

Stakeholder report

2021/22

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Welcome

This report is a reflection on our activity over the 12 months from 1st April 2021 to 31st March 2022.

It's an opportunity to share how stakeholder views have influenced and informed our decisions over the last regulatory year.

We'll also share our achievements, challenges and performance against some key regulatory targets.

We hope you find the report interesting and informative. Please get in touch if you'd like to find out more about any aspect of our work.

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1. Introduction

1.1 A word from Mark

The past year has seen unprecedented challenges for our industry and the communities that we serve. The economic impact of the pandemic became increasingly evident as it entered its second year, sending more people than ever before into food and fuel poverty.

The cost-of-living crisis was compounded further in the second half of 2021 when soaring wholesale energy prices saw the cost of natural gas increase by over 200%, forcing many energy suppliers into administration when their businesses became unsustainable, directly impacting 231,000 customers in our region.

With the backdrop of such uncertainty, our customers required us to be more flexible, adaptable and responsive than ever before. As the energy crisis unfolded, we worked with our communities and partners to understand their specific challenges and develop a programme of tailored support.

It's clear that the cost-of-living crisis will define our stakeholders' priorities for years to come and our future engagement is already being shaped with this firmly in mind. The trusted relationships we've built have allowed us to provide flexible and responsive support to help tackle the increasingly complex challenges that our customers are facing. You can read more about that in section 4.3.

Fairness, accountability and responsiveness are the values our customers tell us they hold most dear, and these values underpin everything we do. Throughout section 4 you can read about how we've worked with our stakeholders to develop initiatives to help shape sustainable and resilient communities, from a new Winter Support Fund through to our new People and Planet Strategy.

The challenges for our business and the wider energy sector remain significant. We are focused on reducing customer bills and maintaining high levels of customer service alongside the substantial investment required to deliver net zero by 2050.

The last 12 months saw the global drive to achieve net zero ramp up, with the UK hosting the first UN climate change conference (COP26), and the Government publishing its Hydrogen Strategy, setting out its ambition for this clean-burning gas to heat homes and power industry and transport. Meanwhile, the devastating conflict in Ukraine further highlighted the risks of the UK's reliance on gas imported from overseas and resulted in the publication of the Government's British Energy Security Strategy earlier this year, focusing on the need for homegrown energy and doubling hydrogen production targets.

While the transition to net zero is not without its challenges, the prospect of locally produced green energy is an exciting one for our northern communities, from investment in skills and new jobs to economic growth. We continue to work in collaboration with other Gas Distribution Networks (GDNs) and industry partners demonstrating the gas network's crucial role in the transition to net zero through our hydrogen programmes (see section 4.5).

The real effects of climate change were acutely felt this winter when the UK was hit by a succession of severe storms, testing communities and energy networks

to their limits. The events demonstrated how interconnected our energy systems are and highlighted the importance of continued investment in a whole systems approach and cross sector working.

Our work programme continue to be shaped by regular conversations with our Young Innovators Council and our Citizens Panel, who represent the views of current and future customers. This, combined with the independent challenges from our Customer Engagement Group, who continue to hold us to account on our customers' behalf, ensure that we remain focused on keeping customer and stakeholder insights at the heart of our decision-making.

I'm incredibly proud of what our colleagues have achieved this year. Our role as an anchor institution – one that has influence on the economic and social prosperity of the region – has never been more relevant and we are committed to continuing to support our communities and make a positive difference.

Finally, I'd like to thank all our stakeholders for their unwavering support, guidance and collaboration. We couldn't do any of this without you.



1.2 Highlights of our year

518,460 voices heard	12,144 stakeholders engaged strategically
61 strategic engagement events held	23% of voices heard through strategic mechanism were vulnerable customers
6,496 interactions with our online engagement hub	8.8/10 stakeholder satisfaction score
8.7/10 average rating for our workshops	9.2/10 customer satisfaction score

2. Working together with stakeholders

We want to focus on the things that really matter. By understanding our stakeholders’ values, preferences and ideas and building trusted relationships we can make meaningful changes in our business.

Over the years we’ve built a tried and tested approach to working with our stakeholders, that gives us the breadth and depth to explore difficult and challenging issues and get to the heart of what’s important them.

Each year we analyse everything we’ve heard to prioritise the issues our stakeholders and customers most want to engage on.

There are a number of different ways we talk with customers and stakeholders: on the doorstep, online through focus groups, workshops, forums and surveys, and over the phone - suitable to their preferences and needs.

We’ve also developed a range of innovative mechanisms, including our industry leading Citizens Panel, Young Innovators Council and our annual Customer Perceptions Research that allows us to challenge and test our thinking and ensure our actions continue to be relevant and meaningful.

We have 15 core ways we engage with our stakeholders and customers, allowing us to speak with 12,144 stakeholders this year.

Whilst our online workshops have proved an effective way to continue deliberative engagement, networking has been hard to translate into an online environment. In 2022 we will reintroduce a mix of online and in-person engagement and plan to host a series of stakeholder open days to reconnect with our stakeholder community and nurture the trusted, long-term relationships we’ve built .

Key N National Policy Shapers L Local Place Makers C Customers and Future Customers W Wider Workforce and Supply Chain				
Inform	Together Online Engagement Hub	Social Media	Stakeholder Newsletter	Expert Speakers
	N L C W	N L C W	N L W	N L C W
Consult	Hot Topic Surveys	Customer Perceptions Research	Doorstep Surveys	Webinars
	N L C W	C	C	N L W
Involve	Hot Topic Workshops	Bilaterals	Communities of Interest	
	N L W	N L	L C W	
Collaborate	Citizens’ Panel	Industry and Policy Working Groups	Young Innovators Council	Social Strategic Partners Board
	C	N L W	C	L

3. Holding us to account

CEG

Our Customer Engagement Group (CEG) is an independent board that monitors and challenges our business, to make sure we are meeting customer and stakeholder expectations.

They play a crucial role in challenging our decisions, acting as a critical friend to make sure that we are delivering on our promises in our business plan and identifying the things that really matter to the region and our customers.

We consider feedback from the CEG alongside our view of changing stakeholder needs to continually evolve our approach.

They produce their own independent report annually which reflects how we have considered stakeholder views and responded to customer and stakeholder feedback over the last year, using this input to shape our business decisions.

You can read more about their challenges to us along with the areas they feel we should focus on in their **annual report**.

“Northern Gas Networks have demonstrated that they have listened to current and future customers and stakeholders, and have responded to the issues they identified as most important. The CEG has been impressed by the commitment of the senior management team to engage and co-design programmes with key stakeholders – including innovation projects to support customers in vulnerable situations and in response to increasing need, due to the energy and cost of living crises.”

Jenny Saunders,
NGN Customer Engagement Group Chair

External benchmarking

Transparency and accountability are important to our stakeholder community, as they are to us. We’ve adopted recognised frameworks to help us monitor our progress and ensure that we’re doing the right thing for our stakeholders through external assurance programmes.

We’ve also adopted independent benchmarking to focus on the quality of our engagement both in, and out of, the utility sector and through direct surveying with our stakeholders.

External assurance programmes

- Our **ISO 14001** Accreditation measures the effectiveness of our environmental plans and how our stakeholders are helping to inform our company environment strategy and initiatives.
- **BS18477 Inclusive Service Provision** ensures we are identifying and responding to customer vulnerability in an inclusive way.

Independent benchmarking

- The UN **Sustainable Development Goals** help us track our progress and share results publicly through their website to benchmark ourselves. This sits alongside our environment and new sustainability strategy, (see 4.4.1) where we have developed targets and are engaging with our stakeholders, particularly the Young Innovators Council, to set specific performance targets against key areas.
- **Business In The Community’s** Responsible Business Tracker sets out the environmental and socially responsible actions our business should be taking. This year we scored an impressive 74% across all categories – which extend to our environmental and social performance - compared to a utilities sector average of 70% and demonstrated considerable improvement on our 2019 score of 50%. Stakeholder and community engagement was our highest scoring area with NGN scoring 100% compared to the general average of 56% and utility sector average of 90%.

“[NGN is] following a rigorous stakeholder engagement process which is inclusive and encourages diverse perspectives. It is particularly encouraging to see the company engage with diverse groups, including young people via the Young Innovators Council.”

BITC 2021 NGN feedback report

- We also measure our service through the **Institute for Customer Service (ICS)**. This year we received our highest ever score of 91% for the customer survey compared to 88% in July 2019.

4. What we've heard and done this year

4.1 What matters to customers and stakeholders?

Each year we undertake an analysis of all the insight we've heard to prioritise the issues our customer and stakeholders most want us to engage on.

