NORTHERN POWERGRID

Delivering on our promises

Business Plan Commitments
Report 2020-21

Performance snapshot – NPg DNO group[1]

Network

Network	Actual 2020-21
Number of customers	3.9m
Total DNO network length	97,122km

Reliability & Availability

Reliability & Availability			Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Customer interruptions[4]	Northeast	Inc. exceptional events	44.1	–	–	▲
		Exc. exceptional events	44.1	57.7	Achieved	▲
	Yorkshire	Inc. exceptional events	51.7	–	–	▲
		Exc. exceptional events	51.7	61.8	Achieved	▼
Customer minutes lost[4]	Northeast	Inc. exceptional events	35.0	–	–	▲
		Exc. exceptional events	35.0	49.7	Achieved	▲
	Yorkshire	Inc. exceptional events	38.7	–	–	▲
		Exc. exceptional events	38.7	52.0	Achieved	▲
Incentive performance reward/(penalty) – IIS[5]		£m	£21.3m	–	–	▲
		£/customer bill	£2.61	–	–	–

Customer Satisfaction

Customer Satisfaction		Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Overall Broad Measure of Customer Satisfaction score out of ten (rank out of six)[6]		9.05 (5th)	8.2	Achieved	▲
Incentive performance reward/(penalty) – BMCS[7]	£m	£5.2m	–	–	▲
	£/customer bill	£0.63	–	–	–

Connections

Connections		Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Time-to-quote (days)[8]		6.6	4.8	Missed	▲
Time-to-connect (days)[8]		48.7	39.3	Missed	▼
Incentive performance reward/(penalty) – connections lead time	£m	£0.0m	–	–	▼
	£/customer bill	£0.00	–	–	–
Incentive on Connections Engagement penalty – ICE (if applicable)	£m	Nil	–	–	▶◀
	£/customer bill	Nil	–	–	–

Social Obligations

Social Obligations		Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Individual Stakeholder Engagement and Consumer Vulnerability (SECV) score out of ten (rank out of six)		5.01 (5th)			▼
Incentive reward	£m	£0.5m	–	–	▼
	£/customer bill	£0.07	–	–	–

Innovation

In the year we spent £3.5m (97%) of our Network Innovation Allowance. Our diverse innovation portfolio contains 34 projects that focus on decarbonisation, reliability, digitalised solutions and value for money.

Safety

Our long-term safety performance is strong and places us in the leading pack among our peers. We achieved our annual headline safety target for Northern Powergrid as a whole in 2020-21, measured by the Occupational Safety and Health Administration (OSHA) rate – 0.18 against a target of 0.27 – representing four reportable incidents in a workforce of around 2,600.

Environment

We achieved our oil leakage and business carbon footprint targets for 2020-21 and we are on track to exceed our commitment in removing overhead lines from areas of natural beauty.

Financials

Financials		Northeast	Yorkshire	Combined
Domestic average annual bill		£78.80	£66.14	£71.39[9]
Total expenditure	£m	177.5	221.0	398.5
	% of cost allowances	116%	108%	112%
	% of cost allowances (ED1 to date)	102%	96%	99%

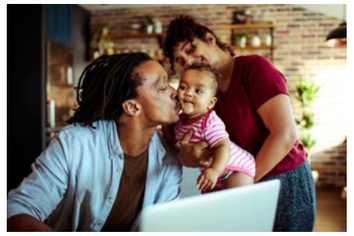
1 All financial figures in 2012-13 prices. The performance of each licensee is shown in the Annex to this report.
2 Ofgem target (see sections in the main body of the report for performance against our own targets).
3 Trend ▲ getting better ▼ getting worse since 2019-20.
4 Unplanned & unweighted figures. Indicative figures as at July 2021, figures still to be confirmed by Ofgem.
5 Excluding Guaranteed Standards payments.
6 Broad Measure of Customer Satisfaction (BMCS) rank indicative only based on monthly data. Final ranking to be confirmed by Ofgem.
7 Does not include SECV reward.
8 LVSSA (single minor connections).
9 Based on average domestic consumption of 2,900kWh. £85.83 in 2020-21 prices.

What's inside

Back in 2014, we published our business plan for 2015-2023. This plan set out what we aim to achieve in this eight year period for which our regulator, Ofgem, has set what we are allowed to earn.

As we exit year six of the eight year period covered by our plan, we can reflect positively having made very good progress across the range of commitments we set out. In this report, we provide an update on how we're doing against our business plan commitments that run through to March 2023.

You can access more information on environment and innovation, connections engagement, stakeholder engagement and consumer vulnerability and our financial performance and returns by visiting: www.northernpowergrid.com/yourpowergrid



A word from our CEO

2020-21 was a challenging year for so many people on so many fronts. I can't help being incredibly proud of the way our team stepped up to play their part, delivering our essential services in our regions at a critical time. Through it all we have continued to deliver on the promises we made to customers, and we are looking forward to finishing the period strongly as well as laying foundations to support the decarbonsation pathways that lie ahead.

Still on track to deliver on our business plan promise – 'more for less'

2020-21 was not the year any of us were expecting, so I'm pleased to report that, despite the challenges of the past year or so, we remain on track to deliver on our output targets and all the other commitments we made for the 2015-23 period. In fact, we are set to significantly exceed many of our targets.

Our expenditure in the six years since the start of the period almost exactly matches the phased cost allowances provided by Ofgem and our £3.2bn forecast for the price control package set in 2014 remains in line with allowances for the period.

We know that keeping bills as low as possible always matters to our customers. And it matters even more in the current climate where the outlook is uncertain and the economy is finding its way forward. As we plan for the future, we have this thought clearly in mind. We are committed to providing the best possible service to all our customers, including playing our part in supporting vulnerable customers in our region.

Developing plans with you

Working with our stakeholders is always a big part of our planning and decision making. 2020-21 has been a record-breaking year in that regard as we have developed our plan for 2023-2028. The decarbonisation journey we are on as a nation and the need, in that context, to create a digitalised energy system are the strongest influences on our plans as we look ahead. As we have worked on our proposals, we have engaged over 52,000 stakeholders at more than 325 tailored events. With the help of scrutiny from our Customer Engagement Group, the feedback we have received is helping us do the best job we can in planning to meet the needs of our customers as we go forward into the low carbon future.

Successfully delivering through the COVID-19 pandemic

The April 2020 – March 2021 period that this report covers sat right on top of the worst of the pandemic. I am proud of the way our team responded to make sure we kept on delivering for our customers. The resilience that we have shown demanded flexibility, determination and diligence. That showed in the results – we kept all our key services running, wherever customers needed us, even achieving some of our best ever results during the period. What impact there was, was limited to a few isolated programmes of work, particularly those that depended on getting access to customers' properties (such as the smart meter programme) or more technical work in our substations that required work in particularly confined spaces. We are already well on the way to clearing any backlogs now that many restrictions have eased and the remainder are expected to unwind by 2023.

Our output performance continues to improve

We have significantly improved output performance across the board since 2015. We have delivered 37% shorter and 27% fewer power cuts[1] and customer satisfaction has improved by eight percentage points to over 90%. We recently achieved a period of 690 consecutive days without a lost time accident, registering the fewest recordable accidents in the industry in 2020. We are nearing completion of our stakeholder-led flood defence programme that will see 211 of our sites made more resilient to flooding and our £16.4m investment in cyber security to date means we're well positioned to deliver against the requirements of both the regulations and industry best practice.

52,000
stakeholders helping shape our future

Facilitating the decarbonisation transition in our region

Our network is central to supporting our regions in meeting the UK's net zero by 2050 target, and nearer term, reducing carbon emissions by almost 78% by 2035. Our goal is to play a leading role in the transition.

Our stakeholders have made it clear that decarbonisation is their top priority. We are making good progress in facilitating and preparing for greater use of low carbon technologies, such as electric vehicles. Our smart grid enablers programme was impacted by the pandemic but is now back in full scale rollout, upgrading our telecoms network to support deployment of smart grid solutions and installing 2,700 LV monitors across our network by 2023.

We're now routinely and openly examining flexibility as an alternative to reinforcement, offering tenders to the market for flexibility services and operating four active network management zones, which provide 433MW of contracted flexibility. Overall reinforcement remains below forecast but we are seeing clusters of concentrated demand creating pressure on our local LV networks.

This is just the beginning; we expect it to increase significantly. The draft plan we published recently for the 2023-28 period makes it clear that we intend to make sure that we keep all credible decarbonisation pathways open and that we do so in a way that is transparent and earns your trust.

The journey to net zero didn't stall as a result of the pandemic. In fact our momentum increased during the year. Working with Ofgem, local authorities, developers and other parties we agreed to deliver a £53m package of additional Green Recovery investment as an additional benefit in the current price control period. The investment will accelerate decarbonisation and support regional economic growth. I'm pleased to report that the projects are progressing well and will begin to deliver outputs in 2022, providing increased network capacity in strategic locations and supporting low carbon technologies central to the net zero transition.

Encouraging sustainable and long-term investment

Our shareholder Berkshire Hathaway Energy (BHE) group is committed to our region and their support has enabled us to invest over £2.3bn in our region's infrastructure in the 2015-2023 period so far. Continued investor support is vital to securing the investment required for decarbonisation.

I am delighted that we are on-track to deliver our commitments for 2015-23. This not only reinforces our track record as a company who sticks to its promises but it positions us well to begin delivering on the ambitious plan that we have put forward for 2023-28.

Phil Jones
Chief Executive

>90%
customers satisfaction

[1] Compared to out ED1 business plan baseline of 2012-13

Who we are

Northern Powergrid is responsible for the electricity network that keeps the lights on for 8 million customers across the Northeast, Yorkshire and northern Lincolnshire.

Our dedicated team, of around 2,600 employees operate 24 hours a day, 365 days a year – no matter what the circumstances – to maintain a safe, reliable and efficient electricity supply.

Our customers pay their energy supplier for the electricity they use. A proportion of the money they pay as part of their electricity bill (around £86 per year in today's prices) comes to us to cover the cost of keeping the network running safely, reliably and efficiently.

Our customers

We're committed to looking after our customers and you'll read in this report about what we're doing to improve customer service, support our local communities, and look after vulnerable customers when they need us the most.

Our region

We are proud of the vital role that Northern Powergrid plays in the infrastructure of the North of England, including enabling national schemes such as the High Speed 2 and Transpennine upgrades.

We play an active role in supporting the development of the regional growth agenda through our engagement with local government and other key businesses in the North of England and our partnerships with utilities such as Northern Gas Networks, Yorkshire Water and Northumbrian Water.

Northern Powergrid at a glance

8 million
customers

2,600
employees

25,000 km²
of network

96,000km
of cables

3.9 million
homes and businesses powered

63,000
substations

Ensuring our region can decarbonise is a key priority...

As we move to a low-carbon economy, new technology and digitalisation are driving unprecedented change in the way energy is generated and used. As an electricity infrastructure provider, we need to make sure that our network is able to safely and securely support these changes whilst maintaining high standards of reliability for our customers.

Our plan delivers on the call for action from our stakeholders with an ambitious £1bn of investment to support our communities on the way to net zero emissions.

What it means now

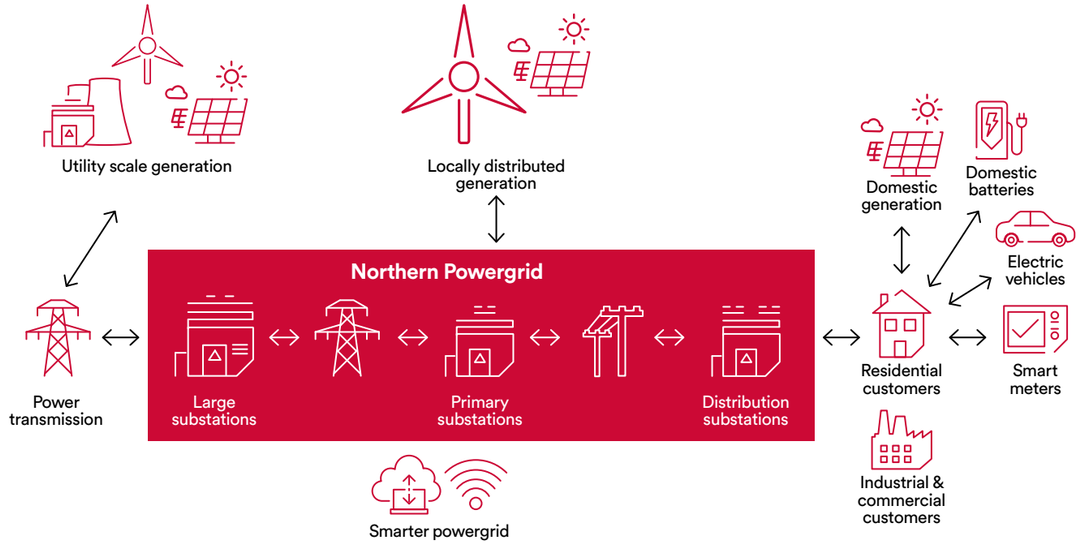
At Northern Powergrid, we have embarked on a transition to expand our capabilities and become a local optimiser of the energy system. We are taking on new functions of Distribution System Operation (DSO).

What it means for the future

We have been building our plan for the next 5 year period (April 2023 to March 2028) through an extensive engagement programme over the past two years.

Our stakeholders have been clear that ensuring our region can decarbonise is key and we're responding with a step up in investment – investing in digitalising the network and additional network capacity to cater for growth in LCTs. You can access our draft plan, which includes our latest DSO plan here.

Where we fit in the electricity industry



Our engagement programmme

Stakeholder engagement is key to how we plan and run our business. Stakeholder and customer views and priorities underpin our business direction, choices, and how we support our customers and communities now and as we prepare for the decarbonised future.

We carry out our engagement in accordance with our stakeholder charter. This sets out our engagement principles, shown below, which underpin interactions and the positive outcomes we target for our stakeholders and customers.

Strong engagement with our stakeholders helps us make better decisions and ensure we meet the needs and aspirations of those we serve across our regions.

Engaging throughout the pandemic

Digital engagement has been a key part of our stakeholder programme, particularly due to the COVID-19 pandemic and the need to keep our colleagues, stakeholders, and customers safe.

Even before the pandemic, we were expanding this area of our work. As a result, we have seen the number of digitally engaged stakeholders rise significantly from 1,200 last year to over 36,000 across our digital platforms and channels in 2020-21.

As face-to-face interactions have been restricted, this engagement pathway has become more important to our stakeholders and us, so we have paid particular attention to understanding and removing issues/barriers to engagement.

We conducted independent research with our stakeholders on engagement barriers. We spoke with those who signed up for events but then did not attend to find out more about any issues that we could address and understand how the increase in digital engagement impacted their work.

Reflecting on best practice engagement, we developed a weighting methodology to assist with engagement and insight assessment this year. This new method has helped us in planning our engagement and managing contradictory opinions between different stakeholder groups.

Data underpins effective engagement

Data quality and integrity are fundamental to good engagement - it ensures that we are giving all our customers and stakeholders the chance to comment on and contribute to our work. As part of our continuous improvement approach, this year, we have:

- Revised our stakeholder segmentation approach that informs our annual programme of work, taking into account social and economic changes accelerated throughout the pandemic, changing regional priorities, and ongoing stakeholder feedback.
- Conducted our annual audit, cleansing our data, identifying and filling gaps, and ensuring that we remain inclusive of emerging, hard-to-reach, and seldom-heard groups. We performed this in conjunction with our newly formed Future Fairness Panel of expert representatives of hard-to-reach groups.

Our engagement principles

Our strategy is underpinned by our core engagement principles, introduced this year and validated by our Stakeholder Panel, Social Issues Expert Group (SIEG) and Customer Engagement Group.

1 Stakeholder Led	We are flexible, proactive, and responsive. Early deliberative engagement informs our plans and allows for testing with stakeholders.
2 Representative & Inclusive	We will not leave anyone behind. All voices are heard from across the diverse region we serve.
3 Open & Transparent	Explaining what, why, and how we work. Encouraging active participation from customers and stakeholders to aid planning and decision making.
4 Accessible	Employing a range of engagement methods designed to engage all ages and capabilities. Educating stakeholders so they can understand our business, make better informed decisions and provide richer input.
5 Responsive & adaptive	Best practice leads us, experience shapes us. Our programme is continuously evolving as we learn more about the needs of others.

Our engagement in 2020-21

Over the past 12 months, we have embraced a digital approach to continue our engagement through pandemic. Our engagement has grown in size and ambition as we have continued to engage on our current plans for the 2015-23 period and developed our business plan for 2023-28. This has been reflected in the range, scale, and diversity of engagements that we have undertaken.

Strong engagement numbers and satisfaction in 2020-21

Over the past 12 months we have engaged over 450,000 stakeholders through 329 tailored events including discussions with Local Authority leaders on joint decarbonisation planning. By responding to feedback, we've widened our engagement pathways and are now using 26 different methods. Overall, customers and stakeholders are pleased with the service they receive maintaining a satisfaction level of 89%.

Engaging locally with communities

As part of engaging on our current business plan (2015-23), we have continued to work with our Stakeholder Panel and our Social Issues Expert Group which is instrumental in shaping our work with vulnerable customers and our fuel poverty approach. Now in its third year, our stakeholder summit focused on net zero plans, green recovery, and climate change. Over 120 stakeholders joined us to hear from industry experts.

