means not causing further global environmental disaster. That will ruin my barely begun life.”*

*“Insufficient effort to meet the challenges of climate change.”*

### *Impact on the Business Plan*

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Set stretching targets for the reduction of gas leakage (23% reduction) and shrinkage (22% reduction) from our network which can be affected by other factors.	4.4.1 Reducing our business carbon emissions
	Set industry-leading, science-based carbon reduction targets and will reduce our non-shrinkage Business Carbon	

	Footprint by 47%, and reduce Scope 3 emissions by 11%. Linked to this, we have set a longer-term target of 2031 to achieve net zero for our business based emissions, in recognition of stretching local carbon budgets.	
	Committed to preparing an Environmental Action Plan for RIIO-2, outlining how we will reduce the environmental impacts of our business, decarbonise the energy network and facilitate the transition to a flexible, sustainable, low carbon energy system.	
	Committed to preparing an Annual Environmental Report throughout RIIO-2 to measure our performance against our Environmental Action Plan, including re-forecasting of targets where necessary to ensure delivery of continual improvement.	

**Insight 43. Stakeholders consider that it is imperative that we act against climate change by reducing both shrinkage and non-shrinkage emissions to reduce carbon emissions.**

Who we heard it from		How we heard it	Volume
S	C	Citizens' Jury 2019	136
S	N,W,C	Environment Pioneer Workshop 2019	8
S	N,L,C,W	Futures and Environment Pioneer Survey 2019	2,685
S	N,L,C,W	Centrepiece Survey 2019	6,229
S	N,L,C,W	Business Plan Acceptability 2019	1,216

There has been significant appetite from stakeholders for us to further reduce our carbon footprint. The top priority within the area of promoting the environment for the largest proportion of respondents in our Centrepiece Survey was reducing our carbon footprint (49%), followed by making a positive impact on air quality (19%), working considerately and leaving the local environment clean and tidy (12%), using our resources responsibly (11%), and building a home for nature on our sites (8%).

We heard that our Citizens' Jury were interested in what else we could be doing to mitigate the direct environmental impacts of gas leakage and our wider operations. These stakeholders told us that as NGN is an infrastructure company, we should set a local standard for minimising non-shrinkage emissions, and they clearly saw the benefits of pipe replacement to reduce shrinkage:

*"When pipes are in place won't need as many interruptions in the future"*

Although the main driver of NGN's pipe replacement programme is safety, 18% of customers felt that the environment was actually the strongest reason for this investment.

*"Because none of the others [drivers] matter if this isn't fixed soon."*

*"No planet = nothing to blow up!"*

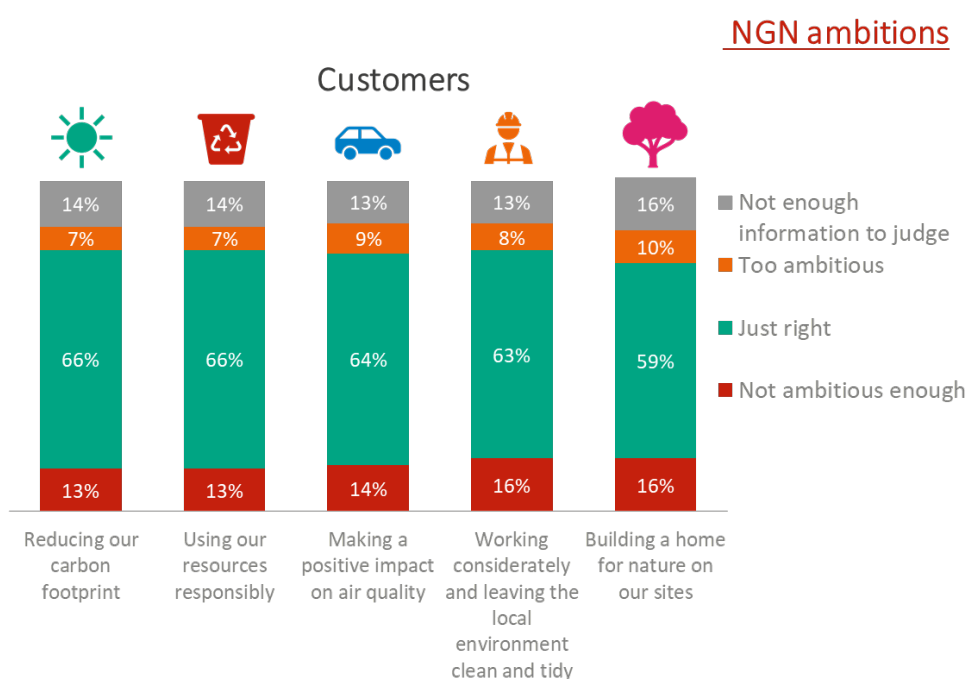
In our Business Plan Acceptability study, we informed participants that we have achieved outperformance during RIIO-1 and are set to achieve a leakage reduction of 25% at the end of the current Business Plan period. This performance makes achieving our proposed leakage reduction target increasingly challenging. 93% of domestic, 96% of non-domestic, and 95% of future customers, and 89% of wider stakeholders said they support our proposals with regards to shrinkage and leakage.

We also informed respondents that some repairs are not a safety risk and in RIIO-1 have not had a set timeframe for when they will be repaired. However, while these escapes are not a safety risk, they continue leaking methane to the atmosphere and therefore have environmental impacts.

We tested introducing time-bound permanent repair standards (% repaired within 7 and 28 days) which improve year-on-year in our Business Plan Acceptability study and found that 93% of all domestic, 83% of non-domestic, and 79% of future customers, and 73% of wider stakeholders supported this output.

We also had an outstanding response to our Futures and Environment Pioneer Survey; 2,685 stakeholders took part, the majority of whom felt our proposals to reduce our Business Carbon Footprint (BCF) were 'just right' (66% of customers and 65% of wider stakeholders).

## % of customers rating our environmental plans as too ambitious, not ambitious enough or just right



### Nuances in views between stakeholder groups

When asked to use a sliding scale to indicate whether we should just focus purely on reducing shrinkage/leakage (1 on the scale) or work to reduce non-shrinkage emissions too (10), our Citizens' Jury put the balance at 8.4, indicating that at least some of them felt that general business emissions deserved less focus.

In our Pioneer Survey, 13% of customers told us that our plans are not ambitious enough, while 19% of wider stakeholders felt that they are too ambitious. We triangulated this finding with the response to our Futures and Environment Pioneer Survey where wider stakeholders were significantly more likely than domestic customers to perceive our plans as too ambitious.

## % of wider stakeholders (non-customers) rating our environmental plans as too ambitious, not ambitious enough or just right

### NGN ambitions



### *Impact on the Business Plan*

In addition to the commitments we have made in response to our customers and stakeholders wanting us to be an environmental leader, we have made additional plans to reflect the clear preference of our Citizens' Jury that we reduce both shrinkage and non-shrinkage emissions.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to investment that will reduce gas leakage by a further 24% throughout RIIO-2. A key aspect of our approach to reducing shrinkage is targeting reductions in leakage. We will achieve our target through pressure management, gas conditioning and replacing metallic mains with plastic pipes. This, along with further reductions in our non-shrinkage business carbon footprint (25% reduction based on 2017/2018 levels) will mean that we are operating with our lowest-ever level of environmental impact.	4.4.2 Supporting a net-zero carbon future



**Insight 44. Customers want us to use our resources responsibly, and work considerably by leaving the local environment clean and tidy.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Futures and Environment Pioneer Survey 2019	2,685
S	N,L,C,W	Business Plan Acceptability 2019	1,216

We excavate spoil (sand, clay, gravel, stone etc.) when carrying out roadworks. This has to be backfilled once the pipe has been laid, replaced or repaired. The aggregate used for backfilling can either be virgin, i.e. newly mined from the ground, or be made from recycled materials such as brick, concrete and asphalt. In our Business Plan Acceptability study, we set out our proposal to increase our use of recycled material for filling holes created by excavations to 97.5% by the end of RIIO-2. 96% of domestic, 100% of non-domestic, and 93% of future customers, and 96% of wider stakeholders supported our commitment. We saw a similar level of support for our promise to continue to reduce the amount of waste material from construction work (e.g. sand, clay, gravel, and stone) sent to landfill sites to less than 0.1%.

