



7

Our

Commitments

This chapter summarises what we are committing to deliver for our customers, and the engagement and rationale for these commitments. We have worked with, and listened to, our customers, stakeholders and employees to create our most stretching and bespoke set of commitments ever. We have applied a systematic process to ensure they are robust, well evidenced and valued.

Structure of the rest of this chapter

The remainder of this chapter sets out the specific output commitments we are making in each of the four outcome areas. We have structured the chapter as follows:

- 7.1 Our consumer value proposition ('CVP')**
- 7.2 Delivering a resilient network to keep the energy flowing safely and reliably (note this outcome area aligns to what Ofgem calls 'Maintain a safe and reliable network')**
- 7.3 Providing a quality experience to all of our customers, stakeholders and communities (note this outcome area aligns to what Ofgem calls 'Meet the needs of consumers and network users')**
- 7.4 Tackling climate change and improving the environment (note this outcome area aligns to what Ofgem calls 'Deliver an environmentally sustainable network')**
- 7.5 Trusted to act for our communities**

Key messages

- We have made our most ambitious commitments ever, which will improve outcomes for all of our wide customer and stakeholder base.
- Our consumer value proposition estimates a benefit of £537m in RIIO-2 rising to £723m in RIIO-3.
- We set out the mains replacement volumes, asset health targets and emergency service standards that deliver a resilient network.
- We set out our plans for delivering cyber resilience, physical security, workforce resilience and our data strategy.
- We set out stretching standards of providing a quality experience to all of our customers and stakeholders.
- We explain how we will transform the experience for the historically worst-served customers in multi-occupancy buildings and in our connections service.
- We set out our Customer Vulnerability Strategy and how we will support customers through identifying their needs, raising awareness of carbon monoxide and aiding those in fuel poverty.
- We are committed to striving to never leave a customer vulnerable without gas.
- We set our Environmental Action Plan.
- We showcase our community fund, our ongoing stakeholder engagement plans and how we will create an environment for our employees to thrive and be proud of the service they deliver.

Transforming experiences

Our most stretching and tailored output commitments ever



We have taken these four outcome areas and assessed what our customers say are the priorities we need to focus on in order to deliver great outcomes for them. We summarise these below.

Figure 07.01: Outcomes our customers need us to deliver

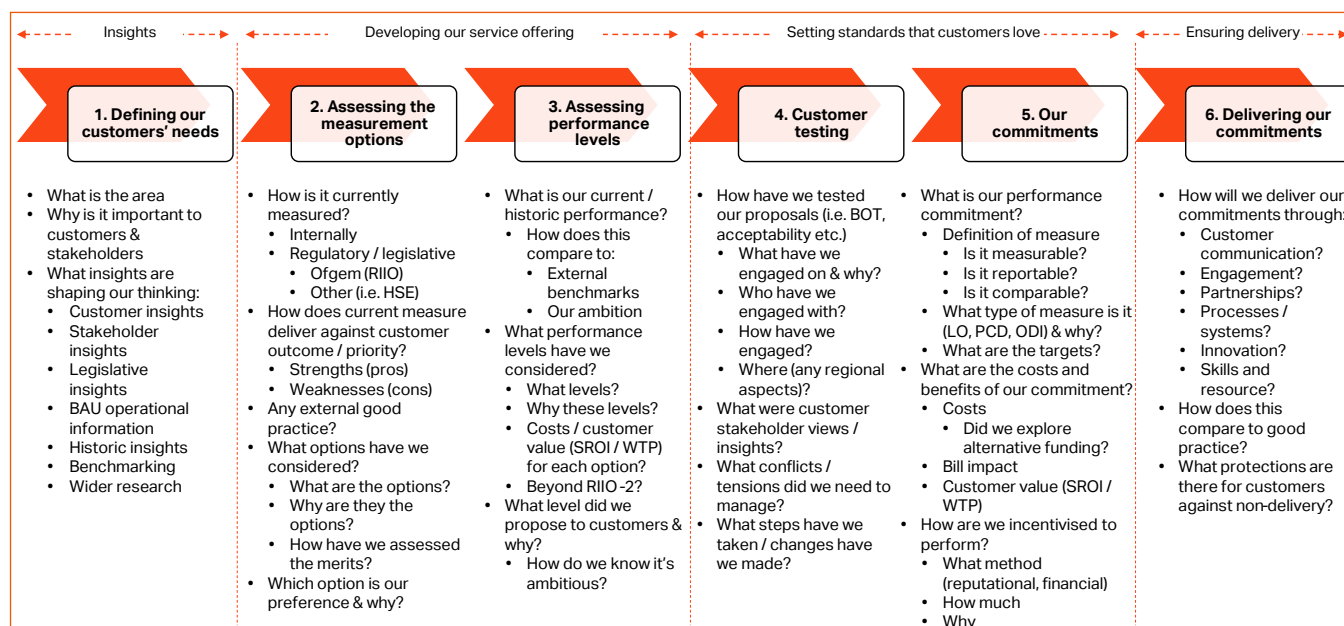
	Delivering a resilient network to keep the energy flowing safely and reliably	Providing a quality experience to all of our customers, stakeholders & communities	Tackling climate change and improving the environment	Trusted to act for our communities
Outcome	Managing network asset risk for now and the future - Mains replacement - Asset health risk - Emergency service	Setting standards that all of our customers and stakeholders love	Decarbonising our business operations	Building trust through every action
Priorities	Cyber resilience	Keeping the energy flowing	Reducing our wider environmental impact	Making a positive difference for our communities
	Physical security	Minimising the disruption from our works	Facilitating the low emissions energy systems transition: - Green Gas - Hydrogen	Sustainable engagement to drive better customer outcomes
	Workforce planning	Supporting customers in vulnerable situations - Identifying needs - CO awareness - Fuel poverty - Going beyond	- Peaking and Storage - Decommissioning	Creating an environment for our employees to thrive and be proud of the service we deliver
	Data strategy			Transparency in how we operate
Whole-system Approach				

We have developed a whole-systems' solution approach to all of the four outcome areas and some specific commitments which are covered in **Chapter 6, Net Zero and a whole-system approach**. This includes whole-system joint network planning, optimising capacity between transmission and distribution and enhanced engagement on whole-system thinking.

Our commitments continued

Under each of the four themes we have undertaken a systematic approach to defining our output commitments by following the process steps below.

Figure 07.02: Our systematic approach to determining outputs



Appendix 07.00.00 summarises the approach we have taken to derive our outputs and a summary of our prospects. We have set out detailed evidence in Appendices to this chapter for each output commitment which we reference later in this chapter.

Our vision is to set standards that all of our customers love and that others aspire to. We recognise it will be challenging to deliver this goal. Our RIIO-2 Plan is a stepping stone on this journey. We have looked to set ambitious, but achievable, output commitments. We have tested our commitments through business options and acceptability testing and through extensive challenge from our Customer Engagement Group.

We have structured each outcome area (**sections 7.2 to 7.5**) as follows:

- We summarise the priority areas in each outcome, explain how we propose each area should be addressed from a regulatory perspective, highlight the contribution the areas make to our consumer value proposition and note any incremental costs associated with each area.
- We explain what we have learned from our engagement strategy, highlighting any differences of view that we have needed to resolve.
- We set out our commitments, how we plan to deliver and how we protect consumers against non-delivery.

In addition, we have included an appendix which sets out our consumer value proposition methodology and the quantification calculations we have undertaken for each relevant commitment in **Appendix 07.01.00**.

In describing the regulatory treatment of our output commitments we have used the definitions that Ofgem have set out in their Sector Specific Methodology Decision document, as summarised in the table below:

Table 07.01: Output types

Output Type	Abbreviation
Licence Obligation	LO
Price Control Deliverable	PCD
Output Delivery Incentive (Financial)	ODI (F) +/- = symmetrical, + reward only, - penalty only
Output Delivery Incentive (Reputational)	ODI (R)
Uncertainty Mechanism	UM

* In January 2016 KPMG undertook an independent study on behalf of all GDNs to ascertain the benefits associated with the Iron Mains Replacement Programme. They considered factors such as safety and environmental impacts of the programme and determined an NPV of £1.6bn over the period until 2050.

7.1 Our Consumer Value Proposition ('CVP')

This is our most ambitious plan ever. It acknowledges that there is no such thing as an 'average customer' and seeks to provide far more tailored services to meet the different needs of our customers. It goes significantly beyond the strong foundations established in RIIO-1, especially in providing additional services for customers in vulnerable situations, including those in fuel poverty. It robustly tackles the challenges associated with climate change by proposing actions to reduce the impact on our own business operation, and consolidating the leading role we have played in supporting the UK's work to decarbonise the energy landscape.

Our CVP includes the commitments we are making in respect of supporting local communities, ongoing engagement and building trust through our community fund and transparent business operation. It doesn't include the value of community benefits delivered through our mains replacement or other capital investment work (which we see as a core business deliverable), despite the importance that our customers attach to safety and network reliability (it is their number one priority).^{*} Excluding this value, the total monetary value of our CVP over RIIO-2 is just over £800m. The cost to achieve this benefit is £236m, determining a net benefit of £537m. This is based on our calculations of the social return on investment delivered (£403.8m and more traditional cost benefit analysis (£421.3m using customers' willingness-to-pay values to determine benefits.

In Ofgem's Business Plan Guidance it confirms that businesses can claim additional levels of CVP through their application of bespoke uncertainty mechanism (UM). We have designed several Uncertainty Mechanisms to protect customers from the exposure of potentially avoidable costs. We have calculated the value for these as £247.1m over the period but have not included this value in our headline number. If we did, our total CVP would be £1.03bn.

We included a very high-level overview of our CVP in the July Plan. In October, we calculated our CVP as £1bn (net benefit). This was higher than our final version as we have subsequently removed certain items following challenge from our CEG and additional internal reviews. The total figure also reduced as we had previously included additional willingness-to-pay calculations where we had not calculated SROI values. Whilst there is a case for using willingness-to-pay values (as they are directly derived from customer preference) we have chosen to use SROI as our primary measure as the values and assumptions can easily be transferred and directly compared with other Plans, providing far greater transparency. Please see **Appendix 07.01.00** for a breakdown of our CVP calculations.

We have used the Business Plan Guidance set out in June and again in September to classify the area of additional value that is provided by aspects of our Plan. Ofgem have set out nine categories / examples against which additional value can be demonstrated and throughout our CVP we have been clear which criteria are satisfied by each aspect of the Plan. We have then applied a second set of criteria based on the level of stretch beyond RIIO-1 or external benchmark data to truly test whether an item should be considered as part of our CVP.

The majority of our CVP is represented by output commitments that we have built into our Plan, but also takes into account other deliverables such as our innovation strategy, approach to competition, how we are proposing to manage uncertainties and ongoing engagement activities. As detailed in **Chapter 5, Enhanced Engagement**, we have followed a robust process to establishing these commitments with customers, stakeholders, our employees and shareholders and have completed robust benchmarking across multiple sectors to test them.

Our CEG have robustly challenged the process by which we have engaged in the development of our Business Plan commitments and at times over the ambition level implied by our commitments. In October and November we held detailed sessions to explore and challenge each of our CVP items along with the overall methodology. As a result our total value changed slightly but there was strong support for the approach we had taken.

7.1.1 Determining output commitments that represent our CVP

We have used the nine categories / examples set out in the Business Plan Guidance documents to determine the output commitments that make up our CVP:

1. Service quality levels that are higher than existing levels and delivered at the same or lower cost.
2. Bespoke outputs in aspects of service provision that are not currently reflected in the existing framework of outputs.
3. Commitments for stakeholder engagement, which could take the form of bespoke outputs, likely to result in measurable positive outcomes for consumers.
4. Well justified initiatives in the Environmental Action Plan to reduce the environmental impacts of the network that will result in measurable outcomes that are valued by consumers.
5. Uncertainty mechanisms that highlight risks to consumers of which Ofgem would not otherwise have been aware.
6. An innovation strategy likely to drive forward energy system thinking and address consumer vulnerability.
7. Whole-system approaches likely to drive forward the industry – including proposals for data sharing.
8. Strategies and implementation plans likely to deliver positive impacts for consumers in vulnerable situations, including use of the consumer vulnerability 'use it or lose it' allowance in gas distribution.
9. The company's commitment to an above business as usual approach to sharing information and data with relevant parties to facilitate greater whole-system coordination.

We then applied our own test against five additional criteria:

- It must be significantly beyond minimum standards or any licence condition
- It must represent significant additional value from that provided by similar initiatives in RIIO-1
- It must offer significantly more value to consumers than is typically offered by other similar organisations
- It must be valued by consumers
- It must be quantifiable, measurable and progress against it reportable (or just reportable for qualitative benefits)

Measuring our CVP

We have calculated our CVP using a number of methods, recognising the different types of benefit that are delivered to customers and other stakeholders through our Plan.

Social Return On Investment ('SROI')

We have calculated the SROI value associated with deliverables within our Plan using a model that we developed in conjunction with Sia Partners. SROI is a method for measuring value that is not commonly reflected in traditional Cost Benefit Analyses ('CBA'). This includes environmental benefits (e.g. a reduction in CO₂ emissions), health benefits (e.g. a reduction in hospital visits) and financial benefits to customers (e.g. a reduction in future household energy bills). It then demonstrates the net benefit created for customers for each pound spent on an initiative, factoring in HM Treasury Green Book criteria. For each SROI calculation made we have maintained a comprehensive audit trail of the assumptions made. These will be made available through additional Appendices when submitting the December Plan.

Cost Benefit Analysis

It is not always possible to calculate a SROI. In these cases, we have used a more traditional CBA model, based on the value that customers have told us that they are willing to pay for different output commitments. For example, if a customer is willing to pay £1 per for a level of improvement and the improvement will impact 1 million customers, we have calculated the total benefit as £1m.

Our commitments continued

Our CVP also includes the total efficiency saving that we will deliver through the RIIO-2 period. The details behind this are explained in **Chapter 9, Costs and efficiency** and are made up of the benefits delivered through our competition, innovation and transformation strategies. The total cumulative efficiencies delivered total £155m (18/19 constant prices).

Other Benefits

In other cases, it is much more difficult to place a monetary value on our CVP. For example, we know that we have delivered numerous benefits to consumers and communities through the initiatives that have arisen from our stakeholder engagement, but to allocate an accurate CVP amount in RIIO-2 from our proposed ongoing engagement strategy is very difficult; some may be double counting benefits captured elsewhere and many initiatives are not yet known (but will be subjected to SROI analysis to prioritise them and demonstrate value when known).

Taking this approach provides a conservative estimate of our overall mechanism reality; other such initiatives will deliver additional customer value, but it is very difficult to provide accurate estimates. In most cases these additional areas have been determined through the ongoing engagement with customers and stakeholders who have confirmed that they are important to them.

Where we have been unable at this stage to provide a monetary CVP amount, beyond the cost to achieve, we have provided a description of the non-monetary value of the benefits.

Uncertainty Mechanisms

We have identified a number of bespoke uncertainty mechanisms to protect customers from the exposure of additional costs that we cannot quantify with high certainty. The details of each of these bespoke Uncertainty Mechanisms are contained in **Chapter 10** of our Plan. Whilst the Ofgem Business Plan Guidance document suggests that “uncertainty mechanisms that highlight risks to consumers of which Ofgem would not otherwise have been aware” is an example that could constitute a CVP in business plans, we have separated this aspect out of our headline figure because it is difficult to truly monetise in a consistent manner.

The value of an uncertainty mechanism to customers does not obviously lend itself to be monetised in the same way as some of our outputs commitments where we have calculated a social return on investment or have clear willingness-to-pay data. However, one way the value could be calculated is to look at the value that might otherwise have needed to be forecast into the base expenditure plan that may not have been subsequently needed if the uncertainty did not arise. For example, by taking either the low medium or high case estimates of the uncertainty and multiplying this by the totex incentive sharing factor that the customer would be faced with (e.g. 60%) we can calculate a reasonable benefit proxy. We have used this model to estimate the additional CVP that our approach to managing uncertainty has led to.

Table 07.02: Summary of our consumer value proposition

Commitment	Deliverable	Total Cost	Total SROI Benefit	Total WTP Benefit	Total NPV / Net Benefit	Ofgem Criteria
CO Awareness and Safety Plan	Educate 200k customers Issue 3m alarms 15,000 appliance services, repairs, replacements	£34.0m	£59.4m		£22.5m	2,3,7,8,9
Fuel Poverty Plan	Take 36,500 customers out of fuel poverty through: • providing energy efficiency and income advice to 25,250 customers • making 5,000 tailored interventions • piloting and implementing a new cross-industry funding approach	£32.6m	£102.2m		£61.3m	1,2,3,7,8,9
Going Beyond the Meter	Repair/replacement of appliances	£2.7m	£19.8m		£15.0m	1,2,8
Priority Service Register awareness	2m conversations, awareness training and partnerships	£7.7m	£8.5m		£0.6m	1,2,8
Carbon neutrality	Reduce carbon footprint from 64k tonnes to 0 Reduce our people's emissions by 5k tonnes Zero avoidable waste to landfill Reduce theft of gas	£56.6m	£20.4m		-£30.9m	2,4
Supporting our communities	Our community fund worth 1% of annual post tax profit	£0m	£31.2m		£27.2m	1,2,3,4,6,8
Improved customer service	Time-bound appointments Personalising welfare	£16.3m		£275.5m	£229.8m	1,2,3,6,8
Whole-system thinking	Including entry capacity enablement and supporting off grid communities	£86.1m	£7.3m	£145.8m	£56.3m	2,3,4,6,7,9,
Delivering efficiencies	Competition Innovation Transformation	£0m	£155m		£155m	6,7,8
Non-tangible (non-monetisable) CVP attributes	<ul style="list-style-type: none"> Ongoing Stakeholder Engagement – 10 commitments to ongoing engagement Multi-occupancy buildings suite of improvements – including reduced interruptions, ongoing engagement, building response plans and enhanced welfare provisions Creating an environment for our people to thrive – ten commitments in our plan Measuring experience across all services with annual improvements Improving service during interruptions – including better communication and reduced durations Enhanced connections services – including 15 minute quotation process and three day site appointments Minimised disruption – through working with others and enhanced communications 					2,3,5,7,8
Bespoke uncertainty mechanisms	Reduced risk to customers	£0m	£247.1m		£247.1m	5
Total excluding Uncertainty Mechanisms		£236.0m	£403.8m	£421.3m	£536.8m rising to £722.5m in RIIO-3	
Total Including Uncertainty Mechanisms		£236.0m	£650.9m	£421.3m	£783.9m rising to £969.6m in RIIO-3	



7.2 Delivering a resilient network to keep the energy flowing safely and reliably

Note: This outcome area maps to the area Ofgem calls 'Maintain a safe and reliable network'

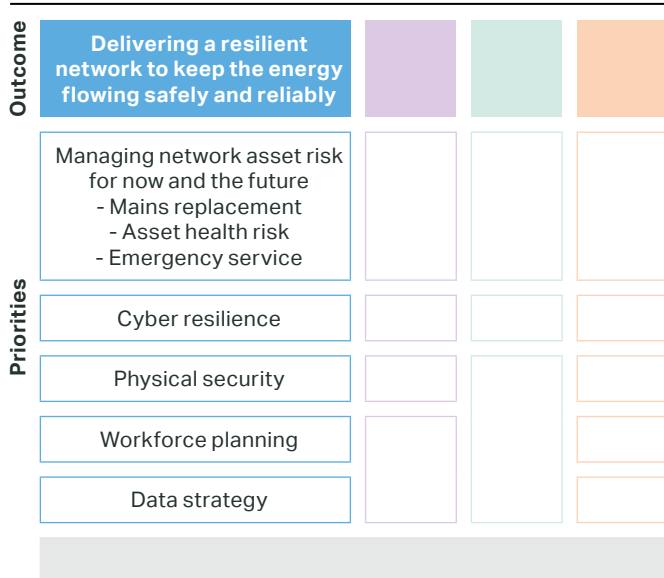
Summary

Our customers tell us that delivering a resilient network is the cornerstone of what they expect from us. This is a consistent theme across all our customer and stakeholder groups. Indeed, it is taken for granted by customers given the low incidence of both safety incidents and interruptions that customers see from our gas networks.

Our challenge in this outcome area is managing the requirements to address an ageing and deteriorating asset base with affordability for current and future customers. In addition, we need to assess how we ensure the network is resilient to climate change challenges and the energy transition.

In addition, our plans also address the challenges of non-network resilience areas such as cyber threats, physical security, workforce resilience and our strategy for data and digitalisation.

Figure 07.03: Outcomes our customers need us to deliver



What we will do – the commitments we are making to address this insight (priority areas)

Managing network asset risk for now and the future

We need to manage the risk on our network. This will allow us to deliver on customer expectations while facilitating growth, decarbonisation and whole-system thinking. We will optimise our programme of work, balancing maintenance, investment and other innovative approaches to ensure we deliver an affordable service for our customers. This includes the majority of our investment programme including mains replacement and our asset health investments. In addition we will continue to deliver our emergency response and repair service.

Managing non-network resilience:

Cyber resilience

We need to protect against external cyber threats to our operations which involves a plan for cyber security and for business and IT security.

Physical security

We need to meet BEIS’s requirements for the level of physical security expected for different site sensitivities.

Workforce resilience

We need to sustain a resilient workforce to deliver the outcomes our customers desire given the ageing population, emerging skills risks, competition from other infrastructure projects and the change in network requirements and customer expectations.

Data and Digitalisation strategy

We need to have a long-term strategy to ensure data maturity and quality and meet the aims of the government’s data task force.

Table 07.03: Summary of output commitments

Output	Common / Bespoke	Output type	Incremental Costs?	Part of our CVP?	Appendix evidence
DELIVERING A RESILIENT NETWORK TO KEEP THE ENERGY FLOWING SAFELY AND RELIABLY					
Managing network asset risk for now and the future					
Delivering metallic mains replacement – iron mains replacement	Common	PCD	N	N	09.02
Delivering metallic mains replacement – high risk steel replacement	Bespoke	PCD	N	N	
Network Asset Risk Measure	Common	ODI(F-) (NARMS)	N	N	09.00
High Rise Building plans	Bespoke	ODI(R)	N	N	09.04
Regional specific schemes – e.g. London Medium Pressure Programme	Bespoke	PCD	N	N	09.06
Emergency Call Handling	Common	LO	N	N	n/a
Emergency response – Uncontrolled 1 hour Controlled 2 hour	Common	LO	N	N	n/a

Priority area – Managing network asset risk for now and the future

We will replace 1,557km p.a. of Tier 1 iron mains to meet our obligations under the iron mains replacement programme, 67km p.a. of other high risk metallic pipes and will target key infrastructure needs such as London Medium Pressure. Alongside this, our asset health programme will maintain a broadly constant level of monetised risk. We will increase our engagement with local authorities and high-rise building owners to create building-by-building plans for them. We will maintain our strong performance in emergency response and call handling.

Roughly 80% of our controllable totex (c.£700m p.a.)	Not included in our CVP as business as usual	c. £50 of the annual bill
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Managing network asset risk for now and the future

This priority area relates to how we deliver a safe, reliable and resilient network and an affordable service for our customers. We must meet legislative requirements and mitigate the risk of deteriorating assets. This will be supported by a 24/7 emergency call handling and response service.

What we are already doing in RIIO-1
 In RIIO-1 we are delivering the required iron mains replacement length and are also focused on the optimal cost of risk removal, which has involved delivery of smaller diameter pipes and longer length projects. The learning from our delivery is the need to balance cost efficiency with customer service. We have undertaken a small-scale steel replacement programme. We have been working with other networks and Ofgem to develop the Network Asset Risk Methodology to create a monetised risk score for asset health. This is being used to help optimise asset health decisions and the target for RIIO-1 aims to keep risk broadly constant over the eight-year period. Our London Medium Pressure replacement programme has been partially deferred due to access constraints and our desire to manage the impact of the work on stakeholders. We returned allowances of £60m for the work that we have deferred. We are managing increasing pressures of Streetworks legislation and lane rental on gaining access and planning works. We have set out a detailed action plan for high rise buildings in the latter half of RIIO-1 to look at how supply can be maintained for these customers in the most effective way. Our emergency service is performing very well with required standards exceeded in all years and very positive feedback from customers.

Engagement summary

Who, how and purpose	Insights
<p>Domestic customers We engaged with customers early in our programme to understand their priorities through surveys and workshops. We then conducted willingness-to-pay workshops and tested different options with different groups, in terms of length of mains replaced and how we should prioritise cost benefit workload between safety, reliability and the environment . We also tested the acceptability of our proposal with customers, quantitatively and qualitatively.</p>	<ul style="list-style-type: none"> • Early on we established that a secure and reliable supply of gas and safety were customers' top priorities. They were also willing to pay for reduced interruptions. • However, when presented with different options for lengths of mains replaced, the least ambitious options were preferred by most customers. When we tested different approaches to mains replacement at our customer forum, a 'balanced' approach was preferred (as opposed to minimising environmental impact or cost). • In general, customers were happy with our current targets on emergency response and support further coordination with other parties (whole-system solutions). • Overall, 83% of customers found the resilience aspects of our plan acceptable, which was backed up in follow up workshops.
<p>Stakeholders We engaged with a range of expert stakeholders on deliverability and work planning (e.g. GL Noble, Arup). In particular, we engage with the HSE on an ongoing basis to inform our planning in the long term and to assess the risk thresholds that we need to be managing.</p>	<ul style="list-style-type: none"> • Expert insights provided on different areas of our mains replacement programme e.g. comparative risk of remaining metallic mains, asset management optimisation and cost benefit analysis. • HSE engagement confirmed they would not support any change that could be perceived as a reduction in safety standards.
<p>CIVS and Fuel Poor CIVS and individuals in fuel poverty were included separately in our options testing and acceptability testing to see if they had a different view.</p>	<ul style="list-style-type: none"> • CIVS and those in fuel poverty followed the same preferences as domestic customers, preferring the lower ambition options and a balanced programme. Both groups supported our plans for resilience at acceptability testing workshops.
<p>Future customers We included future customers in workshops for options and acceptability testing.</p>	<ul style="list-style-type: none"> • Future customers had the same preference for a balanced programme and supported our plans at acceptability workshops.
<p>Business customers We included businesses in quantitative options testing and acceptability.</p>	<ul style="list-style-type: none"> • Overall, businesses were more divided than domestic customers on different options, with responses divided between the least ambitious and most ambitious options. 82% found our proposals acceptable when we tested it with them.

And the steps we've decided to take in RIIO-2

We have updated our plan to reduce our proposed level of iron mains replacement such that we meet minimum run rate requirements for IMRRP together with a 50km p.a. cost benefit analysis work targeting the most optimal pipes to replace. We will target the highest risk steel pipelines for replacement at a volume that our supply chain suggest we can deliver. We will focus on significantly improving the asset health risk of MOB's given they are our worst served customers if we have an unplanned interruption, with a commitment around enhanced engagement with building owners to create a building by building plan for high rise assets. We will make interventions to maintain asset health risk at a constant level on the other asset classes to balance safety and reliability and keeping options open for the future. We have also further refined our proposals on the London Medium Pressure Project in light of stakeholder feedback and deliverability and proposed a Price Control Deliverable and a lower totex incentive sharing factor to recognise the ongoing uncertainty. We will maintain our current emergency response standards.