In 2020 we set up our Community Energy Stakeholder Panel. This year, working with our Community Energy panel members and Community Energy England, we developed a capacity and support package to grow this area within our regions. We introduced practical surgeries to understand community energy connections and a dedicated newsletter and information hub.

Facilitating Local Area Energy Planning

Civic leaders from across our region tell us there is a need for joined-up, future-facing plans that support decarbonisation efforts. We have launched a pilot with the City of York and North Yorkshire on what a future Local Area Energy Plan (LAEP) would look like for the county, and how we can integrate our work and support wider decarbonisation efforts. These efforts have led to better partnership working. Building on this, we have set out a LAEP Charter in partnership with Northern Gas Networks, which sets out how we can support our region's development and delivery of LAEPs.

Building Back Better – supporting a Green Recovery

The COVID-19 pandemic has deeply affected our customers and stakeholders. As an anchor organisation, we have a responsibility to support our customers and partners and do what we can to encourage economic growth and social well-being.

As part of Ofgem's Green Recovery initiative in late 2020, we committed to investing an additional £53m to support accelerated decarbonisation and sustainable economic growth. We engaged stakeholders directly through our Local Government Forums and Stakeholder Panels, and we launched a dedicated microsite focused on the Green Recovery, with details of our call to evidence and guidance for potential projects.

Engagement innovations this year

We've introduced a range of new engagement pathways to ensure that we can meet the emerging needs of stakeholders and those who have previously faced barriers.

- Established our **Future Fairness Panel** to work with us; ensuring that all customers voices are heard and our plans are inclusive.
- Recruited **12 energy champions,** including domestic customers (urban and rural), SME customers, representatives of vulnerable groups and our colleagues.
- Developed a new **power generation project and website,** which aims to equip young people (10+ years) to become net zero champions. Around 6,000 people have access and used resources.
- Developed our **Engage microsite**, the home of our draft business plan, emerging thinking documents and interactive engagement dashboard.
- Established dedicated Citizens, rural, and SME **engagement panels** to widen the inclusion of voices from our region and scrutinize our work.
- Delivered **bespoke education projects** within each of our stakeholder panels to support improvements in Energy IQ.

Looking ahead – engaging for a better future

We have been developing our RIIO-ED2 business plan for the period 2023-2028.

September 2019 – July 2020
DSO v1.1

Wave 1 – RIIO-ED2 business planning: open engagement

(September 2019-July 2020)

In addition to our regular engagement, we are carrying out a focused and extensive engagement programme to develop our RIIO-ED2 business plan. This engagement programme started in September 2019 and helped us to challenge and develop our thinking in every aspect of our business, and ensure that our 2023-2028 business plan delivers on stakeholder priorities.

Our ambitious and far-reaching stakeholder engagement programme for RIIO-ED2 involves four 'waves' of engagement, the first of which was conducted from September 2019 to the end of July 2020. It contained a range of open engagements with customers and stakeholders about their priorities for the electricity network of the future. In this wave, we engaged over 4,000 stakeholders.

August 2020
Emerging thinking

Wave 2 – RIIO-ED2 business planning: refinement

(August 2020-January 2021)

In August 2020, we published our Emerging Thinking, a two-part publication which summarised what we'd heard from stakeholders in Wave 1. This initiated the second of the three waves of engagement.

Publication of our Emerging Thinking documents and dedicated microsite provided the platform for extensive consultation around the shape, scale and level of ambition of potential developing commitments and initiatives. We engaged with over 15,000 customers and stakeholders to test propositions including levels of optionality and to consider if our propositions addressed their priorities or whether there were areas of focus missing from the developing plan. These were then tested for their relative importance against other priorities and overall 'willingness to pay' (WTP).

July 2021
Draft business plan submission

Wave 3 – refining and finalising our plan

(January 2021-July 2021)

Further deliberative engagement, polls, surveys and dedicated research exercises have helped us to retest our thinking as our plans formed, including setting stretching targets. We also retested emerging propositions and priorities wherever signals were inconclusive or new areas had emerged. This wave also included research with customers, vulnerable customers and small and medium sized enterprises (SMEs) to gather their views on the draft plan in terms of WTP and overall satisfaction including acceptance testing. Overall, 32,500 consumers and stakeholders were engaged with an acceptance score of 89%.

December 2021
Final business plan submission

Wave 4 – plan finalisation stage

(July 2021-December 2021)

This stage responds to feedback from Ofgem, the national Challenge Group, our CEG and other stakeholders, testing plan ambition and any subsequent challenges as required. Additionally, as our plan and costs are finalised a further round of acceptance testing will be conducted.

Key highlights of our engagement in 2020-21

Expert panels

Our Stakeholder Panel has actively contributed to the evolution of our Emerging Thinking throughout plan development in 2020 and 2021.

Our Social Issues Expert Group and Community Energy Panel also scrutinised Emerging Thinking and provided meaningful feedback to our business on priorities, commitments and ambition.

Technical Panel

This is an informed group of 6 stakeholders from the academic community who have provided feedback and challenge across a range of areas of our plan including our proposed network investment strategy, reliability and innovation.

They have also given their views on our progressive asset management approaches, particularly focusing on the strength of our engineering and investment justification in our ED2 business plan.

Citizens Panels

We set up a series of panels, including a Citizens panel including domestic customers, SMEs, Micro businesses, and rural customers, following the business planning journey from inception to conclusion. Discussions included affordability, decarbonisation, and support for vulnerable customers.

Elected representative outreach

Over the 12 months, we completed more than 30 bilaterals with elected representatives.

These engagements have a solid regional and/or constituency-led focus to make sure we understand regional variation and aspiration across the Northeast, Yorkshire and Northern Lincolnshire.

Intergenerational insight

Our intergenerational engagement and research brought together multiple generations in family groups to discuss and explore views and expectations for the future in the context of decarbonisation – what the future will feel and look like, what it will mean for people and their lifestyles, what needs to happen now in advance of net zero and how and where compromises should be made.

Colleague Engagement

Finally, it is essential that we understand colleague aspirations. We are conducting extensive internal engagement via emails and SMS, as well as running internal roadshows where feasible to ensure internal voices are reflected in our ED2 business plan.

To get involved please:

Visit
engage.
northernpowergrid.com

Follow us on Twitter
@powergridnews

Follow us on Facebook
@northernpowergrid

Email us at
yourpowergrid@
northernpowergrid.com

Write to us at
Stakeholder Relations,
Northern Powergrid,
98 Aketon Road,
Castleford WF10 5DS

Our Customer Engagement Group

We established our Customer Engagement Group (CEG) in September 2019. The CEG is a group of 10 independent experts led by Chair, Justin McCracken, charged with scrutinising our RIIO-ED2 business plan and the quality of engagement undertaken to inform it.

The CEG meets monthly with Northern Powergrid and helps to ensure that customers' needs and views are reflected in our plans which is particularly important in the rapidly evolving low-carbon energy landscape.

The CEG has pushed Northern Powergrid to think strategically about its engagement and, as a result of its feedback, we have introduced several new initiatives such as a SME Panel dedicated to engaging small and micro business owners; a Rural Panel dedicated to engaging rural customers in remote locations; and some Customer Values research, working with a mixed group of customers to identify enduring values which are essential for Northern Powergrid to adhere to as the electricity evolves over the next 10 to 20 years. We are also developing a series of "energy IQ" videos with the support of the CEG, to help explain key electricity and business plan concepts to members of the public.

Looking ahead

At the end of the business planning process, the CEG will publish a report on its findings following our business plan submission to Ofgem. Ofgem will reflect on this report, alongside our plan, as a source of challenge or validation of the approach we took when developing our plan.

10
independent experts*

102
formal interactions*

The CEG operates in an open and transparent manner, publishing updates about its work on
ceg.northernpowergrid.com

*as at the time of our draft ED2 plan, July 2021.

1. Safety

690 days
Our best ever run of consecutive days without a lost time accident

£16.4m
invested in ED1 to date upgrading our cyber defences

COVID-19 secure
All of our workplaces are compliant with the latest government guidelines

Our engagement...
We established a working group with our trade union representatives during the COVID-19 pandemic.

What our stakeholders said...
Representatives wanted to be kept up to date with our management and handling of the pandemic and have a forum to raise any issues.

What have we done...
Via our weekly Health and Safety Committee meeting, regular discussions took place with open dialogue.

We shared updates on;
- Case rates and absence information
- Office occupancy levels
- Live plans in light of guidance changes
- Action management from previous issues raised.

"COVID-19 has been one of the greatest threats to the business. To maintain the safety of our colleagues and maintain essential electricity supplies we have worked closely with Northern Powergrid to:

- **Agree joint risk assessments to protect the public and staff;**
- **Develop joint inspection of sites so we maintain robust safety standards;**
- **Develop working procedures that minimise the risks of COVID-19; and**
- **Engage colleagues so we change habits to respond to the risks of COVID-19**

The commitment of everyone at Northern Powergrid to maintain reliable electricity supplies and to provide the flexibility that users of our network need is a reflection of the mature and constructive working relationship between the company and the union."

Mike MacDonald
Prospect

We're proud to have achieved 690 days accident-free and remain on track to achieve all of our safety commitments

Our commitments

— **Safety is our number one priority and our industry leading performance is something we are very proud of. This year we exceeded our commitment of halving our accident rate and achieved a significant milestone – 690 days without a lost time accident.**
— **We have continued to engage on key safety and security matters, such as agricultural safety and metal theft, in collaboration with the National Farmers Union (NFU), local authorities and the National Infrastructure Crime Reduction Partnership (NICRP).**

How we've done in 2020-21

Operational safety

— Our headline safety target is measured using the Occupational Safety and Health Administration (OSHA) rate. We also measure our performance against the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR).
— This year, we had four OSHA accidents in a workforce of around 2,600, none of which were electrical in nature and no serious injuries were sustained. This translates into an OSHA rate of 0.18, a 58% reduction compared to our ED1 business plan baseline, which saw us exceed our ED1 target to halve our accident rate.

COVID-19

— We rose to the challenges that the COVID-19 pandemic presented to our organisation. As a provider of essential services for our customers, it was vital for us to continue to offer a reliable service whilst keeping our colleagues safe at work.
— We implemented a robust set of social distancing policies, re-configured our office spaces, facilitated home working and introduced single occupancy in our fleet vehicles.

Mental health and wellbeing

— The importance of mental health and wellbeing has been amplified by the COVID-19 pandemic and it was another year of positive progress on this front.
— In addition to our awareness training programme for business managers and targeted internal programmes, we introduced 'Wellbeing Wednesdays'; a weekly programme encouraging colleagues to practise good habits to look after their mental health.

Driver safety

— Safety on the road is a key part of our safety strategy and in 2020-21 we continued to improve.
— Our fleet drove close to 14 million miles in the year and were involved in only 33 preventable vehicle accidents, three fewer than last year.
— We continued our safe driving programme for our apprentices and younger driving population that provided increased awareness advanced driving skills.

Awareness

— In our business plan, we committed to increasing awareness in our communities of the dangers of electricity. In the year, we were unable to meet our target to engage 40,000 school age children given school closures and social distancing constraints of the COVID-19 pandemic.
— However we adapted our programme to provide more online resources to enable remote learning. We will expand this in the remainder of ED1 and with the re-opening of schools and easing of restrictions, we are confident we'll return to delivering engagement in excess of 40,000.
— Despite engagement and our partnerships with the NFU, we continue to see a disappointing number of overhead (OHL) contacts. With that in mind, we are continuing to focus our efforts on reducing third party strikes to our overhead lines, specifically from farm machinery and road haulage vehicles.

Cyber and physical security

— The integrity of our operational sites is vital and we have continued our investment at Critical National Infrastructure (CNI) sites. We invested £1.9m in the year, increasing security levels at higher risk sites whilst developing our alarm receiving centre.
— We have experienced another year of reductions in metal theft as a result of the NICRP, where we receive crime hot spot analysis and other intelligence from a range of stakeholders and sectors.
— As our information technology and the associated risks evolve, we continue to respond by enhancing our cyber security defences. We have accommodated £16.4m of investment so far on cyber defences that was not envisaged in ED1, enabled by driving cost efficiencies, and we plan to spend a further £9.2m in the remainder of the period.

Looking ahead

— As we look to the close out the ED1 period, safety will remain our top priority. We aim to maintain our strong track record and ensure our staff go home safe at the end of each day.
— As we begin to exit the pandemic, we will retain the high standard and positive impact we have in our communities whilst maintaining a COVID-19 secure environment for our colleagues and customers, and continuing to follow evolving government guidance.
— To further enhance our physical and cyber security we will be completing the implementation of our alarm receiving centre.
— We will collaborate with the ENA and utilise the National Farmers Union mailshot to promote 'Look up – it's live' to raise awareness of the risk of overhead line strikes.

Our business plan commitments

Commitments	Status	Forecast completion
1.1 Remain a leading safety performer, meeting all requirements and halving our accident rate by 2023	Ahead	2022-23
1.2 Increase awareness in our communities of the dangers of electricity if not handled properly	On Track	2022-23
1.3 Keep safety as a central driver of investment decisions and appraisals	Delivered	2018-19
1.4 Promptly resolve any network safety issues arising from the smart meter roll-out	On Track	2022-23
1.5 Reduce the impact of metal theft, including improving substation security	On Track	2022-23

Going beyond our plan

Mental health

New mental health awareness training for our employees

65 mental health first aiders trained

Over 200 managers received awareness training

Launched a wellbeing programme to support colleagues throughout the COVID-19 pandemic

Our performance measures[1]	2019-20 actual	2020-21 actual	2020-21 target	Annual status	ED1 target	ED1 status
HSE compliance	✓	✓	✓	Achieved	✓	On Track
OSHA rate	0.14	0.18	0.27	Achieved	0.14	Ahead
RIDDOR rate	0.00	0.08	0.10	Achieved	0.10	On Track
Children reached through school safety education programme	53,026	18,947[3]	40,000	Missed	43,385[2]	Recoverable
Overhead line contacts	40	46	20	Missed	20	Recoverable

[1] Targets reflect ED1 business plan target unless otherwise stated.
[2] Reflects a stretch forecast that will go beyond our ED1 business plan target.
[3] Impacted by COVID-19 restrictions. We adapted our approach and outreach to facilitate more online support. While our engagement this year was lower than expected, we expect to continue to deliver levels of engagement ahead of our ED1 target in the remainder of the period.

Continuing to deliver safe and secure services during the COVID-19 pandemic

The COVID-19 pandemic has had a profound effect on the customers, businesses and the communities we serve. As a critical service provider, it was important for us to reassure our customers that we would continue to be there for them when they needed us.

We have well developed emergency plans for various scenarios and we activated our business continuity and pandemic plans in early 2020. Throughout the pandemic we worked closely with Ofgem and the Department for Business, Energy & Industrial Strategy to manage and maintain our network for our customers whilst also supporting the efforts to delay the spread of COVID-19 and maintaining measures for our workforce to keep them safe.

Operational response

— We supported front line colleagues by issuing health and safety instructions based on the latest medical advice to ensure appropriate precautions were taken when we engaged with customers
— We made PPE available for working in potentially hazardous environments.
— We implemented arrangements to restrict access to our Network Control and Dispatch areas so only colleagues who needed to be present were given access.
— We split our control rooms and contact centres into multiple locations, reducing the risk of transmission within key functions.
— We actively monitored the supply chain to ensure we had the necessary equipment and resources available to support our operations, colleagues and customers.
— We trained additional colleagues to be able to support our contact centre teams in dealing with calls and enquiries.
— We increased control of planned outages to reduce the impact of work on customers who were working from home.

Providing a COVID-19 secure workplace

— We actively monitored employee absence levels so we could respond swiftly to any change in resource levels.
— We deployed lateral flow testing kits within our workforce as an additional measure to help monitor and reduce the impact of COVID-19.
— We maintained high standards of hygiene in and around our facilities, following the latest expert advice
— We increased remote working, where possible, to reduce occupancy levels at our sites to protect colleagues who had critical roles in managing our network.
— We launched a new wellbeing programme aimed at supporting colleagues' mental health and wellbeing throughout the pandemic.
— We implemented single occupancy in vehicles to reduce contact between colleagues and help limit the spread of COVID-19.

2. Reliability & Availability

522,000

customers restored within 3 minutes as a result of our Automated Power Restoration System (APRS)

CI (-27%)

A 27% reduction in the number of unplanned power cuts

relative to our ED1 business plan baseline

CML (-37%)

A 37% reduction in the duration of unplanned power cuts

relative to our ED1 business plan baseline

Our engagement...

We commissioned focus groups to better understand customers' experience of power cuts and the impact that a power cut has on them, their families and their businesses.

We further corroborated this with the analysis from customer satisfaction information we receive on an ongoing basis.

What our stakeholders said...

Power cuts that last 6 hours or more have a significant impact on customers as they cover more than one mealtime and most of a working day.

We should seek to improve the level of service we provide as well as ensure accurate restoration times and communication so customers can plan accordingly.

What have we done...