As well as shaping our business objectives for the year, this helps us to develop focused plans for further engagement over the next year.

Four topics have been central to our engagement strategy this year, becoming more prominent as a result of the significant changes we have seen in the energy marketplace and the wider economy:

- 1. **Delivering value** - understanding how we can better deliver value through our regulatory contract and ensure social, environmental and economic value
- 2. **Meeting the needs of customers** - adapting to meet our customers' needs, particularly those in vulnerable situations, to address increasingly complex challenges
- 3. **Maintaining a resilient network and business** - ensuring we have a resilient and sustainable business that delivers a safe and reliable service and, as an anchor institution, acting as a positive force in communities.
- 4. **Supporting a net zero future** - helping people to make more informed decisions around energy to meet climate change goals and specifically understand the role hydrogen has to play in the energy mix as part of a green future.

Underpinned by this have been some core values that our customers said it was important for NGN to uphold:

Fairness, accountability and responsiveness

As priorities have changed our engagement framework, set out in section 2, has allowed us to identify those reprioritised needs and adapt. The rest of this report focuses on how our engagement and our stakeholders have helped us respond to these changes and work together to shape our decisions on these topics this year.



4.2 Understanding value and impact

Making sure our decisions deliver the right value

We use a 'Value Framework' to understand and compare the holistic costs and benefits of different approaches, factoring in the environmental, economic and social impacts and outcomes into our decision making.

To develop the framework, we've engaged extensively over the last five years with our stakeholders to establish a comprehensive library of benefits, putting monetary values on factors such as Carbon Dioxide (CO2), plastics, pollution and health impacts and using accepted best practice economic data sources, such as the Government Green Book.

Adding value for communities

We've worked closely with Voluntary, Community and Social enterprise (VCS) organisations this year to develop a toolkit and user guide based on our own Value Framework tool, for our community partners to use. This allows them to measure Social Return On Investment (SROI) of projects in a simple way to better understand the potential to grow and scale up grassroots projects and partnerships.

Understanding the impact of our decisions on customers

We've joined forces with our electricity and gas network partners to co-create a new evaluation tool that will allow the networks to easily and consistently assess the impact of any project undertaken by the energy industry on customers across a range of vulnerable circumstances.

The tool was informed through a comprehensive analysis of over 450 innovation projects delivered by the energy networks since 2018. This was triangulated with insight from 124 stakeholders across 56 expert organisation - representing every Priority Services Register (PSR) need code.

The result is a quick, simple and consistent way to identify how customers in vulnerable situations will be affected by a project, alongside a set of suggested mitigations to reduce any negative impacts.

We now plan to merge our own Value Framework with the impact assessment tool. This will create a single assessment framework that can be applied to all projects and help us understand the qualitative and quantitative benefits alongside the comprehensive impacts of our decisions and projects on customers in a consistent way.

4.3 Meeting the needs of customers

Introduction

This year has continued to present challenges for how we meet the increasingly complex needs of our customers. Disadvantaged communities, already struggling to recover from the pandemic have been hit further by fuel stress and the cost-of-living crisis, compounding deep-rooted socio-economic issues across our region.

Our strategic social partners, VCS stakeholders and our customers have continued to guide us to

focus resources, shape our initiatives and prioritise investments to meet the needs of our different customer groups, helping us be responsive and do the right thing for customers.

This section sets out how we've responded to these challenges, taking a customer first approach to improve customer experience, provide holistic support to prevent further hardship during increasingly challenging times, and treat all customers fairly.

In figures



4.3.1 Supporting vulnerable communities

What we’ve heard: Worries around rising energy bills are dominating customers thoughts, with two thirds (68%) of customers telling us they are concerned with the amount they spend on energy and larger energy bills compounding the problem of fuel stress, especially during winter.

VCS stakeholders gave us clear direction at our annual Customers In Vulnerable Situations (CIVS) strategic workshop that we should do more to help those in most need, in particular we should focus on addressing fuel poverty, maximising the new Vulnerability and Carbon Monoxide Allowance (VCMA) funding stream and building on our community partnerships to provide support. We’ve used further quarterly workshops with these stakeholders to understand the complex and changing nature of vulnerability and subsequent impact on communities in our region.

Our response: We’ve adopted an evidence-based approach that utilises knowledge of our customers and stakeholders and learns from data and experience This has enabled us to establish a wide-ranging programme of targeted support through community partners, for customers where it is needed most across four different mechanisms.

Support programme	21/22 Spend	Support
Vulnerability and Carbon Monoxide Allowance £1.3m per year	£ 854,242	23 regional projects supporting fuel poverty, literacy, mental health, physical disability, CO awareness, financial hardship, rurality, energy efficiency, PSR. More information is included in our annual report 6 UK-wide projects with the other GDNS supporting fuel poverty, CO awareness, energy efficiency and financial hardship. You can find out more in our joint report
Community Partnering Fund (CPF) £50,000 per year	£52,082	19 grassroots projects supporting fuel poverty, food poverty, energy efficiency, PSR, CO awareness, Science, Technology, Engineering and Maths (STEM), community resilience
Winter Support Fund £100,00 per year	£60,000	Fuel poverty, affordable warmth, financial hardship
Customer Support Fund £150,000 per year	£89,054	3 support streams covering fuel poverty, financial hardship, physical health

Table 1: Our targeted programme of support for vulnerable customers

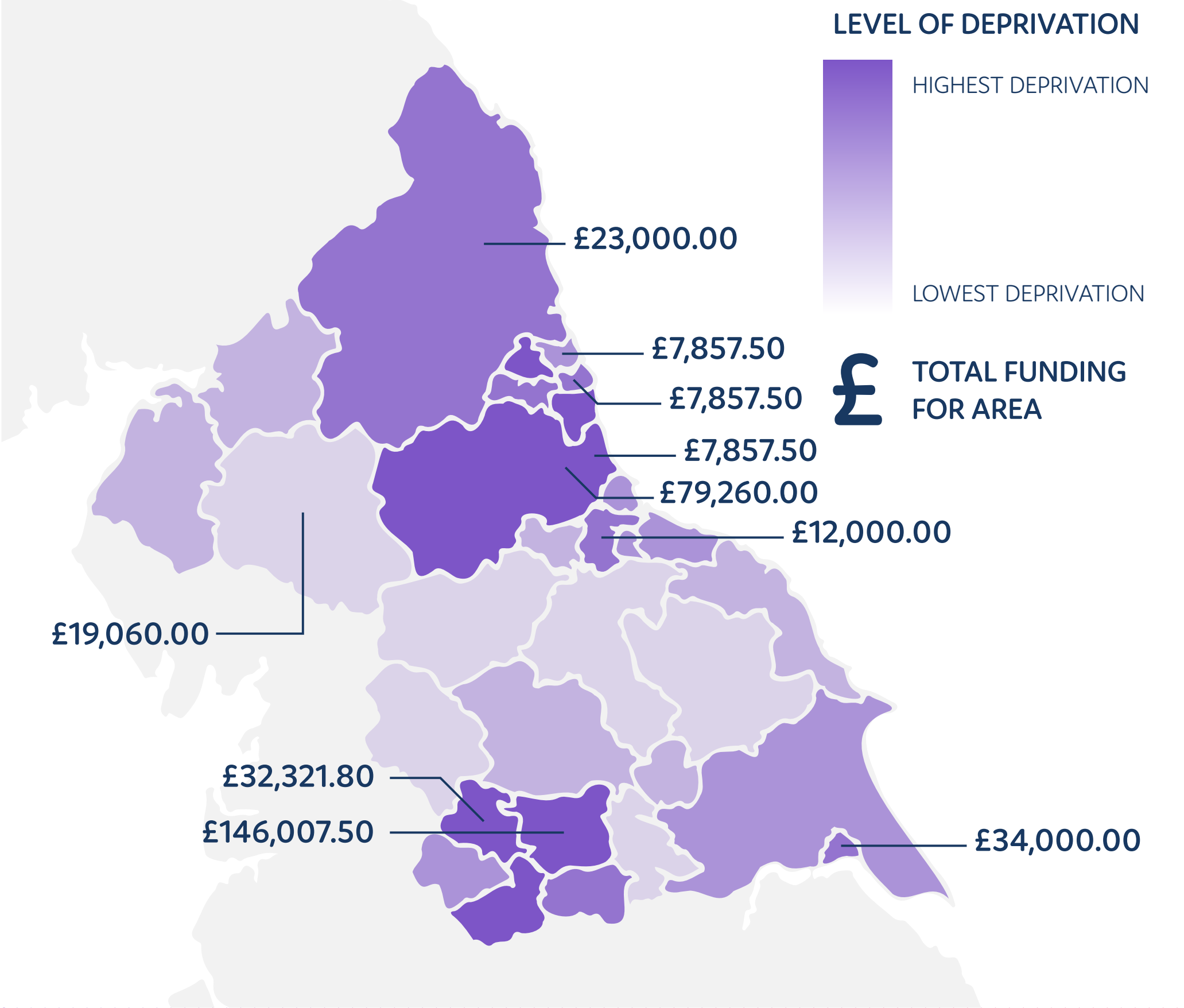


Figure 1: How our investments from VCMA and CPF funds dovetails to areas facing greatest deprivation.