Measurement of success								
Output – annual targets	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Cost (RIIO-2 total)	CVP
Delivering metallic mains replacement – iron mains replacement (annual average)	561km	310km	389km	298km	1,557km	Average of 1,582km	£1,680m (base plan) ¹	n/a
Delivering metallic mains replacement – High Risk steel replacement (annual average)	18km	34km	6km	10km	67km	0 km (new output)	£214m (base plan) ²	n/a
Network Asset Risk Measures 'NARMS' – change in monetised risk	£281m	£388m	£356m	£202m	£1,226m	Monetised Risk held flat for non-mains and services assets (see separate Figure 07.04)	Covers repex and capex plans	n/a
High Rise Building plans	Enhanced engagement with building owners to create a building-by-building plan for all high-rise assets by the end of RIIO-2.					No proactive plans at building level just for asset category	£11.5m (base plan)	n/a
Regional specific schemes – e.g. London Medium Pressure Programme (annual average)	n/a	2.6km	n/a	n/a	2.6km	3.1km	£79.8m (base plan) ³	n/a
Emergency call handling – 30 seconds	>90%	>90%	>90%	>90%	>90%	>90%	Covered in base opex	n/a
Emergency response – 1 hour and 2 hour	>97%	>97%	>97%	>97%	>97%	>97%		n/a

Delivering our commitments

Customer communication:

- We have set out specific plans to improve our communication around our planned works and our impact on roadworks (see quality experience output commitments). We have set out a target of coordinating with other utilities on delivery of major projects and are identifying options for how we might measure the benefits of this further working with the Greater London Authority.

Processes/systems:

- We are developing a new depot-centric operating model which will establish new capabilities on planning and regional accountability for our outputs. This will provide greater flexibility of moving between repex, capex and opex work and we are seeking to utilise the Tier 2 contractor market more, which will stimulate greater competition and diversity in our delivery options. We have already commenced this journey with the establishment of our Construction Services North West delivery organisation.

Partnerships:

- We have tested our scenarios (for km delivery, work and project type) by looking at supply chain delivery models to test deliverability. We have performed a deliverability assessment on each asset family NARMS proposal to build this into model assessment.

Ongoing engagement:

- We have engaged the HSE with regard to safety management and iron mains replacement and, Ofgem on the NARMS methodology. We are supporting streetworks legislation development (to ensure access and efficient costs to customers), and we are engaging with local authorities around MOB's building owners to create a building-by-building plan. We have memorandums of understanding in place to jointly develop with a prototype already in place.

Protecting against non-delivery

Price control deliverables 'PCDs'	To address any differences between actual work delivered and forecast, the output commitments for mains replacement length (iron and steel) will be set by diameter band. If length is not delivered, there is a mechanism for the allowances to be refunded. In addition, any change between diameter bands will be adjusted for. We are proposing a specific PCD for the London Medium Pressure Project given its challenging access requirements and interaction with other infrastructure developments and a totex sharing factor of 15% recognising the lower confidence in costs at this stage of its development.
Monetised risk targets	Network specific targets are set out for asset health work and assessed at the end of the RIIO period through the NARMS methodology. Revenues will be adjusted if there is a significant difference between the outturn level of monetised risk delivered for each network.
Licence Obligations	The emergency service is governed under a Licence Obligation which protects against non-delivery.

Reference: For further evidence on our proposals in this area, please see:

Appendix 09.00 – Overview: How we have developed our investment plan

Appendix 09.02 – Distribution Mains and associated services (from PE, Steel & Other)

Appendix 09.04 – Transforming the experience for Multiple Occupancy Building Customers – Risers

Appendix 09.06 – London Medium Pressure

1 Includes associated services and <=2" steel (as per Ofgem RIGs for Table 4.01)

2 Includes tier 2A iron mains and other high risk mains replacement and associated services

3 Includes associated governors

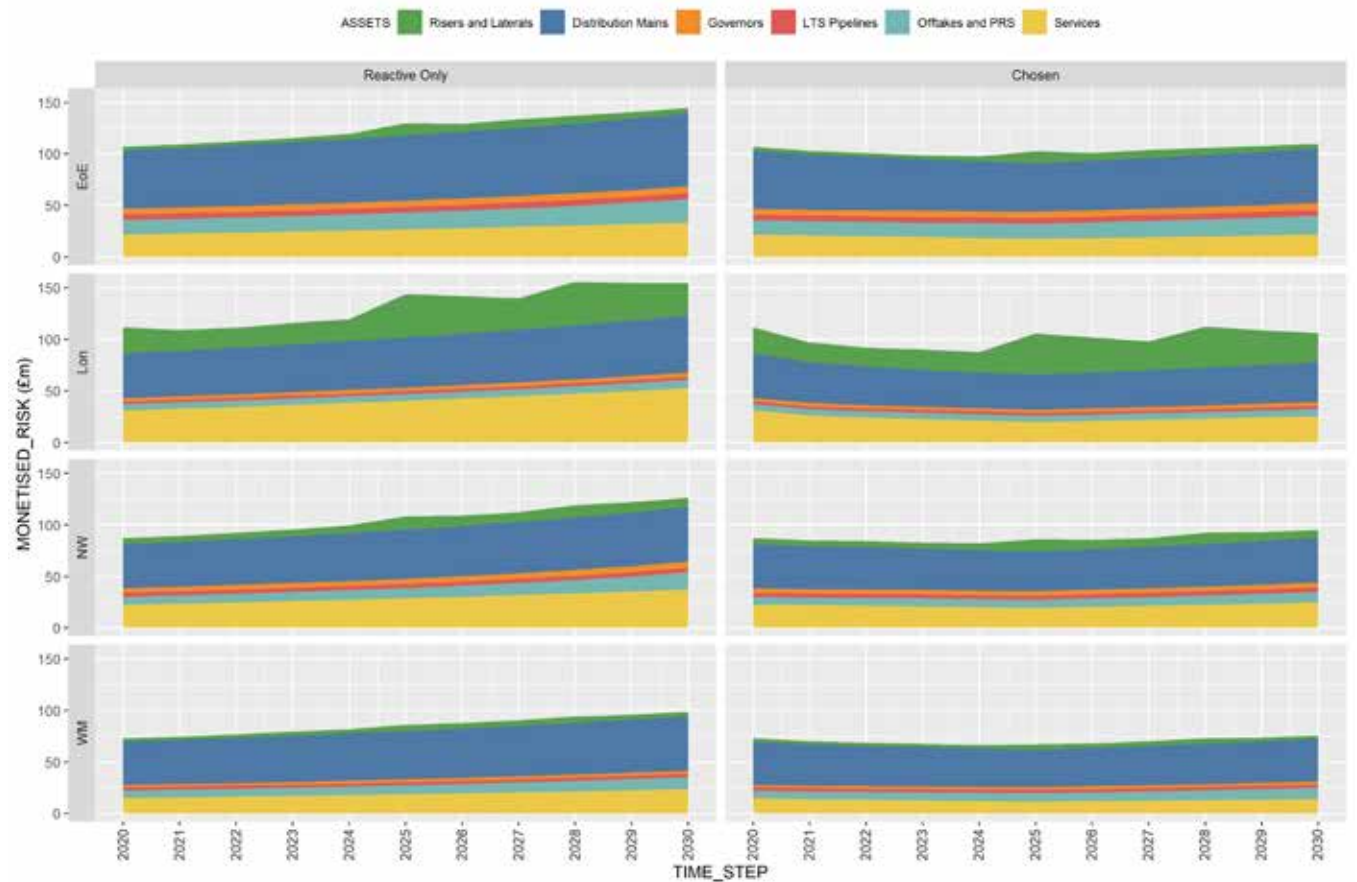
Our commitments continued

Table 07.04: Replacement summary

Category	Work Driver				
	Other Mains			Total	Average Annual
	IMRRP	Safety Driven	CBA		
IMRRP	7,692	0	0	7,692	1,538
IMRRP Dynamic Growth	93	0	0	93	19
Steel ≤2"	153	0	0	153	31
Tier2a	0	37	0	37	7
Tier2b	0	0	53	53	11
Tier3	0	31	15	47	9
Tier1 >30m	0	6	30	35	7
Steel	0	262	147	408	82
Asbestos	0	1	6	7	1
Total	7,938	337	250	8,525	1,705
Average Annual	1,588	67	50	1,705	

Figure 07.04: Monetised risk with and without intervention for RIIO-2 and beyond

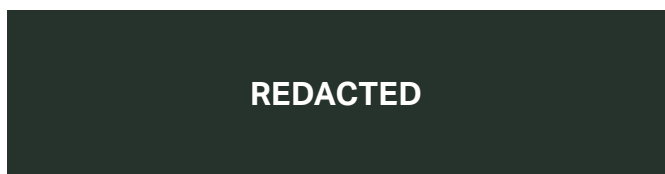
Network	Total Long Term Benefit Risk Target (Discounted) 18/19 prices	
	£m over 10 years	NARMS related spend (£m)
East of England	£281m	£625m
North West	£356m	£499m
West Midlands	£203m	£434m
North London	£388m	£841m
	£1,226m	£2,399m



Cyber resilience

Technology is a core part of our operation and we understand the negative impacts that IS system failures can have on our customers. We take cyber threats seriously. We continually adapt our cyber security strategy and approach to reflect the changing threat, business and technological landscape. We do this to ensure that we remain an adequately protected business in line with the expectations of all of our stakeholders, balancing risk, resilience and cost.

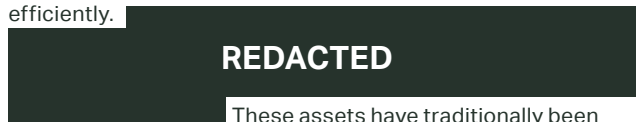
At the time that we were setting out our RIIO-1 submission, cyber security was a new priority for Government and new standards were beginning to be set out, including standards for Critical National Infrastructure ('CNI'). The growth of technology, a number of high profile security incidents, and the rise of cyber-crime has resulted in the profile of cyber security rising significantly. It is now recognised not only as a core component of IT Service Delivery, ensuring the resilience of key business processes and avoiding operational, reputational and financial impact; but also as an essential element of all technology, including Operational Technology ('OT') and Industrial Control Systems ('ICS').



REDACTED

We have three security domains:

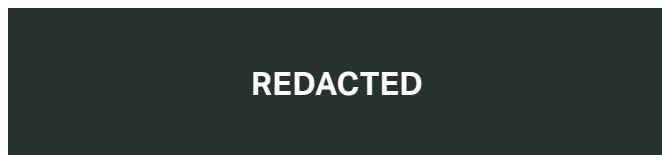
- The corporate or business **Information Technology ('IT')** domain which comprises the kind of technology common to most businesses in the UK
- Critical information systems which underpin our **Critical National Infrastructure ('CNI')** domain, the failure of which, could have a significant and immediate impact on UK business and society
- The **Operational Technology ('OT')** domain, which is technology that is embedded in the physical assets on our networks, enabling us to operate the networks safely and efficiently.



REDACTED

These assets have traditionally been managed and maintained through the Electrical & Instrumentation part of our Operate & Maintain field force.

Previously, maintaining the security of our network assets has been driven by physical security controls. However, as technology has become ubiquitous, IT and OT have converged, which has resulted in OT increasingly becoming a target for sophisticated malicious attackers. The threat from cyber-attack is continuing to grow globally, and in response, the Government is implementing the Network and Information Systems Regulations to coordinate the mitigation needed across all operators of essential services. We are subject to these regulations, and we are working closely with Ofgem to understand the implications of the new regulations on our cyber security approach in Cadent. The rapidly evolving threat landscape means that we must continually review our controls and investments to maintain an acceptable level of security across all of our domains in order to protect our customers from disruption.



REDACTED

1. Our cyber strategy

We use threat intelligence to inform and innovate our security control set. We draw on trusted advisors, such as the National Cyber Security Centre ('NCSC'), Gartner and our Cyber Security Operations Centre ('CSOC') supplier, to ensure we maintain an acceptable level of control and risk.

In RIIO-1 our operating model focused almost exclusively on 'prevention' of security incidents with some 'detect' and 'recovery' capabilities. This has evolved to a more balanced focus across all dimensions of cyber security approach – prevention, detection, response and recovery. The rationale behind this change reflects the reality that preventative controls will at some point fail and that a largely preventative approach is no longer sufficient. This approach is supported by major security authorities and regulatory bodies which provide a number of control sets in support of this model.

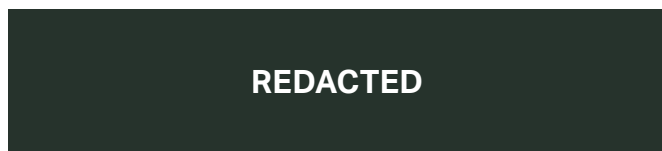
We have developed an information security management system and framework, based on ISO/IEC 27001, an internationally recognised standard, with a risk-based approach to security control selection, and controls measured for effectiveness. We have also decided to utilise some controls from the US National Institute of Standards and Technology ('NIST').

2. Efficiency of investment

By adopting ISO 27001 underpinned by NIST as a framework, both of which take a risk-based approach, we can assess value versus cost for our investments. Other frameworks, which prescribe the control set to be adopted, would not enable discretion in the investments that are made.

We have established a number of IT service frameworks to deliver our cyber investment work.

Our investment plan assumes that we will always seek fit for purpose, standard, off the shelf solutions rather than build complex, bespoke solutions. However, our investment plan also assumes that some risks will require more complex controls or specialist resources and it is the extent of the complexity or specialism that drives some risk in setting out a forward plan for the RIIO-2 period.



REDACTED

Our commitments continued

3. Options

For each of the planned investment programmes, an option analysis has been completed.

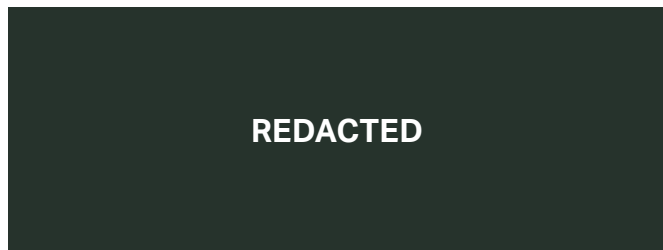
Table 07.05: Business IT Security options analysis

For example, the following analysis applies to the investment planned in our Business IT Security:		
Option (RIIO-2 Cost)	Investment	Consequences
A. Do nothing £0m	Nil. We cannot progress with our strategic investments to utilise Artificial Intelligence, Machine Learning, Internet of Things, Smart Networks, extension of services to customers, etc.	Would not meet regulatory requirements. Any implemented services will be liable to attack with no ability to prevent, detect or recover.
B. Minimum spend £3.3m	The minimal level of protection able to be undertaken. Not sufficient to reach an appropriate baseline of control.	Assumes that simple, standard services are all that is required to deliver our technology investment plan. A basic level of protection would be delivered, though there is a risk that the level of sophistication, complexity or need for specialist resources could leave large areas minimally protected: only our most critical systems would be adequately protected. Would lead to increased operating costs as more controls would need to be manual. We would have skills and resource gaps.
C. Baseline £6.4m	Somewhere between 50% and 80% of the cost range, we could implement a comprehensive baseline of controls. Our strategy to invest in technology to create value from the data that we hold, to provide information and new services to customers could reasonably be undertaken.	Assumes some simple and some complex services are required to deliver our technology investment plan. An adequate basic level of protection would be delivered. There is still some risk that the level of sophistication, complexity or need for specialist resources could leave less critical systems not so well protected.
D. Proposed £8.2m	This level of investment should enable all proportionate and appropriate controls to be implemented, with little compromise on the depth, quality or breadth of the control, assuming that not all controls will require expensive solutions or specialist skill.	This level of expenditure should be sufficient for protection of our business. It provides broader detection and recovery capabilities. Some compromise will need to be made but we believe this would be an appropriate level of protection: we assume not all controls will need to be sophisticated, be complex or need specialist resources and all systems could be well protected. Would be well protected, with automated, efficient controls.
A. Complex Solutions £9.5m	This level of investment should guarantee that no compromise on the level of controls needs to be made, albeit the cost range is estimated and could prove insufficient. Investment in recovery and resilience is improved.	We would be able to deliver all programmes and initiatives and meet our regulatory obligations, even if everything were complex, sophisticated and requiring specialist resources. No compromise needed.

In each case, our proposals are to invest at a proportionate and appropriate level of expenditure, realising a good set of outcomes in terms of risk management. Our plan proposes to spend £8.2m on cyber security.

4. Outcomes

Through the proposed investment, we will protect our operation against most threats.



5. Benchmarking

We engaged international research and advisory firm Gartner to benchmark our Plan in April 2019. Gartner benchmarked the three cyber security domains we have identified (IT, CNI and OT), using a triangulated approach:

- Top-down – verifying our estimates against analogous projects normalised for organisation size and complexity.
- Bottom-up – each building block benchmarked against Gartner database, normalised for scale/scope/complexity and modelled using assumptions (where required).
- Benchmark reference points used against effort-based model to create modelled total cost.

Business IT Security Plan (IT & CNI domains)

This Plan (which can be found in **Appendix 07.02.00**) includes investment associated with new technologies. The Plan does not include:

- Current cyber opex spend – We have negotiated fixed costs with our supplier for this activity in the early years of RIIO-1 (although the level of these costs could increase as a result of increased levels of threat).
- Expenditure to replace security assets. In line with Ofgem's expectations, these costs are included in the wider IS investment plan.

Costs and benchmarking

Gartner have benchmarked our April 2019 Plan against their database of similar companies and suggested that they would expect to see an investment cost range of £3.36m to £14.68m in today's prices (i.e. that in their survey of similar companies, 25% invest less than £3.36m on Business IT Security and 25% spend more than £14.68m).

Ofgem have proposed a re-opener mechanism to address the risk of new risks/threats that emerge post submission, and changes in legislation. There is also uncertainty over the range of costs that may need to be incurred to manage the existing threat level assumptions. We suggest any material deviations should also be captured in the mechanism.

In addition to the investment cost ranges, the implementation of controls will increase our IT operating costs through RIIO-2 by up to £6.2m by 2026.

Cyber Resilience Plan – response to NISR and OT security



Costs and benchmarking

We propose an investment cost for the Cyber Resilience Plan of £14.2m, made up of:

- Cyber Resilience – Regulation Change, £9.5m
- Cyber Resilience – OT Security, £4.7m

Gartner assessed the costs of NISR changes and found them to be in the range of £9.08m–£16.92m in today's prices, and OT security investment in companies comparable to Cadent in the range £7.5m–£9.28m in today's prices over five years.



Uncertainty

Given how dynamic the cyber security landscape is, it is impossible to allow for every eventuality in developing our plans. There are a number of possible events which may occur during the RIIO-2 period which could have significant implications for Cadent, and for which we would anticipate Ofgem will consider reopening the RIIO-2 settlement. Below are some examples of the type of event or change which might lead to this situation.

NISR changes to baseline scope	This is the level of investment and/or operating costs required because of changes in the NISR regulations during the RIIO-2 period. These changes could be driven by specific incidents or a desire to 'raise the bar'.
Data Protection Act changes	This is the level of investment and/or operating costs required to meet any changes in the Data Protection Act or guidance associated with the Act during RIIO-2.
Incidents – Immediate cost	The cost associated with a major or mega incident.
Incidents – Consequential costs, including RTB impacts	In the event of an incident there may be consequential costs (one off or operating costs).

We have included Ofgem's proposal for a re-opener in this area in our **Chapter 10, Managing Risk and Uncertainty** and in **Appendix 10.05**.

More detail on our cyber resilience and business IT security plans are contained in **Appendices 07.02.00 and 07.02.01**.

Physical security

Alongside our cyber security plans, we have also set out our physical security requirements. We have been working with BEIS to understand how threats are evolving and have contributed to the development of their new Physical Security Upgrade Programme ('PSUP') document which describes the levels of protection required for sites of different sensitivities.



REDACTED

Our commitments continued

Workforce resilience

Our people are vital to us delivering our vision – to set the standards that all of our customers love and others aspire to. Achieving this will depend heavily on having people in the right roles, with the right skills and who are motivated to deliver great outcomes for our customers. Our workforce resilience strategy seeks to ensure that we understand the demands on our business now and into the future and how we will meet these demands. We are building on a strong and successful heritage of delivering safe and reliable outcomes to our customers but we must recognise that the world in which we operate is changing. New technology, different types of roles, the evolving network and the changing expectations of our customers, stakeholders, shareholders and employees are all factors that we must consider in ensuring our workforce strategy is fit for purpose now and into the future.

The wider environment presents a range of opportunities and challenges, from the future of gas and wider collaboration to Brexit. These need to be kept ahead of alongside a strong plan for maintaining a resilient workforce. The strategic challenges include supporting the future role of gas, the end of the mains replacement programme, the RIIO-2 settlement being tighter than before, attrition levels increasing, and the significant time to develop competency in many areas that are core to the industry.

Our Workforce Resilience Strategy (**Appendix 07.02.03**) recognises the balance that we need to achieve between the known challenges that we face today and the high level of uncertainty that exists around the future role of gas and the potential repurposing of our network. It is this balance that means we have focused our workforce strategy on the medium-term time horizon; ensuring that we have the right resources to deliver in RIIO-2, whilst setting the organisation up to establish a much clearer understanding of the long term to allow the strategy to evolve over the period.

Our strategy has been established to address the following seven challenges that we will face in the short, medium and longer term:

1. We need to maintain a technically competent workforce throughout RIIO-2 to deliver similar work to that we deliver today, but with significant uncertainty in the longer term.
2. There is a high degree of competition for technically competent engineering resources from a number of high profile construction projects (e.g. HS2) and the make up of the contracting industry has changed (and continues to change) following the Carillion collapse in 2018.
3. Despite recent progress in this area, we operate in an industry that has been very male dominated with a non-representative BAME employee profile.
4. There is a rapidly changing skillset requirement in certain parts of the organisation from technological advancements such as robotics, AI and machine learning.
5. Despite significant improvement during RIIO-1, we continue to operate with an ageing workforce, especially in core engineering roles.
6. We are aware of a number of 'hotspot' areas where it is difficult to replace, attract and retain specific and critical skill-sets for our business (e.g. Authorising Engineer and Safe Control of Operations roles).
7. The role of first line supervisors is increasingly important to drive local accountability and ownership of customer outcome delivery.

In order to address these challenges we have established five strategic objectives, which are summarised in the table below:

Table 07.06: Workforce resilience strategic objectives

Objective	Weakness	Opportunity
Through a strong employee proposition, engagement and commitment, deliver leading productivity and customer service.	Market median pay and terms and conditions can make it difficult to attract niche or highly technical skills into the organisation.	We are a business in a state of change and this creates an environment rich in opportunity.
Modernise the eco-system of suppliers and delivery partners	Work complexity and pressure on pricing are increasing and there are many growth projects in the economy that suppliers can aim to access.	Our reputation is solid and our scale and the security of demand we can offer suppliers is competitive.
To attract, develop and retain great people to productively deliver our services.	Our relatively low brand awareness, competition in the market and future network uncertainty.	We have award winning recruitment schemes, strong talent retention rates and a good employee proposition.
Our workforce to reflect the diversity of the communities and customers we serve.	Our limited gender and ethnic diversity today, especially in the field force population.	We have made good progress recently with our EmployAbility scheme, and with more appointments of women to senior leadership roles, and we actively run or participate in diversity and inclusion change programmes.
Address the key skills shortages in the business and in collaboration with industry peers to ensure the continued safe operations of our networks.	There are several skills risk areas, often with significant 'time to competency' and significant competition from other employers.	Our scale: we have people across four networks to leverage which controls our exposure to some of this risk, and creates opportunity for accelerated skills and experience development.


Data & Digitalisation Strategy


Building a data-driven business driving a customer-centric approach


We want data to be at the heart of everything we do. As we transform our network into one that is smart, self-sufficient, real-time, and integrated, we need to invest in building a data-driven organisation. We have set out an ambitious programme to help us achieve this aim.


A comprehensive data maturity assessment undertaken in March 2019 concluded that we are not where we need to be as a data-led organisation. This lack of maturity has a material impact on the value we can derive from our data and the value that we deliver to customers. In light of this assessment, we developed a Data & Digitalisation Strategy in consultation with our Customer Engagement Group ('CEG') that articulates how we expect data to support our business commitments going forward.


Our strategic intent


- 


We use our data to **provide tailored services to our customers**, recognising their needs and engaging over their preferred channel. We have a **'single view'** of our interactions with them, allowing us to streamline their experience with us.
- 


Data is **readily available to all our employees and customers** in a format that is suitable for them, **reducing time spent producing reports** and increasing the **quality of our data** through continuous use.
- 

We have a **complete and holistic view of our asset data** combining location, asset health and asset risk data to enable us to make **better asset management decisions**.
- 

Our data can be **easily extracted** from our systems in an automated fashion to **meet regulatory reporting requirements** with **intelligent assurance** helping to identify potential problems ahead of human intervention.
- 

Data capture is **simple for our operational teams** and we can **accurately measure our efficiency and quality**. Supervisors have **command centre style dashboards** to support and monitor their teams' activities in near real time.
- 

We use our data to **identify innovative ways of working** to lower our costs and to provide **valuable new services** for our communities and customers.
- 

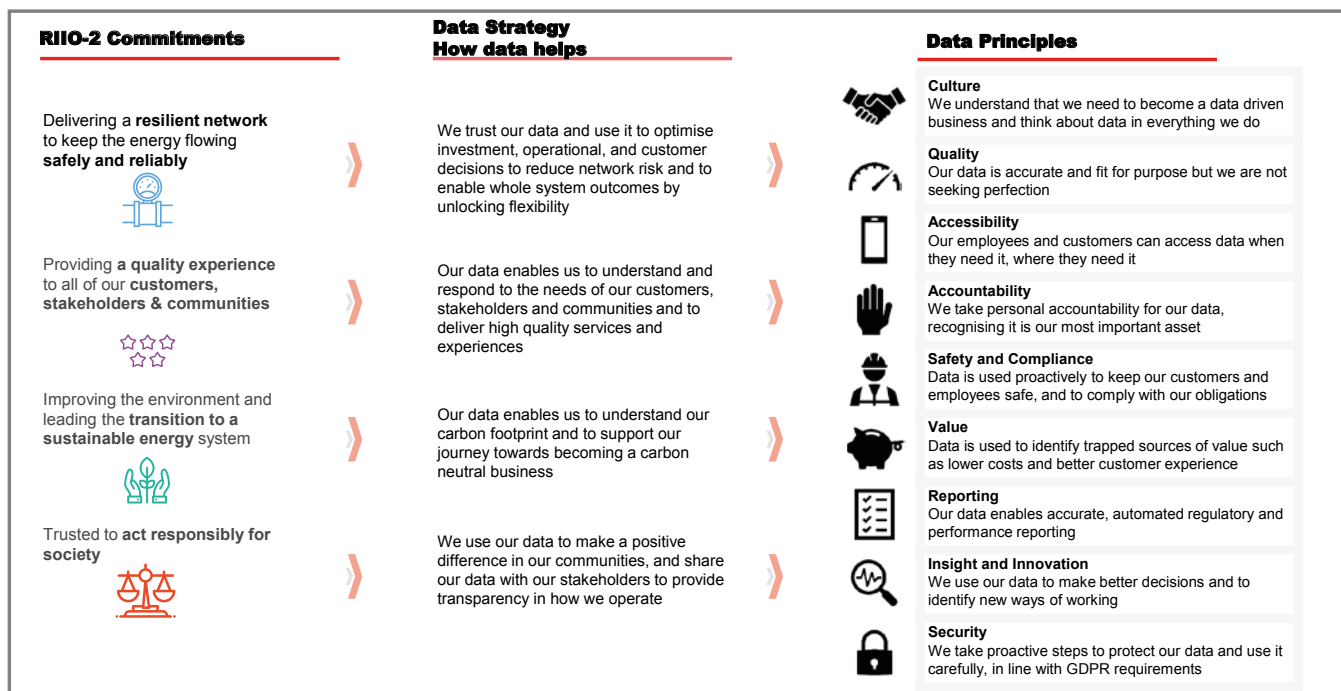
Data is used to drive **operational excellence** in the back office, providing an **engaging employee experience**, helping to develop our people for the future and to **attract the next generation of talent**.
- 

We **trust our data and share it externally** with our stakeholders, communities and partners who work with us to identify **new sources of value** and support the **transition to a low carbon economy**.