We have introduced more scrutiny of power cuts lasting 6 or more hours within the business, increased the use of generation on long running outages, introduced a senior review of any planned outage lasting more than 4 hours and introduced CRM-Go for planned outages – providing real time updates from our engineering teams.

Looking forward we are working on a machine learning for estimated time of restoration to give more accurate initial restoration times and implementing CRM-Go for unplanned outages.

Our customers' number one priority is the reliability of the network and we are well positioned to outperform the commitments we made in our ED1 business plan

Our commitments

- **In our ED1 business plan, we committed to reducing the number of unplanned power cuts by 8% and their duration by 20%.**
- **We've continued to consistently outperform our targets since the start of the period enabled by the deployment of new technology and targeted innovation on the network.**
- **We know that the reliability of the network is becoming even more important as customers transition to electricity for heating and transport. We are working to ensure that our network is prepared for the connection of more renewable generation and low carbon technologies such as electric vehicles (EV).**

How we've done in 2020-21

Improving unplanned power cuts performance

- Our performance in 2020-21 represented a 27% reduction in the number of unplanned power cuts and a 37% reduction in their duration compared to our ED1 business plan baseline.
- Customers who lost power for over 12 hours received immediate compensation payments. 2020-21 saw a 39% decrease in the number of customers experiencing power cuts lasting more than twelve hours, partly due to the prior year including a number of significant storms in Spring 2020 which contributed to the wettest February on record. We continue to deploy mobile generation to reduce the impact of long running outages for customers.
- We continue to target underperforming parts of our network for our worst served customers. In 2020-21, our system planning and investment targeted improvements at 101 under-performing substations.
- Benefit realisation from smart meter data has been lower than we planned in the ED1 period so far due to delays in the national smart meter roll out and technical issues with the national system in the North. Our internal preparations to use the data continue with key projects mobilised to upgrade our trading and customer service systems.

Leveraging technology to improve our performance

- Roll-out of innovative technologies has contributed to our improved network performance in the period. We have continued our deployment Automatic Power Restoration System (APRS) technology which enables us to restore power supplies by automatically switching to alternative circuits on our network. As a result, 522,000 customers have had their power restored within 3 minutes in ED1 to date.
- Additionally, our Foresight fault prediction project has made hundreds of thousands of pre-fault identifications prior to them becoming permanent faults. This exciting innovation is a key part of our plans for the future.

Ensuring seamless services for planned power cuts

- Where essential maintenance and repairs to the network are required planned power cuts are sometimes necessary.
- In our plan we committed to reducing the length of these planned works; in 2020-21 these reduced by 15% (29 minutes) to an average of 166 minutes.
- During the pandemic we introduced a senior review process for any planned outage of more than 4 hours focusing on reducing the impact on customers who were required to isolate at home, particularly the vulnerable.
- We also continue to operate our policy whereby planned works in the winter months do not leave customers without power for more than 4.5 hours.

Improving network health

- Our investment plans target ageing and highly loaded assets in order to reduce the risk of failure.
- We remain on track to deliver our ED1 business plan output targets, tracking ahead of Ofgem's Asset Health and Criticality measure for the period to date (by 4.1 percentage points). We are ahead in our Northeast licensee and slightly behind a straight-line profile in Yorkshire. We expect to deliver to our output targets by the end of the period.

Enhancing the resilience of the network to flooding

- In 2020-21 we upgraded flood defences at another 13 sites, taking our total in ED1 to 199 which already surpasses our original commitment of 156 for the period as a whole. We are now forecasting to complete 211 physical flood defence upgrades in total on our network in ED1. We had previously planned to upgrade a further 60 sites, however following site surveys and some minor works these have proven to be resilient to flooding in line with national standards (ETR138).

Ensuring sufficient network capacity for connections

- One of our key ED1 commitments was to ensure adequate capacity on our network to enable our customers to connect generation and low carbon technologies.
- As we stand today, 98.3% of our primary substations are less than 95% utilised. This is lower than the beginning of ED1 as we have seen recent utilisation increases at a small number of primary substations. We carefully manage demand on our primary substations and are seeking targeted interventions through load transfers, flexibility tenders and reinforcement to reduce risk by the end of ED1.
- Our voltage reduction programme continues to free up capacity on our network. In 2020-21, we freed up an additional 0.2GW of capacity, across 23 sites. We've released a total of 4.4GW in ED1 to date across 492 sites.

Looking ahead

- We will continue to strive for improved network performance – working hard to leave as few customers off power for the shortest possible time. We will do this by continuing our remote control programme and APRS installations.
- In the short to medium term, delays experienced to some investment programmes in 2020-21 due to COVID-19 are being recovered; we remain confident in delivering our commitments by the end of ED1.

Our business plan commitments

Commitments	Status	Forecast completion
2.1 Achieve 8% fewer unplanned power cuts by 2023	Ahead	2022-23
2.2 Reduce the average length of unplanned power cuts by 20% by 2023	Ahead	2022-23
2.3 Restore electricity within 12 hours - and if we don't, make enhanced and automatic payments to all customers (with extra for our vulnerable customers)	Delivered	2015-16
2.4 Planned power cuts to leave customers without power for less time, particularly during winter	Delivered	2019-20
2.5 Maintain the underlying health of the asset base and report on it annually	On Track	2022-23
2.6 Target network improvements for our worst-served customers	On Track	2022-23
2.7 Ensure adequate network capacity for customers wanting to connect	On Track	2022-23
2.8 Increase the resilience of the network to flooding	Delivered	2019-20
2.9 Use smart meter alarm information to improve network performance and the information we provide to customers	Behind (external factors)	2022-23

Going beyond our plan

40% fewer

CML – Customer Minutes Lost
We are forecasting to deliver 40% shorter power cuts by the end of the period (relative to our ED1 baseline)

30% fewer

CI – Customer interruptions
We are forecasting to deliver 30% fewer power cuts by the end of the period (relative to our ED1 baseline)

115 more

Flood defences
We are investing £38m to deliver enhanced flood resilience at 211 sites in ED1 (compared to our original commitment of 156 sites).

Our performance measure(s)[1]	2019-20 actual	2020-21 actual	2020-21 target	Annual status	ED1 target	ED1 status
Unplanned CML (Northeast)	41.2	35.0	49.7	Achieved	32.0[2]	Ahead
Unplanned CML (Yorkshire)	40.2	38.7	52.0	Achieved	35.4[2]	Ahead
Unplanned CI (Northeast)	45.5	44.1	57.7	Achieved	43.6[2]	Ahead
Unplanned CI (Yorkshire)	49.8	51.7	61.8	Achieved	50.0[2]	Ahead
Planned CML (Northeast)	2.9	2.7	5.5	Achieved	3.7	Ahead
Planned CML (Yorkshire)	1.9	1.6	2.9	Achieved	3.3	Ahead
Planned CI (Northeast)	1.4	1.2	2.3	Achieved	1.7	Ahead
Planned CI (Yorkshire)	1.0	1.1	1.2	Achieved	1.5	On Track
Flood defence upgrades	186	199	141	Achieved	211[2]	Ahead
Health indices (% of Monetised Risk value)	66.8%	79.1%	75.0%	Achieved	100.0%	On Track

[1] Targets reflect ED1 business plan target unless otherwise stated.
[2] Reflects a stretch forecast that will go beyond our ED1 business plan target.

Using automation technology to better serve rural communities

Our operational control is facilitated by the GE PowerON Fusion Automated Power Restoration System (APRS). It uses telemetry data from switchgear and fault passage indicators to identify the location of faults on the network. The system then automatically sends a sequence of switching actions to isolate the faulted section of network and restores power to the remainder of network where a back-feed capability is available.

Successful operation of our automation will restore customers within 3 minutes on a healthy part of the network, whilst a control engineer would typically respond with tele-switching within of 15 minutes having taken time to safely assess all alarms and plant states available to them. This is compared to manual switching on site which usually takes between 40-180 minutes.

In 2020-21, we upgraded our fault management software and began the rollout of new pole mounted remotely controllable switches that will allow the use of our APRS on our high voltage overhead network. APRS has already been enabled across 34 rural substations and our plan for the remainder of ED1 and into ED2 is to increase this deployment to deliver automated restoration capability to rural communities within our region.

3. Customer Service

90.5%
customer satisfaction in 2020-21

Around 1.4 million
outbound communications in the year

96.4%
of complaints resolved within 31 days of being received in 2020-21, with no repeat complaints

Our engagement…

We undertook a series of engagements throughout 2020-21 with our Consumer Panel, Future Customer Panel, Rural Customers, SME's and Citizens Panel to understand how we could further enhance our service offerings.

What our stakeholders said…

Our customers told us that it was important that we offered a human contact model but highlighted that choice was important so customers can also self-serve using a variety of channels.

What have we done…

We committed to expanding our service offering for RIIO-ED2 with plans to pilot during 2022. This will include extending our contact channels into:

— Direct Messaging (Whatsapp)
— Reply text messaging
— Video Chat

We will also utilise what3words to pinpoint the exact location of work required on our network.

Our new telephony platform which is due for implementation in 2022 will support our movement into these channels whilst also offering more self-service opportunities.

It's been another year of best-ever customer satisfaction in 2020-21

Our commitments

— Our aim remains unchanged, to be the best at serving our customers. We've made significant progress in ED1 to date – improving our services year-on-year and responding to customer feedback.
— Our objectives continue to be to provide accurate and timely information; to offer customers more ways to communicate with us; to keep our promises; and to always work to give customers 10/10 service in our interactions across all of our service offerings.

How we've done in 2020-21

Driving customer satisfaction

— Overall customer satisfaction with our services has improved by 8.2 percentage points since the start of the ED1 period. Our score of 90.5% in 2020-21 was a best-ever result.
— We're continuing on a path of improvement which compares well with best-in-class customer service organisations in other sectors.
— Despite our improvement, we rank fifth when compared to other UK distribution network operators; however, we believe continued improvement will bridge the relatively small gap to the leaders in the industry.

Using technology to provide better services

— Our Customer Relationship Management (CRM) system is enabling our teams to deliver great customer service.
— Introduced in 2017, CRM covers a range of our customer facing operations, including general enquiries online services, planned power cuts, service alterations and disconnections, with the new CRM-Go app providing capability to issue real time updates to customers subject to a power cut.
— Since we've embedded this development, we've seen a 1.3pp increase in planned power cut satisfaction scores year on year.

Expanding proactive communication

— During the 2020-21 regulatory year we experienced some challenges in meeting our contact centre calls answered targets primarily as a result of difficulties in securing resources during the pandemic. We are working hard to improve our position in the 2021-22 year.
— We continue to refresh our customer contact information to enable proactive contact whilst complying with data protection regulations. At present, we currently hold 57% of households' mobile phone numbers and 64% of email addresses, positioning us to keep our customers informed across our range of services, in particular power cuts.
— We continue to listen to our stakeholders and customers to improve our services. We're making it easier for customers to get in touch with us and access the information they need through increasing our contact channels.
— We want to ensure that customers who are registered on our Priority Service Membership (PSM) are given the care they need. PSM calls are routed directly to a dedicated team as opposed to our Interactive Voice Response (IVR) system. PSM customers who are medically dependent also receive proactive contact when they experience a power cut. **You can find out more about what we are doing to assist the most vulnerable in our region on pages 27-30.**

Supporting our teams to provide 10/10 service

— Our comprehensive induction programme 'Best Welcome' continues to be a success; providing all new colleagues with the toolkit to deliver the levels of service we expect for our customers.
— During 2020-21, we enhanced local accountability for service introducing a new team of regional customer service managers (CSMs). Our CSMs are responsible for embedding a customer first culture and support our operational teams to develop and deliver tailored customer service plans.

Helping our customers get connected

— Our improvement plan for small works connections customers resulted in an improvement in satisfaction of 0.5pp year on year. We've enhanced our systems and optimised our processes to enable our colleagues to deliver improved quality of service, focused on providing face-to-face on-site support.
You can find out more about our connections improvements and performance on pages 31-34.

Swiftly handling complaints

— We work hard to avoid receiving complaints, but when we do get them, we want to resolve them swiftly delivering the right outcome for our customers.
— 2020-21 saw us receive more complaints than normal due to the impact of the COVID-19 pandemic. We resolved complaints within the first day 83.3% of the time, ahead of our ED1 business plan target of 80%. We're also closing out complaints within 31 days over 96% of the time, ahead of our 95% target.
— In the year, we enhanced our processes to aid swifter resolution of complaints, where our regional customer service managers allocate an appropriate single point of contact in our regional teams to enable quick resolution for our customers.

Looking ahead

— In 2021-22, we will further enhance our CRM system for unplanned power cuts and general enquiries service lines to provide real time updates for customers.
— We will also complete the upgrade of our telephony platform. This will deliver a modern cloud-based solution that is scalable for periods of high incoming calls.
— We are also working with stakeholders to develop a unique 'at your service' initiative; aiming to provide a more flexible and convenient service at evening and weekends for certain connections and general enquiries.

Our business plan commitments

Commitments	Status	Forecast completion
3.1 Make customer service more reliable, better communicated and backed by slicker processes. Be faster, at no extra cost	Delivered	2019-20
3.2 Use web-based technology to upgrade our process for general enquires and minor engineering works	Delivered	2015-16
3.3 Continue to improve the quality and speed of our complaint resolution	On Track	2022-23
3.4 Provide better information to customers experiencing power cuts through voice or digital communication channels	On Track	2021-22
3.5 Use technology to enable our contact centre to move from being largely reactive to mostly proactive	Delivered	2020-21
3.6 Make it easier for our customers to keep in touch - via internet, mobile, meetings, phone, email, social media, or text	Delivered	2019-20

Going beyond our plan

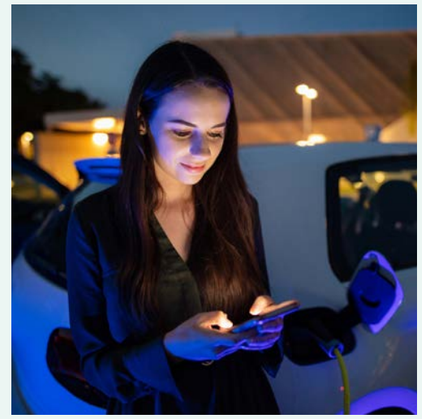
Customer satisfaction

5.5 percentage points

Exceeding our ED1 target for customer satisfaction.

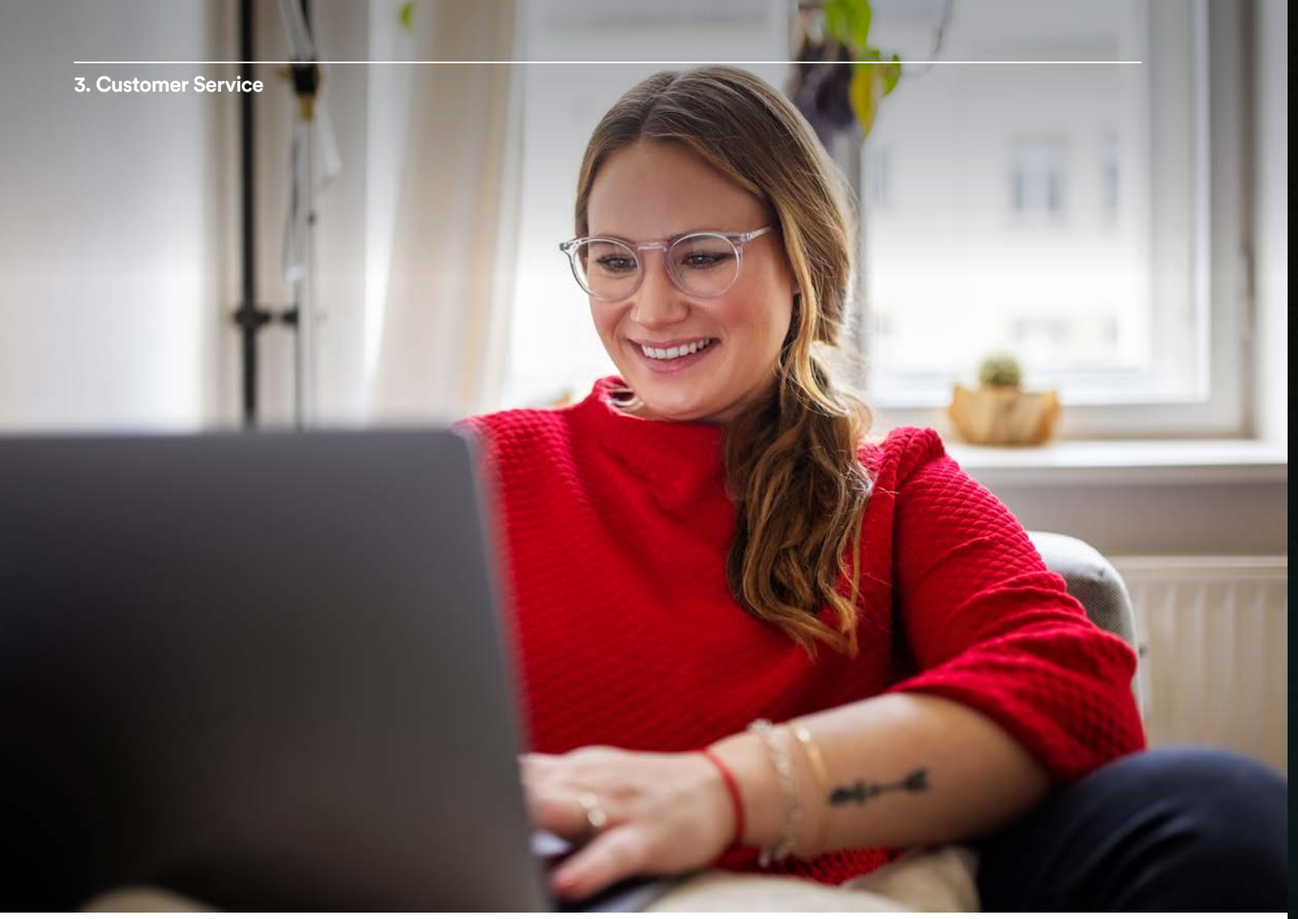
£12.5m additional investment

to drive customer service improvements including web, telephony and data interfaces.