Community Partnering Fund

Our Community Partnering Fund (CPF) with Northern Powergrid has continued to support grassroots projects this year. As well as focusing on **fuel poverty and energy efficiency, CO safety, the PSR, STEM skills, and recovery from Covid-19**, we’ve expanded the focus to food poverty projects in response to the increasing number of customers in food and fuel poverty.

19 new projects have been supported this year, generating £2 or more of benefits for every £1 invested. Known and expected benefits that will be delivered from these projects include:

- 68,052 people benefiting over all
- 900 people directly supported with improved home and living environments
- 6,200 trained / improved skills

Winter Support Fund

As a direct response to the significant increase in energy costs we created an immediate £100,000 pot using shareholder money to support customers in immediate hardship or who were likely to need support during the winter of 2021.

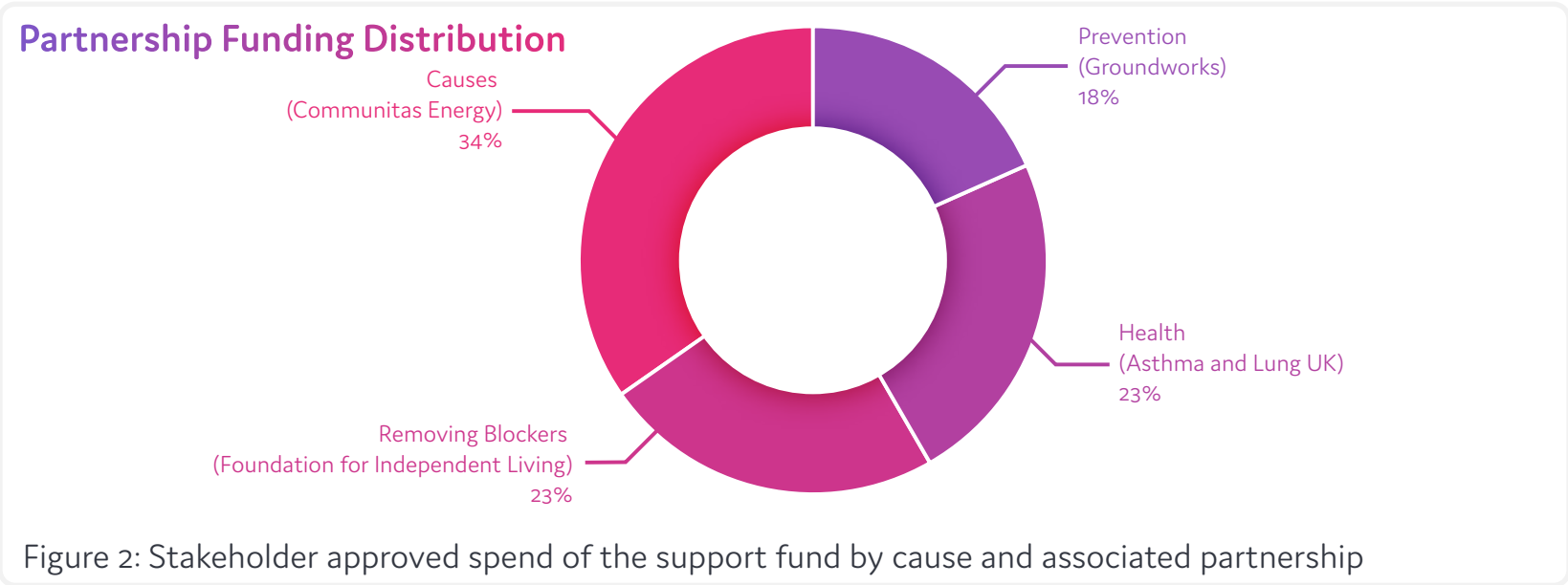
We worked with our VCS partners to identify the most effective way to deliver support, apportioning 50% to providing practical measures directly to customers, through winter warmer packs and 50% to provide same-day emergency financial support for up to 700 customers struggling to top up their meters through the Fuel Bank Foundation.

Given the enduring nature of the energy crisis and the expected continued increase in costs, this support will be available throughout 2022, to provide support for as long as it’s needed.

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4.3.2 Support for customers facing significant hardship

What we’ve heard: Our customers and stakeholders told us we shouldn’t move beyond our core role as a gas distributor and, whilst supportive of us introducing a support fund for customers experiencing significant hardship, it should always have an energy related focus to the services we provide. They said we should focus on four areas of support: **Prevention:** Helping customers from moving into financial vulnerability; **Health:** Helping customers with health conditions made worse by living in a cold, damp, poorly heated homes; **Causes:** Helping customers to get access to assisted fuel-poor gas connections, who didn’t quite meet the narrow criteria and; **Removing blockers:** Helping customers who simply can’t afford to get gas appliances replaced/repairs.



Our response: Having established four partnerships to be the key delivery bodies for the fund, we launched our **Customer Support Fund** in April 2021 and have delivered the following outcomes:

- **Foundation for Independent Living Trust-** recruited 14 additional Home Improvement Agencies to give full coverage across our network to respond to gas safety referrals from homeowners. This resulted in 602 households receiving a visit from a gas safe engineer to check, service or repair a gas appliance.
- **Asthma and Lung UK** - provided a dedicated community engagement officer to support volunteers, rebuild community support groups across the North East and increase support paths for patients discharged from hospital. We’ve delivered training in PSR and CO safety to 8 members of their Helpline team following an increase in calls relating to home heating and spoke at the annual conference around the range of benefits and schemes for available for home heating.
- **Groundworks** - funded a dedicated benefits advisor to provide advice around debt prioritisation, support applications to Energy and Water Trust Funds and refer those with multiple debts for specialist support. So far, we’ve supported 2,379 customers and helped 1,844 households to apply for a range of welfare support and fuel vouchers.
- **Communitas Energy** - we had allocated £50k to support those falling between funding gaps for fuel poor connection. As the fuel poor landscape and policy has changed significantly over the year, we are working with our community energy partner to agree the best solution to meet customer needs and start delivering in 2022/23.

Future direction: When we designed the fund in 2019, we had no idea of the significant changes that were to lie ahead and the scale of the changes to customer needs. UK wide there are now an additional 2.5 million people facing fuel poverty, with an estimated 1.5m of those in our region, in the space of a year.

We’ve begun working with our stakeholders and customers to review the fund to ensure our support package reflects the new challenges and concerns that our customers are facing alongside the increased costs of energy and living and the impact of Covid.

Our Citizens Panel told us they are supportive of the fund and satisfied that it is tackling the issues and the causes of inequality. However, they also said that it’s important to continually monitor and adapt, in response to the use of the fund and wider circumstances.

In light of the current socio-economic challenges, they’ve identified some additional areas where the Customer Support Fund could help including:

- Supporting customers whose health is made worse by living in poorly heated homes
- Preventing customers moving into financial hardship
- Support for the vulnerably housed, or those in unexpected or emergency situations