Purpose

Our Data & Digitalisation Strategy exists to support the delivery of our commitments to our customers:

Figure 07.05: Our Data & Digitalisation Strategy



Our commitments continued

Customer, partner and stakeholder commitments

At the heart of our Data & Digitalisation Strategy are our customers, partners, and stakeholders. We have published an Enhanced Engagement Strategy detailing how we are continuing to engage in a tailored and effective manner. Specific to our Data & Digitalisation Strategy, we have committed to engaging our customers, partners, and stakeholders in the following ways:

Figure 07.06: Our Customer, partner and stakeholder commitments



Build a Data-Driven Organisation

1. Achieve 'data competency' by the end of RIIO-1 (31 March 2021)
2. Embed a culture of 'continuous improvement' through robust data governance
3. Annual data maturity assessments
4. Invest in advanced analytics and innovative tooling to maximise the value of our data



Engage with Users

1. Maintain a publication register providing information to users on the data we publish
2. Open up customer channels and make it easy for users to feedback on our data
3. Collaborate with other network companies to improve digitalisation across the energy system
4. Look for ways to share data with our strategic partners



Open our Data

1. Move our default position on data sharing to 'presumed open'
2. Build a data catalogue with common metadata standards to increase visibility of our data
3. Set up a transparent openness triage process
4. Where access needs to be restricted, preserve value for the greatest number of users

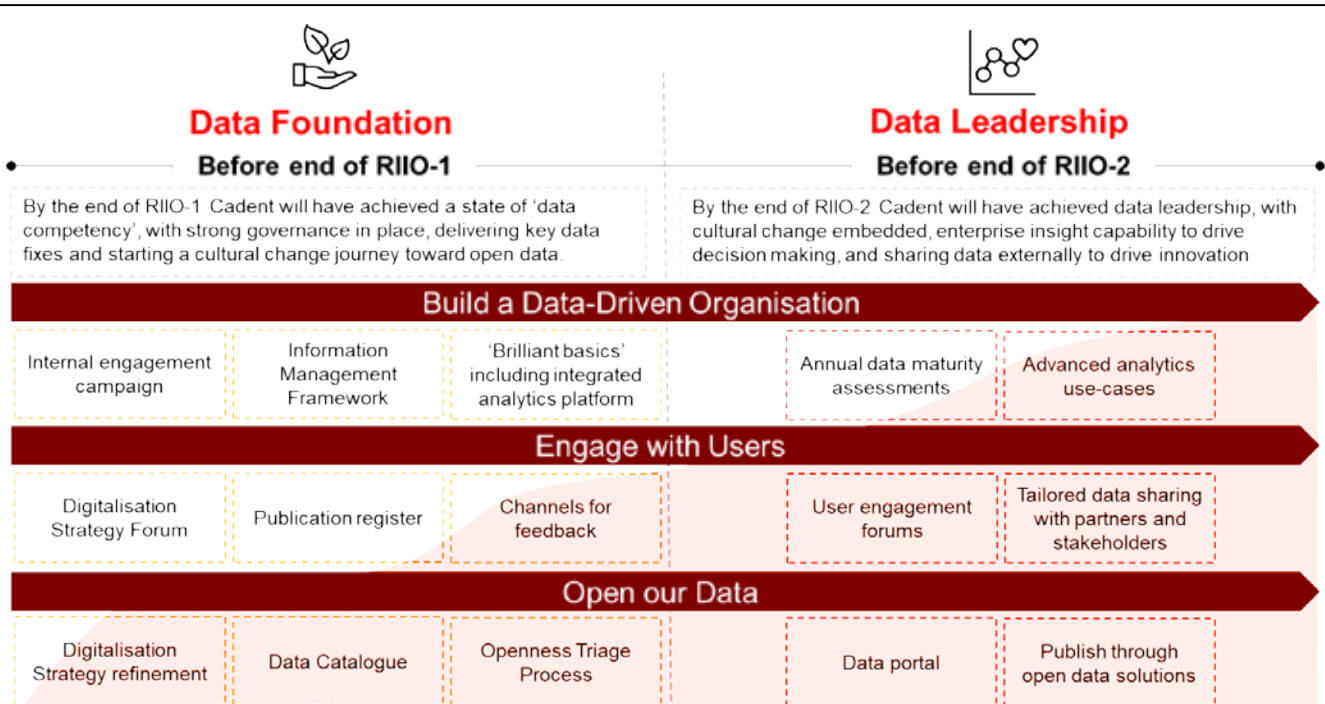
Table 07.07: Data & Digitalisation Strategy customer and stakeholder benefits

Topic	Consideration	Customer and Stakeholder benefits
Satisfaction	Customers' expectations regarding core service delivery are increasing.	Improved data quality will underpin how we meet commitments and deliver a safe and compliant service.
Visibility	Customers expect to have end-to-end visibility of in-flight processes.	We will adopt a principle of data accessibility and transparency for our customers, as well as our employees.
Personalisation	Customers increasingly expect a more tailored service.	We will capture and leverage customer data to improve and tailor our services, and improve standards of customer service.
Open data	Industries such as rail and banking are opening data sets up for external access and use to stimulate innovation and drive value.	Our data can be used to drive direct benefits for customers, as well as enabling new, innovative solutions in the value chain, both within Cadent and across the wider industry.

Our Plan

Our Data & Digitalisation Strategy recognises that we need to transition to a data-led business and ultimately becoming a truly data driven business. Our Plan will take us from a data foundation state, to one of data leadership.

Figure 07.07: Data & Digitalisation Strategy transition states



The plan also includes exploring the development of a digital twin of our network – a virtual representation of our assets, and how they interact across our network and with the environment. A digital twin would allow us to run digital simulations of real-world scenarios which could help optimise engineering works as well as plan the future of our network, including decarbonisation and the introduction of new gas sources.

Being data-driven will enable us to deliver significant benefits for our customers, partners and stakeholders. These include operational improvements, better insights into our customers' needs, and data-driven innovations to safeguard energy security for future generations.

The value we derive from our data will improve as we progress toward a data-driven organisation. We intend to continue to invest in our capabilities across technology, people, and cyber security, in order to improve our data maturity and generate insights that can propel the transition to a Net Zero energy system.

Costs in RIIO-2

We have included an investment cost of £5.7m over RIIO-2 to underpin our work on the data strategy. We are investing through the remainder of RIIO-1 to build our data team and enhance our data capabilities and this will increase our operational 'running' costs. This has been built into our opex forecasts alongside the efficiencies that better data is assumed to deliver for us.



7.3 Providing a quality experience to all of our customers, stakeholders and communities

Summary

Customer expectations on service quality are higher than ever and rising. We know that we deliver on much of customers' traditional or basic requirements well. However, we also recognise that we must develop greater consistency and deliver on the full breadth of stakeholder expectations of a quality service, which extends far beyond their basic needs.

Our engagement with customers on providing a quality experience has revealed four key themes that we are using to group the commitments we propose for RIIO-2. These themes are:

Figure 07.08: Outcomes our customers need us to deliver

Outcome		Providing a quality experience to all of our customers, stakeholders & communities		
		Setting standards that all of our customers and stakeholders love		
Priorities		Keeping the energy flowing		
		Minimising the disruption from our works		
		Supporting customers in vulnerable situations		
		<ul style="list-style-type: none"> - Identifying needs - CO awareness - Fuel poverty - Going beyond 		

What we will do – The priority areas to address this insight

First, **setting standards that all of our customers love** will take us beyond the current measured satisfaction surveys to establish a standard for all of our services that takes reference from industries beyond the utilities industry. We will look to establish measures and improve all of our services. We have already started this approach and we have set out our commitments in two key areas of focus relating to our worst-served customers; namely household connections and customers living in multi-occupancy buildings. We recognise the inconvenience that customers in some MOB's have suffered especially in relation to time off gas following disconnections. We have committed to a step-change in performance during the remainder of RIIO-1 for MOB's. In addition, we set out plans to create an accessible and inclusive business to make life easier for our customers. There is no such thing as an 'average' customer and our services need to reflect this and work for the individual, and across the breadth of our services.

Second, focusing on **keeping the energy flowing to our customers** so that they can continue their daily lives. This priority area looks at both how we minimise the potential for a customer to be interrupted and the targets we have to reduce the average time that they are left without gas in the event of an interruption. It also looks at how we can better communicate and provide clarity around reconnection of a service.

Third, we need to **minimise disruption from our works**. Utilities have been focusing on this area for many years and have made some significant improvements. Our customers are clear that they want us to go much further, in particular, regarding impacts associated with roadworks and coordinating work with other utilities. Based on customer feedback, we have significantly changed our proposals in this area from our July draft Plan so that we are no longer targeting the speed of reinstatement. Instead, we are targeting clear communications and delivering our promises.

The final priority area is the need to **support customers in vulnerable situations** better than ever. We made significant improvements relating to vulnerability in RIIO-1, including raising carbon monoxide awareness, our work on the Priority Services Register and in helping to tackle fuel poverty. There is now a clear expectation that we and other companies take further steps to safeguard and provide the best possible service to vulnerable groups in our communities. Through previous price control deliverables, the benefits of gas have been brought to many; however, there are opportunities for more ambitious approaches to reduce fuel poverty and affordability concerns that build on learning from the past.

We have set out a broad list of commitments to address the feedback that we have received from customers. The number, breadth and specificity of our commitments, reflects our comprehensive engagement with the full range of stakeholder and customer groups, the diverse needs and expectations in today's world and our high level of ambition to transform experiences.

A number of our services are taken as business as usual requirements such as delivering guaranteed standards of performance. We have highlighted the areas where we are proposing to go beyond business as usual and are hence part of our 'Consumer Value Proposition' and referenced Ofgem's criteria. We have also set out clearly which are common and which are bespoke measures.

There are four output commitments for which we are seeking incremental funding.

Table 07.08: Outputs for which we are seeking funding

Quality experience Output commitments (£m) in 2018/19 prices	2021 /22	2022 /23	2023 /24	2024 /25	2025 /26	Total
Needs identification	1.5	1.5	1.5	1.5	1.5	7.7
Enhanced CO awareness	5.2	6.2	6.8	7.5	8.4	34.1
Fuel poor interventions and advice	6.5	6.5	6.5	6.5	6.5	35.6
Service beyond the meter	3.8	3.8	3.8	3.8	3.8	19.0
Total	17.0	18.0	18.6	19.3	20.2	93.4

There are a number of outputs where we are delivering improved service and new bespoke output commitments, but we are not seeking funding. Instead we are taking this as an additional efficiency challenge into our overall cost base, as set out in **Table 07.09**.

Our commitments continued

Table 07.09: Outputs to be delivered as part of an additional efficiency challenge

Quality experience Output commitments (£m) in 2018/19 prices	Average per year	2021/22	2022/23	2023/24	2024/25	2025/26	Total
Measuring and enhancing accessibility and inclusivity	1.0	1.0	1.0	1.0	1.0	1.0	4.9
Better roadworks information	2.0	2.0	2.0	2.0	2.0	2.0	10.1
Coordinating with others	0.2	0.2	0.2	0.2	0.2	0.2	1.0
Total	3.2	3.2	3.2	3.2	3.2	3.2	16.1

We have estimated that these outputs imply that we will need to absorb costs of £3.2m p.a., implying an effective additional 0.1% ongoing efficiency challenge. Further details are provided in [Chapter 9, Costs and efficiency](#).

Setting standards that all of our customers and stakeholders love

Table 07.10: Summary of output commitments

Output	Common / Bespoke	Output type	Incremental Costs?	Part of our CVP?	Appendix evidence
DELIVERING A QUALITY EXPERIENCE FOR ALL OF OUR CUSTOMERS, STAKEHOLDERS & COMMUNITIES					
Setting standards that all of our customers and stakeholders love					
Establishing and raising the bar for all of our customer and stakeholder experiences	Bespoke	ODI (R)	N	Y	07.03.01
Guaranteed Standards of Performance ('GSOPs')	Common	LO	N	N	
Customer Satisfaction Targets (RIIO-1 service measures)	Common	ODI (F+/-)	N	N	
Stakeholder measures	Bespoke	ODI (R)	N	Y	
MOBs Balanced Scorecard	Bespoke	ODI (R)	N	Y	
Responsive to your complaints	Common	ODI (F-)	N	N	07.03.03
Responding to your enquiries	Bespoke	ODI (R)	N	N	
Measuring and enhancing accessibility and inclusivity	Bespoke	ODI (R)	N	Y	07.03.05
Improving our household connections service	Bespoke	ODI (R)	N	Y	07.03.04
Keeping the energy flowing to our customers and communities					
GSOP1	Common	LO	N	N	07.03.06
Unplanned interruptions (minimum standard) for NW, WM and EE	Common	ODI (F-)	N	N	
Unplanned interruptions (minimum standard) NL	Common & Bespoke (Lon)	ODI (F-)	N	N	
Unplanned interruptions (targeted likely levels)	Bespoke	ODI (R)	N	N	
Providing time-bound appointments	Bespoke	ODI (R)	N	Y	07.03.07
Minimising disruption from our works					
GSOP2	Common	LO	N	N	07.03.08
Private reinstatement timeliness	Bespoke	ODI (R)	N	Y	
Better roadworks information	Bespoke	ODI (R)	N	Y	
Coordinating with others	Bespoke	ODI (R)	N	Y	
Supporting customers in vulnerable situations — Identifying your needs					
Principle based licence condition to treat customers fairly	Common	LO	N	N	07.03.09
Needs identification	Bespoke	PCD	Y	Y	
Annual showcase event and report	Common	ODI(R)	N	N	
Supporting customers in vulnerable situations — Raising carbon monoxide awareness					
Carbon Monoxide awareness action business as usual	Common	PCD	N	N	07.03.10
Enhanced Carbon Monoxide awareness	Bespoke	PCD	Y	Y	
Supporting customers in vulnerable situations — Tackling affordability and fuel poverty					
Fuel poor gas network extensions	Common	PCD	N	N	07.03.11
Additional fuel poverty interventions	Bespoke	PCD	Y	Y	
Income and energy efficiency advice	Bespoke	PCD	Y	Y	
Pioneering new funding model trial	Bespoke	ODI (R)	N	Y	
Targeting customers in fuel poverty	Bespoke	ODI (R)	N	N	
Supporting customers in vulnerable situations — Going beyond to strive to never leave a customer vulnerable without gas					
GSOP3	Common	ODI (F-)	N	N	07.03.12
Personalising welfare facilities	Bespoke	PCD	N	Y	
Service beyond the meter	Bespoke	PCD	Y	Y	

Our commitments continued

Our Customer Strategy

Underpinning our commitments in this area is our Customer Strategy. In 2018 we revamped our strategy to focus on establishing a customer-centric culture across the organisation. It is based on six pillars that each contribute to this aim:

Establishing a customer-centric operating model – We are in the process of shifting from a highly centralised process-centric operating model to a regional delivery model that puts greater emphasis on local accountabilities for delivering customer outcomes. This is creating much closer proximity between our customers and decision makers, putting the emphasis on our local teams to engage with their own stakeholders and customers, shaping and defining standards that they can deliver day after day.

Real time data driving far greater quality insights – Having access to better and real time data helps our people provide improved customer experiences. In 2018, we started this process by creating our Customer Insights team that sits at the centre of the newly created Chief Operating Officer structure. In addition, we invested in a new SMS real time feedback provision ('Rant & Rave') and recruited experienced data analysts and social media professionals to maximise the intelligence from customer insights – linking this in with other existing insights.

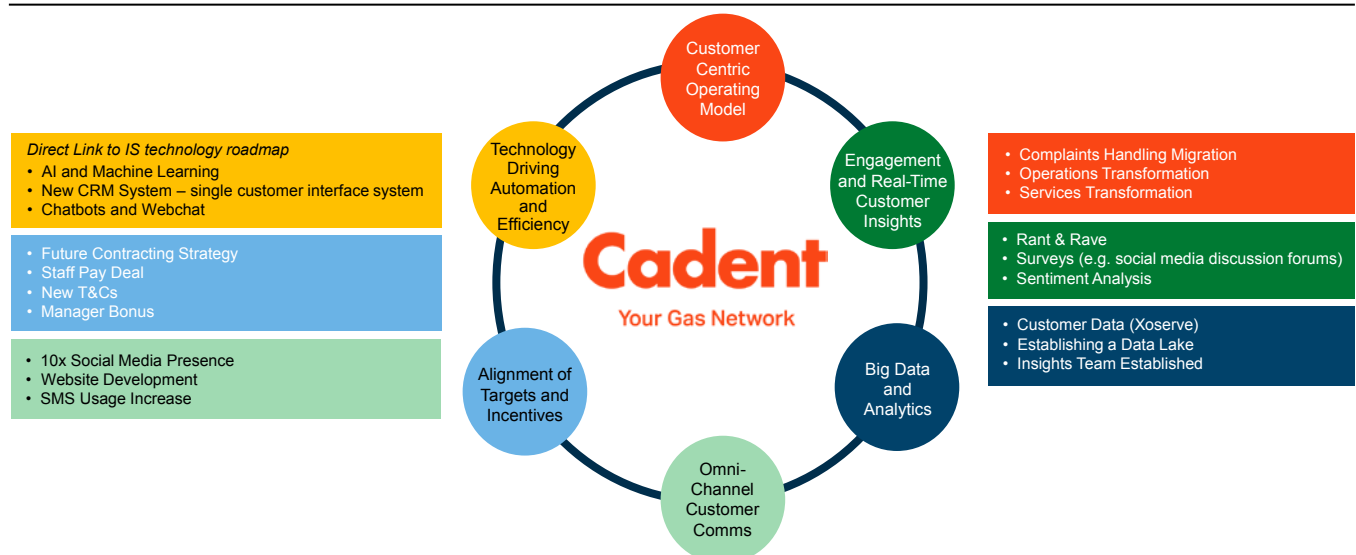
Enhanced engagement and data analytics – Also in 2018, we established our enhanced engagement programme, spending just over £2m on additional engagement activities with stakeholders across multiple segments. At the same time, we have built our customer 'data lake' on Amazon's Web Services platform to create a single repository, allowing us to collate insights from business as usual operations, our enhanced engagement programme and publicly available data. This unlocks more forensic data analysis ability, so we can truly understand the needs of our customers, which is fed into our Customer Insights Forum to drive action across the organisation.

Multi channel communications – Our customers tell us that their preferred communication methods have changed. Over 50% of adults in the UK prefer to use social media or SMS for communicating. In addition to our investment into SMS channels for customer feedback, we are using this for proactive customer engagement regarding our work and services. We have increased our social media following by 50% and are using platforms such as Facebook to engage with customers about our forthcoming mains replacement programme. We have developed a series of videos and infographics to engage with customers and stakeholders on who we are and the services we operate and have enhanced our website offering customers and stakeholders another route into Cadent.

Incentives aligned around the customer – We all respond to incentives. Our key service provider contracts have been amended to add far greater financial incentives for delivering better customer service outcomes, encouraging far greater local ownership and engagement with stakeholders to deliver this. Additionally, we negotiated a new pay deal for all staff that links an element of their annual bonus to the company's customer satisfaction and stakeholder engagement scores, enhancing the proportion of managers' bonuses from 10% to 35% in this area.

Technology enablement – We have invested in AI and machine learning to support the gathering of additional insights into the Insights team, now allowing complex sentiment analysis to be used and acted upon. Furthermore, we have started the process to procure a new state of the art CRM system, which will allow customers to access real time information relating to work in their area and services that they are receiving, and allow two-way dialogue with customer agents. This will be in place before RIIO-2.

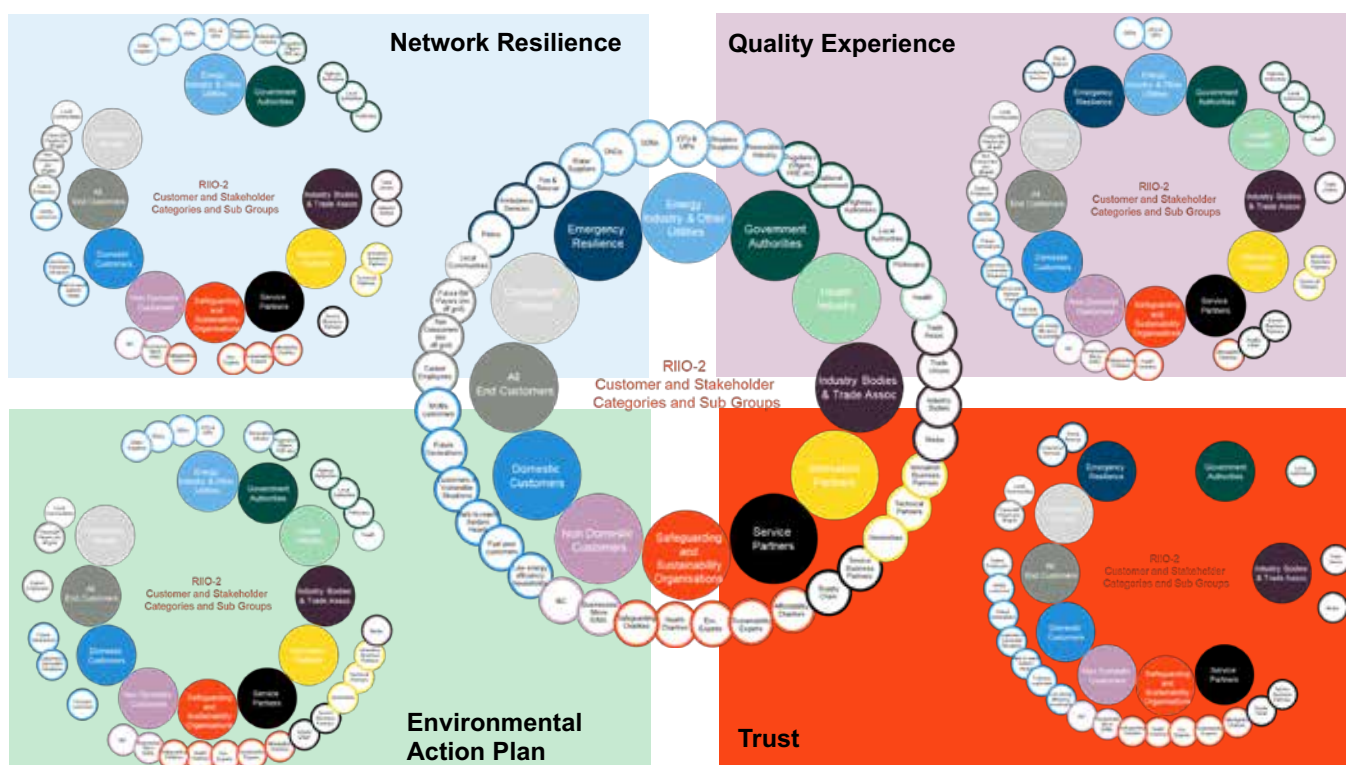
Figure 07.09: Our customer strategy



Recognising the importance of segmentation

Our customer strategy helps us to identify the specific needs of each of our customer segments through the way we capture and use data, our multi-channel customer communication process and our improved analytics capabilities. It has also been critical to recognise these segments in the way that we have engaged to determine the output commitments in this area. prior to every engagement event we held a series of meetings and workshops to determine the desired outcome of the engagement, what we needed to engage on, and with whom. For example, some of our services are exclusively delivered to domestic customers, in which case we did little or no engagement with non-domestic customers. However, in other cases, it was critical to engage separately with different groups of customers, refining how we engaged in order to ensure that we have captured the needs of all of our customers. We explain our approach to segmentation in **Chapter 5, Enhanced engagement**, and in more detail in **Appendix 05.03, Engagement Decision Tracker**, where we link every engagement event to the commitment in the plan and show who we engaged with, the questions we asked and the insights we took. This insight is then summarised in each individual output case appendix to show the complete 'golden thread' between engagement, insight and proposals. We maintain a stakeholder segmentation database with 33 different groups and 12 sub-categories of groupings. The diagram below shows these segments and details which segments we engaged with against each of our four customer outcome areas:

Figure 07.10: Recognising the importance of segmentation



Our Customer Strategy underpins the journey we are on to set standards that our customers will love and that others aspire to. Our commitments (which are summarised below) seek to make a significant step towards setting measurable benchmarks for the experience that all of our customers and stakeholders receive. This will help move the frontier or performance across the industry in RIIO-2 and beyond.

Priority area – Setting standards

In RIIO-2 we are committed to enhancing our existing customer service measurements, including Guaranteed Standards of Performance ('GSOP'), CSAT and complaints handling, and establish measures against all core services, allowing us to set robust performance baselines and continually improve the experience for all our customers, and our stakeholders. We will seek to establish separate measures within each service area for different customers, including business customers, recognising the segments that exist within this categorisation. We know we need to monitor and improve our service in specific areas, therefore we have already defined measures for general enquiries handling, household connections, customers living in multi-occupancy buildings, and stakeholder satisfaction.

£4.9m incremental absorbed and GSOP costs incurred c. £10m

Qualitative customer benefits (no financial CVP)

No bill impact

We will set standards that all of our customers and stakeholders love and others aspire to

Our vision is to set standards that all of our customers love and others aspire to, therefore we must measure how ALL of our customers and stakeholders feel about the standards we are setting and ensure that we are able to benchmark and compare ourselves to others within the industry and beyond.

There is an expectation across all areas of society that businesses provide great services to all their customers. This includes enhancing our existing obligations, including our minimum standards, CSAT surveys and complaints. However, we want to go beyond this and measure performance across all our services to improve the experience of our customers and stakeholders, and to ensure our services are accessible and inclusive to all.

What we are already doing in RIIO-1

During RIIO-1 we have seen customer satisfaction and complaints handling performance increase across all our measured services in all networks. However, our service level has not been consistent, and our performance is not at the level of our comparator networks. We have re-focused our customer strategy to undertake a transformational programme that will put delivering great customer outcomes at the forefront of how we do business. We are seeing positive progress but there is more work to be done to fully embed and drive towards our vision. Although the CSAT incentive has driven significant improvements in customer experience, this is limited to only part of our customer base and some of our service offerings with no current regulatory measure of stakeholder satisfaction. The complaints handling measure has also driven significant responsiveness improvements for all GDNs in RIIO-1. However, there is no such measure for general enquiries, which we and many of our customers believe there should be to drive rapid resolution in all customer queries.