Our performance measure(s)[1]	2019-20 actual	2020-21 actual	2020-21 target	Annual status	ED1 target	ED1 status
BMCS Overall	89.0%	90.5%	85.0%	Achieved	92.0%[2]	On Track
BMCS: Power cuts	89.0%	90.7%	85.0%	Achieved	91.8%[2]	On Track
BMCS: Connections	88.4%	88.9%	85.0%	Achieved	91.2%[2]	On Track
BMCS: General enquiries	90.5%	94.0%	85.0%	Achieved	94.2%[2]	On Track
% of unplanned power cut calls answered	97.8%	97.2%	99.0%	Missed	99.0%	Recoverable
% of unplanned power cut calls answered within 20 seconds	87.9%	84.1%	90.0%	Missed	90.0%	Recoverable
Complaints Day+1	84.7%	83.3%	80.0%	Achieved	88.0%[2]	On Track
Complaints Day+31	97.2%	96.4%	95.0%	Achieved	98.0%[2]	On Track

[1] Targets reflect ED1 business plan target unless otherwise stated.
[2] Reflects a stretch forecast that will go beyond our ED1 business plan target.



CRM-Go – Delivering information to our customers quickly and accurately

Throughout the 2015-23 period we have continued to enhance our customer service capabilities through the rollout of a Customer Relationship Management system (CRM). The system ensures that our customers know what is happening at every stage from when they are interrupted, to when our engineer restores their supply.

Through new app technology, CRM Go enables our teams to inform the customer that they have arrived on site to begin work, to confirm when the power is going off and when the power has been restored.

Sometimes things don't go according to plan and the power needs to be off longer than expected. If this does happen, we let customers know as soon as possible including the reasons why and for how much longer the power cut will last.

When the power is restored, the system allows us to ask customers to let us know how they felt about the service they received so we can see if there is anything else we can, or could do, to make the experience better in future.

4. Innovation

Our engagement...

Our ongoing engagement with Local authorities has increased the awareness of some of our key innovation projects – one of which is our Silent power vehicle.

We worked in collaboration with Durham County Council to help them understand options for more sustainable solutions to help cater for events.

What our stakeholders said...

Durham County Council told us that they wanted to use more sustainable solutions to help cater for events - specifically, to reduce their environmental impact from the use of generators.

What have we done...

We supported the Bishop Aukland food festival with the use of our Silent Power vehicle as a mobile generator.

In the remainder of the ED1 period, we will continue to engage with Durham and other local authorities to understand requirements for the use of our innovative generation solution. We will also continue to utilise the vehicle for restoration purposes in place of traditional diesel generators.

In our ED2 plan, we have committed to expand our fleet of silent power vehicles to six to support our customers and help deliver on our decarbonisation commitments.

"Innovation is about delivering the new tools and techniques the energy industry needs to meet the challenges ahead. We have listened to our stakeholders and focused our innovation work on the areas they feel to be most important: decarbonisation, reliability and resilience and value for money. We do so always being aware of the need to make sure the more vulnerable are not left behind by the energy transition."

Iain Miller
Head of Innovation

Innovation is helping us create a smarter and more flexible energy system

Our priorities

— Innovation is a fundamental part of continually improving the quality and value of our services for our customers as well as being a vital part of responding to external changes and emerging risks.
— The energy landscape continues to place increased emphasis on the energy system transition and the tools that will enable it. As a result our mid-period refresh of our innovation strategy re-prioritised innovation towards decarbonisation, reliability, digitalised solutions and value for money.
— As we look forward we are increasingly focusing on solutions that facilitate a "just transition" towards net zero. Our strategy focuses on:

1. charting the best course to net zero;
2. achieving next-level energy system dependability;
3. collaboratively unlocking the value of open data and an increasingly digitalised network; and
4. ensuring all customers benefit from the transition.

How we've done in 2020-21

— Our innovation takes place as part of our day-to-day operations and through projects with specific regulatory funding. We spent £3.5m across 34 dedicated innovation projects (97% of our Network Innovation Allowance). In the year, we also self-funded a range of innovation activities including projects to reduce network losses and rolling-out machine learning.
— We have three externally funded projects in progress and we jointly bid for a successful collaborative Network Innovation Competition project 'Reliability as a Service' with SSEN that aims to maintain supplies to customers after higher voltage networks are unavailable due to faults.
— In the ED1 period to date, our innovative solutions have delivered benefits to customers in excess of £23m.
— We work closely with our sister companies in the Berkshire Hathaway Energy group to share our ideas, collaborate to develop innovative solutions, sharing international best practice.

Supporting the decarbonisation transition

— Since the start of ED1 the focus of our innovation priorities has increasingly shifted towards techniques to support reliable, low carbon and functions of a Distribution System Operation (DSO).
— In 2020-21, we invested a further £10.8m as part of our smart grid enablers programme. This programme is upgrading our capabilities to control and monitor our network in real time for our customers – saving money for customers on their bills.
— We continue to develop our understanding around the potential applications of smart metering data. Our Boston Spa Energy Efficiency Trial (BEET) was authorised in 2019-20 and has since been exploring how data flows from smart meters can be used to improve voltage control and reduce low voltage energy use - assisting decarbonisation and saving customers money.
— In 2020-21 the project successfully completed desktop network, design and benefits studies and was authorised to enter its field trial phase. We have included plans for widespread roll-out of the solution in our 2023-28 business plan (**see page 26 for full case study**).
— Our Distributed Storage and Solar Study (DS3) project is demonstrating how clusters of home batteries can increase capacity on the electricity network and enable more homes to install solar panels, without the need for costly network upgrades.

Digitalising our network for our customers

— We've expanded our open data offerings for our customers including access to our asset systems for IDNOs and more granular information on our heat maps. We've also been exploring the use of enhanced data analytics in our services through work with the Open Data Institute to analyse and visualise our Distribution Future Energy Scenarios (DFES) data.
— In the year, we expanded our award winning Autodesign self-service design tool that provides customers looking to connect EV chargers access to high-quality designs, in real-time, at lower cost. We've seen around a 200% increase in budget estimates received and all processed by the system - a more timely, efficient, customer friendly and cost effective solution to the provision of budget estimates.
— We have continued to upgrade the quality of our customer service by rolling out further channels including live web-chat and enhancing our CRM system to provide live updates from our field engineers directly to customers during power outages.

Supporting our vulnerable customers

— Consumer vulnerability is a key priority for our stakeholders and continues to rank highly in our consumer research.
— We've rolled our SilentPower vehicle into BAU, which provides a mobile battery generator to customers in a power cut. We used the vehicles to support customers the COVID-19 pandemic and we are planning to expand our fleet as we move into the ED2 period.

Looking ahead

— Our innovation programme will be focused on exploring the following six transformational capabilities that we believe are central to a just transition to net zero:

1. Identifying the opportunities to accelerate the benefits of flexibility.
2. Developing sophisticated data management and analytics to inform energy system forecasting, planning and real-time decision making.
3. Enhancing the connections process to facilitate higher volumes and different types of connection, including the addition of loads via existing connection points.
4. Increasing the dependability of our customers' electricity supply.
5. Removing the barriers preventing access to the energy market for all customers including access to energy data; particularly those not currently engaged or informed, vulnerable or less advantaged.
6. Creating capabilities to deliver a next-generation local energy network that links up whole system energy sources and vectors, balancing in real time.

An overview of some of our innovation projects

Safety

Vehicle Telematics

We have installed vehicle telematics on all of our fleet vehicles – the results have shown clear benefits, with a reduction in harsh driving notifications, an improvement in fleet miles and a decrease in preventable vehicle accidents in the year. We have also used the data to inform the focus areas of our next tranche of driving training.

Other projects

Centralock Increasing security at our substations.

Lightning prediction tool Improving lightning-related safety and reducing potential asset damage.

Reliability & Availability

Silent Power

Our electric response vehicle equipped with an on-board energy storage system (ESS) is operational and can help to power homes while their electricity supply is being restored. This is a quieter, cleaner alternative to diesel-powered generators that can absorb power as well as generate. It has been mobilised numerous times in 2020-21, supporting local businesses and communities.

Other projects

Drones Carrying out inspections of our overhead line assets to drive cost efficiencies.

MicroResilience Aiming to allow us to keep customers on supply even after faults have taken out higher voltage circuits.

Customer Satisfaction

Machine Learning for Estimated Time to Restoration

Our Estimated Time to Restoration (ETR) project is combining historical power cut data with weather, traffic, time, location and resourcing information via a machine-learning tool to forecast more accurate ETRs for customers. Consideration is being given as to whether contextual data (e.g. traffic reports or weather reports) could be worked into the next generation of this tool to further refine the ETRs.

Other projects

Customer Relationship Management (CRM) Transforming our customer interactions across a range of integrated communication channels.

Social Obligations

Customer Led Distribution System

Our Customer Led Distribution System (CLDS) innovation project is delivering whole system insights into the interaction between network services and wider energy markets, in particular where the value in flexibility lies between the electricity retail and networks sectors. We are pursuing other projects that underpin various aspects of technical functionality (such as MicroResilience, ResilientHomes and SilentPower) which have a wider societal impact and positive impact on our communities.

Other projects

Resilient Homes Exploring domestic battery solutions for ensuring that medically electrically dependent customers remain on supply if a fault occurs on the network.

ACE Our mobile gaming application that actively engaged communities to make changes to how and when they use electricity – project learnings can be found here.

Connections

Auto Design

A web-based, self-service design tool providing customers looking to connect EV chargers with access to high-quality designs, in real-time, at lower cost. We continue to see an increase in budget estimate volumes, which the system is able to facilitate in a more timely nd efficient manner than in the past. We've also started to enhance the system with a view to providing all LV budget estimates in the system, which we expect to be in place by the end of ED1.

Other projects

Voltage reductions Providing additional capacity for multiple small-scale generators to connect to our local network.

Environment

Infra-Red SF_6 Leak Camera

We routinely use our forward looking infra-red (FLIR) camera that is able to detect SF_6 leaks within its spectrum range. This has enabled us to reduce our gas loss by nearly half in the period, saving over 1,000 tCO_2e of greenhouse gas emissions being released to atmosphere.

Other projects

Self-healing cables **Reducing cable fluid leakage**

PFT tracers **Speeding up cable oil leak detection.**

Distributed storage & solar study **exploring commercial and financial benefits of behind the meter storage**

Our Boston Spa Energy Efficiency Trial (BEET) is exploring domestic energy efficiency

The aim of the project, which started in June 2019, is to use smart meter data in (near) real-time to optimise the voltage at the customer's meter and thereby decrease energy consumption – an evolution of a technique known as voltage conservation.

The reduction in energy customers use will save them money and reduce carbon emissions. The project layers intelligent use of data on top of existing investment in smart meters, metering data flows and voltage control improvements to benefit the customer.

The energy bill savings are expected to be between £20 per household per year, and overall are expected to far outweigh any capital and operational expenditure, given that other programmes such as the national smart meter rollout already require the bulk of the investment needed.

The project consists of three phases and we are currently in phase 2. Subject to successful trails our plan is to move to roll-out of the solution in the ED2 period as part of dynamic voltage optimisation plans. More information can be found here.

Phase one
Now completed, proved that existing methods of voltage control available to us are not suitable for voltage optimisation and therefore a new approach was required.

Phase two
We are integrating smart grid and smart meter systems to develop capability to undertake and implement a new voltage optimisation technique within a trial area in Boston Spa.

Phase three
We will explore whether this new technique can be used to provide other services, such as frequency response.

5. Social Obligations

922,000
priority service members

15
projects awarded funding in 2020-21 as part of our £100k Community Partnering Fund

91.4%
satisfaction for our power cuts service in 2020-21 from our priority service members

Our engagement…	What our stakeholders said…	What have we done…
We engaged with customers across the region with varying demographics and vulnerabilities to identify barriers of engaging with the Priority Services Register and associated services.	Customers didn't like to be identified as vulnerable. They felt the word 'register' had negative connotations associated with it. They wanted to better understand the benefits of being a member and how it would help them.	We committed to rebranding the Priority Services Register as our **Priority Services Membership** (PSM). We revised all supporting materials including information booklets and reset our PSM as an 'enabler'- one less thing for a customer to worry about during a power cut.
We tested our current offering of fuel poverty services via an on-line workshop with stakeholder experts. We explored the barriers to accessing services and stakeholders gave us insights to help us better understand the complexity of customers' needs.	Stakeholders wanted support needs to be targeted and tailored based on an understanding of needs. Fuel poverty is not a stand-alone issue. It is often interdependent with other vulnerabilities or circumstances and needs to be addressed holistically. Northern Powergrid has a clear role in prevention not just addressing those with acute needs. Our local knowledge and partnerships are key to successful engagement, interventions and support.	We introduced revised fuel poverty guiding principles: — Our work targets those most in need through data and intelligence — We partner with local trusted experts — We address the individual and their issues holistically — We tailor services to meet individual needs at multiple entry points We've partnered with the Money Advisor Network to support customers who may have money worries. This gives our customers access to free independent and impartial money and debt advice over the phone or online. Customers can also access the Money Navigator Tool that helps them find guidance if they have been impacted by the coronavirus pandemic.

We continue to support the most vulnerable in our region – Our 'Powergrid cares' programme has delivered financial benefits of £2.9m to over 20,000 customers in ED1 so far

Our commitments

— **Our regions have some of the highest levels of vulnerability across the UK. Our ED1 business plan commitments set out to deliver the best possible support to our vulnerable customers through the use of effective partnerships, tailored services and meaningful engagement in our communities.**
— **We have made strong progress in delivering our ED1 commitments so far with all but one already delivered or firmly on track. Our ED1 programme upgrading electrical connections in high rise tower blocks was significantly impacted by COVID-19 with restrictions on access due to social distancing and safe working measures. Our programme will still deliver £2.2m of investment by the end of the ED1 period.**

How we've done in 2020-21

— Every year our regulator Ofgem runs a Stakeholder Engagement and Customer Vulnerability (SECV) Incentive where it ranks the six distribution network operators according to their progress in these areas. In 2020-21 we were placed fifth.
— As a key infrastructure provider in our region, we have played a key part in supporting those impacted by COVID-19. We worked in partnership with the government, NHS, Local Resilience Forums and agency partners to connect two new Nightingale hospitals – Washington in our Northeast licence and Harrogate in the Yorkshire licence.

Promoting our Priority Services Membership

— To best help our vulnerable customers, we need to know who they are and what their needs are. We do this through our Priority Services Membership (PSM) which enables us to engage with customers in the right way and offer tailored services that best suit their needs.
— Following targeted research into the barriers and challenges of engaging with our Priority Services Register, we ran a campaign in the winter of 2020 to re-launch it as a membership club. Our stakeholders told us they did not want to be added to the register as it carried negative associations. As a membership club, customers do not need to identify as vulnerable to engage and joining is intended to offer peace of mind to members.
— We continued to refresh our PSM data in the year to ensure our records are accurate. Over 129,000 PSM records have been updated and improvements to our central management systems now enable our staff to update PSR records following every interaction with customers. We had around 922,000 members at the close of the 2020-21 period.
— We use data analytics to inform recruitment of new members, specifically those categories of vulnerability that are underrepresented – one category being customers that speak English as a second language. We developed a tailored engagement video which received over 40,000 views in the year.

Partnerships

— We continue to build on our partnerships and establish new ones as part of our consumer vulnerability strategy. Through the challenges of COVID-19 and its legacy it has never been more important that we work together to reach and support our most vulnerable customers and communities.
— We work closely with Local authorities with working arrangements such as our welfare provision with Gateshead Council, where we offer collaborative support to customers during escalated events such as severe weather and prolonged power cuts.
— Last year we developed and piloted data sharing agreements with some local authorities, which supported local response to the impact of COVID-19. We now have agreements in place with all our local authorities, enabling us to share information through Resilience Direct which they have used in their own responses to the pandemic.

Supporting our most vulnerable during a power cut

— A key component of our strategy is to offer support services to our most vulnerable customers during a power cut. Whenever a PSM customer calls they bypass our interactive voice recognition system and get straight through to an agent.
— In 2020-21, we saw satisfaction from PSR customers hit an all-time high with an average score of 91.4%.