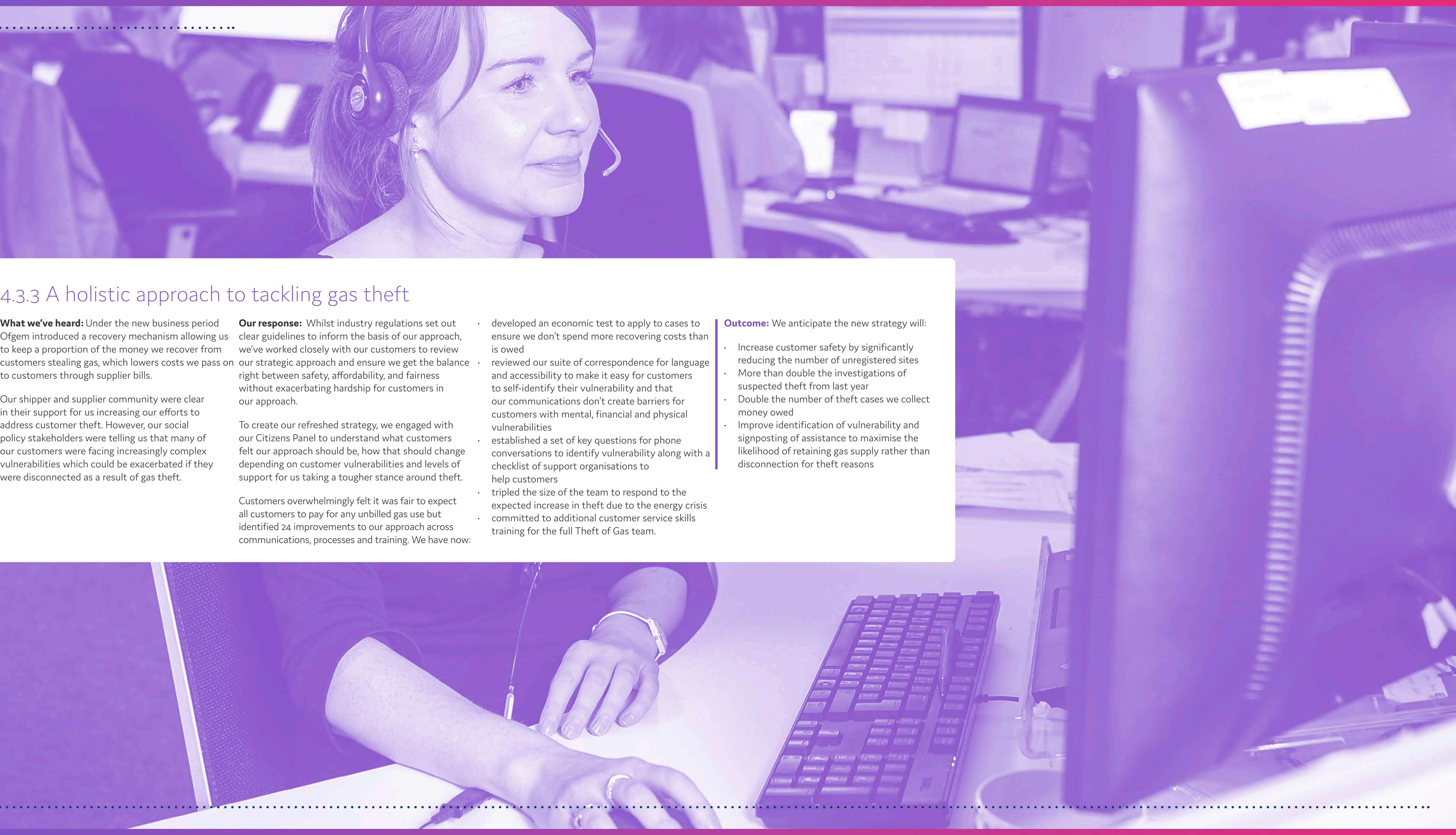
We will spend the early part of 2022/23 working with our Social Strategic Partners and VCS community to understand how we can support solutions to these needs through the fund.

Outcome:

An increase in vulnerable customers receiving support, leading to:

- Additional provisions of support to alleviate fuel and food poverty including
 - £157,111 customer savings
 - £63,161 emergency fuel payments
 - £92,200 potential customer savings from energy/water usage advice
 - £150,000 potential customer savings from referral to specialised debt agency partner
- Increase in signups to the PSR
- Higher levels of CO awareness
- Creation of three jobs





4.3.3 A holistic approach to tackling gas theft

What we’ve heard: Under the new business period Ofgem introduced a recovery mechanism allowing us to keep a proportion of the money we recover from customers stealing gas, which lowers costs we pass on to customers through supplier bills.

Our shipper and supplier community were clear in their support for us increasing our efforts to address customer theft. However, our social policy stakeholders were telling us that many of our customers were facing increasingly complex vulnerabilities which could be exacerbated if they were disconnected as a result of gas theft.

Our response: Whilst industry regulations set out clear guidelines to inform the basis of our approach, we’ve worked closely with our customers to review our strategic approach and ensure we get the balance right between safety, affordability, and fairness without exacerbating hardship for customers in our approach.

To create our refreshed strategy, we engaged with our Citizens Panel to understand what customers felt our approach should be, how that should change depending on customer vulnerabilities and levels of support for us taking a tougher stance around theft.

Customers overwhelmingly felt it was fair to expect all customers to pay for any unbilled gas use but identified 24 improvements to our approach across communications, processes and training. We have now:

- developed an economic test to apply to cases to ensure we don’t spend more recovering costs than is owed
- reviewed our suite of correspondence for language and accessibility to make it easy for customers to self-identify their vulnerability and that our communications don’t create barriers for customers with mental, financial and physical vulnerabilities
- established a set of key questions for phone conversations to identify vulnerability along with a checklist of support organisations to help customers
- tripled the size of the team to respond to the expected increase in theft due to the energy crisis
- committed to additional customer service skills training for the full Theft of Gas team.

Outcome: We anticipate the new strategy will:

- Increase customer safety by significantly reducing the number of unregistered sites
- More than double the investigations of suspected theft from last year
- Double the number of theft cases we collect money owed
- Improve identification of vulnerability and signposting of assistance to maximise the likelihood of retaining gas supply rather than disconnection for theft reasons

4.3.4 Improving customer experience

What we’ve heard: As customer bills have risen, so have customers’ expectations of a standard of service, with 50% more customers telling us that they expect us to provide outstanding customer experience.

While we consistently score above 9 for satisfaction around our Connections and Emergency Repair work, we have plateaued around 8.9 over the last four years for our Planned Works score.

With more customers working from home following Covid-19, there is an increasing awareness, and impact, of our Planned Works which is creating a more challenging customer environment for what is already one of the most disruptive aspects of our work.

Our response: This year we’ve worked closely with our Direct Service Providers (DSPs) who deliver our Planned Work programme to bring them closer into the business and the customer journey.

Together we’ve established a new process and framework that will improve customer satisfaction around Planned Works and meet our ambition for continual improvement over the next five years.

Figure 3 summarises our approach this year.

Figure 3 - Approach to improving customer satisfaction on Planned Works



Strategic

- **Stakeholder workshop** - A 2-day workshop was held with our 14 DSP owners to share our focus and vision, draw out their challenges as small business owners and to identify how we can support them to deliver for our customers. This identified clear areas of support required including:
 - making better use of data
 - how to support vulnerable customers
 - how to support specific customer demographics
 - more involvement in community projects
- **Understanding root issues** - Direct conversations with customers during works to understand challenges and successes.
- **Defining the challenge** - Identifying new impacts on satisfaction levels such as the length of supply interruption influenced the overall satisfaction score against each DSP.

Tactical

- **Making better use of data:**
 - We implemented a live dashboard portal to track customer satisfaction scores daily allowing real-time identification of particular hotspots or issues, particularly where we have big replacement schemes underway.
 - DSPs attend our weekly customer complaints meetings looking at issues raised by customers and identifying solutions.
 - Established internal operational group to share best practice from high scoring areas of our network and identified new ideas to improve and respond to customer issues. This year they’ve introduced 57 new initiatives to improve our responsiveness to issues.
 - Increasing the monthly survey sample that looks at Planned Works threefold to give DSPs access to more, and better, data and help analyse and identify trends across the patches.
 - Quarterly deep dive of customer satisfaction data to identify and understand key drivers of dissatisfaction.
 - Continuing to devote ICS survey only to Planned Works to identify strengths and issues.
- **Supporting vulnerability:**
 - Delivered training for 513 DSP colleagues including recognising customer vulnerability, how to deal with dementia and other mental health needs, CO awareness and regional referral routes to support customers.

Operational

- **Supporting customers:**
 - Created a detailed customer communications pack for Planned Works to explain what to expect as a customer.
 - Introduced a reinstatement toolkit to help customers understand Planned Works and what “good” looks like.
 - Our internal colleague communities -as part of our inclusion strategy- have worked with our operational teams to create a customer calendar helping them better understand community and customer needs in relation to religious and cultural festivals, key dates and correct etiquette. For example understanding the times during Ramandan that customers and colleagues might be fasting, and therefore when gas needs to be available to use for cooking.
- **Involvement in communities:**
 - Planned a programme of open days for our engineers to meet with our community partners to improve their understanding of grassroots partnerships and referral routes to support customers and communities.

Outcome:

- Increase in Planned Works customer satisfaction scores from 8.92 to 9.09
- 3% increase in Institute for Customer Service customer satisfaction score to 91% (focused on planned work customers)
- Net Promoter Score of 73.1% (improved from 45.5% in 2019), against a utility sector average of -2.5%

4.4 Delivering a sustainable and resilient network and business

Introduction

Through our regular meetings with Local Authorities and Anchor Institution Network partners such as the NHS and Local Resilience Forums, we’ve continued to understand regional challenges and priorities.