62% of participants in our Futures and Environment Pioneer Survey told us that they think our plans for using our resources responsibly, and for working considerably and leaving the local environment clean and tidy are 'Just right'. Similar proportions said that these areas are important to them.

*Nuances in views between stakeholder groups*

In both cases, wider stakeholders are less likely (46%) than customers (around 64%) to say that using our resources responsibly, and working considerably and leaving the local environment clean and tidy are important to them, and in line with this lower level of perceived importance, more of our wider stakeholder community (21% and 25% compared with only 8% of customers) feel that our plans in these areas are too ambitious.

*Impact on the Business Plan*

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to ensuring less than 2.5% virgin aggregate use. We will see less than 1% of our spoil sent to landfill.	4.4.3 Protecting the environment

**Insight 45. Air pollution is a key issue and should influence investment decisions – stakeholders expect us to be proactive in this area for both moral and reputational reasons.**

Who we heard it from		How we heard it	Volume
S	N,W,C	Environment Pioneer Workshop 2019	8
S	N, L	Whole Systems Strategy & Environmental Action Plan Workshop 2019	12
S	C	Citizens' Jury 2019	136
S	N,L,C,W	Futures and Environment Pioneer Survey 2019	2,685

We heard that poor air quality has a direct, local impact on our customers, including particulates from diesel exhaust. Carlisle, Leeds and York exceed WHO air pollution limits and Leeds is currently one of the worst five cities in the UK for air quality.<sup>3</sup> We heard that this issue needs to be viewed at a macro (city) rather than micro (individual sites) level with any levers being balanced against operational constraints, for instance avoiding driving down congested roads at rush hour would reduce pollution but could significantly reduce our emergency and repair operational performance.

Our Citizens' Jury suggested that we could improve air quality by migrating our vehicle fleet away from diesel, reducing miles driven, and minimising traffic disruption from street works. They also felt that we needed to prepare ahead for the introduction of clean air zones in our region.

*"Need to add using petrol vans not diesel until a solution is found to improve air quality"*

In our Pioneer Survey we shared some of our draft air quality plans with stakeholders; working to cut the number of diesel and petrol vehicles in our fleet by 20%, business mileage by 20%, and the amount of fuel our contractors use by 20%, and by working with our partners to get cleaner, gas-powered transport into our fleet and infrastructure. In response, 63% of our customers and 48% of our wider stakeholders felt our plans were pitched at the right level; these proportions were similar to those who told us that NGN making a positive impact on air quality was important to them (64% of customers and 41% of wider stakeholders).

The importance of air quality was also raised by several MPs in our MP Bilaterals including Barry Sheerman, the MP for Huddersfield, who said that the next big green social movement after removing plastics from the ocean will be clean air, and referenced a project that attaches air pollution monitors to refuse trucks to map the air quality of all streets in the country.

Finally, our stakeholders recognised that broader changes in the way colleagues in the business work, also had important part to play in delivering better outcomes on air quality. During our Environmental Action Plan and Whole Systems Strategy workshop, they told us we should consider behavioural change with our plans, such as alternatives to travel to meetings.

#### *Nuances in views between stakeholder groups*

When asked about the importance of the strands of our environmental strategy, our Citizens' Jury scored air quality 8.4/10 but this was fourth out of five areas. They also only allocated it 19% of hypothetical future investment spend. Despite the much 'closer to home' nature of air pollution, participants told us that we should first focus on creating lasting energy solutions and then on taking action against climate change.

In our Pioneer Survey only 10% of customers compared to 31% of stakeholders told us our plans were too ambitious.

<sup>3</sup> <https://www.bbc.co.uk/news/health-43964341>

### Impact on the Business Plan

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	<p>Set firm commitments that:</p> <ul style="list-style-type: none"> <li>• 100% of our company cars will be ultra-low emission or hybrid by the end of RIIO-2, with electric vehicle charging infrastructure installed across all of our offices and depots at a cost of approximately £0.5m;</li> <li>• Renewal of our commercial vehicle fleet with newer, more efficient vans that can meet our operational requirements, with at least 25% of our <b>commercial</b> fleet being ultra-low emission by end RIIO-2;</li> <li>• <b>Altogether, at least 50% of our total vehicle fleet will be ultra low emission or hybrid by the end of RIIO-2, removing 250 diesel vehicles from our fleet;</b></li> </ul> <p>In addition, we have included specific commitments for staff behavioural change, including a target to reduce business driving by 20%, for example via increased use of video conferencing.</p> <p>We will also continue to install remote pressure management on our network to reduce the number of journeys that our engineers make to site.</p> <p>Finally, we've committed to investing, from shareholders profits, in the planting of 40,000 trees in urban areas across our network</p>	<p>4.4.1</p> <p>Reducing our business carbon emissions</p>

**Insight 46. There is significant appetite for us to reduce our vehicle carbon footprint, and go above and beyond by phasing out diesel vehicles sooner.**

Who we heard it from		How we heard it	Volume
S	C	Citizens' Jury 2019	136
S	N,W,C	Environment Pioneer Workshop 2019	8
S	N, L	Whole Systems Strategy & Environmental Action Plan Workshop 2019	12
S	N,L,C,W	Futures and Environment Pioneer Survey 2019	2,685
S	N,L,C,W	Business Plan Acceptability 2019 - qualitative	18
S	L	Infrastructure North 1-1s 2019	3
S	C	Willingness to Pay 2019	2,206

We heard that although nearly half (49%) of our Citizens' Jury felt that NGN's current activities to reduce the environmental impact of their fleet were 'about right', although most of the remainder (46%) of these customers felt that we should be doing more, particularly in terms of vehicle replacement, where they wanted us to consider hybrid vehicles where practical, rather than just targeting migration to Euro 6 diesels, and to do so sooner.

*"Could be replacing all vehicles except vans with hybrids now"*

*"I would like to see a clear plan to deliver a proportion of the fleet which have zero emissions"*

We told future customers who participated in the qualitative phase of our Business Plan Acceptability study about our plans to reduce the carbon impact of our vehicle fleet. Although they were supportive, they would like to see greater change, faster.

*"I think it is a good start, but I'd like to see more than 15% as no doubt it is their commercial vehicle fleet which contributes the most to emissions. I think it is definitely the kind of action they should be taking as it is leading the way in a more sustainable future."*

*"I would like more action to be taken if possible, as protecting the environment is more important than profit. You could aim for a percentage of electric cars instead of just hybrid."*

Stakeholders also told us that we should encourage our colleagues to minimise their car journeys to and for work before any increases were made to bills to pay for greener vehicles".

*"Although it can be a challenge to change mind-sets, it's important to try and do that before asking customers to invest in changes"*

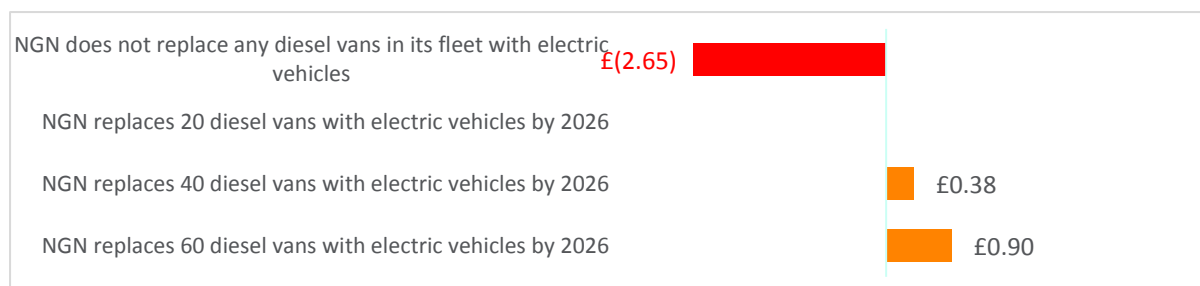
Our Infrastructure North partners (Yorkshire Water, Northern Powergrid and Northumbrian Water) told us that they agreed with the importance of transitioning to low emissions vehicles and collaborating on EV charging infrastructure or hydrogen refuelling stations that could be used by multiple organisations.