Affordability and fuel poverty

— Affordability of our services continues to be a key priority for our stakeholders. We re-assessed our provisions for customers in fuel poverty via in-depth research to better target our engagement in communities that experience high instances of fuel poverty.
— Our fuel poverty programmes continue to deliver benefits, supporting customers in our region with schemes such as the installation of energy saving services in customers' homes. Our current estimate is that we will have supported over 192,000 customers and delivered in excess of £5m of financial benefits by the end of ED1.

Looking ahead

— We continue to improve the support we offer vulnerable customers and the accessibility of the services we provide.
— We will continue to strengthen our existing partnerships and seek to build new ones as we move forward. We will utilise our newly formed partnership with MIND to tailor our contact centre induction training to ensure our colleagues offer the best support and advice for those dealing with mental health issues.
— Our draft business plan for ED2 contains further investment to upgrade electrical connections in high rise tower blocks as a continuation of our programme.

Our business plan commitments

Commitments		Status	Forecast completion
5.1	Route calls from Priority Service Customers directly to contact centre advisors, bypassing automated messaging	Delivered	2015-16
5.2	Build partnerships with organisations to help us deliver our social programme	On Track	2022-23
5.3	Promote and raise awareness of our Priority Services Register to and with other partner organisations	On Track	2022-23
5.4	Enhance our training for front-line staff providing additional support for Priority Service Customers	Delivered	2018-19
5.5	In conjunction with local authorities, identify socially-deprived areas and prioritise our support towards them during a power cut	On Track	2021-22
5.6	With others, explore the feasibility of community-level aggregated-demand response in return for a community rebate	Delivered	2018-19
5.7	Introduce friends and family register and 'good neighbour' scheme to support vulnerable customers	Delivered	2018-19
5.8	Explore the possibility, with Northern Gas Networks, of upgrading to electrical connections in high-rise tower blocks for safety reasons	Behind (external factors)	2022-23
5.9	Explore solutions to connect rural communities to the network	On Track	2022-23
5.10	Provide more customer support vehicles along with more services in them	Delivered	2018-19

Going beyond our plan

£100k

of funding now available for community groups, thanks to our partnering communities fund in collaboration with Northern Gas Networks

£1.7m

benefits delivered from our fuel poverty programme

Our performance measure(s)[1]	2019-20 actual	2020-21 actual	2020-21 target	Annual Status	ED1 target	ED1 status
Stakeholder Engagement and Consumer Vulnerability score (and ranking)	6.71 (3rd)	5.01 (5th)	8.00	Missed	8.00	N/a[3]
Power cuts: Customer satisfaction (PSR)	89.7%	91.4%	85.0%	Achieved	91.8%[2]	Ahead
Power cuts: Restoration within 6 hours	95.4%	95.6%	95.0%	Achieved	95.0%	On Track
Power cuts: Restoration within 9 hours	98.0%	98.0%	95.0%	Achieved	98.0%	On Track

[1] Targets reflect ED1 business plan target unless otherwise stated.
[2] Reflects a forecast that exceeds our ED1 business plan target.
[3] Not an ED1 business plan target.

Powering Lives, creating Positive Futures - investing in young people leaving care.

We identified young adults on the edge of care and care leavers as a particularly vulnerable group through our Childrens Society and Yorkshire Energy Doctor partnerships. Through this we learnt that the most effective support we can offer is aligning to a partnership who can deliver energy support advice and enhance our engagement.

Our new partnership with Barnados is:

- Sharing support resources and information packs updated to engage young people, co-designed with a cohort of young people Barnardos supports.
- Providing young people and families with education packs and support to sign up for our Priority Services Membership.
- Ensuring young people are represented on our Future Fairness Panel.
- Providing funding towards Northumberland Supported Lodgings service which provides young people aged 16 to 24, who are homeless or leaving care with a room in a private home where they become a member of the household.

3,000

energy packs distributed

200

children supported through supported lodgings service

6. Connections

18%

reduction in small works lead times on average in ED1 to date

99.7%

guaranteed standard success rate for quotations issued to our major works connections customers – only 4 failures in the year

88.9%

connections customer satisfaction achieved in 2020-21 – a 10.2 percentage point improvement since the start of the period

Our engagement…

Recognising the important role that community energy projects will play in driving forward the low carbon transition, we hosted three dedicated Community Energy forums in the year and sought feedback from stakeholders taking part on the support they needed from us when seeking a connection to our network.

What our stakeholders said…

The feedback we received was that detailed information and engagement on connections is vitally important for community energy groups as they seek to bring new renewable generation online for the benefit of local communities.

Our stakeholders prioritised free technical advice, better visibility of the network's capacity to connect new projects and help to identify the most cost-effective solutions.

What have we done…

During the course of the year we utilised our suite of online tools to enable stakeholders to access more information faster including our AutoDesign tool and network availability heat maps.

We engaged with community energy stakeholders to offer more technical advice and information including:

- Launching our Community Energy webpage in May 2020, which has more than 14,000 hits
- Engaging around 160 Community Energy stakeholders via our online dedicated forums;
- Delivering tailored connections surgeries;
- Developing an FAQs factsheet;
- Establishing a Community Energy Stakeholder Panel so that the views of these stakeholders are considered as we develop our business plan for 2023-28.

In 2020-21 we delivered another best-ever in connections customer satisfaction

Our commitments

- **Our overall objectives for connections in ED1 were to improve customer service; connect small works customers 30% faster and make better use of digital channels and technology to provide a personal and tailored services.**
- **For our small works customers, this meant significant improvements to our services and we've seen best ever satisfaction levels facilitated by on-site face-to-face services and new systems such as our award winning AutoDesign[1] budget estimate tool.**
- **For our medium/large works customers, we have delivered all of the actions from within our ICE plan in the ED1 period to date and implemented an account management framework that provides a single point of contact for customers.**

How we've done in 2020-21

Improving customer satisfaction

- This year, we improved on last year's personal best result of small works connections customer satisfaction with a score of 88.9%, outperforming our target of 85% - a 10.2 percentage point improvement since the start of the ED1 period.
- We continue to receive positive feedback for the tailored services we offer and our innovative AutoDesign[1] tool is continuing to deliver for customers, in particular as demand for low carbon technology (LCT) connections including heat pumps and EVs increases. In 2020-21, over 2,000 estimates were created in the system.

Reducing connections lead times

- Despite our improved levels of service and enhanced systems, we have seen an increase in our lead times in the year, with performance impacted by restricting access to customer premises during COVID-19.
- We still expect to achieve our commitment to reduce lead times by 30% by 2023.
- We have seen a significant increase in connections volumes for LCTs along with the regional telecoms fibre rollout. We are scaling our resources to respond to increasing demands, including deploying additional resource to clear backlogs created by COVID-19.
- For quotations, high volumes of customers continue to take us up on the offer of a face-to-face site visit to discuss their works. This provides higher levels of service but results in increased lead times.
- In delivery, lead time metrics include customers who request a delay to their connections date. Where customers are in a position to go ahead with their connections, we have implemented a new fast track process to allocate delivery teams to accelerate the works.

Delivering improvements for major works customers

- We successfully delivered all 18 actions in our 2020-21 ICE plan. Improvements included streamlining our application process for customers who make multiple, repeat applications and establishing a local working group for stakeholders involved in the ENA's Accelerated Loss of Mains Change Programme.
- For 2020-21 we have set a further 12 actions, including stakeholder sessions to inform and discuss developing DSO functions and flexibility services; and updating our unmetered connections guide.

Providing our customers with open data

- We continue to develop our customer led smart-grid. An integral part of this is ensuring that our customers have access to data that enables effective planning.
- Our Autodesign tool offers customers a self-serve option to look at network capacity for LCTs which will evolve into a solution for all LV connections.
- In December 2020, we published our Distribution Future Energy Scenarios (DFES) and worked closely with the Open Data Institute to develop a DFES visualisation, which provides a heat map of our network that further enriches information that our stakeholders have access to.
- In the year, we also enabled third party access to one of our asset systems (PI) to facilitate better network planning.

Maximising network capacity

- Another key element of our customer-led smart grid is enabling our customers to assess the capacity of our network.
- We publish generation and demand availability through our heat maps to make sure that customers know where they can potentially connect low carbon technologies (LCTs) such as solar panels and electric vehicles, at as low a cost as possible. In 2020-21, we extended our heat maps, so now, not only can customers view interactive generation and demand heat - they can also obtain a view of known constraints on the transmissions network.
- In addition, Active Network Management areas are enabling us to maximise network capacity in a real-time environment and reduce costs. We currently have 433MW of contracted flexibility operational across 4 sites with another 104MW expected to be connected by the end of the period.

Facilitating competition in connections

- We remain committed to supporting competition in connections. In 2020-21 following direct customer engagement and feedback, we removed the requirement to for the installation of link boxes for IDNO service connections.

Looking ahead

- We will continue to work on reducing our connections lead times in order to hit our 30% commitment - balancing this with the needs of our customers and maintaining the current levels of customer service.
- We will look to embed an expanding range of service offerings for low voltage quotations within our AutoDesign solution – expanding this to provide estimates for all small works, saving time and cost whilst increasing the quality of our service.
- To facilitate more timely and efficient connections for our major works connections customers, we will trial a wayleave portal for easy access to documents and electronic approval.

[1] AutoDesign is a web-based, self-service design tool that provides customers with a budget estimate within 10 minutes (compared to up to 10 days previously).

Our business plan commitments

Commitments	Status	Forecast completion
6.1 Reduce end-to-end connection timescales for small works by more than 30%	Behind	2022-23
6.2 Better payment terms - customers will not need to pay as far in advance	Delivered	2015-16
6.3 Provide more flexible quotations, including online self-service and faster quotes	Delivered	2019-20
6.4 Introduce a web-based system to help customers understand the capacity on our network and the likely cost of connection	Delivered	2016-17
6.5 Implement a tailored service for large projects, including 'account management' where needed or requested	Delivered	2019-20
6.6 Provide a better service for non-contestable elements of work - regularly publishing key indicators	Delivered	2015-16

Going beyond our plan

3.9 percentage points

Exceeding our ED1 target for customer satisfaction.

Quote-on-site

We provide our customers with the option to receive a quote on site.

Auto-design

Our award winning budget estimate tool was implemented in January 2020, enabling a better service for our customers.

Our performance measures[1]	2019-20 actual	2020-21 actual	2020-21 target	Annual status	ED1 target[2]	ED1 status
Connections (BMCS) – Overall	88.4%	88.9%	85.0%	Achieved	91.2%	On Track
Connections (BMCS) – Quotations	88.5%	89.4%	85.0%	Achieved	91.2%	On Track
Connections (BMCS) – Delivery	88.1%	87.1%	85.0%	Achieved	91.2%	On Track
Average time to quote (LVSSA)	7.3	6.6	4.8	Missed	3.4	Recoverable
Average time to quote (LVSSB)	14.1	14.3	7.8	Missed	5.5	Recoverable
Average time to deliver (LVSSA)	38.8	48.7	39.3	Missed	28.3	Recoverable
Average time to deliver (LVSSB)	46.9	78.5	47.9	Missed	36.5	Recoverable

[1] Targets reflect ED1 business plan target unless otherwise stated.
[2] Reflects a stretch forecast that will go beyond our ED1 business plan target.

Delivering power to Nightingale hospitals and enabling rapid COVID-19 response.

During the COVID-19 pandemic, both government bodies and companies were required to rapidly respond to the changing situations – standing up temporary "Nightingale" hospitals and significantly altering their production schedules to deliver equipment to the NHS and PPE to essential service providers and the public.

We played a key role in facilitating this through delivering new connections, enhancing capacity and ensuring the resilience of supplies to critical COVID-19 infrastructure. We worked in partnership with government, the NHS, Local Resilience Forums and agency partners to support our communities when they need us most.

- We energised the enhanced electricity network infrastructure that powered the Nightingale field hospitals at Washington's IAMP business park and Harrogate's International Convention Centre – delivering additional switchgear, a new transformer and the latest network automation technology on the network in only 10 days.
- We helped Connor Solutions, a specialist manufacturer of essential parts for specialist ventilators and other medical equipment based in Tyne and Wear, to significantly upscale their production through upgrading their power supply to double its current electrical capacity.

We're incredibly proud of the teams that have delivered this work. Their focus and dedication is helping us continue to play our essential role in society and support the vital national COVID-19 response.

Rod Gardner
Head of operational performance improvement

7. Smart Energy

£35.3m
investment in ED1 to date on our Smart Grid enablers programme

433MW
of Active Network management contracted and operational in ED1 to date

4.4GW
of capacity freed up as part of our voltage reduction programme

Our engagement...

As part of a joint initiative between National Grid ESO, the ENA, other DNOs and the IDNOs, we provided numerous engagement opportunities in supporting customers through the Accelerated Loss of Mains Change Programme (ALoMCP).

he ALoMCP incentivises owners of non-domestic generation to make changes to their equipment's hardware to ensure compliance with new Distribution Code requirements.

What our stakeholders said...

Funding is available for those who make changes to their equipment (before September 2022), however many of our stakeholders were looking for clarification about the scheme and the funding available.

It was felt that there was a general lack of awareness and that DNOs could be doing more to promote and lend credibility to the scheme.

What have we done...

We established a local working group that gave those affected a channel to seek clarity on the process, and gave us the ability to feed back the views of local stakeholders to National Grid.

We hosted four meetings in total and by working with our stakeholders, were able to develop a suite of communications materials that were used by us, National Grid and other DNOs to raise awareness about the programme. These included;

- a suite of targeted mailers aimed at the diverse range of generation owners impacted including the farming community, schools and colleges and NHS health care trusts,
- case studies, press releases and social media content to promote the scheme,
- routine engagement with generators connected to our network on the ALoMCP requirements and available funding windows.

We're continuing to deliver our smart grid enablers programme and have made positive steps in developing flexibility options on our network

Our commitments

— **Our smart energy commitments are enabling us to lay the foundations needed for decarbonising the energy system in the coming years, through increasing network flexibility, opportunities for customer flexibility, and the visibility of power flows on our network.**
— **Our flagship smart grid enablers programme is central to our plan to unlock a low carbon future and ensure a smooth transition to delivering DSO functions.**

How we've done in 2020-21

Delivering smart grid enablers

— In the year we invested a further £10.8m in smart grid enablers, taking our total spend in ED1 to £35.3m.
— In the early years of our programme we encountered more technical challenges than anticipated coupled with a requirement for substantial recruitment and training of engineering staff. The impact of COVID-19 also slowed delivery compared to our original plan. However, we are now in full scale roll-out across all workstreams and expect to deliver our commitments by the end of ED1.
— Our business plan envisaged £52m of additional smart grid reinforcement would be required on the network. To date we have invested a total of £19.2m as we continue to respond to the uptake of LCTs and get our network ready for a net zero future. We're in the process of upgrading our low voltage network and replacing looped-service cables (the cable used when two properties share a single electricity supply) to enable the installation of LCTs such as heat pumps and EV chargers.
— We're also freeing up capacity on our network through voltage reduction at our major substations, releasing 4.4GW of capacity in the ED1 period to date.

Transitioning to Distribution System Operation (DSO)

— We continue to collaborate with other energy industry parties – including National Grid ESO, flexibility providers and other DNOs through Open Networks projects – to prepare our systems, skills and data for distribution system operation.
— Further information is included in the DSO section **(see pages 39-43).**

Increasing flexibility on our network

— During 2020-21 we continued to look for opportunities to utilise flexibility as an efficient network investment option for managing load.
— We conducted an expression of interest in flexibility services in a number of regions where we are forecasting possible network constraints in the future. This exercise provided valuable feedback from the market to guide our planning and optioneering for efficient future investment in our network, and useful insights into the nascent flexibility market.
— We continue to collaborate with our peers via the ENA Open Networks projects on standardised approaches to flexibility as the market develops.

Rolling out Active Network Management

— Active Network Management (ANM) is another important part of harnessing flexibility in our smart grid plans. We are installing technology on our network that provides real-time information on the levels of electricity demand and generation so we can see how close the distribution network is to its capacity limits.
— Alongside this, we've agreed contracts with customers who generate electricity, allowing us to limit the amount of electricity they can generate when required. In return we offer them more cost-effective connections. This means we can avoid the cost and disruption of reinforcing the network through the traditional method of installing new cables and substations.
— We currently have 433MW of contracted flexibility operational across 4 sites with another 104MW expected to be connected by the end of the period.

Preparing our systems for smart meter data

— At a national level, the smart meter roll-out programme continued to face technical issues and delays – this was also impacted by the pandemic. As a result, we are still experiencing lower than forecast connection of meters and a lack of the data we see from these as a result of technical issues with the national system in the north of the country. This has had an adverse impact on our planned activities to use the data in order to deliver benefits for our customers.
— That said, we are doing all we can with our internal readiness. In 2020-21 our Data Privacy Plan was approved by Ofgem and we have made good progress on a number of key projects to upgrade our trading and customer service systems; including integrating it with our telephony platform, online power cut and asset maps and outbound messaging to customers.