We remain clear that our role as an employer and a provider of services is critically important to help address regional challenges and create opportunities to build sustainable and resilient communities.

While sustainability is about protecting our planet, it’s equally about responsible decision-making to ensure our customers, colleagues, supply chain, and ultimately our business can thrive long term.

We have embedded our role as an anchor institution into the culture of our business, acting as a positive force in communities and delivering sustainable social value for communities through our strategic and daily decisions. This has helped us to:

- create a coherent sustainability strategy to tackle the challenges facing our business, society and environment
- build resilience and sustainability in our supply chain through our supplier code of conduct
- ensure our network and assets are resilient to climate change and, when that resilience fails, we can still offer sustainable support to customers and communities
- support the safety of our network and our workforce through innovative data
- improve the stability of services in communities through our leading approach to cyber security.

In figures



4.4.1 A long-term commitment to people, communities and our planet

What we've heard: Feedback from the 2019 BITC Responsible Business Tracker showed that across the responsible business agenda we were really strong in areas with established strategies such as environment, engagement and vulnerability. And while we had a strong social conscience, areas around good work, inclusive growth, human rights and diversity/inclusion needed further development. This made us realise that having an all-encompassing sustainability strategy that covers all aspects of a responsible business would improve our performance and our accountability.

Our response: Having already worked with stakeholders to create a series of environmental targets aligned with the UN's Sustainable Development Goals (SDG's) in 2019, we combined this with our stakeholder-led programmes of social mobility and inclusion into a cohesive sustainability strategy for our business outlining our long-term commitment to people, communities and our planet.

Our **People and Planet Strategy** has been informed by 14,000 stakeholders over the last four years based on their priorities, to create a set of overarching commitments, ranging from spending responsibly and reflecting the diversity of our communities in our workforce, through to managing our land to benefit the environment and eliminating emissions.

Our resulting strategy gives us a clear framework outlining 12 commitments underpinned by ambitious targets that align with, or go beyond, the

commitments in our business plan and enable us to tackle the challenges facing our business, our society and our planet today and through to 2050.

We've worked closely with our stakeholder community to develop a set of ambitious short, medium and long-term targets for each commitment that reflect their views and deliver against the challenge from our Young Innovators Council to make sure that we have tangible and ambitious targets against each commitment.

Wherever possible we tested our commitments and targets with our Citizens Panel, our internal colleague communities, our Young Innovators Council, our Customer Engagement Group members and our investors. This has ensured our targets, specifically those around gender pay gap, inclusion and social mobility, and the language we use to talk about sustainability, are fit for purpose and reflect the

expectations of us as a responsible business now and in the future.

We've underpinned our approach with strong governance systems, linking executive pay to achieving our climate change targets, reflecting the importance of accountability to our current customers and future generations.

We tested our revised approach through the BITC in early 2022. We scored an impressive 74/100, compared to 50/100 in 2019, with significant improvement in scores for our approach around supply chain, climate action and inclusive employment and good work.

What's next? We are working closely with our Young Innovators Council, as our future colleagues and customers, to develop more inclusive targets around our commitments to reflect the diversity of our communities and eradicate inequality.

Through our culture of empowering colleagues, our colleague communities and inclusion working group will lead on developing our approaches to meet these commitments by changing everyday behaviour and challenging the status quo in all areas of the business.

Outcomes

While this is a long-term strategy to deliver benefits into 2050, we anticipate by 2026 the framework will deliver:

- A clear action plan to address our gender pay gap
- An additional £1.4m of shareholder and regulatory funding to support vulnerable communities and customers
- Higher levels of increased CO safety awareness
- Improved workforce resilience including the recruitment of 60 apprenticeship
- Reduced carbon emissions we directly and indirectly produce by 47%
- Reduced office and depot waste by 20%
- Biodiversity improvements at 250 sites
- Improved air quality through planting of 40,000 trees

Our engagement journey

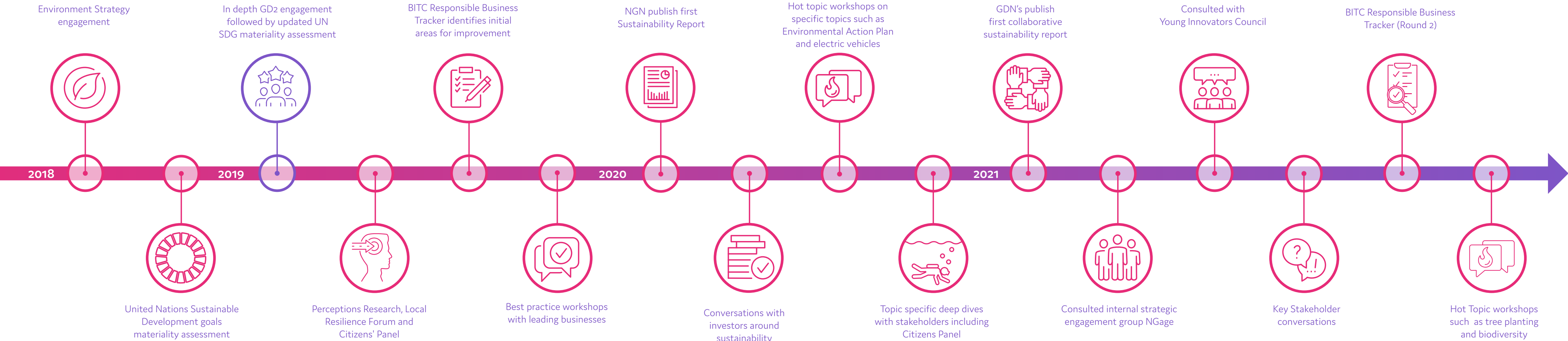


Figure 4 - Our four year programme of engagement with stakeholders to develop our People and Planet Strategy

4.4.2 Helping our supply chain become more sustainable

What we’ve heard: In recent years we’ve introduced an SME friendly Sustainable Procurement Strategy that we co-designed with our local supply chain in response to calls to use our spending power to support local growth.

One of the key objectives of the strategy was to make sure that we have ethically responsible suppliers who understand the importance of sustainable procurement - legally, environmentally and socially.

This was reinforced by Ofgem in their RIIO-2 mandate which said at least 80% of our supply chain spend should be compliant with a supplier code of conduct by the end of 2026.

Our response: We’d gained a detailed understanding of the challenges facing our supply chain through our ongoing engagment around our Sustainable Procurement Strategy which formed the basis of our approach.

The development and introduction of a **code of conduct for our suppliers** was scrutinised from early draft stages with significant input into the shaping of the code by colleagues, other utilities, business intermediaries (including the Federation of Small Businesses), our supply chain and our CEG.

We then tested levels of support, compliance and governance in a detailed workshop with our supply chain from micro through to large local corporate businesses to support our ambition for compliance across our whole supply chain - not just a few.

We made approximately 10 changes to our approach as a result of input from our suppliers, including:

- joining the Supply Chain Sustainability School to provide free bespoke support and training for suppliers to help them to become compliant and adopt sustainable practices
- removing jargon and explaining technical terminology to make the code accessible
- developing a self-declaration form for suppliers to demonstrate that they are working to the practices, which will then be reinforced by an audit plan
- creating a guidance document and appointing a dedicated procurement contact to support suppliers in compliance
- allowing suppliers to agree tapered compliance over an agreed period if they cannot meet all of the criteria immediately.

Our code received 100% acceptance from suppliers at the workshop. We have now built this into our procurement process for new suppliers and are working closely with our existing supply chain over the spring and summer of 2022 to support adoption across the business.

Outcome:

- Environmentally, socially and financially sustainable business practices across our supply chain
- Minimum 80% of contracted supply chain to be signed up to it by end of RIIO-2.
- Approximately 60% of supply chain indicated that are already compliant
- Improved environmental data reporting
- A responsible supply chain which shares our values to ensure we can deliver a resilient and sustainable business



4.4.3 Collaborating to improve regional resilience and support

What we’ve heard: Our Customer Perceptions Research shows that providing a reliable supply of gas remains a key priority for customers.

When things do go wrong, customers tell us they want us to be responsive and act quickly, working with them to alleviate any hardship. They want our communications to be clear and accurate, to highlight support available and, where possible, to make the best use of local resources to help provide essential services.

Most importantly, we’ve heard that regional resilience is key, and we should be working with utility providers in our region to deliver a holistic response.

Our response: This year we’ve continued to look at ways to protect our network, working closely with our customers, our electricity network partners and wider innovation stakeholder community to develop a responsive, flexible and holistic approach that builds regional resilience.