Our stakeholders felt that behavioural change was also an important factor in reducing our vehicle carbon footprint. In the Whole Systems Strategy and Environmental Action Plan Workshop, they told us they wanted to see specific commitments on reducing mileage and encouraging new ways of working.

#### *Nuances in views between stakeholder groups*

In our Willingness to Pay study we tested, 'Reduce carbon footprint through low carbon vehicles' and found that it had a relatively low level of importance among domestic customers compared to the other 12 outputs evaluated. Nonetheless, domestic customers, on average, were willing to pay

an additional £0.90 to achieve the most improved level of service: replacing 60 diesel vans with electric by the end of RIIO-2.



By comparison, SMEs were significantly more willing to pay for investment in low carbon vehicles – £11.16 per bill payer, or the equivalent of +1.39%.

Although all stakeholders at our Environment Pioneer Workshop shared a concern about our vehicle carbon footprint, some held back from calling for urgent change because they recognised the cost impact on customers, and because better, more cost-effective solutions might be available if action is delayed for a few years. They was also noted that cleaner options are available now but that these are expensive in purely monetary terms.

### *Impact on the Business Plan*

Low carbon vehicles is a key trade-off area in our Plan.

In the first draft of our Business Plan, we set out to continue our risk-based strategy of replacing operational vehicles at the optimum point taking account of maintenance and repair costs, mileage, emissions, depreciation and tax. Due to the expected timings of our vehicle replacements we were forecasting to replace approximately 12% more vehicles per year than in RIIO-1. We heard a consensus view from our customers and stakeholders that we needed to be more ambitious than this.

In order to meet stakeholders' expectations, we have introduced a more ambitious commitment to transitioning to low carbon vehicles in RIIO-2. As part of this we will be reviewing our preferred vehicle manufacturer and vehicle models to ensure we comply with future legislation relating to clean air zones in cities and to deliver on our commitment to reduce our impact on air quality.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: COMPROMISE	<p>Set firm commitments that:</p> <ul style="list-style-type: none"> <li>100% of our company cars will be ultra-low emission or hybrid by the end of RIIO-2, with electric vehicle charging infrastructure installed across all of our offices and depots at a cost of approximately £0.5m;</li> <li>Renewal of our commercial vehicle fleet with newer, more efficient vans that can meet our operational requirements, with at least 25% of our <b>commercial</b> fleet being ultra-low emission by end RIIO-2;</li> <li><b>Altogether, at least 50% of our total vehicle fleet will be ultra low emission or hybrid by the end of RIIO-2, removing 250 diesel vehicles from our fleet;</b></li> </ul> <p>In addition, we have included specific commitments for staff behavioural change, including a target to reduce business driving by 20%, for example via increased use of video conferencing.</p>	4.4.1 Reducing our business carbon emissions

	<p>We will also continue to install remote pressure management on our network to reduce the number of journeys that our engineers make to site.</p> <p>Finally, we've committed to investing, from shareholders profits, in the planting of 40,000</p> <ul style="list-style-type: none"> <li>• trees in urban areas across our network</li> </ul>	
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**Insight 47.** With plastic being generally perceived negatively, information about the pipe replacement programme should explain the benefits of replacing iron mains with plastic pipes.

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Business Plan Acceptability 2019 - qualitative	18

In the qualitative phase of our Business Plan Acceptability study, some future customers expressed concerns about plastic being used for pipe replacement.

*“Is there an alternative or more eco-friendly to the plastic pipes?”*

*“There’s a focus on improving the environmental impact, however they’re replacing old pipes with plastic pipes... if there is an alternative piping material to plastic I would strongly suggest using it to reduce the environmental impact further – 37,000km of plastic pipes is an awful lot of plastic.”*

*“I’d be interested to know the advantages of plastic pipes given their environmental impact.”*

*“Use of ‘plastic’ pipes – plastic language can be toxic”*

These participants had not been specifically informed about the safety and reliability benefits which plastic offers compared with old, iron mains, but their comments indicate the importance of setting these benefits out in communications about pipe replacement and suggest an appetite for minimising plastic pipe wastage.

#### *Impact on the Business Plan*

Our initial plans did not include any measures for plastic wastage, but our stakeholders told us it was important to them. So we have committed to eliminating single-use plastics from our offices and depots, and reducing the amount of plastic pipe that we waste and the amount of plastic that we use in our supply chain.

Response	So we have	Read more at
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Committed to continuing to focus on stock management of PE pipe and reduction of over-ordering and wastage via enhanced work planning and stores management technology in addition to using reusable pipes for overland bypasses.	Appendix A8 – Environmental Action Plan
STAKEHOLDER EXPECTATIONS: MET/EXCEED	Added eliminate single use plastic items from offices and depots to our Environmental Action Plan – Initiatives to use resources responsibly.	4.4.3 Protecting the environment

**Insight 48. Stakeholders want us to reduce roadworks caused by our approximately 180,000 excavations per year.**

Who we heard it from		How we heard it	Volume
S	C	Citizens' Jury 2019	136
S	N,W,C	Environment Pioneer Workshop 2019	8
S	N,L,C,W	Innovation Event 2019	12
S	L	MP Bilaterals 2019	13
S	C	Willingness to Pay 2019	2,206

We heard that traffic congestion caused by street works is not only an irritation in itself but adds to air pollution, particularly along roads where children walk to and from school. Stakeholders told us that they were concerned that Leeds has some of the worst air pollution in the UK.

*“Long disruption (i.e. road traffic problems) causes pollution, costs money, is frustrating etc.”*

At our Innovation Event we also heard that we should improve the quality of information given to stakeholders about road works and why they're being done.

This point was also raised by several MPs in our MP Bilaterals including Julie Elliott, the MP for Sunderland Central, Ian Mearns, the MP for Gateshead, and Liz Twist, the MP for Blaydon, who emphasised the importance of explaining the benefits of the pipe replacement programme, rather than simply notifying customers that the programme is the reason for a set of roadworks. MPs also told us that they wanted to see us collaborating with all other utilities (electricity, water, and telecommunications) to minimise the disruption that residents experience. Liz Twist explained that roads being dug up multiple times when they could be dug up once and all work required done at one time is a large complaint in her constituency. Mike Hill, the MP for Hartlepool, said that this is the main issue relating to NGN raised by his constituents, while Philip Davies, the MP for Shipley, added that minimising roadworks was important, particularly where they have an adverse impact on small businesses.

In our Targeted Roadshows, Local Authorities were keen to work together more closely with us to identify opportunities for co-ordinating their highways maintenance activities with our pipe replacement programme to minimise impact on traffic and pedestrians. Over the course of our engagement, multiple examples of positive communication and collaborative work have been cited, including work with Newcastle City Council on decommissioning and replacing outdated Tyne Bridge gas pipes with minimal disruption to the flow of people around the city.

We tested 'Reduction of road works' in our Willingness to Pay research and found that domestic customers ranked the output second out of 13 tested, representing a high level of importance. On average they were willing to pay an additional £2.25 (per bill) to achieve the most improved level of service: average duration of roadworks – 4 days. These results indicate that customers are very sensitive to any detriment in service, with significant compensation expected (£2.43 per bill payer) should the average duration of roadworks deteriorate from the status quo.

*Domestic customers' willingness to pay for a reduction in the average duration of roadworks*





### *Nuances in views between stakeholder groups*

In our Willingness to Pay research, SMEs agreed that reducing roadworks is important, but felt less strongly about it than domestic customers, placing greater weighting instead on outputs linked to supply interruptions and the environment.