Looking ahead

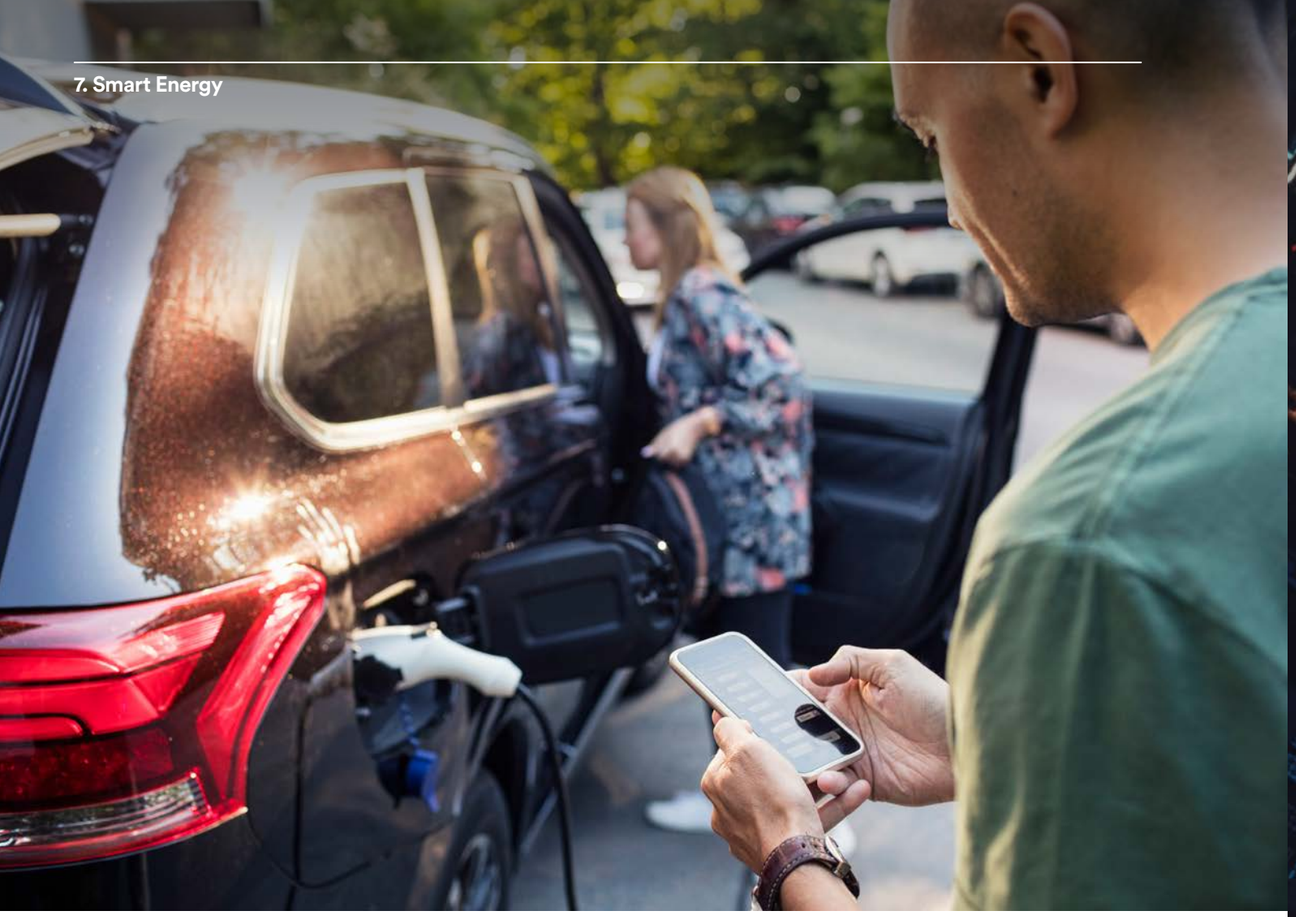
— We'll continue to deliver our smart grid investment in the remainder of the ED1 period, mitigating as far as possible the impact of COVID-19 on delivery of the programme.
— We will continue to develop initiatives that help us to manage the network in real time including Active Network Management and high voltage regulation.
— We will work to minimise the impact of the lower than anticipated volume of fully functioning smart meters in our region, focusing on the data that we can access and ensuring our internal readiness to realise benefits for our customers.

Our business plan commitments

Commitments	Status	Forecast completion
7.1 Invest £83m in smart grid enabling technology that, as a minimum, pays for itself by 2031 – the more likely result will be a much larger saving, possibly as high as £400m-£500m	Behind (external factors)	2022-23
7.2 Invest £52m in smartgrid network reinforcement that pays back by 2023 through avoiding £86m of traditional reinforcement – a net saving of £34m compared with traditional reinforcement methods	Behind (external factors)	2022-23
7.3 Provide opportunities for customers to participate in demand-side response to reduce the cost of running the network	On Track	2022-23
7.4 Modify our trading and customer service systems to realise benefits from the new smart meter data	On Track	2021-22
7.5 Use smart meter data to optimise network investment and reduce losses	Behind (external factors)	2022-23
7.6 Trial the potential for combining smart grids and smart meter data to provide additional information services	On Track	2021-22
7.7 Establish a dedicated team of technical staff to perform timely modifications to our equipment when they are needed to enable the smart meter installation to proceed	Delivered	2018-19

Our performance measure(s)[1]	2019-20 actual	2020-21 actual	2020-21 target	Annual status	ED1 target	ED1 status
Smart Grid enablers (£m, cumulative)	24.6	35.3	65.9	Missed	83.4	Recoverable
Smart Grid network reinforcement (£m, cumulative)	12.0	19.2	35.9	Missed	51.9	Recoverable
Smart meter SLA performance – Category A	83%	87%	90%	Missed	90%	Recoverable
Smart meter SLA performance – Category B	93%	91%	90%	Achieved	90%	On Track
Smart meter intervention rate – Category A & B	3.5%	3.4%	2.0%	Achieved	2.0%	On Track

[1] Targets reflect ED1 business plan target unless otherwise stated.



Enabling better planning through open data

We are sharing data to build a richer picture of the latest forecasts for low carbon technology uptake and encouraging anyone with low carbon plans in the region to get involved.

The new Energy Data Request Tool supports a more modern, digital energy system by providing greater transparency of electricity and gas networks' data, helping companies within and outside of the energy industry to make better investment decisions. It can support emerging markets, like electric vehicle charge points and green gas generators, and help new renewables sites connect to the network.

A single request form can be used by anyone to request any type of network data, apart from personal data, from all, some or just one of the 11 energy networks in Great Britain, including Northern Powergrid. Each energy network will continue to responsibly assess each request considering data privacy, security and confidentiality to ensure appropriate and proportional data-sharing.

Types of data that can be requested using the single form include:

— Information about electric vehicle charge points in a certain area;
— How much flexibility is tendered in a particular location on the electricity network; and
— Where there is capacity to build low carbon infrastructure.

We have also worked in close collaboration with partners from Element Energy, the Open Data Institute (ODI) Leeds and Data Mill North to collect, analyse and visualise (DFES) data. It can be found on the ODI Leeds website as a time-lapsed geospatial view and can be viewed at a local authority level, or by primary substations.

Working collaboratively and harnessing joint data will help to plot a path to net zero. It will enable us to consider multiple views of realistic scenarios in order to determine and model the range of future potential network impacts.

8. DSO

Our engagement...	What our stakeholders said...	What have we done...
Open and proactive data sharing underpins a successful energy transition.	Stakeholders were eager to explore methods to share data more actively to facilitate the transition to DSO.	In December 2020 we published our Distribution Future Energy Scenarios (DFES) which is a view of possible energy pathways for our region to achieve net zero. The assumptions and results are shared through an open data platform, which includes a view for local authorities, and are accessible to a broad range of stakeholders to use and comment on our assumptions.
We have a key role in developing local flexibility markets.	Stakeholders were supportive of the development of a smart network if it reduces costs to customers and increases efficiency.	We have conducted market testing for customer flexibility services and have run three expressions of interest in ED1 to date for reinforcement deferral as well as an e-auction for emergency support. We also commenced the implementation of a Flexible Power platform to manage the purchase and operation of flexibility services.
A flexibility first approach.	Stakeholders supported planning to enable high levels of flexibility, though they recognised that customer flexibility would be predominantly market driven.	Our active network management (ANM) solution is providing scalable capability to connect more generation at least cost, as an alternative to conventional reinforcement by offering customers flexible connections.

Our DSO strategy, promoting customer and network flexibility, is at the heart of our plans to lead regional decarbonisation

Our commitments

— Our existing duties as a DNO already require us to operate an efficient local electricity system - but for our region to meet the national commitment to net zero emissions by 2050, we need to facilitate efficient whole energy system decarbonisation. This requires a step change in how we operate and design our network.
— We have a key role to play in facilitating regional decarbonisation by fulfilling the functions of Distribution System Operation (DSO). This means investing in people, processes and systems to actively manage our network to optimise the use of our assets and generated energy in our region. By doing so we will be able to facilitate decarbonisation as cost-effectively as possible to meet our government's net zero targets.
— Thinking and policy around how functions of Distribution System Operation should develop continue to evolve. We are preparing to meet the needs of the baseline expectations that Ofgem has set out for us in the 2023-28 period and we continue to actively participate in dialogue with other industry players, Ofgem and the government on the development of these functions.

How we've done in 2020-21

Scoping DSO

— In October 2019 we published our update to our DSO strategy (DSO v1.1), following extensive engagement with our stakeholders on our initial proposals that were shared in December 2018.
— We continue to work closely with other industry parties through the Energy Networks Association Open Networks project to contribute to the development of DSO.

Refining our plans

— We published our Emerging Thinking in August 2020 for the 2023-28 period which included plans to invest in our people, processes and systems to enable smarter, more flexible management of power flows on our network.
— Further, we published our draft ED2 business plan in July 2021 including our DSO strategy, where we set out a detailed set of initiatives to deliver DSO functions in 2023-28 and meet Ofgem's baseline expectations.
— The DSO strategy lays the foundations for our flexibility first approach to decarbonisation investment planning. We will support customer and network flexibility to enable us to decarbonise the whole energy system at lowest cost, by maximising the value of our existing assets and efficiently utilising green energy when it's available.

A flexibility first approach

— We continue to do what we can to identify opportunities for using customer flexibility in managing our network today, choosing flexibility where it is the most cost-effective option.
— In November 2020 we conducted an expression of interest in flexibility services in a number of regions where we are forecasting possible network constraints in the future. This exercise provided valuable feedback from the market to guide our planning and optioneering for efficient future investment in our network, and useful insight into the nascent flexibility market.
— In 2021 we commenced implementation of a Flexible Power system to manage the purchase and operation of flexibility services. This collaboration now includes the majority of DNOs and offers flexibility providers an easier, lower cost, standardised route to market.
— We also published our Flexibility Procurement Statement in March 2021, setting out our expectations for flexibility requirements for the coming year and giving stakeholders the opportunity to comment on our plans.

Improving data sharing

— In December 2020 we published our Distribution Future Energy Scenarios (DFES). We took National Grid's national future energy scenarios and applied a regional, granular lens to create a range of potential pathways to net zero that could unfold between now and 2050.
— We have been engaging with local authorities and other stakeholders on these scenarios through an open data platform, exploring how we can work together on Local Area Energy Plans (LAEPs) to optimise whole-system decarbonisation.
— Our local stakeholders' views on our DFES are fed back to National Grid as part of the annual FES/DFES cycle, which informed their updated scenarios for FES released in July 2021.

Building new capabilities – Laying the foundations

— Our £83m smart grid enablers investment was our flagship programme within our ED1 business plan – providing the base control and communications capability to deliver more active network control and customer solutions for different areas of our grid. We've invested £35.3m in ED1 to date on this programme and we remain in full-scale rollout.
— We are installing LV monitoring on our network to improve visibility of power flows and enable us to target investment where it's needed most. We will continue to roll out further monitoring for the remainder of ED1, enhanced through the Green Recovery programme, and into ED2.

Innovation

Many of our innovation projects are designed to support our DSO transition and ensure our network is fit for the future, including:

— CLDS (Customer led distribution system) investigating how the distribution system can support a customer focused, decentralised and decarbonised energy system.
— SilentPower – electric vehicles with on-board energy storage systems (**see Innovation, page 25**).
— Boston Spa Energy Efficiency Trial – saving customers money on their energy bills through voltage optimisation (**see Innovation, page 26**).
— MicroResilience – A decentralised group of electricity sources and loads that operate in island mode or connected to the local grid – improving resilience, particularly for remote customers.

Engagement to support specific parts of our DSO plan

— Feedback from the Open Networks project has informed our engagement strategy, including a mixture of high level reviews of progress and more technical sessions that focus on individual aspects of DSO.
— We have focused our engagement activities on DSO on more specific key themes, including energy system data, innovation, retail market interface with DSO, climate change: the impact on regions and organisations, the challenges and interdependencies of decarbonising heat, and clean air zones and low emission vehicles.
— We have continued to engage on with local authorities and other regional parties on our 2020 Distribution Future Energy Scenarios and ED2 Planning Scenario through the engagement programme. This engagement will inform our updated DFES in for 2021.
— These potential views of the future are helping us to plan what investment we need to make in the short term to prepare most efficiently for decarbonisation over the coming decades

Customer Engagement Group

— Established in autumn 2019, the Customer Engagement Group has been a key part of scrutinising our Emerging Thinking on our ED2 business plan, published in September 2020. A significant part of our planning is focused on preparing our network for decarbonisation and transitioning to a DSO is integral to this transformation of the whole energy system. The Customer Engagement Group is helping ensure that Northern Powergrid's business plan for the 2023-28 regulatory period has properly addressed the needs of the eight million people across the communities we serve on the transition to a low-carbon economy.

Looking ahead

— Our final ED2 business plan will be published in December 2021 which will reflect feedback from stakeholders, including Ofgem, BEIS and flexibility providers, on our DSO initiatives.
— In preparing to implement our DSO strategy, we will be focusing on the delivery of our digitalisation strategy and action plan (DSAP) which underpins DSO functionality.
— We will continue to roll out LV monitoring – 2,700 monitors in total by the end of ED1. In parallel we are exploring uses of smart meter data to provide better network visibility for investment decision making.
— We are preparing to expand our workforce and skills to enhance our data and commercial capabilities to deliver on our DSO strategy.
— Building on the lessons learnt from our flexibility expression of interest in 2021, we will continue to progress our customer flexibility procurement programme, ensuring that our processes are neutral and transparent by sharing information and metrics.
— We will continue to collaborate to develop and enhance the Flexible Power platform with other DNOs to ensure it meets the needs of market participants.
— Finally, we will be publishing DFES 2021, our latest view on distribution future energy scenarios, later in the year. This will build on National Grid's annual update to their national future scenarios and the insights we have gained from stakeholder engagement on the draft business plan scenarios. These views of the future will be used to inform our DSO planning for optimising the use of flexibility on our network.

"The energy industry is evolving at an unprecedented rate with increased renewable generation connections driving the need to change and increase network flexibility."

Jim Cardwell
Head of Policy Development

Our ED2 DSO strategy

We have five strategic objectives – guiding principles that have shaped the development of our DSO strategy.

- **Flexibility first:** Develop and deploy flexible solutions as an alternative to network reinforcement (where it is economic and efficient to do so)
- **Whole system collaboration:** engage with the wider market on whole system energy solutions.
- **Data & digitalisation:** facilitate solutions in areas such as open data, invest in the right hardware and software and maintain solid cyber security.
- **Openness and transparency:** collaborate in joint planning with our stakeholders and publish our investment decision making.
- **Workplace and workforce fit for the future:** Build regional and national skills and value through developing knowledge, transferable skills and an innovative culture.

Our DSO outcomes

Our DSO objectives lead to five groups of outcomes that will deliver benefits to customers in 2023-28 and beyond

DSO 1
DATA CAPTURE

We will significantly expand **network and market data capture** to establish a vital building block for a smarter and more active energy system. This will improve the volume, availability and accuracy of the information that we track and share about our network, which underpins the transition to DSO.

DSO 4
SYSTEM OPERATION & OPTIMISATION

We will enhance processes and systems for network operations to enable a step change in our capability to **operate and optimise a system with increasing customer and network flexibility.** Preparing our business operations, network and people will enable us to maximise our ability to identify and deploy customer and network flexibility over 2023-28 and beyond.

DSO 2
ANALYSIS CAPABILITIES

We will **transform our analytical capabilities** to enable more data-driven decision making in planning and operational timescales. Better data and analytics will drive more accurate forecasting and better informed investment decision making, leading to more efficient investment to enable a range of decarbonisation pathways.

DSO 5
CUSTOMER FLEXIBILITY

We will **facilitate the development of new markets for customers** providing services to networks in order to enable significant uptake of customer flexibility. Stimulating the flexibility market and procuring flexibility will optimise the use of the existing network and support coist-0effective decarbonisation.

DSO 3
OPEN DATA AND JOINT PLANNING

We will **enable open energy system data sharing and engage in joint planing** with out stakeholders. Joined up working with regional stakeholder and two way data sharing will enable more dynamic systems and robust regional planning, facilitating whole systems decarbonisation.