When Storm Arwen hit in November 2021, 112,000 homes were without power across the North of England. While there was no loss of direct gas supply, our customers were severely impacted in the ability to use their gas appliances as a result of the impact on the electricity network.

This acutely highlighted the interdependency between gas and electricity. We quickly joined forces with our electricity partners to understand the most effective way to help our shared customer base.

Working closely with Northern Powergrid (NPG) we implemented our customer-first incident approach to help NPG provide largescale support utilising our established community support outreach so they could focus on getting the electricity back on.

This included using our existing commercial arrangements with hot-food providers across our region, and mobilising them to the worst hit areas, as identified by NPG, providing NGN colleagues on site to support vulnerable customers, and operational managers to help the co-ordination efforts.

Over six days we provided:

- communication support sharing information and updates to customers across all our channels
- 234 hours of support including access to engineers, our customer support team, procurement and incident management staff to provide key operational support on the ground
- over 20,000 hot meals for customers through our caterers and suppliers
- 157 winter warmer packs
- 22 colleagues to deliver operational and welfare support on-site and specialist customer help for PSR customers across seven key areas

Feedback from customers and regional stakeholders made it clear that as central infrastructure providers, providing resilience across communities is vitally important and we can work together better during incidents to provide stronger regional resilience.

In response, we’re working with NPG to formalise a regionally focused utilities mutual aid agreement, which we will expand out to our water partners. We will also closely review the outputs from the Government enquiry in to the DNOs (Distribution Network Operator) responses to see where we can learn lessons and improve support and resilience.

At a practical level, we’ve undertaken a significant upgrade of our Geographic Information System (GIS) mapping technology, creating an advanced model of all our underground infrastructure data. This includes using a Utility Network Data Model (UN), a first for a utility in the UK, which highlights the integrated connection between assets to help us identify problems and plan better.

We’ve also started to explore the potential for our vulnerability mapping tool to support regional resilience. In particular we’re working closely with NPG and other electricity networks to understand how flooding and outage data can be used to predict future incidents and resilience challenges across our network.

Outcome:

- A regionally focused utilities mutual aid agreement to provide holistic customer support when required
- Improved asset resilience
- Improved capabilities to support communities
- A comprehensive programme of support for customers during energy outages
- Efficient sharing of data and resource
- A safer service

4.4.4 Creating a shared underground map

What we’ve heard: Landowners, developers, planners and other utilities tell us they would like a more accurate system to identify utilities, to avoid them having to log into multiple systems and to access the different data that they need to plan activities and avoid underground assets.

Our response: Following a successful trial of a prototype in the North East with other local utilities in 2019, we’ve progressed a collaborative project with the Geospatial Committee to develop an interactive national digital map of buried assets which will improve the efficiency and safety of underground works.

Our mapping data, alongside other underground asset data, has been fed in to develop a national map known as the National Underground Asset Register (NUAR). Following successful trials, we are now agreeing a Data Distribution Agreement with the Geospatial Committee to enable them to publish our mapping data onto the system ready for full trialling in 2023.

Accidental utility strikes cost the UK economy an estimated £2.4 billion a year. Not only will the platform improve safety and efficiency of local projects, it will avoid accidental asset strikes, improve the efficiency of works, and enable better data sharing.

Outcomes:

NUAR is expected to deliver around £350million per year in benefits including:

- A safer service and reduction in unplanned interruptions by reducing damage to assets
- A reduction in environmental impacts by making it easier to trace gas escapes
- Quicker planning and completion of jobs



4.5.5 Using data to improve regional resilience

What we’ve heard: Using data more effectively is an increasingly common theme from our stakeholders. For our regulator and customers safer and better use of data and technology is a key route to delivering against one of their top priorities - delivering a value for money service.

The ability to collaborate more effectively, by sharing data, is a growing priority for local policy makers to tackle issues that fundamentally impact our society, climate change, energy security, sustainability and equality.

Our response: Our **Digitalisation Strategy** continues to evolve as a practical response to meet the cultural, societal, and corporate requirements of being a responsible and sustainable business.

As we’ve improved the quality of our data, we’ve worked with academia (Newcastle and Leeds University) and energy data start-ups to understand how our data can be used by others and inform our Open Data approach, including what platforms and processes we use and how to maintain data security.

Through this engagement, stakeholders have helped us to identify several ways they could use our data including increasing economic output, reaching environmental targets, better serving a shared customer base amongst many service provider and promoting distributed energy production.

We’ve underpinned this with a leading approach to cyber security, undertaking a rigorous programme of engagement with cyber security experts including the National Cyber Security Centre, Ofgem, BEIS and 35 counterparts from across the UK utilities sector through the Energy Emergencies Executive Cyber Security Task (E3CC) group.

As leaders in this field, we’ve played a crucial role in the E3CC group this year, helping to provide a cohesive approach, sharing intelligence around threats, insights and challenges, discussing best practice and helping apply learnings to ensure that network and customer data is safe and secure.

Insights from this group have informed 26 separate internal cyber projects that we will deliver between now and 2026, as part of an industry leading approach that has been commended by the senior officials responsible for cyber security for Government.

Over the next year we are planning a focused programme of engagement around socialising our data and understanding how this can be used by others, in particular looking at how we can improve data-sharing with local authorities to enable better environmental planning and development.

Outcome:

- Increased understanding and awareness amongst local partners of the challenges and potential solutions to environmental challenges
- Improved energy network resilience
- Reduced disruption to customers

4.5 Supporting a net zero future

Introduction

Climate change has been high on the political agenda over the last year, with COP26 drawing global attention to our net zero challenge alongside the publication of much anticipated Government studies and strategies including the Heating Homes and Buildings Strategy and the Hydrogen Ten-Point Plan.

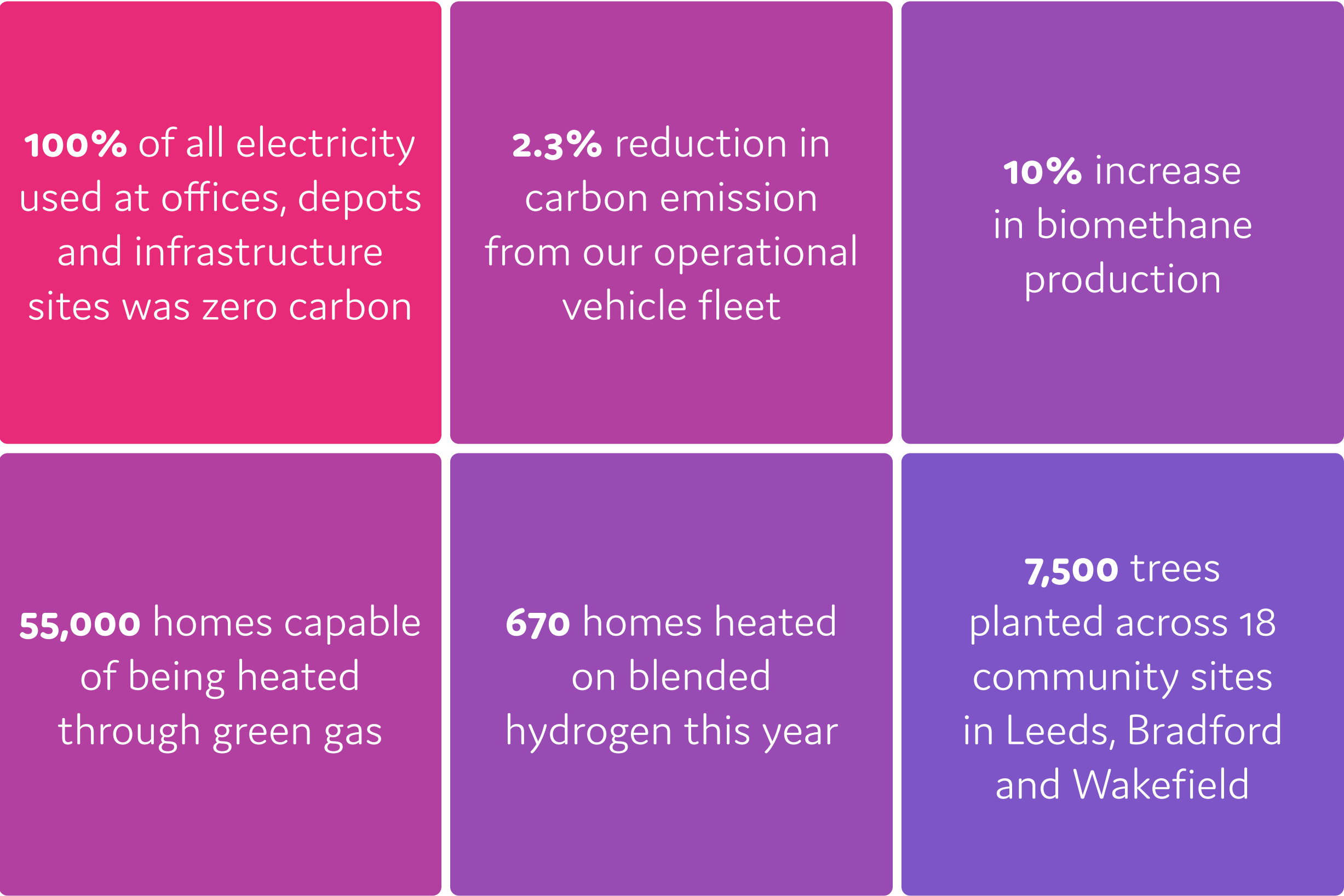
We've continued to be guided by this increasing push for decarbonisation, working collaboratively with the other GDNs and industry to demonstrate the gas network's crucial role in reaching net zero targets through our hydrogen and **Gas Goes Green** programmes.