Customers told us that although they want us to minimise the time street works last, it is important they are done to a high standard to avoid later rework.

### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to working closely with other utilities, particularly in the area of joint planning of works in our whole systems strategy. We've also committed to ongoing innovation to reduce the duration of our excavations. These include specialist cameras to target blockages, mains and water extraction and allowing excavations to be carried out in a side street and not in high impact locations.	5.1 Enabling Whole Systems Solutions

**Insight 49. When gas land is remediated, stakeholders expect us to actively improve habitats for wildlife at NGN's permanent sites.**

Who we heard it from		How we heard it	Volume
S	C	Citizens' Jury 2019	136
S	N,W,C	Environment Pioneer Workshop 2019	8
S	C	Willingness to Pay 2019	2,206
S	N,L,C,W	Futures and Environment Pioneer Survey 2019	2,685
S	L	MP Bilaterals 2019	13

Stakeholders attending our Environment Pioneer Workshop were actively interested in the extent to which we use above-ground assets for environmental betterment by proactively managing assets and enhancing biodiversity:

*"Look at what biodiversity improvement could be made... could it be a volunteering opportunity for NGN colleagues"*

Our Citizens' Jury were asked to indicate which aspects of NGN's environmental strategy were most important to them. This question was presented via an online polling tool and used a 10 point sliding scale (where 1 = not at all important and 10 = extremely important). Enhancing life on land received an average score of 7.7, below the average score of 8.5 across all five aspects of NGN's environmental strategy. The implication of this is that although important, enhancing life on land is less of a priority for customers than creating lasting energy solutions (8.9), taking action against climate change (8.8) using resources responsibly (8.6) and improving air quality (8.4).

*"Should do more – but at minimal cost to consumers"*

Based on an understanding of our current performance, 85% of our Citizens' Jury thought that we should be doing more to improve land remediation:

*"Most of these sites will be in populated areas, do you not have a duty of care to fully clean these areas rather than just have a containment programme?"*

*"If you don't do it (gas land remediation) who would do it? It's part of your legacy so 'suck it up, buttercup'"*

In our Pioneer Survey, 59% of customers and 49% of wider stakeholders told us that our plans for 'Building a home for nature on our sites' were 'just right', an activity which 55% of customers and 43% of wider stakeholders felt is important for us to do.

One MP, Barry Sheerman, stated that we should be supporting the Northern Forest scheme as part of our Environment Strategy. Whether this be by means of planting trees on our sites or by sponsoring the scheme, he deemed this an important project for the North that would showcase NGN's commitment to maintaining a diverse and vibrant eco system in what is a densely populated region of the UK.

In our Willingness to Pay study we tested, 'Improving habitats for wildlife at NGN's permanent sites' against a range of Business Plan outputs and found that it received medium importance. Domestic customers placed greater importance than business customers on this. On average, domestic customers were willing to pay an extra £1.25 to improve 200 sites by the end of RIIO-2 to ensure improvements to the habitat which creates homes for nature; planting trees, installing bird boxes and changes to maintenance on-site e.g. reducing grass cutting to encourage wildlife.

### Domestic customers' willingness to pay for improving habitats for wildlife at NGN's permanent sites



### Nuances in views between stakeholder groups

When we asked stakeholders which environmental measures we should be obligated to report improvements against to Ofgem, enhance life on land received the fewest votes (just 14%).

### Impact on the Business Plan

Our stakeholders told us that they want us to improve air quality and expect us to support regional programmes to improve green infrastructure, over and above our initial plans. We have therefore committed to funding the planting of 40,000 trees in our region during RIIO-2, predominantly in urban areas, and adopting tools to measure the impacts on biodiversity from our works and infrastructure sites.

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to proactively managing our land assets by continuing our land remediation and holder demolition programme. We are committed to embracing biodiversity by creating homes for nature on 200 of our sites. We will also invest, from shareholders' profits, in the planting of 40,000 trees in urban areas which will deliver environmental and aesthetic value to the communities that we serve.	4.4.3 Protecting the environment

**Insight 50. Future customers welcome the Environmental Action Plan as a starting point that demonstrates what can and should be done to other organisations in the region.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Business Plan Acceptability 2019 - qualitative	18

In the qualitative phase of our Business Plan Acceptability study, we shared our draft Environmental Action Plan (EAP) with future customers. This brings together a number of commitments arising from insights already listed.

*Draft Environmental Action Plan evaluated by future customers*

Self-fund the planting of 40,000 trees in the NGN network area as part of the Northern Forest
100% of NGN company cars will be ultra low emission or hybrid, with electric vehicle charging infrastructure installed across all offices and depots
Renewal of NGN's commercial vehicle fleet with newer, more efficient vans, with at least 15% being ultra low emission vehicles
Reduce gas loss across NGN's network by 27% between 2021-2026
Increase the scale of renewable energy generation on NGN sites threefold to deliver an overall 10% reduction in total electricity consumption via on-site renewables
Purchase of 100% renewable electricity for our metered electricity consumption and source a proportion of our shrinkage gas from green gas sources
Reduce Business Carbon Footprint by 25% from 2017/18 levels by the end of 2026

Participants were positive about the commitments in EAP as a starting point, although they were clear that they saw it only as that and that more would need to be done. In general, they considered that it made them feel hopeful about the future of their region, and showed that NGN is taking a lead on carbon reduction that others could follow. They also indicated that the EAP is transparent and realistic in terms of what can be achieved in the RIIIO-2 timescale.

*"Feel like it has a strong future with a company that is actually committed and accountable to deliver improvements to the environment and customers' lives. I hope these changes and additions will have a really positive impact on the North. Thank you to committing to these proposals and being so open about the changes you want to make. I hope you stick to all of these and also have an impact on other companies who should be reflecting on their environmental impact and their customers."*

The tree-planting programme received overwhelming support from future customers who consider an exciting initiative and particularly welcome the fact that it will be funded by shareholders not customers.

*"I think this is a very good initiative, and I think it will be well-received that NGN is using shareholder funding to do it, as it makes it feel like the initiative comes from genuine concern for the environment rather than a PR stunt."*

Future customers also showed an appetite to know more details, such as which specific locations would benefit from the scheme and how these are identified and selected.

*"I'd love to know specifically where and what kinds of tree".*

### *Nuances in views between stakeholder groups*

In our early engagement with future customers we heard that despite the EAP being forward-thinking, transparent and realistic there is a desire for quicker action and greater ambition in reducing the impact of our vehicle fleet.

*"I think it is a good start, but I'd like to see more than 15% as no doubt it is their commercial vehicle fleet which contributes the most to emissions. I think it is definitely the kind of action they should be taking as it is leading the way in a more sustainable future."*

*"I would like more action to be taken if possible, as protecting the environment is more important than profit. You could aim for a percentage of electric cars instead of just hybrid."*

### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: COMPROMISE</b>	<p>Committed to reducing the impact of NGN's vehicle fleet: Set firm commitments that:</p> <ul style="list-style-type: none"> <li>100% of our company cars will be ultra-low emission or hybrid by the end of RIIO-2, with electric vehicle charging infrastructure installed across all of our offices and depots at a cost of approximately £0.5m;</li> <li>Renewal of our commercial vehicle fleet with newer, more efficient vans that can meet our operational requirements, with at least 25% of our <b>commercial</b> fleet being ultra-low emission by end RIIO-2;</li> <li><b>Altogether, at least 50% of our total vehicle fleet will be ultra low emission or hybrid by the end of RIIO-2, removing 250 diesel vehicles from our fleet;</b></li> </ul>	<p>4.4.2. Reducing Our Business Carbon Emissions</p> <p>4.4.3 Protecting the Environment</p>
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	<p>Committed to planting 40,000 trees in the designated Northern Forest areas of our network area by the end of RIIO-2 in recognition of the benefits that tree planting can deliver to improving air quality, in health and wellbeing, flood risk management and absorbing carbon from the atmosphere. A significant proportion of these trees will be planted in urban areas. NGN commit to funding this from its own sources (i.e. through shareholder funding rather than via money paid by customers through their gas bills).</p>	

## Proactively facilitating the energy transition

**Insight 51. Our stakeholders consider that gas of some type should remain part of the UK energy mix.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Futures Pioneer Workshop 2019	25
S	N,L,C,W	Futures and Environment Pioneer Survey 2019	2,685
S	C	Citizens' Jury 2019	136
S	C	Large Load Customer Online Survey 2019	7
S	L	MP Bilaterals 2019	13

Stakeholders at our Futures Pioneer Workshop told us that gas of some type should be part of the UK energy mix, especially because:

- It provides affordable heat to the fuel poor, that is also lower carbon than oil which is often used by isolated, rural households.
- The capacity of the electricity network would have to be increased 4-5 times to replace energy currently delivered as gas.
- About a third of electricity generation is from gas.
- Industrial usage for furnaces couldn't get the heat levels required from electricity. They believe that hydrogen will eventually replace natural gas, and support this scenario.