You can access our DSO v1.1 development plan and our draft ED2 DSO strategy along with other supporting information by visiting: https://www.northernpowergrid.com/DSO

9. Environment

48%
business carbon footprint reduction
against our ED1 business plan baseline

47%
oil loss reduction
against our ED1 business plan baseline

74.9km
of overhead lines undergrounded in Areas of Outstanding Natural Beauty
in ED1 to date

Our engagement...
We spoke to domestic customers, SME's, rural groups, members of local government and even our own employees to help shape our future business plan.

What our stakeholders said...
One consistent theme that was mentioned by all the groups was the subject of decarbonisation of our business and how we should be reducing our carbon emissions.

What have we done...
We developed a comprehensive plan for decarbonising our operations that targets net zero emissions by 2040 in our ED2 plan – more information can be found here.

We are capitalising on the benefits of remote working from COVID-19 that resulted in a 43% reduction year on year in business miles, utilising technology to reduce our travel.

Our environmental impact is reducing each year at a trajectory ahead of our ED1 business plan commitments and we have set a target to achieve net zero operations by 2040

Our commitments

- **We are committed to making a difference in our region through our environmental initiatives.**
- **2020-21 was another strong year, with all of our ED1 business plan commitments on track and in most cases, ahead of schedule.**
- **We have set stretch targets for Business Carbon Footprint (BCF), SF_6 losses, oil loss, cable replacement and undergrounding cables in Areas of Outstanding Natural Beauty.**

How we've done in 2020-21

Pursuing net zero operations

- In our plan for the 2023-28 price control we have set a target to achieve net zero operations by 2040 for our controllable business carbon footprint.
- We committed to reduce our Business Carbon Footprint (BCF) by 10% during ED1. In 2020-21 our emissions of 31,241t$C0_2$e represented a 48% reduction against our ED1 business plan baseline.
- Emissions were particularly low in the year as a result of low business mileage during the pandemic (43% lower compared to last year). We expect 2021-22 to outturn marginally higher at an overall level as we exit the pandemic and our colleagues restart travel, however our adoption of new ways of working will have a lasting impact on our carbon footprint.

Driving down Sulphur Hexafluoride (SF_6) losses

- A key element of our BCF is managing the loss of sulphur hexafluoride (SF_6) to the atmosphere.
- SF_6 is damaging to the environment if not managed correctly as it is 22,800 times more potent than CO_2 – this is why we made a specific commitment to reduce losses.
- Our 2020-21 performance of 73kg lost was well ahead of the 112kg target we set in our ED1 business plan, however was a step back on prior year performance. This was due to two units of switchgear that were leaking. To mitigate further losses we brought forward the replacement of these units.

Undergrounding in Areas of Outstanding Natural Beauty

- We care about the visual impact our network has, especially in Areas of Outstanding Natural Beauty (AONBs). Our stakeholders also see this as a priority area and following feedback, we have set our sights on delivering 114km – an additional 16.1km and £2.1m investment.
- The COVID-19 pandemic impacted delivery of our enhanced programme of work due to restrictions on resources for our service providers. In the year, our programme saw the removal of a further 6.2km of overhead lines in AONBs, bringing our total to 74.9km in the period to date.
- We have a developed pipeline of work and will continue our programme the remainder of ED1.

Reducing oil loss

- We work hard to reduce the amount of oil and fluid that is lost into the ground. Leaks can occur when the fluid leaks from the fluid-filled cables which are used on our network as an electrical insulator.
- We committed to reduce oil and fluid loss by 15% in ED1. We continue to manage leaks effectively and in the year we lost 28,055 litres – that represented a 47% reduction compared to our ED1 baseline, well ahead of our original target. We have stretched our forecast further to achieve loss levels under 27,300 litres by the end of the period.
- We also committed to replacing 134km of fluid filled cables by 2023 to reduce overall risk. We've already exceeded our original target, having removed 176.5km so far.

Optimising losses from the network

- Networks incur electrical losses when transferring power. We've delivered on our commitment to factor this into a wide range of investment decisions and we are busy with a range of activities to manage losses on our network as described in our losses strategy.
- Through our Boston Spa Energy Efficiency trial, we are seeking to understand smart meter data and customer behaviour in near real time to save money and hopefully reduce losses on the customer's side of the meter.
- More details can be found in our environment report here and on our losses webpage here.

Looking ahead

- We will be continuing to deliver on our operational decarbonisation plans towards net zero by 2040. Our action plan includes increasing Ultra Low Emissions Vehicles (ULEV) and Zero Emissions Vehicles (ZEV) on our fleet, adding renewable generation at our premises and implementing energy efficiency measures.
- We will continue to reduce business travel by utilising remote working tools and techniques adopted as a result of COVID-19 restrictions to have a positive impact on our emissions.
- We will introduce science-based targets to measure our carbon impact to ensure that our emissions are aligned to keep global temperatures from rising higher than 1.5°C above pre-industrial levels.
- We will explore the use of non-SF_6 alternatives on our network.
- We will work closely with our service providers to deliver our ED1 AONB undergrounding programme.

Our business plan commitments

Commitments	Status	Forecast completion
9.1 Reduce oil/fluid leakage to ground by 15% by 2023	Ahead	2022-23
9.2 Reduce our business carbon footprint by 10% by 2023	Ahead	2022-23
9.3 Underground around 100km of overhead line in Areas of Outstanding Beauty (AONB)	On Track	2022-23
9.4 Replace 134km of fluid-filled cables and use Perfluorocarbon tracers (PFTs) to quickly replace leaks	Delivered	2019-20
9.5 Maintain SF_6 losses as the volume of gas in our switchgear assets increases	Ahead	2022-23
9.6 Deliver faster and higher quality street works reinstatement when we dig up the street	On Track	2022-23
9.7 Make sure reduction of electrical losses is explicitly factored into investment decisions for a wider range of assets	Delivered	2018-19
9.8 Continue to operate a full revenue protection service	Withdrawn	2015-16

Going beyond our plan

Forecast for undergrounding in Areas of Outstanding Natural Beauty of 114.0km in ED1.

16.1km more

Forecast reduction in our business carbon footprint (against our original ED1 target of a 10%).

≥50% less

Forecast reduction in our oil loss (compared to our original ED1 commitment of 15%).

49% less

Stretch forecast for SF_6 loss – 62kg lower than our original ED1 business plan target of 112kg.

50kg

Stretch forecast of 224km of fluid filled cable replacement – 68% more than our ED1 business plan commitment of 134km.

90.8km more

Our performance measure(s)[1]	2019-20 actual	2020-21 actual	2020-21 target	Annual Status	ED1 target	ED1 status
Business Carbon Footprint (tC02e)	33,365	31,241	55,975	Achieved	28,760[2]	Ahead
Oil loss (Litres)	33,810	28,055	47,540	Achieved	27,300[2]	Ahead
Overhead lines removed in areas of natural beauty (km, cumulative)	68.7	74.9	73.4	Achieved	114.0[2]	On Track
FFC replacement (km, cumulative)	145.3	176.5	122.8	Achieved	224.4[2]	Ahead
SF_6 lost to atmosphere (kg)	63	73	112	Achieved	50[2]	Ahead
Environmental agency Incidents (count)	7	6	24	Achieved	5[2]	Ahead
Streetworks quality (%)	93%	92%	90%	Achieved	90%	Ahead

[1] Targets reflect ED1 business plan target unless otherwise stated.
[2] Reflects a forecast that exceeds our original ED1 business plan target.

Delivering cost-savings and driving sustainability across every area of our business

We are the UK's first distribution network operator (DNO) to adopt an innovative new eco-paint as standard. The paint, supplied locally in the Northeast, provides a vital protective coating to electricity network assets and its unique formula cuts the amount of material needed to protect a power asset by a third.

The roll-out of Rosh Engineering's award-winning Greenovoc paint replaces the need for toxic white-spirit paints. These paints emit more than half the liquid-weight as gases, known as volatile organic compounds (VOC), into the atmosphere during the drying process. This is not a problem with the new paint, which is water based. If rolled out across the UK electricity industry, the eco-paint could save more than 5.5 million tonnes of VOCs from being emitted into local air.

The new paint offers three core benefits:

— **Drying speed:** The eco-paint can dry in less than an hour, cutting the time taken to disconnect, paint, and reconnect a transformer to the network from two days to less than one. Transformers usually work in pairs so if one is out of service, the other keeps the lights on. Taking an asset offline even for essential maintenance therefore temporarily reduces security of supply for customers. Halving the downtime for transformers will therefore increase network resilience.

— **Drying temperature:** Water-based paint is better for the environment and local air quality. Northern Powergrid wanted to switch for some time, but traditional water-based paints need temperatures of 20°C+ to dry. The new paint can dry as low as 6°C, meaning it beats the drying speed of previous water-based and white spirit-based paints.

— **Raw materials:** The new paint needs a much thinner coat to protect an asset, reducing raw materials by up to a third.

Rosh Engineering won the 2019-20 Rushlight Responsible Product or Service Award earlier this year and was a shortlisted finalist in the internationally-acclaimed Edie Sustainability Leaders Awards for a Product Innovation of the Year with the Greenovoc paint.

The paint is a prime example of out-of-the-box thinking having a real and measurable positive impact on our local environmental footprint, improving local air quality, delivering cost savings, reducing asset downtime and increasing network resilience.

10. Finance

£1m+
each day invested in our network

855
new job opportunities created in ED1 to date

99%
expenditure vs allowances – continuing our strong track record of spending closely in line with allowances

£86/yr
The average domestic bill in today's prices

Our engagement...

We have engaged with a range of engagement activity with key stakeholders including;

— Trade unions
— Colleagues
— Students.

What our stakeholders said...

We should look to increase the diversity of the workforce to be more representative of our region.

We should support our region's economic recovery from COVID-19 by providing more job opportunities.

What have we done...

Developing a dedicated Diversity, Equity and Inclusion plan for 2022 to take actions across our recruitment and development to open up access to more career opportunities.

As well as completing our ED1 commitment, we're bringing forward recruitment for new job opportunities from 2023, where we have committed to creating over 1,000 opportunities in the next regulatory period.

"In the run-up to ED2, engagement between Prospect and Northern Powergrid has increased as we focus on the changes to ensure that Northern Powergrid both remains an employer of choice for professional staff and to improve customer service. Driving good customer performance underpins the sustainability of careers with the company.

So we have focussed on developing the competency of engineers and other professional staff: we increasingly reward individuals for their contribution to serving customers and for developing the skills we need to respond to technological change. Working together to meet customer expectations provides the best security for our colleagues.

Joint work between Northern Powergrid and Prospect at both company and national level has contributed to a significant reduction in accident rates since the turn of the century. However we must avoid complacency and have committed to working on initiatives to eliminate all serious accidents. Better asset data and revitalised skills are key parts of this work."

Mike MacDonald, Prospect

We're delivering on our promise to deliver 'more for less' – controlling our costs in line with allowances whilst out-performing our business plan targets

Our commitments

— Our customers continue to place keeping bills low amongst their top priorities.
— At the start of the ED1 period, we cut the price that our customers pay for a safe and reliable electricity service by 14%, exceeding our original commitment of 10%. On average, a domestic customer in our region pays £86[1] in today's prices for our 24/7 service.
— We also set out to create 1,000 job opportunities in our region between 2015 and 2023. As we close out 2020-21, over 850 new employees have joined Northern Powergrid since 2015, many in apprentice roles. This has provided young people with skills that will set them up for life and provides us with the expertise to help ensure the resilience of our network, both now and in the future.

How we've done in 2020-21

Strong track record on cost control

— Our business plan commitment to deliver 'more for less' meant we had to make significant performance improvements in the RIIO-ED1 period at new levels of cost efficiency. The cost reductions imposed by Ofgem in its price control settlement for ED1 increased the scale of that challenge. Our actual expenditure is in line with allowances (99% of phased allowances). Our ED1 cost forecasts continue to show that we expect to spend in line with Ofgem's allowances for the period as a whole. For more information on our cost and output performance see our Regulatory Financial Performance Report.

Developing an increasingly diverse workforce

— As we deliver our plans for decarbonisation we know that one of our biggest challenges is scaling and developing our workforce to deliver a more active and flexible network that will support the transition to net zero.
— As one of the largest employers in our region, we took on 107 new recruits during 2020-21 including 40 apprentices and trainees as part of our Workforce Renewal programme, which is designed to oversee the training and development of the next generation of skilled engineers in our industry. We are now forecasting to create somewhere in the region of 1,150 job opportunities, exceeding our original target ED1 target by 15%.
— In March 2021, we published our latest annual gender pay gap report which showed a mean gender pay gap in hourly pay of 21.4%.
— Our aim is to see more women in technical and professional roles to address this gap. Throughout 2021 we have engaged with our workforce to develop a long-term Diversity, Equity and Inclusion plan.
— We continue to leverage key partnerships with organisations such as WISE (Women in Science and Engineering) a Community Interest Company which provides Business to Business services to get more women into all levels of science, technology, engineering and maths (STEM).
— We have expanded our use of targeted recruitment campaigns to promote new job opportunities to under-represented groups as we seek to increase the diversity of our workforce. We are investing in new skills and unconscious bias training for our operational workforce, to support diversity and the increased smart and digital skills required to work on our network.

Delivering sustainable investment

— We became the first UK DNO to issue Green Bonds under new Green Finance Framework in order to fund investment. The proceeds have been invested in projects that help us decarbonise our network as well as facilitating the take-up of low-carbon technologies across our region and the communities we serve.

Responsible tax approach

— It is important that we play our part in society by contributing through the tax we pay. Our tax strategy is approved by our Board of directors and published on our website. We work to maintain a low risk classification with HMRC by applying strict and transparent governance and showing respect for tax rules.

Committed long-term investor

— Northern Powergrid is part of the Berkshire Hathaway Energy (BHE) group. Our strong and secure parent company contributes to our high credit rating, the strongest among electricity network operators.
— Our operating model follows BHE's approach – to reinvest in improving our network for our customers both now and in the future. Strong credit ratings allow us to achieve competitive rates on the financing that have enabled us to invest £2.3bn in ED1 to date.

Looking ahead

— We will ensure efficient delivery of our planned investment programmes to deliver our output targets in line with cost allowances by the end of 2022-23.
— We will also deliver our £53m of additional Green Recovery investment to accelerate decarbonisation and support regional economic growth.
— We are stepping up our recruitment programmes to increase our delivery capacity in support of decarbonisation pathways including attracting new skills and building a more diverse workforce.

[1] Based on average domestic consumption of 2,900kWh. £71 in 2012-13 prices.

Our business plan commitments

Commitments	Status	Forecast completion
10.1 We will deliver an immediate 10% price reduction at the start of the period.	Delivered	2015-16
10.2 We expect to create 1,000 job opportunities in the organisation during the ED1 period.	Ahead	2021-22

Going beyond our plan

£92.1m of additional investment in ED1

Our cost efficiencies have enabled us to accommodate additional investment to drive benefits for customers in the period and offset cost pressures.

Additional investments in 2015–23

+£63.8m
network resilience

Including:
— 58 additional flood defences;
— replacement of an additional 90km of EHV/132kV fluid-filled cables; and
— investment to address safety risks on our network such as fire suppression blankets in link boxes.

+£15.8m
cyber resilience

— to significantly upgrade our cyber defences against the evolving threat of online and software attacks.

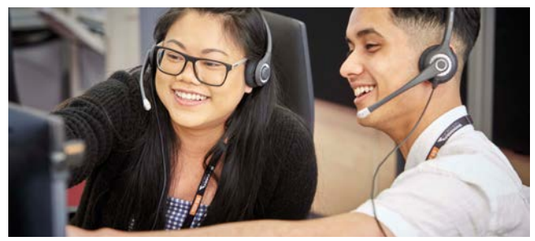
+£12.5m
customer service improvements

Including:
— upgrading our contact centre telephone platform to latest technology;
— modernisation of our web interfaces; and
— enhancing our enterprise asset management (eAM) spatial asset system and underlying data.

Our Return on Regulatory Equity (RoRE)

RoRE measures how much a company has earned on its investment in regulatory assets funded by shareholders. Our overall RoRE forecast for the ED1 period is 6.5% based on our actual gearing, including debt held at a Northern Powergrid Group level, which we believe is a fair and reasonable return for a company expecting to over-deliver on its business plan.

More detailed information about our returns can be found in our 2020-21 Regulatory Financial Performance Report.



Entity	RoRE (based on actual gearing)	
	ED1 to date	ED1 forecast
Northeast	5.6%	6.0%
Yorkshire	5.3%	5.4%
Northeast and Yorkshire combined	5.4%	5.7%
Holding Company	6.1%	6.5%

Investing in the regional green recovery

We are leading a significant local investment push as part of the national £300m Green Recovery Scheme. The scheme is creating a greener Northeast, Yorkshire and northern Lincolnshire that creates net zero jobs of the future in the communities we serve. It is also delivering investment that will help with the response to the climate emergency by creating additional network capacity to enable decarbonisation, regeneration and connection of large-scale renewable generation.

As part of the scheme, Northern Powergrid will invest around £53m in network capacity over the next two years. 14 locations across the Northeast, Yorkshire and northern Lincolnshire including Newcastle City Centre, York and Grimsby Docks have been identified as candidates for investment in energy infrastructure to stimulate post COVID-19 economic recovery and support the growth of green jobs.