Concerns around safety, cost and the viability of hydrogen still exist for customers, industry and policy makers. And we've worked closely with these groups over the year to enable them to make informed decisions and support emerging policy development.

Our stakeholders have been invaluable in guiding and influencing our approach, to develop and test ideas that will help us do more and commit more resource. This has helped us develop a holistic mature approach to our strategy as a business, making sure we deliver viable energy solutions for our customers and help customers and industry make more informed decisions, so no one gets left behind in the net zero journey.

This section sets out how we've moved from theory into delivery, working with stakeholders to address this shared challenge and demonstrate the reality and viability of hydrogen as part of a future energy mix.

In figures



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4.5.1 Joining forces to develop local energy plans

What we’ve heard: 68% of Local Authorities across our network have referred to hydrogen as an alternative low carbon fuel source in their energy planning to deliver against net zero emissions targets for their local areas. There are still a significant number of councils who do not acknowledge the use of hydrogen as a means of reducing greenhouse gas emissions in the home or as a fuel for sustainable transport.

Our response: In response, we have continued to actively collaborate with other utilities and industry partners to support the development of an efficient, effective, low carbon energy system for consumers.

Working through our joint charter with Northern Powergrid (NPG), where we committed to have a single conversation between networks and councils, we have delivered joint workshops with Local Authorities to help understand progress, barriers and support requirements. We have also continued to take an active role in local committees such as the Yorkshire & Humber Climate Commission to understand local ambitions.

Our commitment to an integrated approach to local area energy planning and future energy strategy was reinforced by NPG in their RIIO-ED2 business plan, where they formally committed to a collaborative cross sector planning approach, establishing complementary future energy strategies for both energy providers.

Developing a blueprint: Our key account management approach has enabled us to have detailed conversations with local authorities across our network to help improve awareness and offer support as part of a collaborative approach to developing holistic energy roadmaps and support local area energy plans.

This year we’ve formally started work on advising and providing data to develop our first Local Area Energy Plan (LAEP) with North Yorkshire and York LEP. This project is providing substantial ‘learning by doing’.

As well as helping us identify the expectations of how we contribute to local area energy plans, it’s also highlighting what will be required from a broader energy perspective. Alongside this, it’s enabling us to identify the contributions expected from local authority partners in terms of our data, time and financial support to develop these plans.

This will help inform our own strategic planning and, over the course of 2022/23, the development and roll out of a detailed support programme for local authorities across our network.

Data sharing: We are planning a series of stakeholder sessions next year, specifically around socialising the data that NGN holds, our processes and gauging feedback on how this can be used to help improve performance in areas such as environmental targets. This will help us to better serve a customer base that is shared amongst many service providers or to promote distributed energy production.

In addition, we are in the early stages of an initiative to look at how we can improve data-sharing with Local Authorities to enable better environmental planning and development. A large part of this work will be engagement with Local Authorities.

Outcome:

- Increased understanding and awareness among local partners of the challenges and potential solutions to decarbonisation of the energy system.
- Locally sensitive, evidence based local action plans that will allow local partners to develop investment plans and leverage external funding
- Increased capacity and capability amongst local partners to engage communities on complex issues



4.5.2 Innovating to develop affordable and inclusive net zero solutions

What we’ve heard: Over the last two years our stakeholder community, particularly across academia, local policy makers and transport have repeatedly been asking the same question – how can you help us get to a low carbon, low cost and sustainable energy solution and work with us to help customers and industry make more informed decisions around decarbonisation?

Our response: Recognising the value of Ofgem’s new Strategic Innovation Fund (SIF), a new funding mechanism for RIIO-2, we undertook a series of engagement events and workshops with a wide range of stakeholders from academia, industry, research groups and local government to explore the opportunities this provided.

This collaborative approach resulted in 80 project concepts which were further tested with stakeholders and the market to refine ideas and align them to the SIF challenge areas and criteria.

From here, we developed 10 project proposals, based on collaborative solutions to stakeholders’ issues that we submitted through the new Strategic Innovation Fund (SIF) mechanism.

In February 2022, Ofgem confirmed that we had been successful in receiving just under £500,000 initial funding to take forward five key projects into a 2 month “discovery” phase to develop initial feasibility studies and proof of concept.

Transport

The Multimodal Hydrogen Transport Refuelling Network Study

- **Partners:** Eversholts, Durham University, Herriot Watt University and Transport for the North
- **Funding:** £89,500.

The project will evaluate the potential for using hydrogen in heavy duty transport across the North of England. It will create a joined-up, regional strategy to cost-effectively kick-start the hydrogen economy in the North and will directly support the growth of zero-emission transport, the decarbonisation of the electricity grid and the repurposing of the gas grid for a net zero world.

Rail decarbonisation planning

- **Partners:** Eversholts, EA Technology, Northern Powergrid and Northern Rail:
- **Funding:** £113,500

Developing an overarching implementation strategy and methodology to enable the ongoing deployment of the most effective, efficient, and appropriate technology solutions to decarbonise rail transport.

Digital and Data

Critical factors for adopting smart homes for energy efficiency and implications for consumers and providers

- **Partners:** National Energy Action, Newcastle University and Northern Powergrid:
- **Funding:** £55,400

In parallel to a Network Innovation allowance (NIA) project looking at energy efficiency through our Customer Energy Village at our dedicated research site in Gateshead, this project will provide a state-of-the art review of the factors related to the use of data and digital technologies, to help reduce customer bills and enable a fair net zero transition for all.

Thermal imagery analysis

- **Partners:** National Grid and Synovate limited:
- **Funding:** £78,200

Developing a pro-active strategic assessment and forecasting tool to support the replacement of new PE pipes by maximising our existing pipe network. It will capture asset data with new sensing solutions to develop models to support a safe, cost-effective and environmentally aware hydrogen conversion through better asset information, planning and reduced uncertainty.

Whole Systems Integration

Excess gas turbine energy generation

- **Partners:** Revolution Turbine Technologies Ltd., Digital Catapult, Stockton & District Advice & Information Service, and Northern Powergrid:
- **Funding:** £134,200

Explores the potential of a new product and service to generate net zero electricity using excess gas pressure. This technology has been proven in the oil and gas sector offshore but is new to the UK energy market. The project takes a whole system view across energy generation and demand, determining new financial viability for infrastructure expansion and modernisation.

Outcomes from the “discovery” phase include:

- Increased awareness and understanding amongst innovation partners of the challenges and potential solutions to support a low carbon energy supply
- Development of new insight and technologies to meet net zero

Anticipated longer term outcomes following implementation include:

- Reduction in carbon emissions
- Increased levels of consumer trust in the organisations involved in the energy transition
- Increased willingness to engage with solutions designed with users in mind
- Shared knowledge of insights, resulting in significant cost and time savings for future projects
- Investment in northern transport infrastructure
- Creation of new jobs in the transport sector



4.5.3 Creating a hydrogen infrastructure for the East Coast

What we’ve heard: The government identified a clear focus in its energy strategy to decarbonise UK industry, leading to initial plans being produced that will see local authorities in two key industrial areas in our network, Teesside and the Humber, working with industrial partners to produce hydrogen to support industrial decarbonisation.

As the first projects to deliver hydrogen production in our network, this creates an opportunity for us to look at how we can start transporting that hydrogen across the network to create opportunities for more end users.