In our MP Bilaterals, Mary Glindon, the MP for North Tyneside, expressed her strong allegiance to oil and natural gas, and her concerns about the feasibility of full decarbonisation. She believes that a 20% hydrogen blend with natural gas is a more realistic short-term solution.

In line with this, and without being prompted about the evolution of the energy mix, participants in our Futures and Environment Pioneer Survey told us that they expect their gas usage to be about the same in 20 years' time as it is now (38%) or only slightly more or less (73% in total). Only 16% think it will be significantly less.

Similarly, when presented with four models proposed by the government of how the energy landscape might look in the future, including how people heat their homes, 63% of respondents preferred the two options which they were told would lead to the UK failing to meet its 2050 carbon emissions reduction targets.

*Four models of what the energy landscape might look like in the future.*

Scenario	Details
<i>Steady progression</i>	<ul style="list-style-type: none"> <li>• Like now, most people have boilers that use natural gas to heat their homes.</li> <li>• Our gas comes from the seas around the UK like it does now, but with some shale gas also used.</li> <li>• Most people who drive have electric cars/vehicles.</li> <li>• Because there are more electric cars, we're using more electricity than we do now.</li> <li>• Our electricity comes from a mixture of wind power, nuclear and gas.</li> <li>• The UK doesn't meet its targets for reducing carbon emissions</li> </ul>
<i>Consumer evolution</i>	<ul style="list-style-type: none"> <li>• Like now, most people have boilers that use natural gas to heat their homes Our gas mostly comes from shale, with some from the seas around the UK and imported from other countries.</li> </ul>

### Two degrees

- Most people who drive have electric cars/vehicles.
- Because there are more electric cars, we're using more electricity than we do now.
- Most of our electricity comes from small scale renewables and nuclear.
- The UK doesn't meet its targets for reducing carbon emissions.

### Community renewables

- Our homes are much more energy efficient – it's not as difficult to heat them.
  - More people have boilers to heat their homes than today. Most of those boilers use hydrogen gas and other are connected to a local district heat network.
  - Some people heat their homes with electric rather than gas, using renewable energy.
  - Most of our gas comes from the seas around the UK and other countries. We convert lots of it to hydrogen.
  - Most people who drive have electric cars/vehicles.
  - Because most people are using hydrogen to heat their homes, we're using less electricity (than in other scenarios).
  - Most of our electricity comes from wind power and nuclear.
  - The UK meets its targets for reducing carbon emissions.
- Our homes are much more energy efficient – it's not as difficult to heat them.
  - Most people heat their homes with electric rather than gas, using renewable energy.
  - Some people are connected to local district heat networks.
  - Most people who drive have electric cars/vehicles.
  - Because we're using electric to heat our homes and run cars, we're more of it (than other scenarios).
  - Most of our electricity is renewable – from wind and solar.
  - The UK meets its targets for reducing carbon emissions.

Both of these findings are at odds with other insights relating to our being an environmental leader, but this may simply reflect the learning from a number of published studies that people find it hard to envisage a different future; the most popular future models being the least different from the current situation.

Large load customers told us that they only expect their gas usage to change overall in line with increases or decreases in their production levels, although these projections relate to time horizons of just a few years.

### *Nuances in views between stakeholder groups*

Some stakeholders recognised that heat pumps can initially sound like a more appealing option because they are an 'easy' way to decarbonise heat, which could be tempting to policy makers.

### *Impact on the Business Plan*

As outlined in Chapter 3 of our Business Plan, the core energy scenario developed jointly across the energy industry identifies gas as playing a significant role in providing reliable, flexible energy supplies in RIIO-2 and beyond.

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Ensured that our plans reflect the need for gas as an ongoing energy source and our ambitions for a decarbonised gas sector to meet the UK's net zero emissions targets. We will continue to develop the evidence base required to inform a policy decision on the decarbonisation of heat, through our	5.1 Enabling Whole Systems Solutions

	H21 project and ongoing collaboration with other gas distribution businesses through projects such as HyDeploy.	
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**Insight 52. The government cannot make decisions in favour of gas without evidence that future gas options are feasible. We should be running live trials of hydrogen, and stakeholders want to see more research conducted to build an evidence base.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Futures Pioneer Workshop 2019	25
S	N, L	Whole Systems Strategy and Environmental Action Plan Workshop 2019	12
S	N,L,C,W	National stakeholders workshop on whole systems/ decarbonisation/ collaboration	37
S	N,L,C,W	Innovation Event 2019	12
S	L	Strategic Messages Report: Members of Parliament, Local Authorities and Local Enterprise Partnerships	52

In our Futures Pioneer Workshop, stakeholders told us that the GDNs and the gas transporters must work together to provide an evidence base to government policy decision makers on the benefits of gas. Stakeholders recognise the benefit of collaborative working between the gas network companies. This is particularly the case for innovation and the large-scale decarbonisation challenges the sector faces.

At our Innovation Event, we heard that stakeholders expected us to engage more with LEPs on innovation, specifically related to energy transition strategy.

Local Place Makers are strongly interested in and supportive of our ongoing work to support carbon reduction and a policy decision on hydrogen. A consistent message across our meetings with LEPs is that we should work more collaboratively with them to ensure an alignment between our future strategy and the LEPs' energy and industrial strategies.

However, there was a recognition from these stakeholders that the future was uncertain. Local and national stakeholder attending our Whole Systems Strategy and Environmental Action Plan Workshop felt that, whilst there was still policy uncertainty on hydrogen, our Whole System Strategy should focus on a broad vision for green sustainable gas, rather than a sole focus hydrogen conversion. Customers who participated in our Future and Environment Pioneer Survey did not have clear views about what our role should be in the development of alternative fuels which could be used to heat homes in the future: 48% thought we should invest in preparing our network ahead of any Government changes, including hiring more staff and investing in equipment, but a further 55% were ambivalent about this; and 40% thought we should talk to customers to see how our gas distribution network should change but 46% were ambivalent about such an activity. Stakeholders were more in agreement with these proposals with 71% agreeing that we should invest in preparing our network ahead of any Government changes, including hiring more staff and investing in equipment, and 57% agreeing we should talk to customers to see how our gas distribution network should change.

Both groups felt we should be doing something: only 12% agree that we should only change the network as and when energy policy requires it and 61% disagree with this statement.

### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to move to real-world trials across our portfolio of projects during RII0-2. To achieve this, we will collaborate with gas distribution networks and other utilities to explore the commercial applications of the technology and the most effective delivery models.	5.1 Enabling Whole Systems Solutions

	<p>Committed to continuing to develop the evidence base required to inform a policy decision on the decarbonisation of heat:</p> <ul style="list-style-type: none"> <li>• Contributing to the ENA's Gas Decarbonisation Pathways Project, to map out the role of a decarbonised gas sector to meeting the UK's net zero emissions targets.</li> <li>• Through our H21 project and ongoing collaboration with other gas distribution businesses through projects such as HyDeploy.</li> </ul> <p>Set out a vision for our whole system strategy that supports the development and connection of green sustainable gas, including but not limited to hydrogen conversion</p>	

**Insight 53. We should be running live trials and other research of how hydrogen and other alternative fuels can be transported through the existing gas network, to build an evidence base.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Futures Pioneer Workshop 2019	25
S	C	Citizens' Jury 2019	136
S	N,L,C,W	Futures and Environment Pioneer Survey 2019	68
S	N,L,C,W	Centrepiece Survey 2019	6,229
S	L	MP Bilaterals 2019	13
S	L	Strategic Messages Report - Members of Parliament, Local Authorities and Local Enterprise Partnerships	52

81% of stakeholders at our Pioneer Workshop told us that we should be running live trials of hydrogen and 88% said that we should be conducting further research and development. One specific area they recommended was identifying a unit cost for hydrogen so it can be compared with other energy options would be very useful for a range of planning decisions.

*“Not enough is being done to introduce Hydrogen into the network fast enough. I would happily spend a lot more per year on my bill to speed up its introduction.”*

60% of all those interviewed in our Pioneer Survey told us that we should be leading trials into how alternative fuels can be transported through the existing gas network; only 4% disagreed.

Local authorities told us that we have a key role in exploring what a decarbonised economy would look like and the role that gas and hydrogen play in that, and were clear that we must play a role in making the case for hydrogen at this level.

Environment and future energy were a key interest of MPs we met throughout our RIIO-2 stakeholder engagement programme. MPs were interested in and supportive of our approach to building an evidence base for a policy decision on hydrogen and were understanding of the urgency required in working towards achieving our net-zero target.

In our MP Bilaterals, Mike Hill, the MP for Hartlepool, said that we should make our research into hydrogen a priority and Alex Cunningham strongly supported our R&D efforts in this area. Andy McDonald, MP for Middlesbrough underlined the importance of preparing for transition now because we can't simply 'switch' one day, while Liz Twist, MP for Blaydon, told us that there is enormous pressure in parliament for net-zero and that every year we ignore it the harder it will become to achieve, although she also expressed concern that household appliances would need to be replaced as part of the energy transition, with the implication that solutions should consider this. We also heard that they feel there is an urgent need for much more communication with customers to build public confidence in hydrogen for heat and transport to prepare them for future changes.

In our Centrepiece Survey, within the area of Moving to a Low Carbon Network, opinion was evenly spread about what the most important element is for us to focus on between supporting the injection of low carbon fuels like biomethane into the network, preparing the network to transport other low carbon gases (like hydrogen) in future, and working with others to create solutions that make the whole energy system work better together. This finding does, however, suggest broad support for building an evidence base.

### *Nuances in views between stakeholder groups*

Customers taking part in our Futures and Environment Pioneer Survey were less supportive than wider stakeholders of us leading trials into how alternative fuels can be transported through the existing gas network, however, no stakeholders felt that we should not be doing this.

Similarly in our Centrepiece Survey, significantly fewer customers (32%) than wider stakeholders (44%) support the injection of low carbon fuels like biomethane into the networks.

### *Impact on the Business Plan*

Stakeholders have shaped our approach to risk and uncertainty by supporting ‘low regrets’ investments. Our RIIO-2 Business Plan reflects their appetite for a range of investigative research and development projects to ready the network for changes beyond 2026.

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to delivering our current hydrogen-related projects and will continue to seek funding (through various means) for future research/trial requirements.	5.1 Enabling Whole Systems Solutions

#### Insight 54. We should exceed our current investment in energy futures during RIIO-2.

Who we heard it from		How we heard it	Volume
S	C	Citizens' Jury 2019	136

Greater investment in energy futures was identified as an acceptable reason for bill increases by 78% of our Citizens' Jury.

*"I would be happy to pay more to speed up adoption of cleaner fuels"*

68% told us that NGN should be doing more tended to focus on the overall environmental challenge of sustainable energy.

*"As a gas company they should be doing everything they can be to be going green – thinking more ahead for the future"*

#### *Nuances in views between stakeholder groups*

2% of our Citizens' Jury said we were doing too much on ensuring energy futures.

#### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to delivering our current hydrogen-related projects and will continue to seek funding (through various means) for future research/trial requirements.	5.1 Enabling Whole Systems Solutions

**Insight 55. We should manage our assets to ensure that they are future-proofed, and make decisions with the longer-term end goal in mind.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	National stakeholders workshop on whole systems/ decarbonisation/ collaboration	37
S	N,L,C,W	Futures and Environment Pioneer Survey 2019	2,685

Stakeholders told us that actions now, and across the RIIO-2 period, should be setting the groundwork for achieving delivery across RIIO-3 and up to 2050. Inherent in this is the need to ensure that actions taken now are supporting and not impeding the path to a decarbonised energy system in 2050.

Similarly, participants in our Futures and Environment Pioneer Survey felt we should be doing something about preparing the network for the future: only 12% agree that we should only change it as and when energy policy requires it and 61% disagreed with this statement. 71% of stakeholders agreed that we should invest in preparing our network ahead of any Government changes, including hiring more staff and investing in equipment, and 57% agreed we should talk to customers to see how our gas distribution network should change.

*Nuances in views between stakeholder groups*

While stakeholders wanted to see the gas networks working in a way that does not close off opportunities for the future by under-investing, they did not want NGN to over-invest and be left with a ‘stranded’ asset based on a flawed technology or one that becomes redundant in the longer-term.

48% of customers thought we should invest in preparing our network ahead of any Government changes, including hiring more staff and investing in equipment, and a further 55% were ambivalent about this. 40% thought we should talk to customers to see how our gas distribution network should change, but 46% were ambivalent about such an activity.

*Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to adopting Ofgem’s Network Asset Risk Metric (NARMS) to help justify, evidence and track the investments we make in our network, ensuring that we maximise customer benefit whilst minimising safety risk.	4.3.1 Network Asset Risk Metric

**Insight 56. Our investment strategy in RIIO-2 should be “Business as usual ‘plus’ investments that prepare the network for a positive future policy decision”**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Futures Pioneer Workshop 2019	25

We heard that prior to a policy decision being taken, 77% of stakeholders felt our approach to investment should be “Business as usual ‘plus’” which means pump priming investments that prepare the network for a positive future policy decision.

*Nuances in views between stakeholder groups*

12% of stakeholders think we should just invest as at ‘business as usual’ levels, ensuring the long-term viability of the current network. A further 12% believe investment should be reduced to minimum mandatory levels.

*Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to continuing to work collaboratively with the government and other gas distribution and transmission businesses to identify remaining research requirements to help inform a policy decision on how to achieve our net zero targets. We have committed to a number of innovation projects in our Business Plan, but will remain flexible with the work that we look to undertake across RIIO-2, so that we are ready to respond to policy changes. Our whole systems strategy outlines the pragmatic approach we will take to coordinating our approach to reducing and outlines the pathway to meeting the net zero carbon targets.	5.1 Enabling Whole Systems Solutions

**Insight 57. We should avoid duplication and unintended consequences by collaborating with other gas distribution network companies on Business Planning, despite the competitive environment in which the process exists**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Futures Pioneer Workshop 2019	25
S	N	Bilateral meeting with National Grid	1

Stakeholders told us that NGN should also collaborate with the other GDNs and the gas transporter to show the government an alternative to the ‘no gas’ view and demonstrate how gas can provide a short- and long-term solution to the trilemma of providing affordable, reliable low-carbon energy, or risk losing out to electricity (even though the electricity networks do not currently have the capacity to replace the energy delivered by gas).

Collaboration should be financially efficient (avoiding duplication), although stakeholders recognised collaboration is difficult when networks are being asked to compete.