Engagement summary

Who, how and purpose	Insights
<p>Domestic customers</p> <p>We reviewed complaints, enquiries, CSAT and SMS feedback data from the last three years to analyse the reasons for high and low levels of satisfaction.</p> <p>We have engaged with customers in a series of workshops to understand their priorities for GDNs so that we can ensure that we are measuring the aspects of our service that most matter to them.</p>	<ul style="list-style-type: none"> Customers highlighted that our services should not be 'one size fits all' and should reflect the specific needs of different customers. Keeping people up to date is a priority. This should take place through various channels including social media, calls, emails and face-to-face contact, keeping everyone updated on ongoing works, interruptions and emergencies. Customers felt that our approach to communication should be: honest and transparent; accurate and consistent; accessible (including to non-English speakers) and tailored to customer needs. Most customers prefer to respond to surveys using their phone, especially younger customers.
<p>Customers in vulnerable situations ('CIVS')</p> <p>We engaged with CIVS and experts supporting CIVS via in-depth interviews to understand their needs and requirements to help tailor our standards of service.</p>	<ul style="list-style-type: none"> Accessibility is key, providing support and getting out to the community where possible, ensuring clarity in the language used to communicate. CIVS should be prioritised above other customers and provided with a higher level of service.
<p>Business and other customer segments</p> <p>We conducted in-depth interviews with business customers to gain their views on our current service levels and discussed future enhancements.</p> <p>We engaged directly with UIPs, IGTs and biomethane gas suppliers to understand their specific requirements through face-to-face meetings and interviews.</p> <p>In 2018 we began a comprehensive end-to-end review of our connections business. We worked with leading customer service consultancy Perpetual Experience to interview customers, past and future, to understand the key areas for improvement, recognising their different needs. They brought extensive experience of good practice elsewhere for us to leverage.</p>	<ul style="list-style-type: none"> Smaller businesses stated that we should increase visibility and communication about who we are and what we do, so that businesses can better understand how our activities impact their organisation. The needs of business customers differed from domestic customers and should be monitored and improved. Biomethane, IGT and UIP connections customers felt frustrated that we and other GDNs are publishing 'connections customer satisfaction' scores that do not represent their views as major customers in this area. Domestic connections customers said that it took too long from initial contact to the engineering work starting. The process was generally efficient thereafter.

Engagement summary								
Who, how and purpose		Insights						
<p>Expert stakeholders</p> <p>We engaged early with expert stakeholders, including those on our Customer Engagement Group, over the limitations of the current measures to determine satisfaction levels.</p> <p>We undertook acceptability testing interviews with expert stakeholders, presenting our draft plan to get their views and thoughts on our proposed commitments.</p>		<ul style="list-style-type: none"> • A water company were supportive of our proposals and highlighted that it was good to see the inclusion of our proposals on accessibility and inclusivity. • A trade organisation highlighted that it is good to see commitments that acknowledge our impact on everyday lives. • Last-mile utilities operator explained that minimum standards of service are really important and that alternative customer measures should be explored beyond CSAT which is an ageing measure. • Citizens Advice believed that we should have a separate measure of satisfaction for customers registered on the Priority Services Register. • Sustainability First believed that we should measure the inclusivity and accessibility of our services. • Most stakeholders, when asked, would welcome us measuring their satisfaction levels. 						
<p>Industry experts</p> <p>We have engaged collaboratively with other GDNs and Ofgem to understand how the existing CSAT measure can be enhanced and how the minimum guaranteed standards can be updated and improved to meet the needs of all customers.</p>		<ul style="list-style-type: none"> • Noting that the current measurement regime is adding value, there is little appetite beyond ourselves to change the existing limited approach to ascertaining customer satisfaction levels with a more robust and wide-reaching set of measures. 						
And the steps we have decided to take in RIIO-2								
<p>Our insights inform us that measurement drives improvement and therefore it is important we develop measures across all core customer and stakeholder experiences. There are a number of key areas that customers prioritise (e.g. minimising disruption, keeping appointments, respecting customers, etc.) that are not currently assessed in the RIIO-1 CSAT measure or GSOPs. Measures set against these areas would ensure that we are focusing on the areas that matter most to customers. Given our feedback from our customers and stakeholders, for RIIO-2 we will enhance existing customer service measures, including guaranteed minimum standards, complaints, and CSAT, including measuring CSAT separately for customers registered on the PSR. We will also establish measures for all our key service areas and stakeholder activities, including general enquiries handling, household connections, stakeholder satisfaction, and report our progress against the breadth of our MOBs customer service commitments in a balanced scorecard. In establishing these new measures, we will provide benchmark data to set the base performance level for RIIO-3 and beyond, allowing us to deliver long term benefits for customers and stakeholders. We will also measure the transparency, accessibility and inclusivity of our communications and establish measures for this.</p> <p>In response to the feedback from our connections customers, we will continue to deliver segment-specific improvements through our Service Transformation Programme. In addition, to respond to very clear feedback about the timeliness of the front end of the domestic connections process, we have developed two timeliness measures relating to the two stages of the process that currently take the longest – time to quote and time for site visit.</p>								
Measurement of success								
Output	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Inc Cost (RIIO-2 total)	CVP
Customer service GSOPs 1-3, 12-14	✓	✓	✓	✓	✓	Increased compensation payments, automatic payments and some updated targets (in line with regulatory GSOP changes)	Estimated efficient level £10.4m	No financial CVP, qualitative benefits only
Connections GSOPs 4-11	>90%	>90%	>90%	>90%	>90%			
Customer satisfaction	Targets to be confirmed following CSAT trial between October 2019 – March 2020. We will also measure PSR CSAT to understand and improve services for customers in vulnerable situations.					Updated scope, questions and increased numbers of response channels	£0	
Complaints metric score	To be rebased on GD1 performance – Ofgem to confirm					Re-baselined benchmark	£0	
Enquiries metric score	We will establish an Enquiries handling metric which encourages rapid response and resolution of enquiries. This will follow a similar structure to the Complaints metric.					New measure for RIIO-2	£0	

Priority area – Setting standards continued

Measurement of success continued								
Output	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Inc Cost (RIIO-2 total)	CVP
Measuring and enhancing transparency, accessibility and inclusivity	We will work with an independent expert to establish an index which measures the transparency, accessibility and inclusivity of our communications.					New measure for RIIO-2	£0 (£4.9m absorbed cost)	No financial CVP, qualitative benefits only
Establishing and raising the bar for all our customer experiences	We will establish measures for all our key customer service areas and set a robust baseline in order to drive improvement for all customer experiences.					New measure for RIIO-2	£0	
Stakeholder satisfaction	We will establish a stakeholder satisfaction measure in order to understand how satisfied our stakeholders are with our services and drive improvements.					New measure for RIIO-2	£0	
MOBs balanced scorecard	We will establish a scorecard of customer measures related to improving the experience for customers living in MOBs including a MOBs specific CSAT measure.					New measure for RIIO-2	£0	
15-minute household connections quotes – % adherence	>90%	>90%	>90%	>90%	>90%	GSOP4 minimum standard – four working days	£0	
3-day site visit following acceptance of household connections quote – % adherence	85%	85%	85%	85%	85%	Not measured in RIIO-1	£0	
Delivering our commitments								
<p>Customer communications:</p> <ul style="list-style-type: none"> We are looking to improve our customer performance levels by simplifying call agent scripts, making improvements to the processes followed by Customer Liaison Officers and the continuation of a number of improvement activities already put in train across the business. We will continually review our written and digital communications, including website accessibility with videos in multiple languages which help give greater context to our works. 								
<p>Process/systems:</p> <ul style="list-style-type: none"> We will enhance the technological capability of our systems to support big data, customer insights and multi-channel communication. We will look to make use of AI including self-service voice and chat to smartly handle enquiries and complaints. We will look to make use of AI including self-service portals and chat functionality to ensure we can continue to respond promptly to enquiries from our customers. 								
<p>Partnerships:</p> <ul style="list-style-type: none"> We are continuing to work with Perpetual Experience on our service transformation journey. This work will help to ensure that our service design and delivery is aligned with our customer strategy. We will develop partnerships with organisations who can effectively benchmark our services to allow us to measure continual improvement. 								
<p>Engagement:</p> <ul style="list-style-type: none"> Engagement will be ongoing with Ofgem and the other GDNs to trial the new CSAT survey and multi-channel approach. We will be establishing ongoing regional customer forums to monitor and improve our customer performance. We will continue to engage with expert stakeholders to ensure that good practice is noted and acted on. 								
<p>Skills and resource</p> <ul style="list-style-type: none"> We will train frontline delivery teams and customer call agents to ensure they are equipped with the latest skills in engaging with customers and ensuring they are always satisfied with our services. 								
Protecting against non-delivery								
Guaranteed Standards of Performance	Minimum delivery standards for interruptions, communications, priority customers and connections. Compensation is payable to customers if GDNs fail to meet a minimum standard. (Connection standards are also stipulated in the GDN licence.)							
Customer satisfaction incentive	Financial incentive +/- 0.5% of revenue for customer satisfaction performance across Emergency Response and Repair, Planned Work and Connections processes.							
Complaints handling incentive	Downside financial incentive -0.5% of revenue. GDNs are penalised if they score above a certain level within the complaints handling metric. GDNs are measured on timely handling of complaints, repeat complaints and Energy Ombudsman referrals.							
Reputational	Non-delivery against the reputational incentives proposed will have a negative reputational impact.							

Reference: See Appendices 07.03.01 Establishing and raising the bar for all our customer and stakeholder experiences, 07.03.03 Rapid response to enquiries and complaints, 07.03.04 Improving our connections services and 07.03.05 Measuring and enhancing accessibility and inclusivity for more information.

Priority area – Keeping the energy flowing

In RIIO-2 we commit to transforming our customers’ experiences during an interruption to their gas supply by reducing the likelihood of unplanned interruptions, reducing the average duration of unplanned interruptions when they do occur and offering timebound appointment slots for reconnection of gas to appliances for both planned and unplanned interruptions. We will set aspirational targets for MOBs and non-MOBs unplanned interruptions for each network (detailed below) leading to c.60% reduction in total duration by the end of RIIO-2 from 2018/19 levels and set minimum standard performance targets that exceed Ofgem’s objectives of ensuring GDN customers are protected against any significant deterioration in the length of unplanned interruptions, and that existing performance issues with multi-occupancy buildings are resolved.

No incremental cost

£109m CVP based on willingness-to-pay for timebound appointments

No impact on the customer bill

Keeping the energy flowing

We aim to keep the energy flowing for our customers and communities. Even though the likelihood of an unplanned interruption to a customer’s gas supply is one in almost 300 years, when they do occur, it can have a significant impact on their lives. We want to keep the energy flowing by reducing the likelihood of unplanned interruptions to supply and reducing the time it takes to get our customers back on gas when they do occur. We will also make supply restoration to appliances more convenient by offering timebound appointments. We understand that some of our customers experience significant delays in restoration e.g. customers living in multi-occupancy buildings and we will transform their experiences and build on the improvements we are already committed to deliver in RIIO-1.

What we are already doing in RIIO-1

Keeping the energy flowing is our priority and we do our utmost to maintain high levels of reliability in the supply of gas to our customers. In 2018/19 we sustained 99.996% overall network reliability, which corresponds to an average customer being off gas for 13 minutes every year. On average we restore a customer’s gas supply following a non-MOBs unplanned interruption within 10 hours. For unplanned interruptions in MOBs we have created a plan which includes a series of short, medium and long-term actions to improve the customer experience, including our commitment to reduce the median duration of an unplanned interruption to ten days by the end of RIIO-1. We do not currently offer customers the option to select a timebound appointment slot to have gas restored at their appliances, but we do have several internal measures to accelerate restoration of supply (at the customers’ appliances) following repair works and mains replacement.

Engagement summary

Who, how and purpose	Insights
<p>Domestic (household) customers</p> <p>We reviewed thousands of complaints and CSAT returns which demonstrate the importance of keeping the gas flowing for customers.</p> <p>During early phases of engagement we asked customers what they expect and want from a GDN – minimising interruptions and support during them ranked very highly.</p> <p>We undertook stated and revealed preference willingness-to-pay studies to ascertain a monetary value associated with the improvements we could make.</p> <p>We tested three costed options in Business Options Testing (BOT) to understand customer preferences against the options we created based on their earlier feedback.</p>	<ul style="list-style-type: none"> Customers viewed disruption to their gas supply as their top priority area, as a reliable supply of gas supports their quality of life. Domestic customers highlighted the importance of increased investment to stop interruptions occurring in the first place, for example through new technology to detect problems During an unplanned interruption, customers expected their gas to be reconnected as soon as possible. However, there was limited willingness to pay for investment in tools and equipment to reduce average durations. There was strong support for timebound appointments for internal supply restoration from customers at our forums and workshops. The majority of customers preferred two or four-hour timeslots.
<p>MOBs customers and stakeholders (e.g. local councils, planners and transport organisations)</p> <p>We engaged with 41 MOBs customers via regional workshops. It is more difficult to make repairs in MOBs and therefore interruptions can last longer. It was therefore important to hear directly from MOBs customers to understand their views and priorities and help us shape our Plan.</p> <p>We also held a joint collaboration event with our strategic partners, tRIIO, with 48 MOBs stakeholders to understand specific needs.</p>	<ul style="list-style-type: none"> Whilst reducing the average time of interruptions was supported by all, there was a challenge to paying for it, and also believing that it would be delivered. MOBs customers highlighted the importance of timely communication to keep customers informed, working with other stakeholders e.g. building owners and local authorities, and planning ahead to have the right permissions in place to undertake works. Many questioned if a reduction in MOBs interruption times could be achieved given that many factors, such as coordination with building management, are outside of our control. MOBs customers favoured being given a timeslot for having their gas switched back on, but that such slots should be convenient to customer routines and needs and that we needed to maintain regular communication with customers.

Priority area – Keeping the energy flowing continued

Engagement summary	
Who, how and purpose	Insights
<p>Customers in vulnerable situations (CIVS)</p> <p>We engaged with CIVS via in-depth interviews to understand their needs and requirements to help us tailor and shape our service offerings in RIIO-2.</p> <p>We later tested costed options to understand their preferences.</p>	<ul style="list-style-type: none"> • CIVS highlighted the importance of providing warning and precise indication (where possible) of when the gas would be off, as no warning could create panic and distress. • CIVS also highlighted the importance of providing alternative provisions to keep warm and having access to hot water and food (our proposals for this are set out in our 'Going beyond to never leave a customer vulnerable without gas' priority).
<p>Business customers</p> <p>We conducted workshops and held in-depth interviews with business customers to gain their views on current service levels and discussed future enhancements.</p>	<ul style="list-style-type: none"> • Organisations wanted us to focus primarily on getting the gas back flowing again. Whilst large / gas dependent organisations almost always have a back up heat supply, smaller organisations do not. • Many business customers wanted timeslots for reconnection to be as precise as possible (slots of no more than 1-4 hours). • Across business types, organisations wanted us to focus primarily on getting the gas flowing again. Companies that would be impacted by a loss of gas, such as hospitality and leisure services, suggested compensation be made available, while office-based businesses such as legal and accounting firms did not.
<p>Customer feedback following large incidents</p> <p>We spoke with 100% of customers impacted by large scale incidents to understand their specific needs. We used feedback from this in our analysis.</p> <p>We undertook an additional survey to drill down into aspects of the customer experience received at two major loss of gas incidents at Deanshanger, Northamptonshire and Eye, Cambridgeshire.</p>	<ul style="list-style-type: none"> • The vast majority of respondents thought that our response to the emergency exceeded their expectations (more than 90% in Deanshanger and more than 80% in Eye). • All but three respondents said that they trusted us to keep the energy flowing to their home – those three said that they trusted us 'a bit'. • The use of the Incident Application (mobile app) and onsite presence of our people ranked as aspects working very well.
<p>Expert stakeholders</p> <p>We engaged with experts throughout the process including undertaking acceptability testing interviews in which we presented our draft Plan to get their views and thoughts on our proposed commitments.</p>	<ul style="list-style-type: none"> • Water company – nine hours seems acceptable, given the challenges experienced. • Last-mile utilities operator – restoration times are acceptable, would be better if it could be quicker, but acknowledged it can be really complex. • Citizens Advice – support our proposals to reduce the impact of interruptions, and the additional support we are proposing for CIVS
<p>And the steps we have decided to take in RIIO-2</p> <p>Our insights and engagement highlight clear differences in preferences based on the type of interruption experienced:</p> <p>Reducing the average durations of unplanned interruptions</p> <ul style="list-style-type: none"> • Household (non-MOBs) unplanned interruptions – After triangulating our engagement results, there is limited support to invest in new equipment to reduce the average restoration time for non-MOBs interruptions at a cost to customers, and the lowest target option that we tested (to maintain current performance levels) was the preferred option for the majority of customers during Business Options Testing. Although customers supported maintaining existing performance for non-MOBs interruptions, benchmarks confirm that we can achieve a 10% improvement without any additional costs to customers through innovation and implementing best practice. • MOBs unplanned interruptions – Business insights and engagement with MOBs customers informed us that our performance needs improvement. Although there are many challenges with MOBs beyond our control, we still believe we can make further improvements to reduce the likelihood of an interruption and the current average restoration times. <p>Reducing the likelihood of unplanned interruptions</p> <p>This was a primary focus area for many (in particular business customers). We are forecasting to reduce the likelihood of our customers experiencing an unplanned interruption by 13% by the end of RIIO-2 from 18/19 levels. We will continue to work with Ofgem to develop a measure for this and the overall customer impact from it. We are forecasting a c.60% reduction in total unplanned interruptions duration for our customers by the end of RIIO-2 from 18/19 levels.</p> <p>Major incidents – Major incidents are predominantly driven by third parties and impossible to forecast. Customers tell us that we perform above their expectations during large incidents and we will continue to make this our aim in RIIO-2.</p> <p>Gas supply restoration to customer appliances – We will provide timebound appointments slots for restoring supply to customer appliances due to the strong customer support received. However, expert stakeholders tell us that we must prioritise the needs of customers in vulnerable situations, which we shall do. Our benchmarks show that two hour appointments is a leading-level service for utility businesses and offering a free service goes well beyond most leading customer service industries.</p>	

Measurement of success								
Output	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Inc Cost (RIIO-2)	CVP
GSOP 1: Restore customers' gas supply following an unplanned interruption within 24 hours	✓	✓	✓	✓	✓	Increased compensation in line with inflation – removal of £1,000 cap	£9m est	-
Adherence to timebound appointment slots	90%	90%	90%	90%	90%	Not measured	£0	£109m
Unplanned interruption targets – By end of RIIO-2								
Output	Interruption type	East of England	North London	North West	West Midlands	Comparison to RIIO-1	Cost	CVP
Likely levels – unplanned interruptions average duration (minutes)	MOBs	19,385	31,029	9,440	16,400	Non-MOBs: 10% reduction in all networks MOBs: 10% reduction in EE and WM, maintain c.40% reduction in NL that we will deliver by the end of RIIO-1 and then 1% year on year reduction in durations through RIIO-2. Maintain performance in NW Note: % reductions based on weighted average of years 15/16 – 18/19	£0	No financial CVP, qualitative only
	Non-MOBs	471	618	562	481		£0	
Minimum standards – unplanned interruptions average duration (minutes)	MOBs	25,937	36,078**	17,906	36,078	Not a formal measure in RIIO-1. However, we have set minimum standard performance targets that exceed Ofgem's objectives of ensuring GDN customers are protected against any significant deterioration in the length of unplanned interruptions, and that existing performance issues with multi-occupancy buildings are resolved.	£0	
	Non-MOBs	684	744	736	644			
	Major incidents	7,212	7,212	7,212	7,212			
	Combined*	1,852	1,493	1,848	2,505			

* Combined duration for EE, NW and WM is a combination of non-MOBs, MOBs, and major incidents. Combined duration for NL is combination of non-MOBs and major incidents only.

** Ofgem have confirmed that a separate bespoke minimum standard target will be set for London MOBs unplanned interruptions.

Delivering our commitments
<p>Customer communications:</p> <ul style="list-style-type: none"> We will regularly communicate with customers and stakeholders during works to keep them informed of progress and minimise the impact of an unplanned interruption. We will establish a MOBs 'hotline' so that building owners or their building managers can contact us easily to find out key information about their building and our work plans. We will also have a dedicated MOBs team in London to keep customers on gas and engage with customers as soon as possible to deliver an improved customer service. We will work around the needs of our customers by offering timebound appointments for restoring the gas supply at their appliances.
<p>Process/systems:</p> <ul style="list-style-type: none"> We will continuously improve our working practices, policies and technologies to minimise the time our customers are off gas following interruptions and share and adopt best practices in the industry in reducing the likelihood and duration of unplanned interruptions. We will accelerate the application of innovations to enable riser repairs without the need for an interruption. We will develop our systems and applications to offer and manage timebound appointment slots.
<p>Partnerships:</p> <ul style="list-style-type: none"> We will partner with housing authorities, residents' associations, and local councils to ensure work is completed efficiently and customers are kept informed. We will maintain partnerships with key MOBs stakeholders in London and develop further relationships with all London boroughs and multi-occupancy building owners.

Priority area – Keeping the energy flowing continued

Delivering our commitments	
Engagement:	
<ul style="list-style-type: none"> We will improve our engagement with local authorities and building owners to ensure we are able to restore the gas supply in MOBs as soon as possible. During major incidents we will engage with local community leaders, stakeholders and other utilities (where required) to maintain the great customer service we provide in these situations. We will take a more proactive approach to stakeholder engagement at senior levels within London's mayoral and local authority constituencies to help us target our efforts where they are most needed and to better understand opportunities to improve. 	
Protecting against non-delivery	
Guaranteed minimum standards: GSOP 1 – Supply Restoration	If the gas supply of a customer is interrupted as a result of failure, fault or damage to the gas pipeline system they will be compensated where their gas supply is not reconnected at their property within 24 hours.
Unplanned interruptions ODI – Penalty only incentive	Non-delivery against minimum targets for unplanned interruptions average restoration time will result in a penalty worth up to -0.5% of revenue.
CSAT incentive – ERR & Planned work	The financial CSAT incentive rewards/penalises GDNs for performing above/below the agreed target level. +/- 0.5% of revenue.
Complaints incentive	The financial Complaints incentive penalises GDNs for performing below the agreed minimum level. -0.5% of revenue.
Reputational	Non-delivery against reputational incentives proposed will have a negative reputational impact.

Reference: See Appendices 07.03.06 Getting our customers back on gas and 07.03.07 Providing timebound appointments for more information



Priority area – Minimising disruption from our works

In RIIO-2, we commit to minimising the disruption caused by our works. To do this we will reinstate customer property within an average of three working days following completion of works. We will provide additional roadworks information on specified jobs, such as communicating roadworks timescales and alternative routes, through multiple channels – including post, text, via an online portal or an app, social media, TV and radio. We will commit to greater coordination of planned works with other utilities and local authorities to jointly deliver streetworks. This will contribute to overall time saved in the road therefore reducing the impact our works have on communities.

We have absorbed the incremental costs of £11.1m as part of our efficiency challenge

There is no quantitative consumer value associated with these commitments. There are qualitative benefits of reduced disruption

No bill impact

Minimising disruption from our works

Repairs to our network following an emergency gas escape, new connections and works to improve and upgrade our network with safer and longer lasting pipes are essential to keep our customers and communities safe. However, they often require us to excavate holes in the street and in customer properties to access our pipes. This can lead to significant disruption to the lives of our customers and members of our communities, including traffic congestion caused by street works or spoil in the street and on customer properties. Recognising the disruption caused by our works, we have explored how we can minimise this, including timely reinstatement, coordinating with others, and how we might communicate better with customers about our streetworks to minimise the impact.

What we are already doing in RIIO-1

Reinstatement timeliness: There is a minimum guaranteed standard to complete private reinstatement within five days. We use techniques such as live mains reinsertion and robotics (CISBOT) to reduce the number of excavations needed to carry out works and reduce the overall time it takes to complete our works. On average it takes us between 2-6 working days to complete reinstatement on private customer property across our networks.

Better roadworks information: For most of our works we provide customers notification of expected roadworks along with permit boards and verbal on-site conversations. However, for larger works we have explored the use of other more engaging methods. In 2018, we won the "Communication Leaders' Street Works UK" Award for our efforts to effectively communicate with the local community in Stratford-Upon-Avon whilst completing mains replacement works.

Coordination: We publish our Streetworks plans on roadworks.org and have coordinated with other utilities and local authorities on some major projects e.g. London Medium Pressure.

Engagement summary

Who, how and purpose	Insights
<p>Domestic customers</p> <p>We reviewed the insights from complaints, CSAT and other BAU sources of customer feedback and the largest single factor creating dissatisfaction was 'disruption'.</p> <p>We followed this up in workshops and surveys with thousands of customers to understand their priorities for a GDN and areas we could improve. In all four regions disruption ranked as a top priority.</p> <p>We tested three costed options that we developed off the back of earlier engagement in Business Options Testing ('BOT') to understand customer preferences and willingness to pay.</p>	<ul style="list-style-type: none"> Customers, especially when engaged through deliberative workshops, understood the critical role we play and the need for us to disrupt roads. However, they noted this as a major focus area for us in RIIO-2. Domestic customers indicated that a high-quality job and sticking to agreed timescales were more important than setting a more stretching target for timeliness of completion for reinstatement, which might be missed. Customers asked for up to date information on start and end dates of works in the road to be made easily available. During the BOT survey, when asked about filling in holes on customers' property after engineering work, most customers favoured the least expensive option: to fill in holes within three days, noting that this was acceptable.
<p>Industry stakeholders</p> <p>We engaged with industry stakeholders across several forums and bilateral meetings to discuss disruption that can be caused because of our streetworks. This included local councils and other utility organisations.</p>	<ul style="list-style-type: none"> Stakeholders emphasised the importance of collaborating with other parties and coordinating with local bodies and other utilities to minimise disruption. Key industry stakeholders such as the Greater London Authority ('GLA') and Department for Transport ('DfT') were supportive of our proposals to collaborate with others to minimise road congestion. We have explored the option of linking our roadworks information with Google satnav systems, but their customer feedback shows that customers are more concerned about actual 'live' travel times rather than the causes of delay.