Our response: We’ve joined forces with Cadent and National Grid to establish the East Coast Hydrogen project. This flagship 15-year infrastructure project brings all our work together to connect gas networks, storage, industry, transport and domestic heat to support a blueprint to kickstart a hydrogen economy in the UK and decarbonise a large proportion of the UK’s homes and industry.

A programme of engagement with over 75 stakeholders from local authorities, producers, end users and storage companies from across industry, helped us understand their ambitions and capabilities to produce and utilise hydrogen across the East Coast of the UK.

This insight was then mapped against our own to develop a comprehensive feasibility study, setting out a clear plan of how our network needed to evolve and how the project will invest approximately £1bn in the re-purposing and development of new hydrogen infrastructure. This will support 1,000 jobs and enable over 5GW of publicly announced hydrogen production projects to export their hydrogen across the region to 4 million homes and 40,000 large users of gas.

Following the launch of the feasibility report in the House of Commons with the Minister of State for Climate Change, Clean Growth and Energy Greg Hands, we are now developing detailed engineering designs for the 3 network areas that will combine to create an interconnected front end engineering design to develop the infrastructure to deliver hydrogen to 14 million customers within the East Coast Hydrogen region.

To support the project, we’ve established a stakeholder consortium group, comprising of 30 stakeholders from across the hydrogen community, who we meet with on a quarterly basis to actively share knowledge and feed into the developing plans over the next 5 years.

Outcomes:

We are targeting 7GW of hydrogen with connection to 39,000 businesses and four million homes by 2035 realising the following benefits:

- Carbon emission reduction
- Improved air quality
- Jobs safeguarded and created
- Access to a skilled workforce and employees
- GVA into local economy through spending with local and regional suppliers



Figure 5 - East Coast Hydrogen infrastructure map

4.5.4 Bringing net zero to life for customers

What we’ve heard: Our annual Customer Perceptions Research showed that the majority of customers are aware that the way we heat our homes in the next 10 years will change and want a choice in what the main source of energy will be. Despite this recognition, at the start of the regulatory year there were still low levels of awareness with customers (28%) around the potential for using hydrogen as an alternative gas for heating and cooking.

Our response: We have focused on three key projects that will enable the public and industry to see and interact with hydrogen technologies. By becoming more familiar with hydrogen as a potential future source of energy, we can support customers and policy makers to make informed decisions about future energy choices and help the energy industry understand capabilities and develop appliances.



PROJECT 1: InTEGReL

We have continued to grow the capability of our dedicated research site InTEGReL (Integrated Transport Gas Electric Research Laboratory), a 15-acre site owned and operated by NGN and range of partners, to help us demonstrate and prove whole energy systems thinking and accelerate routes to decarbonisation.

Hydrogen Home

We successfully opened the doors to our Hydrogen show home at the site in July 2021 allowing the public and industry partners to experience the reality of a home heated by 100% hydrogen.

Since the launch of this collaborative project with fellow GDN Cadent and BEIS, 1,545 visitors have been to the house or attended talks about the home, allowing us to engage with customers and stakeholders about hydrogen on a global scale. And following feedback from our Citizens Panel we’ve also created a **virtual tour** of the house which has been viewed 18,000 times .

The demonstrator home has also enabled the 3 main appliance manufactures (Baxi, Worcester Bosch and Enertek) to engage with their supply chain by demonstrating viability and capability, helping the supply chain and engineers to become more familiar with hydrogen.

We have also hosted 10 visits for members of parliament and local and combined authorities, helping inform national and local policy through better understanding the potential for hydrogen in homes.

Hydrogen house visits:

- 1,084 visitors to the hydrogen house
- 614 members of the public visited
- 21 schools and colleges and 524 young people spoken to about hydrogen
- 3 Meet the Manufacturer events
- 118 supply chain visits

Customer Energy Village

Having secured £1.86m funding from the North East Local Enterprise Partnership, work has started to build our “Customer Energy Village”. This comprises nine homes from different generations which will be used to research ways of decarbonising home energy use across a range of housing stock and provide an understanding of which energy solutions are best suited to heat different homes in a more environmentally friendly and cost-effective way for all.

Once construction is complete in late 2022, we will be able to carry out a broad spectrum of energy transition trials and research projects across the range of different buildings with a specific focus on understanding the most efficient and affordable solutions needed to support customers and how homes can be retrofitted effectively.

To that end, we have already designed and successfully secured £362,000 funding through Ofgem’s NIA to deliver an energy efficiency research project in collaboration with National Energy Action and Newcastle University.

Recognising that use of water and energy are inextricably linked, we are working alongside partners at Northumbrian Water, Newcastle University, National Energy Action and Procter & Gamble on a £3.8m Ofwat funded project.

Project ‘Fair Water’ will develop affordable solutions that work for a wide range of customers living in a variety of existing housing types, with minimal disruption to homes or habits. This will be done by evaluating consumer products already being used, co-creating and developing new solutions, and improving behavioural change and technology-based solutions to enable customers to reduce water and energy use and carbon emissions.

A masterplan for the site

To date we have focused on facilitating and demonstrating domestic capability at InTEGReL. However, we know business and industry customers are also keen to understand more but have very different needs to domestic customers.

Over the next year, we will undertake a programme of engagement to understand how we can help businesses and industrial customers make commercial decisions about their energy use. This will focus on the technological development with equipment and appliances as part of a transition to net zero.

Outcome:

Minimum of £5.4m net SROI over the next 5 years, including:

- £5.9m net benefits to the wider society and the economy through:
 - Job creation and research opportunities
 - GVA benefits from innovation and collaboration
- Marketing opportunities for demonstrating firms
- Innovation funding secured for site partners as a result of facility
- Development of new insight and technologies to meet net zero
- Creation of assets that enable engagement with the community on net zero
- Improving behavioural change and technology-based solutions
- Reduction in customers water and energy use and carbon emissions.

PROJECT 2: Hydeploy

Over the last year we have successfully enabled 668 houses, a school and a number of small businesses in the North East village of Winlaton to cook and power their central heating with a blend of hydrogen and natural gas.

The pilot has seen a 20% blend of hydrogen added to the local gas supply and is a crucial first step on the road to proving viability for 100% hydrogen, enabling a safe and efficient blending which will enable a policy decision from Government in 2023 on national blending.

If a 20% hydrogen blend was added to natural gas across the UK, it could save around 6 million tonnes of CO2 each year, the equivalent of taking 2.5 million cars off the road

Whilst customers didn't need to change their appliances or alter their behaviour in any way, we ran an extensive programme of customer engagement and supporting with supplier billing and appliance maintenance over the year. This was through the running of customer drop-ins and engagement events to understand any concerns and issues faced by those involved in the pilots. Despite extensive offers

“It’s been up and running a few weeks now and there’s no difference. We’ve been very excited as we’re only a little village so to be picked for this is amazing because it’s better for the future.”

Elizabeth Thompson, Winlaton Resident

Outcome:

- 55 tonnes of carbon saved over the last year, the social value of which is £14.5k based on BEIS carbon values
- Extensive evidence to help inform a policy decision on blending in 2023.
- Increased customer understanding and support of solutions to decarbonise the energy system



PROJECT 3: H21

We’ve begun testing network operational gas procedures under 100% hydrogen conditions on an existing buried network of gas mains, a world first, to further understand how gas operations would be undertaken on a 100% hydrogen network in the future.

In order to gather vital evidence about the suitability of the gas network to transport hydrogen, part of the project will also see the hydrogen odourised to smell like natural gas for the first time. This will support the safety case following decades of familiarising the public with the smell of natural gas. It is expected that, if hydrogen is widely used in the gas network, it will be odourised in the same way.

Centred around a disconnected network of gas mains in the South Bank area of Middlesbrough, the site sits amongst existing housing and helps to familiarise the public with hydrogen and its potential for future domestic use. We worked closely with the local council and Tees Valley Combined Authority to address impacts on residents and ensure the project aligned with the region’s own net zero ambitions.

Given the high deprivation rates, specifically around unemployment and crime in the area, we’ve worked closely with the local council, local college and Southbank Moving Forwards community group - comprising of local residents, business owners, police and housing association, to identify where we could provide additional support for the local community.

Together we’ve developed a community support initiative for grassroot projects and groups specifically in South Bank looking to improve local carbon reduction, which fits into our long-term goal of decarbonisation. This aims to generate £2 or more of benefits for every £1 invested.





Alongside this we are working with Redcar & Cleveland College and looking to identify opportunities to further use the site for training to equip young people from across the areas with the skills that they need to develop careers in an industry that will lead the energy transition.


Outcome:

- Evidence about the suitability of the existing gas distribution network and applicable procedures to distribute 100% hydrogen
- Reduction in local carbon emissions
- Improved workforce resilience through future access to required skills





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