*“The challenge was quite firmly laid down by a very senior official... who [said] that collectively, the gas industry needs to work together, be more cooperative, work with government, and basically, ‘You drag your feet, you’re going to get left behind.’”*

Our Business Planning saw us engage with a wide range of network companies spanning water, electricity, gas and transmission.

We agreed with National Grid that there is a direct need to work more closely together on our respective energy future plans in the future. We discussed the mutual interactions between the two networks and mutual stakeholders and agreed that forward planning should include regular updates to ensure we are making the most efficient decisions for our stakeholders. Our engagement on offtake capacity booking was seen to be quite good but there was agreement that we could do more to share information, such as the long term development statement, to better understand the long term forecasts.

We discussed the development of our RIIO-2 Business Plans and agreed that there was a need to ensure that both of our RIIO 2 Business Plans considered any mutually efficient trade-offs between the two plans. There was agreement to draft, as an appendix to each plan, a mutual agreement for how the NTS interactions will work in RIIO 2 and to ensure that the most efficient solutions have been agreed between the companies for RIIO.

#### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Made a commitment that we will continue to adopt a collaborative, whole systems approach in relation to our role in facilitating the energy transition.	5.1 Enabling Whole Systems Solutions



**Insight 58. Stakeholders support a whole systems approach to working collaboratively with Local Authorities and other utilities to identify opportunities to deliver streetworks in a coordinated way that minimises congestion and connectivity disruption.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Futures Pioneer Workshop 2019	25
S	N,L,C,W	National stakeholders workshop on whole systems/ decarbonisation/ collaboration	37
S	L	Strategic Messages Report: Members of Parliament, Local Authorities and Local Enterprise Partnerships	52

In our Pioneer Workshop, stakeholders told us that a whole systems approach should start with the outcome the end-user is buying (e.g. heat as a service) and include all utilities, not just energy (i.e. water and broadband too).

We heard that stakeholders typically prefer taking a broad definition of ‘whole systems’ and expect the gas networks to find a shared definition (even if it evolves over time). This was seen to:

- Allow for greater collaboration across sectors, providing a framework for joined-up Business Planning on shared issues.
- Minimise the risk of unintended consequences.
- Achieve balance and optimise the energy mix.

We triangulated these findings with messages underpinned through engagement with four specific types of local place makers – Elected Mayors, MPs, Local Authorities, and Local Enterprise Partnerships/Combined Authorities. Our Local Stakeholders told us that we should do more to mitigate public inconvenience related to pipe replacement work with MPs reporting that they receive regular complaints from their constituents on this matter.

Consequently we heard a consistent message from the Local Place Makers that we need to align streetworks plans more efficiently with other utility companies to ensure roads are not being dug up multiple times for works in a short period of time. This would have benefits that cut across different aspects of our plan: delivering an environmentally sustainable network and maintaining a safe and resilient network.

On this basis there is strong support across Local Authorities (but also raised by LEPs and MPs) for sharing a 3-year rolling calendar of works, and collaboration on this would make most sense at a local authority level such that there can be co-ordinated planning of works between NGN, the relevant Council (typically their street works teams) and other utility providers.

### *Nuances in views between stakeholder groups*

Shareholders may find it hard to support whole-systems approaches because sometimes, a solution that is in the best interests of the whole system may not be the best solution for one organisation in the system.

### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Adopted a broad definition of whole systems in our Business Plan and are proactively seeking to establish an effective means of collaborating with electricity, water and telecommunications businesses.	5.1 Enabling Whole Systems Solutions

	Established processes for sharing data with third parties in relation to location of our assets, health and safety, customers in vulnerable situations and upcoming streetworks.	
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**Insight 59. Bio-methane production is still an emerging sector and discussions on how NGN can best collaborate with stakeholders should be ongoing as it develops.**

Who we heard it from		How we heard it	Volume
S	W	Biomethane Stakeholder Survey 2019	4

The four stakeholders who took part in our Biomethane Survey mostly expressed divergent views on the range of topics on which we engaged with them. This demonstrates the extent to which NGN's work in this area is determined by the nuances of its interactions with individual producers and their distinct needs in what is still an emerging sector.

We heard that the stakeholders are mostly positive about our biomethane connections processes, operations and customer service, although they also identified number of areas for improvement yet, generally deriving from policies.

Stakeholders' views differed when we asked them asked about future operations and interventions such as approach to shrinkage and shaping the biomethane market through Green Gas Certificates; ways to guarantee sources of supply; future network capacity; and scope for a biomethane injection hub. The latter two specifically appear to be areas where respondents would welcome further discussion and indeed have valuable contributions to make to the debate.

It would seem to suggest that there would be merit in further discussion and effort to bring together views from across the biomethane community (producers, financiers, government etc.), possibly done in collaboration with others in the utility sector with an interest in the sector and whole systems thinking.

### *Impact on the Business Plan*

During RIIO-2 our EAP will implement a suite of initiatives to continue to a drive a reduction in our carbon emissions and enable the connection of biomethane to our network via improved customer service.

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to: <ul style="list-style-type: none"> <li>• Produce initial capacity studies for gas producer connections in five working days compared to 15 working days in RIIO-1.</li> <li>• Produce detailed capacity studies in 20 working days compared to 30 working days in RIIO-1.</li> <li>• Respond to operational faults on gas producer sites within four hours to rectify faults quicker to get the gas flowing to the network again.</li> <li>• Stakeholder engagement, including annual stakeholder workshop.</li> </ul>	4.4.2 Supporting a net zero carbon future

## 9. Innovation

**Insight 60. Stakeholders praised our engineer-led innovation approach and the introduction of a Think Tank to develop and foster a culture of ‘value based’ innovation across the network.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Innovation Pioneer Workshop 2019	36

Delegates at our Pioneer Workshop told us that they think our engineer-led innovation approach is effective because one of the main challenges with innovation is getting ‘buy in’ from those who have to adopt it, but this difficulty doesn’t arise when the implementers are the people who suggested the innovation. Some explained that other gas networks’ innovation approaches are less successful because engineers on the ground are only brought into the innovation process at the implementation stage.

We also heard that although some innovations can be effective across the industry, some are specific to each network, and they noted that in the water industry, all of the water companies are directed by their regulator to work together on innovations, which seems efficient but, *“You get outputs that aren’t specific to anyone so can’t be implemented.”*

*Nuances in views between stakeholder groups*

Some delegates pointed out that while this ‘bottom-up’ approach is effective for small innovations, but larger projects (such as preparing the network for hydrogen) need top-down direction as well.

*Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to continuing to empower our people to innovate. We will expand on our existing training and streamline our internal processes to further embed our culture of innovation. We will build upon the success of the established NGN Innovation Think Tank by expanding it to include selected third parties, to enable us to obtain robust challenge and external input on our innovation portfolio.	5.4.4. Continuing to develop our innovation culture  5.4.5 NGN Deeper Collaboration Across A Broader Set of Stakeholders

**Insight 61. Stakeholders believed that our own business requirements should dictate the focus of our innovation efforts. The innovation portfolio should include a balance of small/short-term projects and large/long-term projects.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Innovation Pioneer Workshop 2019	36
S	N,L,C,W	Innovation Event 2019	12

At our Pioneer Workshop, 87% of stakeholders, many of whom were from the wider industry supply chain, told us that meeting our business requirements should dictate our innovation focus, though 39% said that policies (e.g. Government) and the energy industry should too. They described a wide range of types of projects they felt are suitable for innovation effort scalable or high volume repeatable activities where a small saving on an individual instance adds up, to those which aren't financially viable without external support, and covering all business areas from safety to reducing customer complaints and decarbonisation.

Stakeholders claimed that our focus on innovations that are material to field engineers rather than 'fashionable' projects is highly effective because they are implementable and get support from those that have to make them work.

*"These succeed because the buy-in from the guys on the ground is high as they're involved from day 1. The engineers actually want to use the innovations."*

*"[An] innovation is a waste of money if we don't implement it."*

We heard that larger/longer-term projects such as H21 and others responding to national policy need to be driven from the top down as there are no immediate tangible benefits, but that they believe a bottom-up, engineer-driven approach works well for short-term innovations.