Priority area – Minimising disruption from our works continued

Engagement summary								
Who, how and purpose		Insights						
<p>Business customers</p> <p>We conducted in-depth interviews and surveys with business customers to gain their views on our current service levels and their areas of priority.</p>		<ul style="list-style-type: none"> Business customers ranked 'minimising the disruption from our works' as the most important due to inconvenience caused, travel disruption, and potential shut-down of operations and direct financial impacts for some businesses. Business customers felt that multi-utility working "made sense", although some questioned the feasibility of successful coordination and collaboration between different companies. Their main ask was that they be provided advance knowledge of planned work to allow them to put contingency arrangements in place. 						
<p>Customers in vulnerable situations (CIVS)</p> <p>We engaged with CIVS and experts working with CIVS via in-depth interviews to understand their needs and requirements to help us tailor and shape our services and how we innovate in RIIO-2.</p> <p>We later tested costed options to understand their preferences.</p>		<ul style="list-style-type: none"> Professionals advise that engagement with CIVS is best conducted face-to-face or over the phone. If action is needed, then simple clear messaging should be used. Promoting the technology of Bluetooth Beacons on our street works sites to people directly and through families was felt to be a positive way forward. The use of Sightline Barrier Rumble Strips on our street works sites was felt to be a very good idea. Considerations included: for those who have sight-loss, ensuring we make the barriers strong, consistently placed and as easy to see as possible. 						
<p>Future generations</p> <p>We held six focus groups that included future generations (ages 18-24) to identify any additional or specific requirements that they had that were not represented at more general engagement events.</p>		<ul style="list-style-type: none"> Participants at our future generations workshops gave 'reducing roadworks and other disruptions from repairs' a fairly low prioritisation because they felt disruption was a necessary inconvenience for safeguarding the gas supply. When engaged further, they often did not rely on cars or own houses. 						
And the steps we have decided to take in RIIO-2								
<p>In July we submitted our first draft Plan. In the Plan we made a commitment to reduce the time taken to reinstate holes to one day at a relatively significant cost. Our early engagement suggested that timeliness of reinstatement was a key priority. In July and August we tested various costed options to minimise disruption and this option received very low support. This led us to engage further through qualitative forums to understand how else we could reduce disruption. We ultimately developed the commitments that are shown below which received strong support from domestic and business customers and from stakeholders that we engage with regularly through our works. Customers were supportive of us coordinating with others to minimise disruption and congestion on roads. Therefore, we will do more to collaborate with other utilities, local authorities and other stakeholders to reduce disruption and work with key industry experts to measure coordination and the associated value (e.g. days of congestion saved). We will also provide customers affected by our works with tailored and targeted information on roadworks, timescales, road closures and alternative routes utilising various digital and non-digital channels.</p>								
Measurement of success								
Output	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Cost	CVP
GSOP 2: Private reinstatement timeliness	5 days	5 days	5 days	5 days	5 days	5 days (minimum standard), however in RIIO-2 compensation will increase in line with inflation	£0	No financial CVP, qualitative benefits only
Adherence to timebound appointment slots	3 days	3 days	3 days	3 days	3 days	No bespoke measure to go beyond GSOP 2 minimum standard i.e. 5 days	£0	
Provision of roadworks information	✓	✓	✓	✓	✓	Not measured in RIIO-1	£0 (£10.1m absorbed)	
Collaborative streetworks	Coordinate streetworks with other utilities and establish a measure in RIIO-2 to report on the number of days saved due to collaboration					Not measured in RIIO-1	£0 (£1m absorbed)	

Delivering our commitments	
Customer communications:	
<ul style="list-style-type: none"> • Deliver improved roadworks communication through digital and non-digital channels to keep customers informed throughout our works. • We will adopt a tiered and tailored approach to ensure the right level of communication is provided based on traffic sensitivity, number of customers impacted, and the impact on business and tourism. 	
Process/systems:	
<ul style="list-style-type: none"> • We will continue to innovate in new technologies to reduce excavations and improve timeliness of reinstatement without the need for significant investment. • We will leverage our revised, more localised contract strategy to support consistent, strong reinstatement performance across networks. 	
Partnerships:	
<ul style="list-style-type: none"> • We will collaborate and coordinate with other utilities and local authorities to deliver efficient roadworks and reduce disruption for customers and communities. • We will work with Streetworks UK, GLA and other industry bodies to develop a robust measure for collaborative works. 	
Engagement:	
<ul style="list-style-type: none"> • We will engage with customers and key stakeholders to continually find ways to minimise disruption from our works. • We will engage with expert stakeholders such as those supporting CIVS to stay up to date with good practice noted elsewhere so we can ensure that we are tailoring our services to best meet the needs of all of our customers. • We will engage with other utilities and regional planning departments to consider ways to better inform the public of planned works. 	
Protecting against non-delivery	
Guaranteed minimum standard: GSOP 2	If we fail to reinstate a consumer’s premises within five days following engineering works, customers will receive compensation.
CSAT incentive	The financial CSAT incentive rewards/penalises GDNs for performing above/below the agreed target level. +/- 0.5% of revenue.
Complaints incentive	The financial Complaints incentive penalises GDNs for performing below the agreed minimum level. -0.5% of revenue.
Reputational	Non-delivery against the reputational incentives proposed for reinstatement timeliness, provision of roadworks information, and collaborative working will have a negative reputational impact.

Reference: See Appendix 07.03.08 Minimising disruption from our works for more information.

CISBOT



Our commitments continued

Supporting customers in vulnerable situations

In developing our strategy we considered a number of factors including what we mean by vulnerability and the outcomes that customers and stakeholders tell us that they want. As such we created our definition of vulnerability alongside our Stakeholder Advisory Panel and have subsequently tested it with numerous expert stakeholder groups. Our definition is: "Vulnerability describes a situation, be it transient or permanent, that can impact a customer at some point during their life. Vulnerability can arise through changes that happen both inside and outside the energy industry. Those customers who find themselves in a vulnerable situation are more affected by Cadent's action or inaction than other customers."

Our vision is to set the standards that all of our customers love, and this means that we must understand, plan for and respond to the needs of all vulnerable situations that customers find themselves in. Our strategy factors in how vulnerability is managed by us our data, the services our customers need, along with the feedback we have had from customers and stakeholders, our own lessons learned and good practice we have noted from others. It is informed by Ofgem's definition of consumer vulnerability and also takes into consideration the levels and types of vulnerability faced by our customers today and how this is likely to change into the future.

Half of UK adults (25.6m people) display one or more characteristics of being potentially vulnerable (Financial Lives Survey 2017). Over 1.5m adults in the UK do not have a bank account, 16.4% can be described as having very poor literacy skills, 4.5m have never used the internet and according to Government statistics, 13.9m are registered as disabled.

It is widely accepted that the level of vulnerability will increase over time as people live longer, and technological advancements leave many customers behind. Our strategy recognises that all customers are unique and that their individual circumstances today could be different tomorrow. Our strategy therefore reflects the need to understand these changes before they happen so that we can plan, adapt and continue to provide great experiences to all of our customers.

As the largest GDN within the UK, we and our customers believe that we should take a leading role in supporting customers and in developing the landscape for the future; one that ensures that access to services is based on customers' needs irrespective of where they live. The over arching principle of our strategy is not to utilise labels and categories, but to provide services to all, recognising the specific circumstances of each customer individually and tailoring services to meet their needs. Providing services for all means gaining and maintaining a deep understanding of our customers' needs, mapping their needs and co-creating responses with partners to ensure that the appropriate skills and services are deployed.

Our strategy has been developed against three tiers – our aim, our strategy to plan and our plan to commitments – this is shown in the figure below. **See Appendix 07.03.00 for our complete Customer Vulnerability Strategy.**

Figure 07.11: Our Customer Vulnerability Strategy



Priority area – Identifying your needs

In RIIO-2 we will commit to having two million direct conversations with customers to raise awareness of the Priority Services Register ('PSR'). This will mainly be achieved through forming over 80 strategic, programme and project partnerships. We will deliver annual vulnerability awareness training for all Frontline staff and innovate to deliver new products and services for customers in vulnerable situations (CIVS).

£7.7m incremental cost

CVP of £0.6m based on social return on investment

11p annual customer bill impact

Identifying your individual needs and supporting those in vulnerable situations

We have a duty and moral responsibility to ensure that the needs of all our customers are understood and acted upon in a respectful and relevant way. The PSR is a powerful mechanism to identify the needs and tailor services according to these needs. However, it is only as effective as the number of people who are registered and for that they must know it exists. We will raise awareness of the PSR to two million customers over the period. In addition, we will join up support services and find the easiest and most cost-effective way of addressing customer needs. We will also equip our frontline staff with the knowledge and skills to identify and support CIVS.

What we are already doing in RIIO-1

Throughout RIIO-1, we have driven industry-wide improvements to the PSR and have been the leading utility company for best practice in serving customers in vulnerable situations. We led the development of a cross industry PSR and developed 27 consistent Needs Codes via a cross-industry collaboration. These Needs Codes drive how the industry shapes and delivers solutions for each individual need. There is no formal regulatory measure for the number of PSR awareness conversations, however we do measure registrations. We have already registered over 3,000 people onto the PSR in 2019/20, meaning that we are ahead of the same point this time last year, and have registered over 12,500 across RIIO-1 to date, remembering that not all conversations result in a registration. The challenge for RIIO-2 will be to ensure that quality, direct conversations are taking place via our workforce and predominantly via our partners who are experts in this, as we scale up this work. At present, vulnerability training is not a formal module within our standardised training approach. For RIIO-2 we want structured, tailored training that will become mandatory for all frontline staff. The vision is that training will range from web-based modules to real life role play with actors to really bring situations to life and ensure that our people are equipped with the skills to best serve our customers.

Engagement summary

Who, how and purpose	Insights
<p>Domestic customers</p> <p>We held regional customer forums, conducted surveys and ran focus groups to really understand customer views on how to best serve CIVS in RIIO-2 and beyond. We also tested our ambition levels within our RIIO-2 plan to ensure our thinking was aligned with customer expectations. We informed customers of a range of costed options for the extent of the services we could offer</p>	<ul style="list-style-type: none"> Customers confirmed their willingness to pay more for additional awareness activities. Customers stressed the importance of identifying vulnerability and the use of various approaches to meet different sets of circumstances. Our focus should be on providing tailored services. Only 26% of customers (sample of 206) had heard of the PSR.
<p>Industry stakeholders</p> <p>Industry stakeholders were engaged with across several collaborative forums, Ofgem led workshops, surveys and in-depth interviews to get their views on how our Plan can best support them and the people they represent.</p>	<ul style="list-style-type: none"> Awareness of the PSR, or lack of, is a key blocker that needs to be prioritised. All stakeholders agreed that innovation and new technology should be encouraged to support CIVS.
<p>CIVS</p> <p>We engaged with CIVS via in-depth interviews to understand their needs and requirements to help us tailor and shape our services in RIIO-2. We later tested costed options to understand their preferences.</p>	<ul style="list-style-type: none"> Increasing awareness of the PSR should be a priority for Cadent. We should partner with a wider support network such as charities, social care or health care providers, carers and families.
<p>Business customers</p> <p>We conducted in-depth interviews with business customers to gain their views on our current service levels (including how we serve CIVS) and discussed future enhancements.</p>	<ul style="list-style-type: none"> Co-creation with partners/experts is something we should do more of, in a structured and focused way. Working collaboratively across organisations and utilities would seem a sensible operating model for us to benefit from shared expertise.
<p>Future customers</p> <p>Future customers were engaged with through a number of regional focus groups. We wanted to understand their views on how best to serve CIVS both now and in the future as the vulnerability landscape changes.</p>	<ul style="list-style-type: none"> Collaborative working with other Gas Distribution Networks ('GDNs') to roll out initiatives was supported. Future customers suggested working with social services and mental health service providers to identify customers who would most benefit from products and services. There was a low level of PSR awareness amongst future customers.

Priority area – Identifying your needs continued

Engagement summary									
Who, how and purpose		Insights							
<p>Expert stakeholders</p> <p>We engaged with 19 charities to discuss vulnerability and understand their priorities</p> <p>We undertook acceptability testing interviews with expert stakeholders, presenting our draft plan to get their views and thoughts on our proposed commitments.</p>		<ul style="list-style-type: none"> Awareness of the PSR amongst the 19 charities was also low, with only 5 out of the 19 having knowledge of it. National Energy Action believed that our plan sets out some very positive and welcome activities to support customers in vulnerable situations and it is important to ensure that activities are joined up across departments wherever practicable, to ensure continued delivery and longevity. In addition, PSR needs to be focused not just on numbers, but on quality as if it captures too many people then it ceases to become a meaningful priority register – it has to capture the right people. The Carers Trust agreed with prioritising meaningful conversations to raise awareness of the PSR. Our approach to partnership working seemed sensible and practical. Rural England were wholly supportive of raising awareness of the PSR, and this is essential in rural areas due to the increasing number of older people who live in isolation. They believed that all our people should at the very least be aware of the PSR and Needs Codes. Innovation and new technology should be encouraged to minimise risk for customers in vulnerable situations especially the elderly and those with disabilities. 							
And the steps we have decided to take in RIIO-2									
<p>Customers during quantitative business options testing favoured our least ambitious option in raising awareness of the PSR. However, qualitative customer and stakeholder engagement suggested a far higher ambition. Customers favoured an innovation approach of being a fast follower, rather than spending significant amounts on research and development. All feedback told us to focus vulnerability training programmes on customer-facing staff only rather than all staff. In our triangulation of these insights we placed greater focus on expert insights and qualitative feedback. Therefore, we commit to have two million direct conversations to raise the awareness of the PSR and we will form over 80 partnerships to deliver improved services for customers in vulnerable situations.</p>									
Measurement of success									
Output	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Cost	Net CVP	
New standard special condition: treating customers fairly (details TBC)	Zero failures	Zero failures	Zero failures	Zero failures	Zero failures	New licence obligation	£0		
PSR awareness conversations	760,000	380,000	500,000	360,000	2,000,000	Not measured in RIIO-1	£2m	£0.6m	
Partnerships	Form a minimum of 82 partnerships across our footprint					Not measured in RIIO-1	£2m		
Annual awareness training	c.3,000 frontline members trained every year					New measure	£3.7m		
Annual showcase event	Annual event and report on common vulnerability service metrics (TBC by Ofgem).					New measure	£0m		
Delivering our commitments									
<p>Customer communications:</p> <ul style="list-style-type: none"> PSR conversations will continue across all our customer-facing services. We will work with our partners to increase the volume of conversations we have to reach wider audiences. 									
<p>Process/systems:</p> <ul style="list-style-type: none"> Our systems will be updated with the latest PSR data as we get it. This data will help us to understand the vulnerability landscape and shape the services we deliver for CIVS. We will focus on improving the data flow across the industry. 									
<p>Partnerships:</p> <ul style="list-style-type: none"> We will increase our breadth of partnerships in order to serve harder to reach CIVS and ensure they have access to the services they need. We will collaborate with GDNs and the wider industry to deliver joint initiatives to identify and support customers in vulnerable situations. 									
<p>Engagement:</p> <ul style="list-style-type: none"> Engagement will continue across the industry with expert stakeholders, charities, advisory bodies, gas distribution networks and other utilities to share best practice and ensure a consistent application of PSR data. We will contribute to the annual showcase event to exhibit our vulnerability initiatives and share best practice. 									
Protecting against non-delivery									
Principles-based licence obligation	The licence obligation will require GDNs to treat all domestic customers fairly, including customers in vulnerable situations.								
Use it or lose it allowance – price control deliverable	Funding for a number of vulnerability activities has been allowed by Ofgem in a 'use it or lose it' format. Any funding not used by GDNs will be returned to customers in full.								

Reference: See Appendix 07.03.09 Identifying your needs and joining up support services for more information.

Priority area – CO awareness

In RIIO-2 we commit to educating 200,000 about the dangers of Carbon Monoxide (CO), distributing three million alarms and providing additional services beyond the meter to repair or replace 15,000 unsafe appliances for those most vulnerable. These commitments will be delivered largely by forming effective partnerships with experts in the industry including trusted Gas Safe Registered Installers ('GSRIs'), Fire and Rescue services, NHS Trusts and ambulance services in our footprint

£34m incremental cost

CVP of £22.5m net total value based the social return on investment

51p annual customer bill impact

Carbon Monoxide awareness

We aim to keep our customers warm, independent and safe in their homes. Therefore, we must continue to raise awareness of the dangers of CO poisoning, and intervene to prevent the risks from this colourless, odourless toxic gas that can escape from poorly maintained flues and appliances. Around 50 people living in our regions die every year from CO poisoning, 4,000 people go to Accident and Emergency and 200 are hospitalised. We have explored how to leverage our existing work to expand our reach in raising the awareness of the dangers of CO through targeted education, improved partnerships and increasing CO alarm ownership. In addition, for those most vulnerable there is an opportunity to provide additional services to repair or replace unsafe appliances to ensure these customers are able to use their gas supply when they need to.

What we are already doing in RIIO-1

During RIIO-1 we have focused our approach into three discrete areas:

Educate: Using our existing interactions with customers and through partnerships we are raising awareness of the signs and symptoms and how to stay safe – inspiring behavioural change. During the early years of RIIO-1 we established the CO awareness survey and began to form partnerships with the Fire and Rescue service, working collaboratively to raise the awareness of CO, reaching a broader range of customers. Over the RIIO-1 period we are forecast to issue over 155,000 CO alarms via emergency visits, education and through partnership working. This is beyond our RIIO-1 target of 105,000 alarms issued.

Innovate: Supporting and trialling innovative approaches to improve both detection and awareness. Our Safety Seymour programme for Key Stage 1 school age children is a structured programme, which educates children but also acts as a significant tool to change behaviours of parents and grandparents. Safety Seymour went live in 2016 and we plan to have educated over 44,000 children by the end of RIIO-1. We also developed 12 audio features based on the adventures of Safety Seymour to be broadcast on Fun Kids Radio and since the launch there have been 80 broadcasts and 425,000 listeners have heard the series to date.

To broaden our reach to customers and the public on the signs and symptoms of CO poisoning and the importance of owning a CO alarm, we used CO hotspot reports to identify key areas that would most benefit from an awareness advertising campaign. Following adverts in magazines, to broaden the reach we had four billboard posters up in hotspot areas across our networks that have high volumes of passing traffic. 14.5 million customers saw these billboards resulting in 300% increase in visits to our CO awareness webpage.

Eradicate: We have consistently lobbied to shape policy and deliver a step change in CO safety and subsequent reduction in incidents through our membership of the All-Party Parliamentary Carbon Monoxide Group.

Engagement summary

Who, how and purpose	Insights
<p>Domestic customers</p> <p>We held regional customer forums on CO, conducted surveys and ran focus groups to really understand customer views on CO awareness and their priorities. We also tested our ambition levels for CO awareness within our RIIO-2 Plan to ensure our thinking was aligned with customer expectations. We informed customers of a range of costed options for the extent of the services we could offer.</p>	<ul style="list-style-type: none"> Customers were consistently supportive of us raising awareness of the dangers of CO and in particular for us to provide alarms. We should partner with trusted community organisations to promote awareness and help distribute alarms e.g. NHS, Fire and Rescue services and local GP surgeries because these are 'trusted brands'. We are uniquely placed as a regional monopoly to address CO risks and PSR customers should be prioritised – customers believed it is our role and duty. Although customers were aware of the dangers of CO, the knowledge required to act remained low.
<p>Industry stakeholders</p> <p>We have participated in the All-Party Parliamentary Carbon Monoxide Group to shape policy to deliver a step change in CO safety and subsequent reduction in incidents.</p> <p>Industry stakeholders were engaged with across several collaborative forums to get their views on how our Plan can best support them and the people they represent.</p>	<ul style="list-style-type: none"> The All-Party Parliamentary Carbon Monoxide Group believed it is a high priority that people do not die from the "silent killer" through greater alarm ownership and awareness of the dangers. Citizens Advice believed that Gas Distribution Networks ('GDNs') are well placed to deliver CO awareness and the allowance spent on these activities should be set in consideration of each GDN's stakeholder and customer appetite for these activities. National Energy Action believe that CO educational projects should be supported by the regulatory use it or lose it allowance. Projects should also be better targeted towards customers who need it most.

Priority area – CO awareness continued

Engagement summary								
Who, how and purpose		Insights						
<p>CIVS</p> <p>We engaged with CIVS and experts working with CIVS via in-depth interviews to understand their needs and requirements to help shape our CO Plan for RIIO-2.</p>		<ul style="list-style-type: none"> Raising awareness of the dangers of CO should be made more accessible, for example, to the deaf community Alarms should be provided based on sensory needs 						
<p>Hard-to-reach stakeholders</p> <p>Stakeholders with English as a second language, future generations and non-customers from rural areas were engaged to gain a broader view on how we should target our CO services.</p>		<ul style="list-style-type: none"> We should do more to raise awareness of CO and make CO alarms mandatory, even if it means bills would be raised. We noted a lower level of awareness amongst these groups. Customers on the PSR should be prioritised for alarm distribution. 						
<p>Expert stakeholders</p> <p>We undertook acceptability testing interviews with expert stakeholders, presenting our draft Plan to get their views and thoughts on our proposed commitments.</p>		<ul style="list-style-type: none"> Policy Connect were “very impressed” with our proposals and hoped other GDNs will emulate such an ambitious programme. They were confident that our RIIO-2 proposals will represent a marked improvement over the price control period. A trade organisation believed our proposals to be an ambitious set of commitments that cover the key areas of CO safety. A last-mile utilities operator explained that the CO activities in our proposals are a good thing to be involved in and that our commitments are positive and ambitious with perfectly reasonable costs to deliver. Sustainability First acknowledged a gap in the industry currently to support CIVS with appliance repairs / replacements and welcomed the role we are taking. 						
And the steps we have decided to take in RIIO-2								
<p>There was overwhelming support from across our customer and stakeholder community to continue our work to keep customers and the public safe from the dangers of CO. Qualitative and quantitative research delivered very consistent insights making this a relatively simple area to triangulate. Over the RIIO-2 period we will educate 200,000 of those most at risk, issue three million alarms and partner with every Fire and Rescue service, every ambulance service and every NHS Trust across our footprint. We will work with expert partners to repair or replace 15,000 unsafe appliances for those who are most vulnerable. This represents a significant step up from RIIO-1 and a stretch for us to deliver, but we must do this to respond to the feedback we received.</p> <p>Although our Social Return on Investment analysis shows that providing CO alarms and education has a relatively small social return, it is seen as a primary role of a GDN by customers and there are longer term benefits that will be realised in future price control periods at no additional cost.</p>								
Measurement of success								
Output	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Cost	Net CVP
Education	76,000	38,000	50,000	36,000	200,000	Not measured – only awareness surveys	£2.1m	-0.9m
Alarms (base plan)	38,000	19,000	25,000	18,000	100,000	Targeting 105k alarms in RIIO-1	£0.8m	-5.1m
Alarms (incremental)	1,202,000	551,000	725,000	522,000	2,900,000		£22.2m	
Fire and Rescue partnerships	100%	100%	100%	100%	100%	New measure	£0.4m	
NHS Trust partnerships	100%	100%	100%	100%	100%	New measure		
Ambulance partnerships	100%	100%	100%	100%	100%	New measure		
Repair or replace appliances (condemned following CO incident)	5,700	2,850	3,750	2,700	15,000	New measure	£8.6m	28.5m

Reference: See Appendix 07.03.10 CO awareness for more information.

Delivering our commitments

Customer communications:

- We will continue to raise awareness of the dangers of CO through our existing interactions on the doorstep via our emergency work and when customers contact us over the phone. All 200,000 educational conversations will be delivered in a classroom-based environment, mainly with Key Stage 2 children, recognising the great success rate of this in RIIO-1 (over 75% resulting in direct positive action).
- We will also share vital information on CO safety through our website, social media channels, radio adverts, billboard and bespoke flyers/leaflets.
- We will build on our Safety Seymour programme in schools to increase the scale and develop similar programmes to ensure learning is retained in later school years.

Process/systems:

- We will enhance the usage of data from our core systems and publicly available data to build our understanding of vulnerability in our regions in order to target our enhanced CO services to those who need it most.

Partnerships:

- Building on the success of our existing partnerships with the Fire and Rescue service will see us increase our reach with the NHS and ambulance services. Partners will be key in helping us raise awareness and distribution of CO alarms to the most vulnerable. We will develop relationships with leading CO alarm suppliers to ensure we are able to deliver on ambitious commitments. We will develop partnerships with industry experts and charities to deliver our commitments to repair/replace dangerous appliances for the most vulnerable in our networks.

Engagement:

- We will continue to work with the All-Party Parliamentary Group to discuss ways of tackling CO poisoning and raising awareness of the dangers.
- We will continue to work with the wider utilities industry to share learning and best practice, so all customers are able to benefit, and contribute to the annual showcase event to exhibit our CO safety initiatives and share best practice.
- We will continue to engage with expert stakeholders to ensure that we leverage good practice noted elsewhere and continually raise the bar of our service levels.

Protecting against non-delivery

Price control deliverables:	Funding for CO activities has been allowed by Ofgem in a 'use it or lose it' format. Any funding not used by Gas Distribution Networks will be returned in full to customers. The same principle will apply to the bespoke PCDs we propose beyond the Ofgem allowance.
Reputational:	Non-delivery against the reputational output delivery incentives proposed against proposed partnership targets will have a negative reputational impact.

Reference: See Appendix 07.03.10 CO awareness for more information.

Safety Seymour



Priority area – Fuel poverty

In RIIO-2 we will take 36,500 customers out of fuel poverty through a range of tailored interventions. This will include a minimum of 6,250 fuel poor connections, 5,000 additional in-house fuel poor interventions and offering income and energy advice to 25,250 customers. We will also trial a pioneering new approach to fuel poverty funding in England and continue to innovate in developing methods to better target those that should qualify for support.

£15.1m baseline plan cost

£32.6m incremental cost

CVP of £61.3m net total value based on the social return on investment

51p annual customer bill impact (in RIIO-2)

Tackling affordability and fuel poverty

Fuel poverty remains a significant problem in Great Britain and is a Government priority. There are 1.5 million homes in our network in fuel poverty, representing 58% of the total fuel poor households in the UK. We have assessed how best to provide whole-house solutions to tackle and reduce fuel poverty. Although fuel poor gas network extensions have some impact in lifting customers out of fuel poverty, they alone do not solve the issue. Whole house solutions have the greatest impact. That could be through a gas connection for those off the gas network, in-house interventions for customers on and off the gas network and improving affordability by offering energy and income advice and support to ensure that they benefit from it.

What we are already doing in RIIO-1

We made the commitment to deliver 34,650 fuel poor connections in RIIO-GD1. Our Cadent-led partner organisation, Affordable Warmth Solutions (AWS), continues its relentless focus on helping those in fuel poverty. They have focused on providing whole-house solutions by bringing together funding streams and delivering connections along with heating and other interventions. We are working with AWS to trial a new funding approach in Staffordshire to provide free first-time central heating to customers experiencing fuel poverty. Our commitment in RIIO-2 goes beyond our current commitments in two ways; firstly, the average annual number of interventions is c.70% higher and secondly our interventions will be more effective in taking customers out of fuel poverty.

Engagement summary

Who, how and purpose	Insights
<p>Domestic customers</p> <p>We engaged with domestic customers from many backgrounds to explain who we are and the role we currently play to support customers living in fuel poverty. We asked them to share with us the role that they would like us to play and that helped us shape options to be tested.</p> <p>We tested three costed options in Business Options Testing to understand customer preferences.</p>	<ul style="list-style-type: none"> Many customers were unaware of fuel poverty reduction schemes but were overall in agreement that reducing fuel poverty in our networks is important. Across our regional workshops, there was a strong preference for offering whole-house solutions (beyond the Fuel Poor Network Extension Scheme) to all in fuel poverty. During BOT (once customer bill impacts were presented), views were mixed on what level of support we should provide to customers in fuel poverty. This differed regionally with customers in the West Midlands the least supportive of paying for additional support of customers in fuel poverty.
<p>Industry stakeholders</p> <p>AWS led a roundtable session with networks and Ofgem to discuss alternative options to the existing scheme.</p> <p>We also conducted regional workshops with expert stakeholders, asking questions to a more informed audience to help shape our Plan.</p>	<ul style="list-style-type: none"> Within the current scheme, stakeholders highlighted the difficulties in ensuring that take-up is from customers genuinely suffering from fuel poverty. National Energy Action and Citizens Advice were supportive of the view that networks should not be restricted to tackle fuel poverty only through gas connections, and non-network solutions should be allowed if this delivers better outcomes. Any future funding models should have a process for priority around funding to ensure equal access. Stakeholders agreed that centralising funds would ensure efficiency.
<p>CIVS</p> <p>We engaged with CIVS including c.100 living in fuel poverty via deliberative workshops and in-depth interviews to understand their needs and requirements to help us shape our service offerings for tackling fuel poverty and affordability in RIIO-2.</p> <p>We later tested costed options to understand their preferences.</p>	<ul style="list-style-type: none"> No one-size-fits-all solution to safeguard customers, needs and preferences are very individual. The key is to work with the individual and respond to their needs as they arise. Building trust is important when rolling out proposed solutions e.g. whole-house solutions. Customers living in fuel poverty had very limited understanding of the various funding schemes available – they were often cynical of 'getting something for nothing'.
<p>Expert stakeholders</p> <p>We undertook acceptability testing interviews with expert stakeholders, presenting our draft Plan to get their views and thoughts on our proposed commitments. We also had discussions with officials at the Department for Business, Energy & Industrial Strategy ('BEIS') and various expert stakeholders, exploring the potential for a holistic approach to fuel poverty funding arrangements in the UK.</p>	<ul style="list-style-type: none"> Fuel poverty commitments were "very well received" by a water company and innovating is "definitely something all businesses should be doing". BEIS appreciated that networks are perhaps better placed for a more structured rollout of energy efficiency measures than energy suppliers. County councils, district councils and energy suppliers supported our proposals to tackle fuel poverty through whole-house interventions and our new centralised funding model.