#### *Nuances in views between stakeholder groups*

Stakeholders also noted that strategic, long-term innovation projects need to be top-down rather than engineer-driven or 'bottom up' to respond to national policy need to be driven from the top down as there are no immediate tangible benefits.

#### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to better monitoring of our innovation portfolio, which must focus on both transformational and incremental innovation. We have an absolute need to deliver solutions that drive efficiencies and improvement today; we must, however, also undertake projects that assist the energy industry in meeting the decarbonisation challenge.	5.4.9 Monitoring benefits from our innovation portfolio.

**Insight 62. Stakeholders are concerned about the impact of changes to NIA funding and want to see continued commitment to investment in innovation.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Innovation Pioneer Workshop 2019	36

The supply chain stakeholders at our Pioneer Workshop praised Ofgem-funded innovation because it socialises the cost across all taxpayers while bill-funded innovation socialises it only across gas customers in the region. They also noted that RIIO-1 funding has created innovation, but as gas is a long-term industry, implemented innovation is actually still in its infancy, so cutting off funding now risks losing much of the good work done since 2013.

*“There should be an insistence from Ofgem to carry on innovation.”*

They noted that a lot of smaller innovations are created by SME suppliers who are keen to invest in innovation to grow their businesses, but would find doing so too high risk without funding. Global business can afford to fund innovation themselves, so a loss of funding would skew the type of suppliers working with networks, especially as the nature of gas networks is quite specific to GB and so often needs solutions which are different from those appropriate to other countries.

*“I can only speak on behalf of the SMEs that I know, that there is limited to zero interest in innovating in no- funding mechanism. It’s the reason that the regulatory method was applied in the first place because we weren’t innovating as a sector.”*

***Nuances in views between stakeholder groups***

Some delegates noted that funding supplier innovation can lead to the “tail wagging the dog”.

***Impact on the Business Plan***

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to reform our innovation funding model to reduce the cost of innovation to our customers. We will increase our investment in innovation, leverage other funding mechanisms and ask our innovation partners for greater financial contributions towards specific projects.	Appendix A18 – NGN RIIO-2 Innovation Delivery Strategy

**Insight 63. Stakeholders would like to see deeper collaboration across a broader set of stakeholder groups.**

Who we heard it from		How we heard it	Volume
S	N,L,C,W	Innovation Pioneer Workshop 2019	36
S	N,L,C,W	Innovation Event 2019	12

All of the stakeholders at our Pioneer Workshop told us that we should continue to innovate with 80% of stakeholders saying that we should use innovation to improve customer service (for example, to identify households in need of additional support and the type of support that will benefit them most, and how best to communicate about works to customers), 73% saying that we should innovate to deliver our services more efficiently, and 53% saying that we should innovate to decarbonise the energy system. Only a minority (33%) thought we should use innovation to develop whole-system solutions.

Stakeholders also suggested that we should focus our innovation effort on projects that improve safety and reliability, and security of supply, and produce environmental benefits. They told us that while the ultimate measure of success is financial, other dimensions are important too such as increased safety, reliability, and customer satisfaction. One stakeholder at our Innovation Event emphasised that it is important to accept that financial returns from innovation can take some time to be realised as focusing only on those that create value early on will only constrain innovation.

We also heard at our Pioneer Workshop and our Innovation Event that stakeholders think we should use the opportunity innovation provides to continue to develop valuable collaborative relationships with a range of organisations:

- Academia.
- Supply chain organisations.
- Utilities providers in the water and energy sectors.
- Wider industry groups such as the Research Council, EPSRC, Innovate UK and Royal Academy of Engineering Expertise.

Stakeholders expect us to afford them with multiple mechanisms to provide feedback on innovation plans. We heard that collaborating with a more diverse range of third parties will provide a different perspective and approach, particularly in terms of risk because NGN has an appropriate, operational risk aversion, whereas innovation needs to be more exploratory and ‘risk’ some ideas being discarded.

*“Traditionally innovation’s suppressed within the gas industry because we’re a risk-averse business, so working with partners is a good thing.”*

**Impact on the Business Plan**

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to extending engagement between external stakeholders, the supply chain and our workforce to build upon the successes in RIIO-2. A broader range of investors and innovation partners will enable a more diverse innovative culture across NGN and the wider industry.	5.4.4 Deeper Collaboration Across A Broader Set of Stakeholders

**Insight 64. Innovation should be used to meet the needs of consumers and network users who find themselves in vulnerable circumstances.**

Who we heard it from		How we heard it	Volume
S	N,L	NGN Innovation Stakeholder Workshop	12
T	N	Sustainability First: 'Energy for all – Innovate for all' report (2017)	-
T	N	Energy UK: 'The Commission for Customers in Vulnerable Circumstances' report	-

With specific focus on customers, stakeholders told us that we should focus on vulnerability and in particular how our business as usual works could lead to customers experiencing vulnerability. We triangulated this with Sustainability First's 'Energy for all – Innovate for all' which found that, "Most 'vulnerability innovation' by energy companies that we identified is not transformational, but rather the result of incremental improvements in company approaches," but recommended that a great deal could be achieved by energy companies sharing information about initiatives which they have taken throughout the industry (i.e. not just supplier-to-supplier or network-to-network). It praised our 'Tech for Good' meetups as a useful opportunity to identify innovative practice. The report also identified that data can be better used to proactively support and empower vulnerable customers, and that innovation and vulnerability teams should work together.

These views were supported by Energy UK's report for The Commission for Customers in Vulnerable Circumstances, which urged the development and sharing of innovative practice to monitor and tackle self-disconnection.

***Impact on the Business Plan***

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	Committed to developing a research and development programme to mitigate risks introduced to vulnerable customers by our 'everyday operations' and create and deploy solutions that safeguard and support our customers. This activity will build upon the NIA funded Making Every Contact Count (MECC) innovation project to expand the reach beyond traditional GDN focus areas.	5.4.8 Planned outcomes from innovation in RIIO-2



**Insight 65. We should innovate further on combined heat and cooling to facilitate an energy system that utilises waste energy.**

Who we heard it from		How we heard it	Volume
S	N,L	NGN Innovation Stakeholder Workshop	12

We heard that combined heat and cooling should be an area of focus; as we transition into a future energy system should be with energy storage. This is a complex area and the need for research is paramount to enable the integration of gas and electricity networks alongside alternative solutions for heating and power to create the pathways towards a whole systems decarbonised future.

#### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	<p>We have committed to collaboration with academia, in particular universities in the North East, to ensure that the essential evidence required to support long term policy decisions in this area is generated.</p> <p>This is a complex area and the need for research is paramount to enable the integration of gas and electricity networks alongside alternative solutions for heating and power to create the pathways towards a whole systems decarbonised future.</p>	5.1.2 Whole energy system strategy

**Insight 66. Dedicate resources to developing methods of energy storage to maintain a safe and resilient network.**

Who we heard it from		How we heard it	Volume
S	N,L	NGN Innovation Stakeholder Workshop	12

During our second innovation workshop we asked stakeholders what particular opportunities there are for NGN to innovate, to help inform our future priorities. Amongst other opportunities including IOT sensor technologies, pre-heating technology and vulnerability, stakeholders told us that You said that we should innovate further on combined heat and cooling, an energy system that utilises waste energy. In particular, the told us that as we transition into a future energy system should be with energy storage. Furthermore, they highlighted that this is a complex area and the need for research is paramount to enable the integration of gas and electricity networks alongside alternative solutions for heating and power to create the pathways towards a whole systems decarbonised future.

#### *Impact on the Business Plan*

Response	So we have	Read more at
<b>STAKEHOLDER EXPECTATIONS: MET/EXCEED</b>	The GDN already provides significant energy storage capabilities. We will look to work with the wider industry to see how these storage capabilities can be utilised to support the wider energy system.	5.1.2 Whole energy system strategy