And the steps we have decided to take in RIIO-2

Expert industry stakeholders have supported our proposals to go beyond providing gas connections alone to tackle fuel poverty and have welcomed our commitments around providing in-house interventions and income and energy advice to have a greater impact in lifting customers out of fuel poverty. This feedback was not entirely consistent with the quantitative research we undertook with both domestic and business customers who were less supportive of spending more money in these areas. However, when we tested these views in deliberative workshops, we identified that the main concern was that funds would not be spent wisely and they believed that additional schemes (Government-led) existed. Once they understood the current funding models better they typically provided far more support. There was an outlier to this with less support in the West Midlands than other networks. However, in triangulating the results, we placed greater weight on expert stakeholder feedback and on the qualitative research, noting the complexity of engaging in this unique area. We also decided to offer the same service to all regions (which is consistent with our vision that talks of 'all' customers). As a result of these insights, we will provide 6,250 fuel poor connections, 5,000 in-house interventions and offer energy and income advice to 25,250 customers. We will also work with key industry experts and Government to develop a centralised model which brings together all sources of funding to tackle and reduce fuel poverty by providing customers with the right solution for their home.

Measurement of success

Output	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Cost	Net CVP
Fuel poor connections	2,050	500	2,250	1,450	6,250	Targeting 36,616 connections (RIIO-2 target is lower due to changes in eligibility criteria)	£15.1m	£0
Fuel poor in-house interventions	1,650	400	1,800	1,150	5,000	New output introduced for RIIO-2	£28.8m	£13.2m
Income and energy advice offered	7,200	4,400	7,550	6,100	25,250	Trialled with Citizens Advice in WM with positive results	£3.8m	£48.1m
Pioneering new funding model trial	Trial taking place in Staffordshire within our West Midlands network					New output introduced for RIIO-2	£0	-
Targeting of customers in fuel poverty	Establish measure and robust baseline – target 20% improvement					New output introduced for RIIO-2	£0	-

Delivering our commitments

Customer communications:

- Our broader approach to tackling fuel poverty by introducing in-house interventions and providing income and energy advice will help to ensure that customers are more equipped with the tools and knowledge they need to have the best chance of staying out of fuel poverty in the long term.

Process/systems:

- The Fuel Poor Data Predictor Model will help us to predict household fuel poverty via Energy Performance Certificate ratings. The underlying algorithm uses publicly available data to predict household fuel poverty status – with over 75% accuracy without having to complete costly and intrusive home visits. Furthermore, the model removes the need to enter sensitive data into other types of survey tools.

Partnerships:

- AWS will continue to work with industry stakeholders including housing associations, local authorities and MPs to identify those most in need of a gas connection or in-house interventions to reduce fuel poverty.
- Our overall partnership approach (described in our Customer Vulnerability Strategy) shows how the holistic approach we have taken will enable us to join together data, referrals, best practice and delivery across our 80+ strategic partners.

Engagement:

- We will work with Government to develop an alternative delivery model to best tackle affordability and fuel poverty in England. We will continue to engage and work with industry experts to develop and deliver the best solutions to effectively address fuel poverty.
- We will continue to engage with expert stakeholders including those supporting customers living in fuel poverty to leverage new good practice (including innovations) and maintain excellent service levels.

Protecting against non-delivery

Price control deliverables:	We are proposing that fuel poor connections, in-house interventions, and income/energy advice are set as Price Control Deliverables. Non-delivery of these activities would ensure funding is returned to customers in full.
Reputational:	Non-delivery against the reputational incentive set against the fuel poor targeting measure will have a negative reputational impact on us.
Uncertainty mechanism – Re-opener:	We will include a downside re-opener in line with Ofgem's guidance to reflect the potential impact of a government decision ending the Fuel Poor Network Extension Scheme.

Reference: See Appendix 07.03.11 Tackling affordability and fuel poverty for more information.

Priority area – Going beyond

In RIIO-2 we will commit to offering personalised welfare provisions for all customers who find themselves in vulnerable situations following a gas supply interruption (beyond the Priority Services Register ('PSR') and through expert partnerships we will repair or replace unsafe appliances discovered following isolation for those that need that assistance the most.

£19m incremental cost

CVP of £135.8m net total value based on Social Return and willingness to pay

11p annual customer bill impact

Going beyond to strive to never leave a customer vulnerable without gas

We aim to keep our customers warm, independent and safe in their homes. A gas supply interruption has the real potential to undermine this aim. However, to mitigate the impact of a supply interruption it is essential that we provide alternative provision to customers who find themselves in vulnerable situations, to ensure they are able to keep warm and have access to hot food and water. Although there is a minimum standard in place to provide alternative heating and cooking facilities to customers registered on the PSR, we have significantly increased the range of welfare services that we will offer and, in recognising that vulnerability is transitory, we will offer this to all customers who become vulnerable post the gas interruption (beyond those registered on the PSR). Our additional welfare package will include personalised services such as shower facilities, free meals or temporary accommodation. Furthermore, we are often required to isolate or condemn customer appliances to keep them away from immediate harm. This can create or increase a particular state of vulnerability and risk, and therefore we will work with expert partners to help repair or replace appliances where customers find themselves unable to arrange or pay for this themselves to ensure we never leave a customer vulnerable without gas.

What we are already doing in RIIO-1

During an interruption we offer alternative heating and cooking facilities for customers registered on the PSR in adherence with our Guaranteed Standards of Performance (i.e. GSOP 3). We are also working with National Energy Action ('NEA') on a pilot in our West Midlands network to support customers in vulnerable situations with internal appliance and installation repair work. Over two years, through this scheme, we have repaired or replaced approximately 500 gas heating and hot water appliances (including fires, boilers and internal pipework). This approach has allowed us to support customers in vulnerable situations with appliance or installation-based problems, where the work required is complex or whole appliance/system work is needed.

Engagement summary

Who, how and purpose	Insights
<p>Domestic customers</p> <p>We ran both quantitative and qualitative research programmes with thousands of customers from various backgrounds to understand how they want us to best serve them and customers in vulnerable situations during a supply interruption.</p> <p>We tested an initial proposal for us to undertake proactive safety checks.</p> <p>We tested three costed options related to our commitments in this area during Business Options Testing to understand customer preferences and willingness to pay.</p>	<ul style="list-style-type: none"> • People in vulnerable situations and businesses that depend on gas should always be protected and should be provided with welfare services and customers are generally willing to pay for this. • Heating was viewed as the most important provision, especially during winter. Provisions ranked less important included seat warmers and groceries. • A lot of customers voiced concerns that proactive safety checks would be moving away from our core responsibilities, even when comparing with benefits seen in other countries that take this approach.
<p>CIVS</p> <p>We engaged with CIVS and c.20 experts working for organisations supporting CIVS (e.g. British Deaf Association and Age Concern) via in-depth interviews to understand their needs and requirements during a supply interruption, allowing us to tailor our service offerings for RIIO-2.</p> <p>We later tested costed options to understand their preferences.</p>	<ul style="list-style-type: none"> • CIVS have individual needs and preferences. As such, support should be given on an individual basis. • There was low general awareness of the PSR, even with CIVS and those working with them. • Alternative heating and cooking solutions during an interruption are "very important", although the level of urgency is dependent on the duration of the interruption.
<p>Fuel poor customers</p> <p>We held workshops with customers in fuel poverty. It was important to hear directly their need and priorities, plus their views on our proposals.</p>	<ul style="list-style-type: none"> • With regards to repairing or replacing faulty appliances free of charge, some customers agreed that there should be a special focus on customers in vulnerable situations. • With regards to welfare provisions in the event of an interruption, the season was relevant, with more provisions needed in winter.

Engagement summary								
Who, how and purpose		Insights						
Business customers We conducted in-depth interviews with business customers of various types to understand their expectations on customer service levels during a supply interruption. We also provided them with costed options for our Plan.		<ul style="list-style-type: none"> Large businesses or those with an operational dependency on gas typically had alternative heating arrangements in place. Most smaller businesses could cope without gas for up to 24 hours, hence the focus on timeliness of restoration for them (see 'getting our customers back on gas' output case). A small number of businesses could see the benefit of additional heating solutions (to allow them to keep premises open) and support the wider commitments to other types of customers. 						
Expert stakeholders We undertook acceptability testing interviews with expert stakeholders such as Citizens Advice and various charities to get their views and thoughts on our proposed commitments.		<ul style="list-style-type: none"> A water company said that the commitments are the right ones to make based on their experience. Policy Connect explained that our proposals to repair or replace broken appliances for low-income customers is an excellent proposal and addresses a key barrier to GDNs protecting households. Sustainability First believed that there has been a gap in the industry for supporting CIVS with appliance repairs and replacements and supported us taking a role in this. All other feedback was positive and supportive of our recommendations. 						
And the steps we have decided to take in RIIO-2								
<p>Through our engagement we developed three key proposals in this area. The first two are described below and the third was for proactive safety checks to be offered. Although we tested these options with a wide range of customers and stakeholders including those who are informed and uninformed, with domestic customers, typically hard-to-reach customers (such as those with English as a second language), future customers, CIVS, and experts in supporting customers in various ways, we noted very little conflict in the feedback and insights we received. There was strong support to provide personalised welfare provisions to customers in vulnerable situations, rather than to all customers (because of cost), but through deliberative research we confirmed that there is a recognition that vulnerability expands well past the PSR. There was significant support from customers and very strong support from expert stakeholders for us to work with expert partners to undertake 5,000 appliance repairs or replacements following emergency incidents for customers in vulnerable situations. For consistency, fairness and deliverability, customers will be assessed against a common set of criteria that we will define and keep relevant. We are removing our proposal to undertake proactive safety checks, as many customers voiced concerns that this activity would be moving away from our core responsibilities and could give rise to safety concerns, as customers had not asked for us to be there, especially for customers in vulnerable situations.</p>								
Measurement of success								
Output	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Cost	Net CVP
GSOP 3: PSR customers provided with alternative heating and cooking facilities within four hours	✓	✓	✓	✓	✓	Increased compensation in line with inflation and automatic payments for failure	£0	
Customers in vulnerable situations provided with personalised welfare provisions	Bespoke personalised welfare offered to customers in vulnerable situations including alternative heating, cooking, shower products, access to hot meals and temporary accommodation for long interruptions. We will track and monitor this over RIIO-2					Beyond GSOP 3 requirements – additional products/ services and customer scope	£16.3m	£120.8m
Repair/replacement of appliances for customers left vulnerable following an emergency incident	1,835	1,040	1,230	895	5,000	Establish scheme across all four networks (currently only in WM)	£2.7m	£15m
Delivering our commitments								
Customer communications: <ul style="list-style-type: none"> We will communicate the services we are offering to customers during an interruption through various channels to ensure all customers in vulnerable situations can benefit. 								
Process/systems: <ul style="list-style-type: none"> We will enhance our systems to ensure customers are provided automatic payments when we fail GSOP 3. We will develop our systems and processes to offer bespoke and personalised welfare provisions (including accommodation, hot food vouchers, on-day payments) for customers in vulnerable situations, minimising the impact an interruption can have on their lives. We will explore app-based technology to assist our frontline engineers with the right decision-making tools to offer services and develop modern means of offering credit to customers at pace (e.g. for meals in the event of an interruption). 								

Priority area – Going beyond continued

Delivering our commitments	
Partnerships:	
<ul style="list-style-type: none"> We will build on the NEA trial and partner with industry experts to offer additional appliance repairs or replacement services to customers in vulnerable situations when we encounter unsafe appliances. We are working with the Energy Innovation Centre to find the best partners to support us with exploring innovative techniques and technology to provide customers with bespoke welfare facilities. This will include the logistical challenges with providing increased welfare services. 	
Engagement:	
<ul style="list-style-type: none"> We will engage with key safeguarding groups and organisations to ensure we continually provide the right services to customers in vulnerable situations. We will set up regional stakeholder groups with representation from a number of groups who have expertise in vulnerability. 	
Skills and resource	
<ul style="list-style-type: none"> We will train frontline delivery teams and customer call agents to ensure they are equipped with the knowledge and resources they need to offer bespoke welfare provisions and services beyond the meter to customers in vulnerable situations. 	
Protecting against non-delivery	
Principles-based licence obligation	The licence obligation will require GDNs to treat all domestic customers fairly, including customers in vulnerable situations.
GSOP3 – heating and cooking facilities for priority domestic customers	When customers registered on the PSR experience a gas supply interruption, they will be provided with alternative heating and cooking facilities within four hours. If we fail, the customer is entitled to compensation.
Price control deliverable	Non-delivery against the targets proposed will lead to any unused funding returned to customers in full.

Reference: See Appendix 07.03.12 Going beyond to never leave a customer vulnerable without gas for more information.

How we propose to use the customer vulnerability and CO safety 'use it or lose it' allowance

In meeting the expectation levels of customers and stakeholders, we have tabled very stretching output targets across our customer vulnerability strategy. From a regulatory treatment perspective, this strategy is made up of:

- Activities that form part of ongoing business as usual activities that are designed to at least meet minimum vulnerability requirements proposed to be set out by Ofgem subsequently.
- Activities that go beyond business as usual and so could form part of Ofgem's proposed 'use it or lose it' fund or be bespoke price control deliverables for us.

The chart below sets out the commitments that have incremental costs within our Customer Vulnerability Strategy. We have set out whether we believe the activities are part of business as usual or beyond business as usual.

For the beyond business as usual activities we have set out either:

- The social return on investment we have calculated.
- The willingness-to-pay we have identified as part of our Consumer Value Proposition through our engagement.

Whilst some initiatives show a negative return in RIIO-2, they provide a positive return in RIIO-3 and beyond.

Table 07.11: Incremental costs of commitments within our Customer Vulnerability Strategy

	Cost over RIIO-2 (£m)	Base BAU		Beyond BAU	Net SROI/WTP value (£m) in RIIO-2	Ranking by value/£ invested
CO						
100k alarms	£0.8		£0.8			
2.9m alarms	£22.2			£22.2	–£5.1	8
200k educated	£2.1			£2.1	–£0.9	7
100% partnerships	£0.4			£0.4	covered in above	7
Repair or replace 15,000 appliances (CO)	£8.6			£8.6	£28.5	3
Fuel poverty						
6250 FP Connections	£15.1		£15.1			
5000 FP Interventions	£28.8			£28.8	£13.2	5
25,250 Income & Energy advice	£3.8			£3.8	£48.1	2
New funding approach	–			–	–	
Identifying your needs						
2m conversations	£2.0			£2.0	£0.6	6
82 partnerships	£2.0			£2.0	covered in above	6
Vulnerability training	£3.7			£3.7	covered in above	6
Going beyond						
Personalised welfare	£16.3			£16.3	£120.8	1
Never leaving a customer vulnerable without gas	£2.7			£2.7	£15.0	4
TOTAL			£15.9	£92.6	£220.2	

Generally, these outputs have a linear relationship between the number delivered and the cost to deliver. For example, the unit cost per fuel poor intervention provided remains flat as more are delivered. This makes these output targets ideal candidates for 'use it or lose it' allowances, as we can accurately calculate the money to be returned to customers should we not hit the ambitious targets that we are aiming for.

Ofgem have set out a potential £30m fund for vulnerability proposals beyond business as usual, with 25% of this reserved for collaborative work between the GDNs and the remainder apportioned by customer numbers between the GDNs. We have therefore estimated that this 'use it or lose it' fund for us is around £11.5m which equates to roughly £0.7m p.a. for each of our four networks over RIIO-2.

As can be seen in the table above, we have identified initiatives which far exceed the proposed 'use it or lose it' fund. Our evidence suggests customers are willing to pay for these additional benefits through both quantitative and qualitative means and they deliver a positive social return on investment supported by expert stakeholders, including various charities associated with supporting customers in vulnerable situations.

We have shown a ranking of the benefits of the initiatives in terms of overall value and by value per pound invested which could be used to prioritise against the Ofgem mechanism.

However, we would propose that all the commitments are supported as part of the RIIO-2 framework. For those beyond any common 'use it or lose it' fund, we would suggest they are treated as bespoke price control deliverables with a similar 'use it or lose it' approach.

We propose to assess delivery at the end of Year 3 of the price control period, where we will have established the necessary partnerships, processes and experience to deliver the outputs in the most effective manner and, as such, will be confident over future delivery numbers. At this stage, if necessary, we will reforecast our delivery potential and return the value associated with any under-delivery.

Linking our ambitious Customer Vulnerability Strategy with the Cadent Foundation

The Cadent Foundation is described later in this chapter in the outcome areas Trusted to act for our communities. We are planning to use the fund during the remainder of RIIO-1 to test the SROI and deliverability of a number of the output commitments that we have listed above. In 2019, we plan to test the Enhanced Fuel Poor Interventions, going beyond the meter to never leave a customer vulnerable without gas and the pioneering approach to Fuel-poor funding across England. This will provide the extra information to give increased confidence that our final proposals are accurate and deliverable in RIIO-2.

Introduction of an annual showcase event that we will host around customers in vulnerable situations

We recognise that many organisations face similar challenges to us to support all of our customers in vulnerable situations, including those in fuel poverty. We have collaborated with others consistently during RIIO-1, especially to raise the awareness of vulnerability and the dangers of CO. The benefit of this collaboration is clear, with lessons learned and ideas being shared, and often more joined up solutions being proposed and implemented.

To this end, we support the inclusion of a reputational ODI for us to host an annual showcase event, which we will report on annually (against a common set of vulnerability service measures to be developed with other GDNs). This event will involve other GDNs, energy suppliers, DNOs, expert stakeholders (such as charities) and extend beyond the energy and utilities sector to encourage wider collaboration and idea generation.



Our commitments continued



7.4 Tackling climate change and improving the environment

Summary

In 2019 the Government legislated to deliver a Net Zero decarbonisation target by 2050. The scale of this challenge is immense. Urgent action is needed in the next few years to ensure pathways are available to deliver a low cost, secure and sustainable energy transition for future customers. We recognise that we play a critical role in helping to deliver this challenge as we currently transport a predominantly fossil-fuel product. The Committee on Climate Change recognised in their recent Net Zero report in May 2019 the key role that lower carbon gas and hydrogen could play in delivering the most cost-efficient and secure pathway to decarbonise heat. We are taking steps to create such pathways in heat and transport.

We have also set out an ambitious action plan to continue to reduce leakage of gas from our network through the ongoing mains replacement programme and pressure management. In addition, we will target zero emissions from the rest of our business operations and look at how to reduce our wider environmental footprint. Our commitments in this outcome area are set out in our detailed Environmental Action Plan (**Appendix 07.04.00**).

Figure 07.12 Outcomes our customers need us to deliver

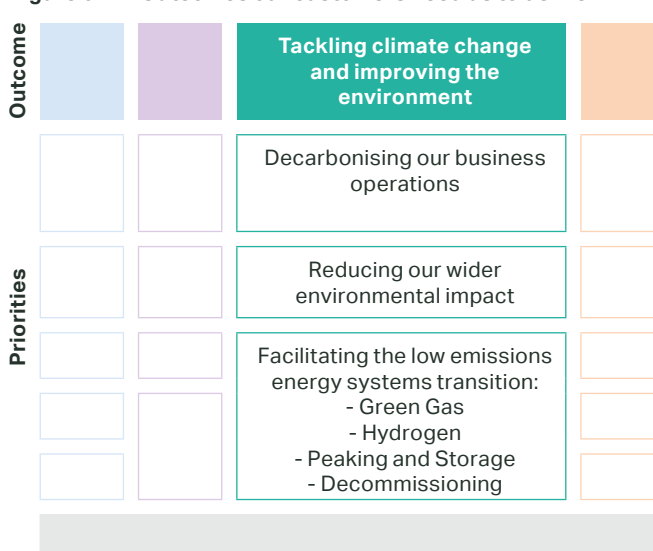


Table 07.12: Summary of output commitments

Output	Common / Bespoke	Output type	Incremental Costs?	Part of our CVP?	Appendix evidence
TACKLING CLIMATE CHANGE AND IMPROVING THE ENVIRONMENT					
Appendix 07.04.00 covers all of our environmental actions and commitments					
Overall environmental progress					
Annual environment report	Common	LO	N	N	07.04.00
Decarbonising our own operations					
Addressing losses from our network – Shrinkage	Common	ODI (R) ODI (F+/-)	N	N	07.04.00
Carbon neutral operations	Bespoke	ODI (R)	Y	Y	07.04.04
Tackling the theft of gas	Bespoke	ODI (F+/-)	N	Y	07.04.05
Reducing our wider environmental impact					
Zero avoidable waste to landfill	Bespoke	ODI (R)	Y	N	07.04.06
Supporting our people to reduce their emissions	Bespoke	ODI (R)	Y	Y	07.04.07
Facilitating the low emission energy system transition					
Entry capacity enablement - Flexible reinforcement	Bespoke	UM	N	Y	07.04.08
Connections standardisation	Bespoke	ODI (R)	N	Y	
Off gas grid communities	Bespoke	NIA/SIC	Y	Y	07.04.09
HyNet hydrogen scale demonstration project – Network Innovation project	Bespoke	SIC or UM	N	N	07.04.00
Hydrogen blending rollout – strategic innovation project	Bespoke	SIC or UM	N	N	
Heat Strategy re-opener	Common	UM	N	N	10.04

Costs associated with our Environmental Action Plan

There are three output commitments for which we are seeking incremental funding.

Table 07.13: Outputs for which we are seeking funding

Quality experience Output commitments (£m) in 2018/19 prices	2021/22	2022/23	2023/24	2024/25	2025/26	Total
Decarbonising our operations	4.5	4.6	15.4	15.6	15.6	55.6
Reducing our wider environmental footprint	0.1	0.1	0.1	0.1	0.1	0.3
Facilitating the low emissions energy system transition	0.1	0.1	0.1	0.1	0.1	0.6
Total	4.7	4.8	15.5	15.8	15.7	56.5

There is one output where we are delivering improved service and new bespoke output commitments, but we are not seeking funding.

Table 07.14: Outputs to be delivered as part of an additional efficiency challenge

Quality experience Output commitments (£m) in 2018/19 prices	Average per year	2021/22	2022/23	2023/24	2024/25	2025/26	Total
Theft of gas	0.6	0.6	0.6	0.6	0.6	0.6	3.0
Total	0.6	0.6	0.6	0.6	0.6	0.6	3.0

We have proposed a financial incentive for the theft of gas activity such that if we are successful in identifying theft and returning money to wider customers then we share the benefits. As such the costs of undertaking the activity are absorbed and at risk if we are not successful.

Our Environmental Action Plan ('EAP')

Building on our insight and learning from the past, our EAP sets out our approach to drive improvements in our environmental performance through the RIIO-2 period. The EAP reviews our progress and commitments to date, and then looks at RIIO-2 activities by considering three major priority areas (**please see Appendix 07.04.00 for further detail on the Plan**):

Our EAP is based on a thorough consideration of our environmental impacts. Our environmental management system has been certified to ISO14001 standards for over 20 years, including recent accreditation to the updated ISO14001:2015 standard. This management system combines many elements of good practice:

- It identifies those elements of an organisation's activities that have the potential to impact on the environment. These are collated within a business-wide 'Environmental Aspects' register and set out the risk and control framework to ensure compliance with legislative and other obligations.
- The aspects are ranked and prioritised on the basis of the potential severity of their impacts on the environment to ensure that the appropriate controls are enacted.
- It identifies metrics that can be used to measure the scale of impacts on the environment and targets to drive continual improvement. This helps us to prioritise areas of focus.
- It monitors emerging or changing requirements, external trends and best practice.
- It identifies opportunities to embed more sustainable practices and drive environmental benefits.
- We have established a cross-business Environmental Best Practice Forum and Network Safety Health and Environment forum.
- We carry out an annual management review process, presenting a comprehensive statement of performance risk and opportunities to our Executive Team and our Board, ensuring visibility at the highest levels of the organisation.
- Our investment sanctioning process includes examination, evaluation and sign-off of environmental risks and opportunities for all projects. This integrates elements of changing environmental legislation, such as the Medium Plant Combustion Directive (now in Environmental Permitting Regulation, 2018) into forward business plans.
- We monitor standards of environmental management on all our sites through an annual baseline exercise and periodic focused audits.

These practises enable us to identify risks and potential impacts, and specify the controls required to minimise environmental harm. This system has enabled us to deliver strong environmental performance in RIIO-1. We used this foundation to develop our environmental ambition and our action plan for RIIO-2.

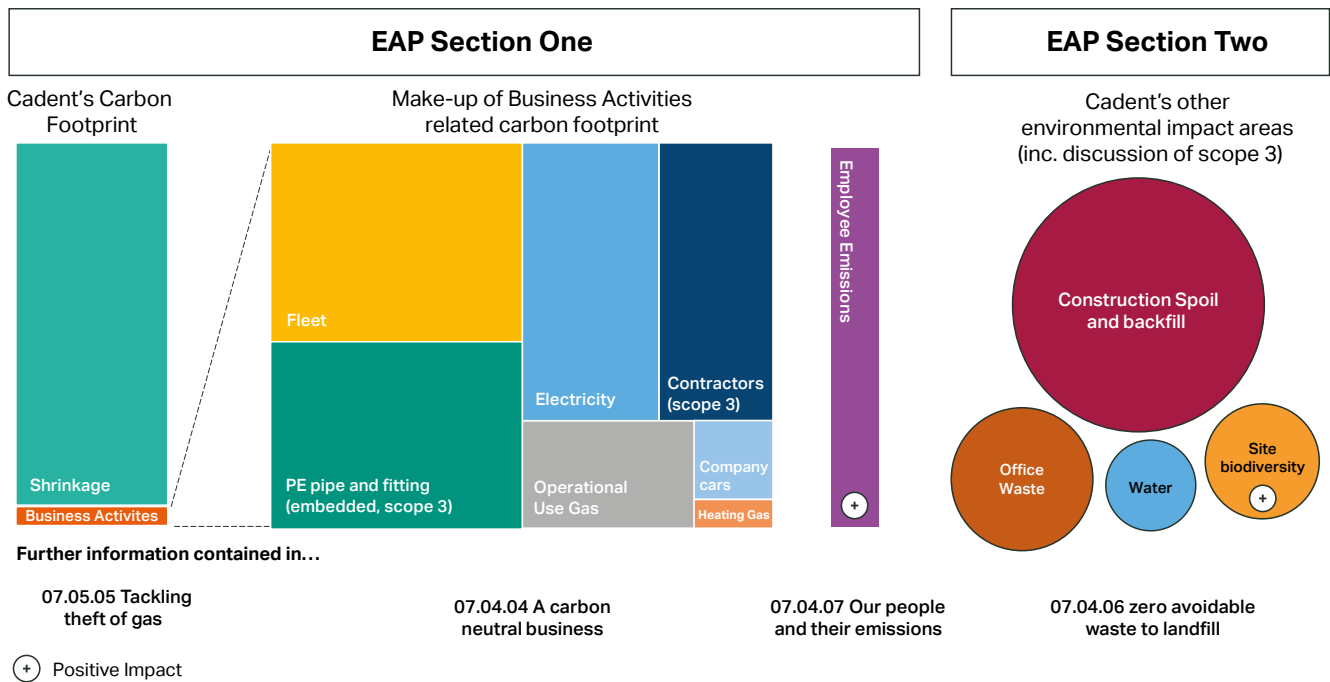
Our EAP is structured into three parts:

- **Part 1: Decarbonising our business operations**
- **Part 2: Reducing our environmental impact**
- **Part 3: Facilitating the low emissions energy system transition**

Our overall environmental footprint is encapsulated in Parts 1 and 2 and the following diagram shows the relative scale of the impacts and the areas we are focusing on. Part 3 of the EAP sets out how we are facilitating and supporting the UK to meet its Net Zero climate change target.

Our commitments continued

Figure 07.13: The structure of our Environmental Action Plan



Part 1: Decarbonising our business operations

This part of our EAP considers the greenhouse gas emissions that our business is responsible for, either directly or indirectly, and initiatives that we propose to reduce such emissions under the following headings:

- Shrinkage (including gas theft)
- Direct (Scope 1 & 2) emissions (including stakeholder engagement)
- Indirect (Scope 3) emissions (including embedded carbon)
- Managing uncertainty and deliverability of net zero emissions

Action

Part 1: Decarbonising our business operations	
Action 1: accreditation of environmental goals	We will regularly review our longer term targets beyond RIIO-2 and pursue accreditation of our goals and programmes from the Science Based Targets Initiative.
Action 2: shrinkage reduction	We will achieve and strive to outperform our reputational shrinkage incentive target for RIIO-2. We will report progress and the specific actions we have taken to achieve this in our annual Safety & Sustainability Report.
Action 3: theft of gas	As one of the components of shrinkage, we will maximise the benefits to customers and stakeholders from a theft of gas incentive, and our ambition is to recover at least £8m over the RIIO-2 period.
Action 4: energy consumption	We will reduce all utility energy consumption by at least 10% by 2024.
Action 5: renewable energy	We will procure 100% certified renewable energy to meet our energy needs by 2026.
Action 6: business mileage	We will deliver a 15% reduction in our business mileage emissions intensity through RIIO-2.
Action 7: vehicle fleet	We will deliver a zero emissions first responder vehicle fleet across all our networks by the end of RIIO-2.
Action 8: embedded carbon in pipes and fittings	We are targeting a reduction in carbon intensity of our pipes and fittings throughout RIIO-2 by delivering the recommendations of a report to be published by 31 March 2021, setting out the opportunities and barriers to reducing the carbon intensity of PE pipe and fittings.
Action 9: work with suppliers to reduce emissions	We will work with our suppliers to extend the measurement of, and continually reduce, Scope 3 indirect emissions.
Action 10: measuring the carbon intensity of major projects	We will develop our methodology to measure and report on the carbon intensity of major construction projects.
Action 11: carbon offsetting	We will offset all residual unavoidable emissions to become a certified Net Zero company.

Part 2: Reducing our environmental impact

This part of our EAP considers the impact of our business operations on our physical environment under the following headings:

- Spoil and other waste associated with excavations
- Direct waste generated and accumulated on sites
- Helping our employees reduce their environmental impact
- Community, biodiversity and natural capital
- Water consumption

Action

Part 2: Reducing our environmental impact	
Action 12: waste from excavations	During RIIO-2, less than 5% of our waste from excavations will be sent to landfill.
Action 13: minimising use of first-use aggregate	During RIIO-2, less than 10% of our backfill will be first-use aggregate in the North West and East of England, and 5% in the West Midlands and North London.
Action 14: sustainable procurement	In our annual environmental reporting, we will include a summary of the environmental and sustainability criteria we have used in all significant procurement events.
Action 15: reducing our employees' carbon footprint	We will work with our employees to help them and their communities deliver a reduction of 5,000 tonnes CO ₂ e a year by the end of RIIO-2.
Action 16: key site environmental enhancement plan	We will publish our key site environmental enhancement plan as part of our environmental and sustainability annual reporting before the start of RIIO-2. We will then update these plans, and report on performance and delivery annually through the RIIO-2 period. We will undertake the Wildlife Trust's biodiversity benchmarking process to ensure that our plans are robust and conform to these externally assessed standards.

Part 3: Facilitating the low emissions energy system transition

This part of our EAP explains how we propose to support the transition to an environmentally friendly, and flexible, low carbon and low emissions energy system.

We will continue to play a leading role in bringing this transition to life and supporting policymakers and customers as they develop practical solutions to decarbonise at scale. We will do this through our plan to innovate to demonstrate hydrogen conversion and blending. We will explore and develop the operational requirements and the commercial and regulatory frameworks that we will need to underpin the decarbonisation pathways. We believe it is essential that these groundbreaking projects progress in RIIO-2 in order to bring this Net Zero pathway to life for future customers. It is therefore critical that the RIIO-2 framework creates a means to facilitate this through strategic innovation or direct funding and allows us to deliver on this vital customer priority. We are also developing ongoing regional stakeholder engagement processes to understand and help facilitate local energy transition plans.

We will continue to introduce renewable resources into our network and have committed to leading a charging and access review and to enhanced engagement with this customer segment through the establishment of a distributed entry connection code and voluntary governance process to support investment and remove barriers to green gas.

Figure 06.09 (in Chapter 6) describes the range of activities and a timeline.

Action

Part 3: Supporting the low emissions energy system transition	
Action 17: review of distributed entry gas arrangements	We will lead an industry review of distributed entry gas commercial arrangements to establish methodologies that are robust, sustainable and scalable, with the ambition of presenting initial change proposals to Ofgem prior to the commencement of RIIO-2.
Action 18: funding for entry gas reinforcement	We will establish and utilise a flexible funding regime for entry gas reinforcements, supported by an appropriate uncertainty mechanism.
Action 19: entry gas customer and stakeholder forum	We will establish an Entry Gas Customer and Stakeholder Forum to allow customers and stakeholders to raise issues, for the gas network to test issues we have identified, to identify and action knowledge sharing, and to establish and maintain an activity schedule of framework changes.
Action 20: entry gas connections methodology	We will establish an Entry Gas Connection Standards Methodology statement and a supporting voluntary governance arrangement to enable customers and stakeholders to propose value-adding improvements.
Action 21: off gas grid communities	We will conduct a trial to identify small communities where the gas network can be extended at a low cost.

Our commitments continued

	Action
Action 22: off grid communities	We will establish a community connection support service to identify and advise communities that could economically connect to the gas grid.
Action 23: HyNet	Given a direction from Government and/or Ofgem, we will deliver the HyNet project to design, construct and operate the hydrogen transportation network with a supporting commercial and operational framework, to meet customer and stakeholder requirements for hydrogen in the North West of England.
Action 24: hydrogen blending	We will ensure an efficient and effective hydrogen blending regime can operate at the earliest opportunity, with the end customers protected financially by paying for the energy they receive, and from unsafe gas blends.
Action 25: hydrogen conversion	We will support Government plans for large scale trials of hydrogen conversion.
Action 26: emergency / back-up network role	We will ensure the network can support increasing use in emergency, back-up and peak conditions.
Action 27: decarbonisation of heat	We will promote and build up the evidence case that supports least cost, least disruptive options for our customers to decarbonise their heating.
Action 28: evidence for electrification	We will ensure all the evidence for alternative options, including the wide scale electrification of heat is challenged and recommendations based on robust analysis and information.
Action 29: decommissioning plans	We will develop robust decommissioning plans and protocols to protect customers during the transition, following the publication of the detailed strategy and programme to install alternative systems. This may not occur during RIIO-2.

Our final action in the EAP (Action 30) is to monitor and report on our progress against the plan.

Annual reporting

We will report on the progress against our Environmental Action Plan annually through our ongoing engagement channels such as the online community, regional stakeholder groups, our Customer Engagement Group and dedicated customer forums. This will allow the review and challenge of our progress and future plans. This will build on the existing reporting on our environmental activities through our Annual Report and Accounts and our Safety & Sustainability report (found on our website at <https://cadentgas.com/about-us/responsibility/safety-and-sustainability-report>).



Priority area – Decarbonising our business operations

In RIIO-2 we will commit to continue to reduce gas losses by at least 14%, reduce our energy consumption, procure renewable energy, reduce our business mileage and introduce zero-emission vehicles, reduce gas theft and become a certified Net Zero company. We will also pursue accreditation of our goals and programme from the Science Based Targets Initiative.

Costs – leakage reduction through mains replacement, theft of gas (£3m)

£55.6m incremental cost for Net Zero certified non-leakage business carbon footprint

-£35m CVP NPV based on SROI

4p reduction per year (but 23p increase in RIIO-3)

Decarbonising our business operations

The impact of greenhouse gas emissions on our climate is one of the most pressing issues facing society. We have assessed our impact on the environment and planned accordingly. We have optimised our plans to reduce network leakage and how we tackle gas theft. We have assessed how we achieve carbon neutrality (Net Zero) in the rest of our business operations and considered the scope to use renewable energy and operate a zero emission emergency service by the end of RIIO-2.

What we are already doing in RIIO-1

The most important activity we are undertaking is bringing down shrinkage related emissions through the replacement of metallic pipelines with polyethylene ('PE'). We expect to have driven down leakage of gas by 28% by the end of the RIIO-1 period. Our investment in pressure management profiling systems, automatic control measures and further innovations in use of gas conditioning in RIIO-1 has greatly enhanced our ability to manage leakage across our networks.

We have also made good progress in reducing our business carbon footprint and we are on target to outperform our RIIO-1 emissions targets. We have achieved an overall reduction of 33% (at the end of 2018/19) for emissions defined in the Business Carbon Footprint as Scope 1 and 2. In 2019, we published our first Safety & Sustainability Report as part of our commitment to improving transparency of our performance and wider access to key data.

Engagement summary

Who, how and purpose	Insights
<p>Domestic customers</p> <p>We asked about domestic customer priorities through a representative survey, workshops and willingness-to-pay and customer forums. We tested different options on investment to reduce shrinkage with customers through quantitative and qualitative elements, and finally through quantitative and qualitative acceptability testing.</p>	<ul style="list-style-type: none"> Customers generally viewed the environment as important, but often not as much as safety or reliability, and a small number were sceptical of climate change. Domestic customers were not willing to pay anything for reductions in shrinkage, and when asked about different levels of investment to address environmental options there was no clear majority, but marginally more people preferred less ambitious options. Our theft of gas incentive was supported by a majority. 83% found the environmental aspects of our plan acceptable.
<p>Stakeholders</p> <p>We participated in joint GDN interviews arranged by the ENA and held our own stakeholder workshops to discuss priorities. We have also engaged key environmental organisations.</p>	<ul style="list-style-type: none"> Innovation in relation to the environment is one of the reasons stakeholders gave for positive views of gas networks, and our proposals received support from key environmental stakeholders. Suggestions to reduce our emissions included using greener vehicles or renewable energy; some offered to work in partnership with us.
<p>CIVS</p> <p>We interviewed customers and professionals about their priorities and included CIVS in BOT and acceptability testing.</p>	<ul style="list-style-type: none"> Two out of seven customers interviewed thought the environment should be our priority because this protects everyone. Results for CIVS from BOT were very similar to the overall result (spread evenly with lower ambition slightly more popular). CIVS found our plan acceptable and thought we were 'leading the way', although some wanted us to move more quickly.
<p>Business customers</p> <p>We included business customers in our early surveys, BOT and acceptability testing.</p>	<ul style="list-style-type: none"> Business customers were not willing to pay anything for reductions in shrinkage, but preferred medium levels of ambition in options testing. Like domestic customers, 83% found the environmental aspects of our Plan acceptable.
<p>Future customers</p> <p>We included future customers in early workshops, BOT and acceptability testing.</p>	<ul style="list-style-type: none"> Future customers said carbon neutrality is highly important, and found our Plan acceptable, although some wanted us to move more quickly.
<p>Fuel poor</p> <p>We included fuel poor customers in quantitative BOT, and held specific workshops with them.</p>	<ul style="list-style-type: none"> Customers in fuel poverty preferred slightly less ambitious options than other groups. They largely approved of our plans and felt we should set a precedent.

Our commitments continued

And the steps we have decided to take in RIIO-2								
<p>We presented three options, with differing levels of ambition, during BOT. While we acknowledge, the results of this testing demonstrated a near-even balance of customer opinion across the three carbon reduction options presented we have decided to pursue the most ambitious option. We do so in the knowledge that government, Ofgem, our Board and our CEG have all encouraged us to show ambition in this regard.</p> <p>Shrinkage of gas is a huge component of our business carbon footprint and we will continue to reduce this significantly, primarily through the continuation of our mains replacement programme (50km p.a. of cost benefit work) and exploiting the benefits of our investments in pressure management and gas conditioning. We will deliver on our RIIO-2 targets for overall shrinkage performance, and will optimise our performance against the incentives proposed by Ofgem for managing system pressure and gas conditioning, which encourage the networks to stay as close as possible to the extremes of performance achieved at the end of RIIO-1.</p>								
Measurement of success								
Output	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Cost	Net CVP
Annual environmental report	Publish annual report on progress against our EAP					Safety & Sustainability Report published in 2019	£0	n/a
Addressing losses from our network – shrinkage	52 – 62 GWh	40 – 46 GWh	37 – 47 GWh	30 – 39 GWh	160 – 194 GWh	14%-17% reduction on expected end of RIIO-1 position saving 0.4m – 0.6m tonnes CO ₂ e	Delivered through repex programme	n/a
Carbon neutral operations	Net Zero carbon by the end of RIIO-2, saving over 60,000 tonnes of CO ₂ e by the end of the period (further details below)					80% reduction from 1990 levels by 2050	£55.6m	-£36.3m
Tackling the theft of gas	£1.6m funds recovered	£4.8m funds recovered	£0.8m funds recovered	£0.8m funds recovered	£8m funds recovered	Financial incentive to increase returns to customers	£3m (absorbed)	£1.3m
Delivering our commitments								
Customer communications:								
<ul style="list-style-type: none"> We will deliver an annual Safety & Sustainability Report to show our progress against our Environmental Action Plan across all categories within it, including those specified in our licence. 								
Processes/Systems:								
<ul style="list-style-type: none"> We will subject the rollout of EVs or other alternatively powered vehicles in our fleet to further deliverability testing. This will consider the appropriate locations for initial introduction of EVs (which currently guarantee lower range than diesel vehicles) and enable us to flex our plans and costs as technology improves. Our more intensive theft detection measures will double the costs resultant from stolen gas recovered. By the end of RIIO-2 our ambition is to save over 18,000 tonnes per year of carbon from renewable energy, 4,000 from our fleet and a further 500 from business mileage. We will offset a further 35,000 tonnes. 								
Partnerships:								
<ul style="list-style-type: none"> Through our Global Supplier Code of Conduct we will measure and begin to reduce Scope 3 emissions. 								
Engagement:								
<ul style="list-style-type: none"> We will continue to work with specialist environmental stakeholders to develop our plans and seek out best practice. 								
Protecting against non-delivery								
Output Delivery Incentives ('ODIs')	Ofgem have proposed a financial incentive around system pressure and gas conditioning inputs to shrinkage. We have some concerns with the proposed approach as described in the Sector Specific Methodology Decisions document which we will continue to discuss with Ofgem.							
Reputational	<p>Non-delivery of our carbon reduction and overall shrinkage targets would have a significant negative reputational impact on us.</p> <p>We recognise that our commitment to deliver a zero carbon first responder service is dependent on the availability and accessibility of EV infrastructure. Hence we propose that should we not be able to complete this by the end of RIIO-2, we would roll forward any unused funding to complete the programme in RIIO-3.</p>							

Reference: See our Environmental Action Plan 07.04.00 and Appendices 07.04.05 and 07.04.06.

Table 07.15: Detail of our emissions reductions per year (tonnes CO₂e)

Non-shrinkage carbon footprint	Baseline	2022	2023	2024	2025	2026	Cost to deliver
Renewable electricity	12,000	11,500	11,500	11,500	11,500	11,500	
Renewable gas	750	750	750	750	750	750	£0.39m
Own use gas	6,000	1,200	2,400	3,600	4,800	6,000	
Fleet electric vehicles	16,000	160	320	1,540	2,772	4,000	£49.6m
Business mileage (including charging points at sites)	2,000	164	254	343	425	500	£4.8m
PE pipe	15,000	0	0	667	1,333	2,000	-
Contractors' fuel use	10,000	0	0	667	1,333	2,000	-
Amount saved per year	-	13,774	15,224	19,067	22,914	26,750	
Offsets	-	5,000	5,000	15,000	20,000	35,000	£0.76m

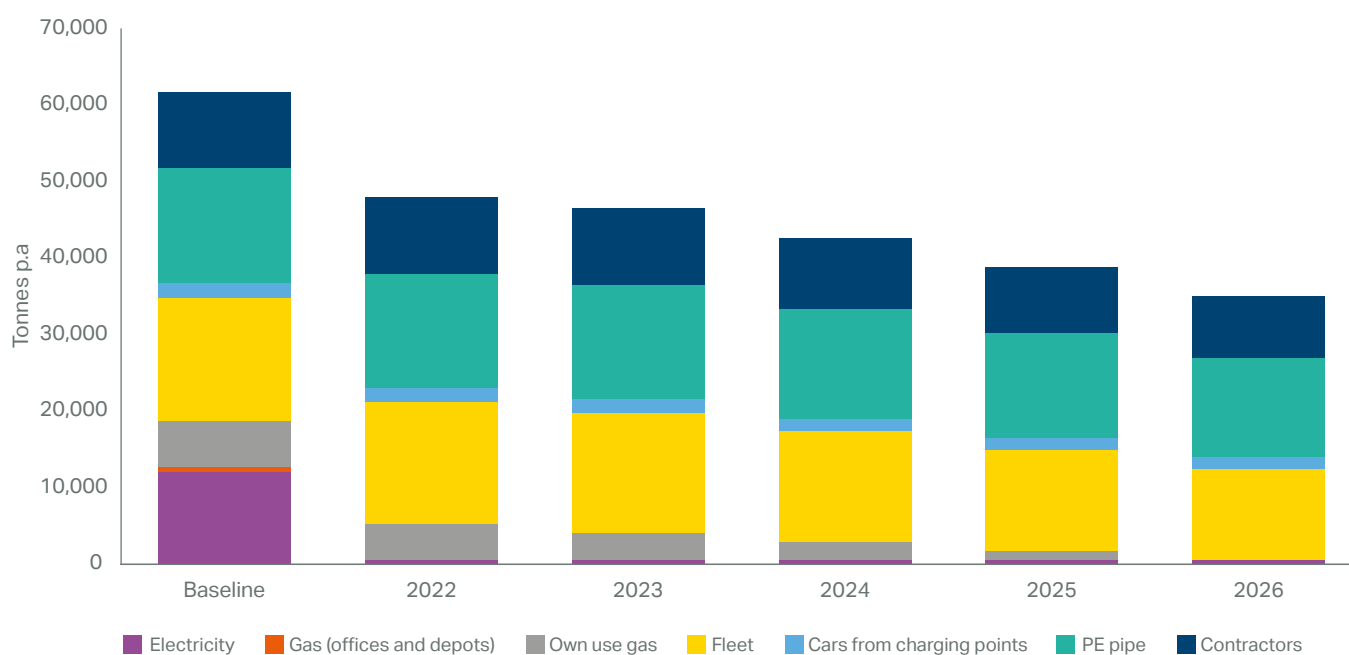
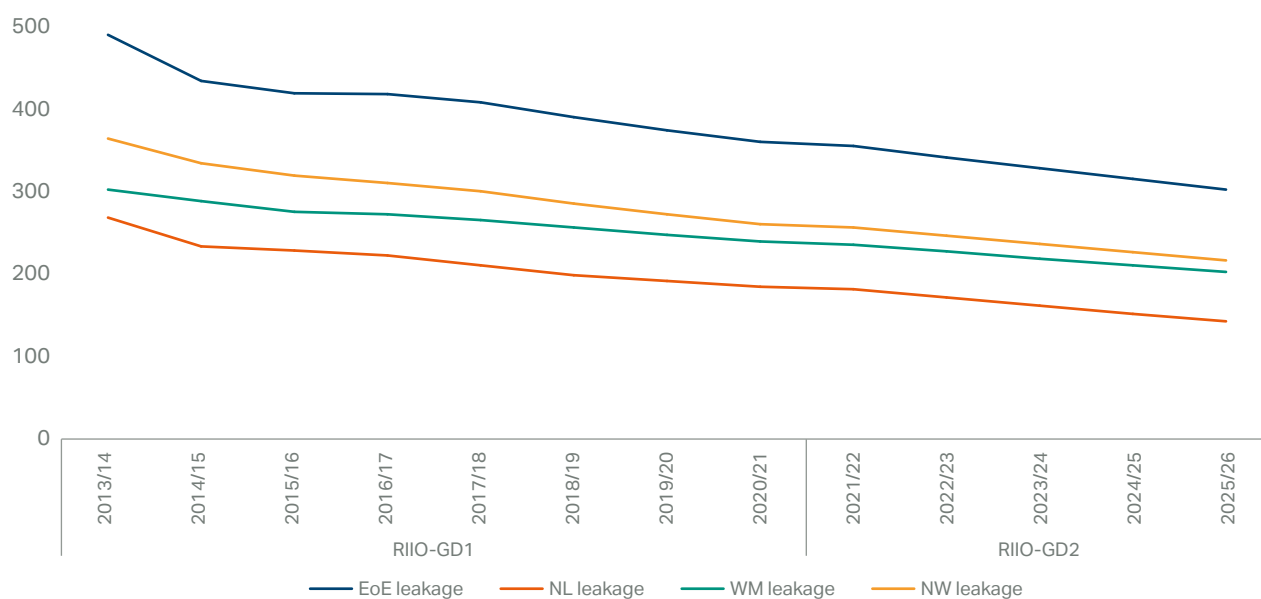
Figure 07.14: Carbon emissions before offsetting (tCO₂e)

Figure 07.15: Leakage reduction trajectory RIIO-1 and RIIO-2 (GWh)



Priority area – Reducing our wider environmental impact

By the end of RIIO-2 we will send less than 5% of waste from excavations to landfill and use less than 10% first-use aggregate for excavation backfill. During RIIO-2 we will reduce the carbon intensity of our pipes and fittings, work with our employees and their communities to reduce carbon emissions and work with our suppliers to reduce indirect emissions. We will publish and maintain our key site environmental enhancement plan and report on our progress. We will develop our methodology to measure the carbon intensity of major construction projects.

£0.3m incremental costs

£4.1m CVP NPV based on SROI

1p annual customer bill impact

Reducing our wider environmental impact

We are committed to minimising our environmental footprint by reducing the amount of waste we send to landfill. We have explored measures to manage the sustainability and environmental impact of our resource use, and to generate a positive biodiversity impact, and how to provide guidance and support to our staff to help them reduce their household and their communities' emissions.

What we are already doing in RIIO-1:

We and our mains replacement contractors are currently outperforming the RIIO-1 target of 90% diversion of waste from landfill. In 2018/19, over 96% of this waste was diverted through reuse or recycling. We are also outperforming the RIIO-1 target of importing no more than 30% first-use aggregate – currently, this is 11% across our operations.

We have undertaken trials into the way we can help our employees to reduce their carbon and environmental footprint. We have an established Global Supplier Code of Conduct which requires all suppliers to meet the standards we set in environmental and social performance. As part of this we require specific disclosure of data relating to emissions impact. We are recording and reporting on indirect emissions, Scope 3 emissions embedded in pipe and fittings used in mains replacement and contractor vehicle usage.

We comply with all statutory requirements and good practice guidelines for managing the natural environment at our sites and during construction activities. We are improving the environment by planting four trees or hedgerow plants for every one removed.

Engagement summary

Who, how and purpose	Insights
Domestic customers We discussed plans for our environmental impact in our BOT public consultation, customer forum and acceptability testing.	<ul style="list-style-type: none"> In our public consultation, respondents asked us to aim for zero waste. In our customer forum, commitments around waste were seen as low cost and easy to deliver, although limited in impact. 83% found the environmental aspects of our Plan acceptable.
Stakeholders We have researched other stakeholder views, used independent research and tested our proposals with a smaller group of experts to receive their feedback.	<ul style="list-style-type: none"> All GDNs are actively trying to reduce employees' carbon footprints. This area is a priority for the UK Government, who state "we must tread more lightly on our planet, using resources more wisely and radically reducing the waste we generated". When we tested our environmental options with experts, they said nothing should go to landfill, with one saying 5% was the maximum.
CIVS We discussed our proposals for zero waste and supporting our people at workshops with CIVS during acceptability.	<ul style="list-style-type: none"> CIVS we interviewed were keen on diverting materials from landfill, although they did have concerns about the lack of alternatives to plastic pipes in our network.
Future customers We held workshops with future customers as part of BOT and acceptability testing, and we considered external research.	<ul style="list-style-type: none"> During workshops, removing plastics, recycling and diverting from landfill were relatively high environmental priorities, and future customers agreed with our proposals in this area. A recent study showed millennials especially see businesses as partners in protecting the environment.
Hard-to-reach groups We held workshops with hard-to-reach groups early in our RIIO-2 engagement to understand priorities, and then as part of business options testing.	<ul style="list-style-type: none"> Hard-to-reach groups wanted us to use more recycled materials and recycle more, rating these as high priorities. Participants thought that training staff to be environmentally friendly should be a 'core commitment'.
Our people We held a workshop with our people to understand their views of our performance and where we could improve.	<ul style="list-style-type: none"> Many participants felt we were already doing a lot in this area but could do more to publish it internally, for example work on removing single use plastics.

And the steps we have decided to take in RIIO-2:

Customer insight suggests that our ambitions on waste management are already high and we should maintain the level at <5% waste to landfill given some waste cannot be treated. Our commitment to supporting our employees is fully supported. Given this also drives a net saving, we are proceeding with our ambitious targets in this area. We have also included actions to measure embedded carbon and biodiversity in our EAP. We will ensure transparency by reporting delivery in our annual Safety & Sustainability Report.

Measurement of success

Output	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Cost	CVP
Zero avoidable waste to landfill – waste from excavations	<5% of waste to landfill We will tailor targets to meet specific geographical challenges					Increased pace of ambition	Net saving of £0.7m	n/a
Zero avoidable waste to landfill – first-use aggregate	<10%	<5%	<10%	<5%	As per regional targets	Increased pace of ambition		
Supporting our people to reduce their emissions	5,000 tonnes of CO₂ saved by actions taken by the last year of RIIO-2					New incentive to leverage influence of employees	£1m	£4.1m

Delivering our commitments

Customer communications:

- We will work with communities to take forward the local biodiversity projects they value, including through the Cadent Foundation.

Processes/systems:

- Whilst our ambition is for zero waste to landfill, there are some waste streams that we are obliged to return to landfill such as hazardous substances. Hence we have used the term 'avoidable' and our delivery will be dependent on both the legislation surrounding management of waste and what we find beneath the ground.
- We will increase recycling rates to 60% while diverting the rest of our waste. We will develop a biodiversity strategy for all our key locations. We will undertake an assessment of our resource use that will include the identification of energy risks in our supply chain.

Partnerships:

- We will work with woodland and wildlife conservation organisations to enhance the ecosystems and natural habitats of our sites.
- We will support community and volunteer access to green space in urban areas. We will publish the criteria used in all significant procurement events in our Safety & Sustainability Report.

Engagement:

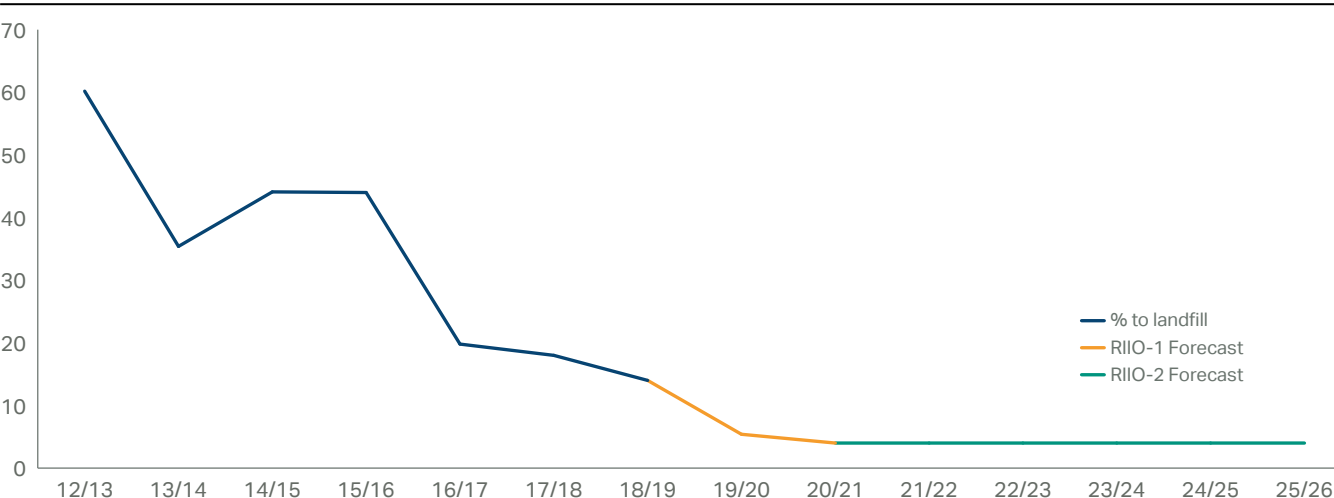
- We will engage environmental organisations in the development of our biodiversity strategy.

Protecting against non-delivery

Reputational	Non-delivery of our waste targets would have a significant negative reputational impact on us.
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Reference: See our Environmental Action Plan 07.04.00 and Appendices 07.04.06 and 07.04.07.

Figure 07.16: Percentage of waste sent to landfill



Priority area – Facilitating the low emission energy system transition

We will support the transition to a low emissions energy system by being prepared to deliver HyNet and hydrogen blending projects. We will remove barriers to entry of greener gas by leading an industry review of distributed entry gas commercial arrangements and create a flexible funding regime for reinforcement. We will support the sector further with an Entry Gas Customer and Stakeholder Forum and connections standardisation. We will support off gas grid communities wanting to connect to an increasingly low carbon gas network.

£0.6m incremental costs (for off grid only)
Entry reinforcement range of £61m-£108m through UM
Innovation projects could total over £1bn if approved

£56.3m CVP NPV
Based on WTP

Less than 1p bill impact for incremental off grid costs
Further impact would be dependent on future heat policy

Facilitating the low emissions energy system transition

The urgent need to reduce greenhouse gas emissions is one of the most critical issues facing society. Finding a means of facilitating the energy transition, while minimising disruption to domestic and industrial customers, is a major challenge for the Government and energy sector. This priority considers how we can continue to play a leading role in bringing the energy transition to life, supporting policymakers and customers by developing and enabling solutions to decarbonisation using clean gas at scale. We assess how our networks can support all future states of the gas grid and ensure that the implications of such radical changes on our customers are fully considered.

What we are already doing in RIIO-1

We have worked with Government to establish the Renewable Heat Incentive ('RHI'), to support green gas injection into the gas grid and to remove technical barriers. We have also lobbied to encourage wider energy policy to direct feedstocks from less efficient combustion, to the production of lower emissions and more flexible green gas. We supported an initial pilot project at Swindon which successfully demonstrated each component and we subsequently invested in a larger commercial demonstrator project.

We partnered with CNG Fuels and John Lewis to commission the first high pressure filling station near Preston and with the help of EU Skills and the EUA, we established the Natural Gas Vehicles Network which brought together representatives across the supply chain to coordinate work and insights into potential for this technology. There is now a healthy pipeline of new CNG filling stations operating or under construction.

We have been working alongside Government and the other gas networks to understand the work required to re-purpose the gas network for hydrogen and we led the work to show the merits of hydrogen blending. We developed and launched the HyDeploy project to demonstrate how much hydrogen can be added to methane without requiring any changes, Usage to consumer appliances and have established the HyNet project, as a strong candidate for the first hydrogen/Carbon Capture and Storage ('CCUS') cluster in the UK.

Engagement summary

Who, how and purpose	Insights
<p>Domestic customers</p> <p>We discussed topics relating to the future of heat with customers during deliberative workshops and asked about different options during BOT.</p> <p>We also used a combination of stated preference and benefits transfer studies to establish willingness to pay.</p>	<ul style="list-style-type: none"> Customers were supportive of the need to decarbonise heat. Customers were interested in hydrogen but had concerns around issues such as boiler replacements, safety and cost, although these reduced once they were provided with more information. They supported us connecting off grid communities (although not the most ambitious options we presented) and were enthusiastic about greener gas. We have established willingness-to-pay figures for both connecting off grid communities and green gas entry.
<p>Stakeholders</p> <p>We have participated in stakeholder workshops and interviews with the ENA and on our own. We have also held a range of one-on-one meetings with stakeholders and attended conferences and round-table events.</p>	<ul style="list-style-type: none"> Stakeholders supported the decarbonisation of heat, although there was no clear consensus on the right way to achieve this. We received strong written support for our HyNet project from local businesses and institutions (e.g. universities, local authorities). Stakeholders supported biomethane, although there were concerns about the connections process.
<p>Business customers</p> <p>We discussed the future of gas with business customers and a quantitative survey during BOT.</p>	<ul style="list-style-type: none"> Business customers found it hard to comment on the future of heat, as they did not feel well enough informed. Business customers preferred the most ambitious options for connecting off grid communities by a small margin and were willing to pay for green gas in our network.
<p>Communities</p> <p>We asked Newcastle University to research attitudes to hydrogen blending in proposed trial areas.</p>	<ul style="list-style-type: none"> Overall, the majority of respondents said they valued hydrogen, but were not willing to pay more for it. Knowledge of hydrogen and the impact it has on the environment were strong predictors of support.
<p>Hard-to-reach groups</p> <p>We held focus groups with hard-to-reach groups to understand their priorities.</p>	<ul style="list-style-type: none"> Customers in focus groups were supportive of using greener gas, and supported hydrogen but repeated the concerns of domestic customers.

And the steps we have decided to take in RIIO-2

Given the scale of the challenge the UK faces to decarbonise heat, we need to maintain momentum in working with BEIS and Ofgem to drive actions to demonstrate Net Zero transitions at scale such as pursuing the HyNet project to design, construct and operate a hydrogen transportation network with a supporting commercial and operational framework. These steps will assist us to meet customer and stakeholder requirements for hydrogen in the North West of England if the Government prioritises hydrogen as a decarbonisation solution. We will work to develop plans for an efficient and effective hydrogen blending regime. In doing so we will ensure plans protect end customers, who require safety guarantees and the confidence that they are only paying for the energy they use. We are committed to help develop the evidence base Government requires to make informed decisions regarding the energy transition.

Putting in place measures to support biomethane producers seeking to inject to the network will be low cost but could produce significant environmental benefits. We have proposed a charging and access review and enhanced engagement and governance process to remove barriers to this industry.

Given the transformative benefit that individual off grid communities would gain from connection to the gas network and minimal impact on customer bills we have decided to take forward a limited trial through the NIA. This will enable us to undertake localised engagement with off grid communities ahead of a trial and feed those insights into plans for further network rollout, and possible alterations to the regulatory framework.

Measurement of success

Output	East of England	North London	North West	West Midlands	Cadent	Comparison to RIIO-1	Cost	CVP
Entry capacity enablement – flexible reinforcement	Charging and access review of distributed entry gas commercial arrangements initiated, supported by an uncertainty mechanism to enable the resultant reinforcement to create capacity for connectees.					Triggering connectee pays cost	UM mean £84m over RIIO-2	£51.9m
Connections standardisation	Establish an Entry Gas Customer and Stakeholder Forum to facilitate knowledge sharing and framework changes. Establish an Entry Gas Connection Standards Methodology and voluntary governance arrangements.					Not included	Included in base plan totex	
Off gas grid communities	Expected trial location East of England, project run through Strategic Innovation competition. Targeting community of scale of around 450 properties					Not included	£0.6m for process £2.3m trial	£4.4m
HyNet	Project developed through BEIS CCUS challenge Fund followed by Ofgem Strategic Innovation Competition or a re-opener mechanism Overall project £1bn including CCUS, hydrogen production and storage, hydrogen pipeline (estimates £200m) and local reinforcements £50m.					Funded by NIA	Overall £1bn (£250m distribution) ¹	n/a
Hydrogen blending rollout	Roll out dependent on successful completion of HyDeploy 1 and II trials. Upon HSE approval, phased roll out.					NIC project HyDeploy	£25m	n/a
Heat Strategy re-opener	Ofgem have proposed a re-opener to be applied as a result of any Government policy change on heat decarbonisation strategy.					Not included	£162m mean cost ²	n/a

Delivering our commitments

Customer communications:

- We will continue to communicate the findings of our research and our plans for the Net Zero transition with customers, key stakeholders and Government to demonstrate the potential of connecting off gas grid communities. We will publish updates through our annual Safety & Sustainability Report but also our future role of gas communications.

Processes/Systems:

- Investing in entry capacity will require establishing a new supply chain and capability development to manage the new types of assets such as in-grid compressors. We are trialling this through the Optinet innovation project.

Partnerships:

- For the off grid work, we will seek to work with experienced community partners such as Affordable Warmth Solutions to provide a managed connections service for customers seeking connection to low carbon energy.

Engagement:

- We will carry out systematic engagement with customers on the impact and benefits they see from the energy transition.

Protecting against non-delivery

Reputational	Not making progress on innovative environmental measures or undertaking research to support the energy transition would be damaging to our reputation and future business. Leading changes to the industry framework to create substantial additional entry gas capacity will have significant reputational benefits and highlight our role as a market facilitating System Operator.
Uncertainty mechanism – re-opener	Rollout of HyNet and hydrogen blending will only be taken forward if approved by Government and funded through uncertainty mechanisms. We have proposed an uncertainty mechanism for entry enablement triggered on a change to the charging and access arrangements, which will protect customers from the uncertainty over the associated reinforcement need. Ofgem's proposed Heat Strategy re-opener will provide protection and flexibility to respond to any Government policy announcements during RIIO-2.

Reference: See our Environmental Action Plan 07.04.00 and Appendices 07.04.10 and 07.04.11, and Chapter 6 of our Plan.

¹ £200m for a hydrogen pipeline for industry and an additional £50m for hydrogen readiness.

² This figure includes the probability weighted cost of HyNet and blending quoted above.

Our commitments continued



7.5 Trusted to act for our communities

Through our enhanced engagement programme our customers and stakeholders told us that in order to love the standards that we set they must trust us as an organisation. We have therefore proposed a fourth customer outcome area, in addition to the three identified by Ofgem – Trusted to act for our communities. In our July draft Plan, we set this outcome area out in the same way as the other four, but through our Business Options Testing, customers and stakeholders struggled with the concept of commitments related to trust being directly part of a regulatory settlement. We therefore engaged further through deliberative means and determined that a more appropriate approach would be to create a Trust Charter, where we capture the key aspects of building trust (based on the feedback that we have received) and commit to publishing our delivery against it every year. See **Appendix 07.05.00 - Trust Charter**.

Our engagement strategy: how and why we engaged on this outcome area

It was as we engaged with customers and other stakeholders on our other three outcome areas that we identified the need for a fourth outcome area. It was clear (when asking open questions in our Discovery phase of engagement) that customers and stakeholders had expectations of a business such as ours, that went beyond safety, reliability, service and environmental commitments.

We noted a general lack of trust in relation to energy companies and a very low level of understanding of Cadent or the role of gas distribution networks. The adverse public sentiment has been fuelled by very high-profile press coverage, such as the series in The Sun newspaper in 2018 entitled 'Griddy Guts'. Rather than focusing on energy suppliers, as has traditionally been the case, this series focused on network companies stating excess profits, executive pay and inadequate performance levels.

These pressures have been mirrored in the political environment where the Labour Party is developing plans to bring utilities back into public ownership. We have an active dialogue with key Labour energy ministers and advisors to discuss the role of the networks in delivering for customers.

Changes in public perception crystallise the need for us to be clear on the value that customers and society are deriving from the operations of the private network companies and for trust to be developed that the company's purpose and values are aligned to these needs.

There is a plethora of academic and professional studies linking trusted brands with organisational success. We have reviewed many of these and have identified traits, behaviours, values and commitments that correspond to successful, trusted brands and have used these as we have formulated our commitments. The research points squarely at a need for companies to be transparent and to operate in a responsible manner.

When exploring the concept of operating in the best interests of communities, we have drawn on the insight and research from our sponsorship and involvement in Sustainability First's 'Fair for the Future' project, which has been developing a strawman of a 'Sustainable Licence to Operate' for energy and water companies. This work takes case studies and best practice from across a number of different sectors and countries and includes input from a wide range of water and energy companies, regulators, consumer champions, third sector representatives and Government representatives.

The strawman is built on four pillars which provide the foundations for a company to build trust that it is acting in the best interest of society and its stakeholders. We are taking the learning from best practice to help determine, and then cross-check, the output commitments we are making in this area.

When it came to testing the options against our July Business Plan in summer 2019, we took account of what we had learned from previous engagement in this area. We noted that it can be difficult to engage with customers on the subject of trust. We partnered with Britain Thinks to facilitate our Business Options Testing programme. They have worked with numerous organisations to explore this theme in the past, including Severn Trent Water who were noted by Ofwat to have engaged very successfully on trust.

As a result of this research, we have fundamentally changed our approach to representing our commitments against this outcome area. Initially we presented this outcome area in the same way as our other three outcome areas; ultimately leading into a suite of regulatory output measures that we are proposing. At the time, most were reputational measures but two were related to financial incentives.

Whilst we received a large degree of support on our proposals, the overwhelming majority of both customers and other stakeholders did not understand why we were making commitments through regulated output measures, as opposed to simply committing to proposals through a 'charter' or 'manifesto'. Our CEG provided similar challenge in July when reviewing the first full Business Plan draft. We have taken this feedback on board (plus other specifics relating to individual commitments and priorities) and have changed the way that we are presenting this outcome area, establishing a 'Trusted to act for our communities' charter, which now includes just two reputational PCD outputs, one of which is outlined within Ofgem's Business Plan Guidance Document, relating to ongoing stakeholder engagement and the other publishing our delivery against our Trust Charter (described below).

What our customers and stakeholders have told us:

We purposely targeted engagement with different segments of our customer base, including future generation customers, customers in vulnerable situations, small and large business customers and customers across all four of our network regions. We wanted to explore different viewpoints that existed across these different segments.

We noted very few conflicting views; whilst business customers (both small and large) saw a lower priority in us becoming more transparent in our operation (especially in areas such as publicising our executive pay and dividends policy), none of our segments rated this as a high priority to them. With such clarity provided through the research programme, we have identified five themes with a very clear and consistent priority order associated with them and our charter is built against these five themes. Each of our commitments is clear and measurable.

Our Trust Charter is briefly summarised below but the full document can be found in **Appendix 07.05.00**. This document has been reviewed and challenged in detail by our CEG and all challenges subsequently closed.

Figure 07.17: Outcomes our customers need us to deliver

Outcome				Trusted to act for our communities
				Building trust through every action
Priorities				Making a positive difference for our communities
				Sustainable engagement to drive better customer outcomes
				Creating an environment for our employees to thrive and be proud of the service we deliver
				Transparency in how we operate

Our Trust Charter

1. Building trust through every action

When we asked customers to define what it is that they trust in organisations and brands and what it would take for them to trust us, the main factors they cited were when companies ‘get the basics right’ and ‘consistently deliver on promises’. There is a clear read across into our ‘network resilience’ and ‘quality service’ outcome areas. However, due to the nature of our work, customers often do not understand how we are performing, but they would like to. We have therefore explored options of how this could be achieved.

In addition to delivering the improved service standards that we have set out across our other three outcome areas, we are making the following commitments:

- To publish on our website and through social media how we have performed against our key operational and customer safety measures
- To publish on our website and through social media how we have performed against each of our service benchmarks (including customer satisfaction)
- Continue to publish our total tax contribution as part of our Tax Strategy and assess opportunities to extend our best practice in this area.

Our publications will be developed through engagement from our Customer Forum, Customer Engagement Group and relevant regional stakeholder groups.

2. Making a positive difference to our communities

In terms of building trust, customers have told us that supporting the communities in which we operate in tangible, demonstrable ways, is their second highest priority.

We explored what customers meant by ‘tangible and demonstrable’ and noted that these were often code for ‘local’ and ‘value-adding’. They talked about sponsorships of local sports teams and schools as examples. As we explored this more with customers, we were able to arrive at two very clear commitments against this priority.

The Cadent Foundation

We are keen to recognise the role we can play within the communities we serve – supporting economic growth and customers in vulnerable situations. We have therefore looked at how best to provide support through our proposed Cadent Foundation. The Foundation is being used to support a variety of priority activities within our communities – supporting customers in vulnerable situations, supporting the local economy (including encouraging local innovation), as well as specific local initiatives. The precise distribution of funds will be informed by stakeholder consultation. We are committing to investing a proportion of our profits directly back into the communities we serve. We have set up a stakeholder-informed community fund, which we will invest at least 1% of our profits into each year (forecast to be c. £6m p.a.). We have already started the fund in RIIO-1 by committing to invest 1.25% of our profits in 2018/19, 2019/20 and 2020/21.

Supporting employee volunteering

One of the ways we can contribute to our communities is by giving our time to volunteering. As well as giving back to the community, volunteering provides the chance to develop new skills or build on existing experience and knowledge. Volunteering also provides challenging and rewarding experiences for our people. While the decision on whether to volunteer is a personal one, we want to ensure that we support and encourage our people to spend a proportion of their time at work volunteering.

Our employee volunteering programme started in August 2018. Since then, 72 volunteers have provided 644 hours of their time, with over 32,000 direct beneficiaries. Following our separation from National Grid, we engaged Volunteering Matters as a provider of volunteering opportunities for our staff. Across all of their programmes, Volunteering Matters say 86% of volunteers feel they have an impact on the community. Additionally, 91% of volunteers have increased their sense of pride in working for their employer and 85% of volunteers feel more positive about their employer overall.

In RIIO-2, we want to expand this and increase the level of support for employees connecting with communities. We therefore propose a stretching target of encouraging over 2,500 employees into voluntary activity over the review period. This is ambitious in relation to other utilities, who support around 20% of the employee workforce in voluntary activity (see section above on best practice). We will fund our support for volunteering ourselves to support our employees in these activities. We will also consider longer term skills-based volunteering.

Our commitments continued

3. Creating a thriving environment for our people

The third priority area that our customers told us about was creating a thriving environment for our people. We were initially surprised about the level of importance our customers placed on this area, but were able to explore this in far more detail during the workshops and through testing our own ideas, and seeking additional ones, we have developed the following set of commitments:

- A. A diverse and inclusive workplace** – To be a successful business and deliver what our customers expect from us, it is important to have a diverse and inclusive culture. In the same way as we are targeting inclusion and accessibility of our services for our customers, we are striving to create an environment that embraces diversity and allows people to be themselves and bring the best of their skills to the workplace every day. We have several focus areas to ensure we are attracting and retaining a diverse range of talent, for example improving our gender pay gap, encouraging more diversity in our field force recruitment, supporting faith requirements and improving disability awareness. Over the RIIO period we commit to:
- Provide unconscious bias training for all managers across the organisation by 2021.
 - Target a significant increase in Black, Asian and Minority Ethnic ('BAME') talent by 2026.
 - Show a demonstrable increase in the number of BAME senior managers.
- B. Supporting women in the workplace** – Whilst customers acknowledged our commitment to reducing our current gender pay gap and our transparency in publishing it, their primary focus was for us to make a clear commitment in respect of increasing the proportion of females in senior management positions. Through programmes targeted at developing female leaders, we will:
- Target a balance between male and females being recruited through our graduate programme.
 - Increase the proportion of females joining our apprenticeships.
 - Increase the number of females in management positions.
 - Increase the number of females in Director roles.
 - Review the support provided for flexible working arrangements prior to 2021.
 - Include flexible working arrangements in all job roles by 2021.
- C. Continue to change lives for the better through EmployAbility** – The 'EmployAbility – Let's Work Together' supported internship scheme builds confidence, develops skills, raises aspirations and provides a step on the career ladder for students with special educational needs and disabilities ('SEND'). The programme has enjoyed long-term success rates, with 73% of interns achieving paid employment, against the national average for this group of just 6%. We commit to continue to operate this and promote its inclusion by other local organisations.
- D. Keeping our people safe** – Safety is paramount to all that we do. We are committed to ensuring the safety of our people, our customers, and the general public. We will always strive to improve our safety performance and create an environment to look after our people, and have developed a three year plan to reinvigorate our safety culture, with visible leadership for safety at all levels in our organisation. We are refreshing our safety management system with a 'back to basics' approach, and more effective communication of safety risks and issues, using real-time communication tools and other advances in technology. Our aim is to achieve long-term reductions in our lost time injury frequency rate ('LTIFR') even beyond the world class levels that we are currently delivering.
- E. Bringing in new talent** – As we look forward to supporting the transition to a low carbon energy future, it is vital that we build the capability to deal with a changing climate, to innovate and embed new technologies. We continue to bring in new talent with apprenticeships, graduate schemes and our Engineering Training Programme.

- F. Fair and transparent reward and recognition** – Our customers expect us to pay fair salaries that are in line with relevant market benchmarks. We commit to:
- Continue to benchmark our salaries with recognised third party organisations for all roles.
 - Pay at least the national real minimum wage to our directly employed agency employees working in our main sites.
 - Continue to operate our Cadent Congratulates rewards scheme.
 - Develop an annual Chairman's Award for all employees to enter.
 - Maintain at least market median pay and reward schemes for all employees.
- G. Ethics and 'Doing the right thing'** – We encourage a strong culture of business ethics through our 'Doing the right thing' programme. This involves a charter of the behaviours we want to exhibit and online training on aspects such as fraud and bribery training, competition law and General Data Protection Regulations. We operate an independent business ethics support line to allow employees to raise any concerns as well as an employee assistance programme which provides external support and counselling.
- H. Skills and training** – We believe in supporting our people with training and development, to ensure their safety, and help them to thrive within their chosen career. We will:
- Continue to support our employees with over 24,000 training days p.a.
 - Run at least 30% of training on-site.
 - Ensure all employees have the technical competencies to do their role.
 - Offer every employee the opportunity to develop a personal development plan, overseen by their management team.
 - Create new opportunities to improve our ways of working, collaborate more and learn via social cohorts.
 - Provide dedicated training centres such as those at Hitchin and Hollinwood and satellite centres at Windsor Street and Slough.
 - Focus on STEM enrichment, careers inspiration, and work experience.

These commitments will be delivered in addition to maintaining other areas of good practice for our employees. These include annual engagement surveys, supporting employees to be active in our community (e.g. volunteering schemes) and providing health and wellbeing advice and support.

4. Sustainable engagement to drive better outcomes

The feedback from our customers and stakeholders has been very positive in respect of our ongoing engagement programme. They liked the opportunity to be heard and had great suggestions about how we can improve. We recognise that engagement with customers and stakeholders is not a one-off exercise and it is essential to continue the dialogue so that we can respond to changing requirements and priorities and continually seek to improve.

To this end, our ongoing engagement strategy will see us continue to engage widely with customers and stakeholders throughout the RIIO-2 period and demonstrate how we are turning insight into action. In addition, we are exploring where there is additional customer value from enhanced stakeholder engagement to develop whole-system solutions. We have set out our ongoing engagement commitments in our Enhanced Engagement chapter and in our Stakeholder Engagement Strategy (**Appendix 05.01**). These include:

- Improving the way we use business as usual insights.
- Continuing customer forums.
- Evolving the Customer Insights Forum to add even more value.
- Continuing and expanding regional stakeholder groups.
- Committing to a CEG throughout RIIO-2.
- Evolving stakeholder engagement on whole-system thinking.
- Developing our online forum.

5. Transparency in how we operate

The final priority area that our customers and stakeholders discussed with us was transparency in how we operate. However, this was of much lower importance than the other priorities described above. Whilst customers and stakeholders expected us to abide by laws and publish our performance to our regulators, they had very little appetite themselves to review material such as our taxation summaries, our dividends policy, our executive pay or our governance structures. Whilst our impact on their gas bill is of interest to them, they saw it as the responsibility of gas suppliers to provide this information, rather than ourselves.

Nevertheless, we believe it is important to continue to prioritise transparency as an organisation and we will do this at no additional cost through:

- Reporting annually on Executive pay and how our Executive team are incentivised to deliver for customers.
- Transparent reporting of shareholder dividends with demonstrable links to meeting customer commitments.
- Enhanced data provision to both Shippers and customers to aid better customer understanding of the impact we have on their bill.
- Our Annual Report, which will provide detail regarding our governance that is beyond statutory requirements.
- Continuing the good practice in the publication of an annual Safety & Sustainability Report.

One of the ways we can build trust in our organisation is to ensure that our executive and leadership pay and reward is fair and in line with market comparisons, transparent and linked to successful delivery of customer outcomes. We can also ensure that we have a fair and transparent Remuneration Policy that is consistently applied and in line with market comparators.

Our objectives for Executive pay are inspired by the best practice guidance described in the Corporate Governance Code:

- Executive pay should be explained.
- Executive pay should be aligned with delivery of our customer outcomes.
- Executive pay should be transparent, and overseen by independent governance.
- Executive pay should be based on a clear structure.
- Our approach to Executive pay is in line with the best practice above and these objectives.

Full details of our Trust Charter are contained in the **Appendix 07.05.00**.

Our reward principles are aligned to our business strategy, with remuneration linked to performance. As part of the 2018 and 2019 Staff Pay Deal, the annual performance bonus targets for all Executives, managers and staff-graded employees are now the same. These targets are transparent, with progress tracked and reported across the business on a monthly basis.

For 2019, the weighting in the annual bonus measures based on Customer Excellence has increased from 20% to 35%, with a corresponding decrease in the weighting for the financial measures. In addition, the new Long Term Incentive Plan for the period 2019–2022 is heavily weighted (40%) towards the RIIO-2 Business Plan.

Table 07.16: Summary of outputs for our Trusted to act for our communities outcome

Output	Measure	Common/ bespoke output?	Regulatory Treatment (PCD, ODI, LO)	RIIO-1 Position	RIIO-2 Target Ambition
Stakeholder Engagement	Report published	Bespoke	ODI (R)	Not included	Demonstrating continual improvement in our stakeholder engagement approach and delivery of the commitments included in our strategy.
Trust Charter	Report published	Bespoke	ODI (R)	Not included	Report published annually to our customers showing progress against the commitments in our Trust Charter.