The investment is designed to support green growth projects to come to fruition faster. The additional capacity could be used to bring forward electric vehicle charging, promote a switch to electric heating or simply increase the amount of power available to local businesses to allow for environmentally sustainable growth.

£53m

of investment for the region

14

locations will see investment in the next 2 years

Working near our assets

There are times when people need our help to work near or around our assets – we aim to do this in a safe and compliant manner, whilst offering the best levels of customer service.

Our objective

— When giving help and advice for work taking place near our assets, we aim to meet all of our statutory duties and aim to deliver excellent customer service.

What this involves

— Typically these situations include requests:
  – for physical covers for overhead lines (shrouding);
  – to physically move our assets (either temporarily or permanently);
  – to share one of our wooden poles (e.g. for a telephone line);
  – for safety advice about working near our assets, including where our underground cables are; or
  – to temporarily switch off the power while work is undertaken near our assets.
— Those who need to work near our assets rate us across four major service lines: cable plans; disconnections, shrouding and other safety requests.
— Performance continues to be monitored against internal SLAs to ensure we continue to deliver strong performance.
— We also measure a number of 'Other Safety Requests' which incorporates work such as Service Alterations, Quality of Supply, Vegetation Management, Overhead Line and Substation Maintenance. This also includes diversions due to the low volume that were surveyed.

Our performance in 2020-21

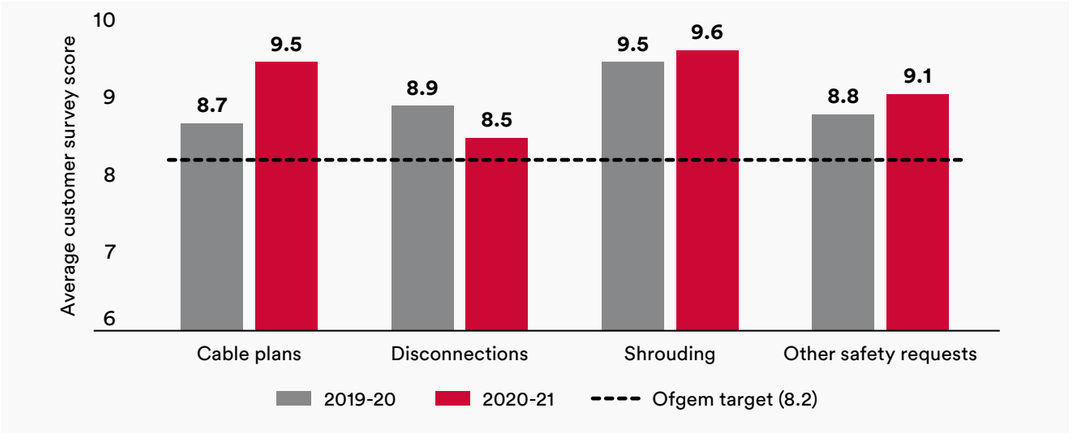
— Our improvement plans are in line with the commitments we made in our ED1 business plan – to make our services quicker, easier and more convenient for our customers.
— In the year, our satisfaction scores in all areas were higher than the Ofgem targets. We saw a positive move in cable plans, shrouding and other safety requests and a slight step back for disconnections.
— For cable plans, the increase of 0.8 percentage points to 9.5 can be attributed to more customers than ever self-serving the information they need.
— For shrouding, we maintained similar levels of satisfaction with our embedded online, self-service processes.
— For other safety requests, we achieved a small improvement on Safety Interruptions which was driven by improved satisfaction scores for our Quality of Supply and Substation Maintenance services whilst also seeing increased work volumes.
— For disconnections, we saw a minor step back in our satisfaction levels as we embedded new system enhancements offering an end-to-end self-service application for the disconnection process.

Getting better at what we do

— We offer a variety of customer digital self-service options to make it easier for our customers to access the information they need. In 2020-21, we extended our live web chat offerings enabling more choice in the ways our customers can communicate with us.

Looking ahead

— In the balance of the ED1 period our focus will remain on embedding the processes and technologies we have implemented to ensure that these are delivering the service levels our customers need.
— This will include rolling out 'on the day' communications across all general enquiries service to further improve our customer communication approach.
— We are also working with stakeholders to develop a unique 'at your service' initiative; aiming to provide a more flexible and convenient service at evening and weekends for certain connections and general enquiries service lines.



Glossary

Our performance snapshots on the inside front cover and on pages 54 and 55 set out one-page summaries of our key measures of performance in the year.

At the request of our stakeholders, we have continued to go further than the minimum requirements in our disclosure and presentation of information in the report, to rise to the challenge of greater transparency. For example, in addition to reporting our actual performance against targets, we have included our relative ranking position among the other distribution network operators, our performance trends, the financial incentive rewards/ penalties we have earned/incurred along with the impact of those incentives on an average domestic customer bill.

Below is a glossary explaining the meaning of each of the measures included in our performance snapshots.

Number of customers		Number of customers electricity is distributed to in Northern Powergrid's licensee areas: Northeast and Yorkshire.
Total DNO network length		The total kilometres of overhead lines, underground lines and subsea cables used to distribute electricity to Northern Powergrid customers in its two licensee areas: Northeast and Yorkshire.
Customer interruptions	Including exceptional events	The number of customers whose supplies have been interrupted per 100 customers per year over all incidents where an interruption of supply lasts for three minutes or longer, excluding reinterruptions to the supply of customers previously interrupted during the same incident, and including any interruptions caused by exceptional events. An exceptional event is an event which is beyond the reasonable control of the licensee but does not include weather conditions which are reasonably expected to occur.
	Excluding exceptional events	As above, but excluding any interruptions caused by exceptional events.
Customer minutes lost	Including exceptional events	The duration of interruptions to supply (or the average customer minutes lost per customer per year) where an interruption of supply lasts for three minutes or longer. It includes any interruptions caused by exceptional events.
	Excluding exceptional events	As above, but excluding any interruptions caused by exceptional events.
IIS – Incentive performance reward/ (penalty)	£	Electricity distribution companies are incentivised on the number and duration of network supply interruptions versus a target derived from benchmark industry performance. This figure represents the financial reward/(penalty) earned or measured on network interruptions in Ofgem's Interruption Incentive Scheme (IIS).
	£/domestic customer bill	How much the above incentive reward (or penalty) will add to (or take off) the bill for an average domestic consumer in 2022-23.
Network Output Measure (NOMs)		A regulatory mechanism that provides a means to monitor and assess the network asset management outcomes that network companies deliver. It represents the service delivery resulting from companies' asset interventions, and can be considered as a forward-looking indicator of network performance.
Overall Broad Measure of Customer Satisfaction Score		Northern Powergrid's Broad Measure of Customer Satisfaction (BMCS) score and rank on Ofgem's customer satisfaction measure. It is based on a customer satisfaction survey and is designed to drive improvements in the quality of the overall customer experience by capturing and measuring customers' experiences of contact with their electricity distribution company.
BMCS – Incentive performance reward/ (penalty)	£	Value of the Ofgem Broad Measure of Customer Satisfaction (BMCS) reward/ (penalty), a financial incentive on customer satisfaction, excluding stakeholder engagement rewards.
	£/domestic customer bill	How much the above incentive reward (or penalty) will add to (or take off) the bill for an average domestic consumer in 2022-23.

Time-to-quote (days)		The average number of days from a connection application being received to a connection quote being issued for single low-voltage minor connections (LVSSA).
Time-to-connect (days)		The average number of days from acceptance of a connection quote by a connectee to the completion of the necessary electrical works, to the point it would be possible to energise (subject to installation of an appropriate meter), for single low-voltage minor connections (LVSSA).
Incentive performance reward/ (penalty) – connections lead time	£	Value of the time to connect financial incentive for single low-voltage minor connections (LVSSA) and two to four minor connections (LVSSB).
	£/domestic customer bill	How much the above incentive reward (or penalty) will add to (or take off) the bill for an average domestic consumer in 2022-23.
Incentive on Connections Engagement (ICE) penalty (if applicable	£	Value of the Ofgem ICE penalty: a connections engagement financial incentive for major connections customers (metered demand connections, metered distributed generation and unmetered connections).
	£/domestic customer bill	How much the above incentive penalty will take off the bill for an average domestic consumer in 2022-23.
Stakeholder Engagement and Consumer Vulnerability (SECV)		Northern Powergrid's Stakeholder Engagement and Consumer Vulnerability (SECV) score and rank as part of Ofgem's customer satisfaction measure.
Incentive reward (SECV)	£	Value of the Ofgem SECV reward, a stakeholder engagement financial incentive.
	£/domestic customer bill	How much the above incentive reward will add to the bill for an average domestic consumer in 2022-23.
Unrestricted domestic tariff charge (for a typical domestic customer		The distribution element of the bill for an average domestic consumer in 2020-21, excluding the cost of a special rebate given by some electricity distribution companies in 2014 and 2015 (in accordance with the Government's 2013 autumn statement) to help reduce energy bills. The average domestic consumer is assumed to use 2,900kWh per annum. The calculation assumes 365 days in a year.
Total expenditure	£	This is Ofgem's regulatory total expenditure (or 'Totex') measure, which includes many of the costs incurred by electricity distribution companies, but excludes costs over which companies have no control, and which also nets off proceeds from the sale of assets. This measure is used as the basis for calculating how much the company has spent on operating and investing in its distribution business, and companies are incentivised to minimise it while at the same time delivering all the required outputs.
	% of cost allowances	How much the company has spent of its Totex allowances for the year. If the percentage is lower, a company has either been successful in reducing how much it costs to deliver its outputs, or has not delivered some of its outputs (which would lead to a reduction in its future allowed revenues).
Actual Return On Regulatory Equity – RORE (vs Ofgem assumption of 6%)		The Return On Regulated Equity (RORE) measures how much a company has earned on previous investments in its regulatory assets (RAV) that have been funded by shareholders in the regulatory settlement. This starts with the base return which Ofgem allowed, to reflect the cost of equity in capital markets, and is adjusted for the value earned via any incentive schemes to reflect performance, and any difference between how much the company's debt finance cost compared to Ofgem's assumption. Ofgem's calculation of this figure assumes a notional gearing of 65% (which is above our actual gearing level). It is stated in real terms, i.e. before inflation is added.
OSHA rate		In the USA, the Occupational Safety and Health Administration (OSHA) accident rate records reportable work-related accidents including major incidents leading to absence from work and also less severe injuries where employees may experience restricted work duties or have prescription drugs issued as treatment or therapy. The OSHA rate is presented as reportable cases per 200,000 man hours. See www.osha.gov
RIDDOR rate		A UK accident rate that measures the number of accidents that are reportable under the UK's Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR). These accidents are reportable to the HSE and include fatal, major injury and lost-time accidents resulting in over seven days absence from work. See http://www.hse.gov.uk/riddor

Performance snapshot – Northeast[1]

Network

Network	Actual 2020-21
Number of customers	1.6m
Total DNO network length	42,002km

Reliability & Availability

Reliability & Availability		Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Customer interruptions (CI)[4]	Inc. exceptional events	44.1	–	–	▲
	Exc. exceptional events	44.1	57.7	Achieved	▲
Customer minutes lost (CML)[4]	Inc. exceptional events	35.0	–	–	▲
	Exc. exceptional events	35.0	49.7	Achieved	▲
Incentive performance reward/(penalty) – IIS[5]	£m	£10.0m	–	–	▲
	£/customer bill	£2.97	–	–	–

Customer Satisfaction

Customer Satisfaction		Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Overall Broad Measure of Customer Satisfaction score out of ten (rank out of 14)[6]		9.14 (10th)	8.2	Achieved	▲
Incentive performance reward/(penalty) – BMCS[7]	£m	£2.3m	–	–	▲
	£/customer bill	£0.68	–	–	–

Connections

Connections		Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Time-to-quote (days)[8]		7.0	4.8	Missed	▼
Time-to-connect (days)[8]		51.9	39.3	Missed	▼
Incentive performance reward/(penalty) – connections lead time	£m	£0.0m	–	–	▼
	£/customer bill	£0.00	–	–	–
Incentive on Connections Engagement penalty – ICE (if applicable)	£m	Nil	–	–	▶◀
	£/customer bill	Nil	–	–	–

Social Obligations

Social Obligations		Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Individual Stakeholder Engagement and Consumer Vulnerability (SECV) score out of ten (rank out of six)		5.01 (5th)	–	–	▼
Incentive reward	£m	£0.22m	–	–	▼
	£/customer bill	£0.07	–	–	–

Innovation

In 2020-21 we spent £1.6m on Innovation projects in our Northeast license area, funded by our Network Innovation Allowance. Our diverse innovation portfolio contains 34 projects that focus on decarbonisation, reliability, digitalised solutions and value for money.

Safety

Our long-term safety performance is strong and places us in the leading pack among our peers. We achieved our annual headline safety target for Northern Powergrid as a whole in 2020-21, measured by the Occupational Safety and Health Administration (OSHA) rate – 0.18 against a target of 0.27 – representing four reportable incidents in a workforce of around 2,600.

Environment

We achieved our oil leakage and business carbon footprint targets for 2020-21 and we are on track to exceed our commitment in removing overhead lines from areas of natural beauty.

Financials

Financials		Northeast
Domestic average annual bill		£78.80[9]
Total expenditure	£m	£177.5
	% of cost allowances	116%
	% of cost allowances (ED1 to date)	102%

1 All financial figures in 2012-13 prices and refer to Northern Powergrid Northeast unless otherwise stated. The performance of each licensee is shown in the Annex to this report.
2 Ofgem target (see sections in the main body of the report for performance against our own targets).
3 Trend ▲ getting better ▼ getting worse since 2019-20.
4 Unplanned & unweighted figures. Indicative figures as at July 2021, figures still to be confirmed by Ofgem.
5 Excluding Guaranteed Standards payments.
6 Broad Measure of Customer Satisfaction (BMCS) rank indicative only based on monthly data. Final ranking to be confirmed by Ofgem.
7 Does not include SECV reward.
8 LVSSA (single minor connections).
9 Based on average domestic consumption of 2,900kWh. £94.74 in 2020-21 prices.

Performance snapshot – Yorkshire[1]

Network

Network	Actual 2020-21
Number of customers	2.3m
Total DNO network length	55,120km

Reliability & Availability

Reliability & Availability		Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Customer interruptions (CI)[4]	Inc. exceptional events	51.7	–	–	▲
	Exc. exceptional events	51.7	61.8	Achieved	▼
Customer minutes lost (CML)[4]	Inc. exceptional events	38.7	–	–	▲
	Exc. exceptional events	38.7	52.0	Achieved	▲
Incentive performance reward/(penalty) – IIS[5]	£m	£11.4m	–	–	▼
	£/customer bill	£2.35	–	–	–

Customer Satisfaction

Customer Satisfaction		Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Overall Broad Measure of Customer Satisfaction score out of ten (rank out of 14)[6]		8.97 (13th)	8.2	Achieved	▲
Incentive performance reward/(penalty) – BMCS[7]	£m	£2.9m	–	–	▲
	£/customer bill	£0.60	–	–	–

Connections

Connections		Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Time-to-quote (days)[8]		6.4	4.8	Missed	▼
Time-to-connect (days)[8]		46.8	39.3	Missed	▼
Incentive performance reward/(penalty) – connections lead time	£m	£0.0m	–	–	▼
	£/customer bill	£0.00	–	–	–
Incentive on Connections Engagement penalty – ICE (if applicable)	£m	Nil	–	–	▶◀
	£/customer bill	Nil	–	–	–

Social Obligations

Social Obligations		Actual 2020-21	Target 2020-21[2]	Status	Trend[3]
Individual Stakeholder Engagement and Consumer Vulnerability (SECV) score out of ten (rank out of six)		5.01 (5th)	–	–	▼
Incentive reward	£m	£0.3m	–	–	▼
	£/customer bill	£0.07	–	–	–

Innovation

In 2020-21 we spent £2.1m on Innovation projects in our Yorkshire license area, funded by our Network Innovation Allowance. Our diverse innovation portfolio contains 34 projects that focus on decarbonisation, reliability, digitalised solutions and value for money.

Safety

Our long-term safety performance is strong and places us in the leading pack among our peers. We achieved our annual headline safety target for Northern Powergrid as a whole in 2020-21, measured by the Occupational Safety and Health Administration (OSHA) rate – 0.18 against a target of 0.27 – representing four reportable incidents in a workforce of around 2,600.

Environment

We achieved our oil leakage and business carbon footprint targets for 2020-21 and we are on track to exceed our commitment in removing overhead lines from areas of natural beauty.

Financials

Financials		Yorkshire
Domestic average annual bill		£66.14[9]
Total expenditure	£m	£221.0
	% of cost allowances	108%
	% of cost allowances (ED1 to date)	96%

1 All financial figures in 2012-13 prices and refer to Northern Powergrid Yorkshire unless otherwise stated. The performance of each licensee is shown in the Annex to this report.
2 Ofgem target (see sections in the main body of the report for performance against our own targets).
3 Trend ▲ getting better ▼ getting worse since 2019-20.
4 Unplanned & unweighted figures. Indicative figures as at July 2020, figures still to be confirmed by Ofgem.
5 Excluding Guaranteed Standards payments.
6 Broad Measure of Customer Satisfaction (BMCS) rank indicative only based on monthly data. Final ranking to be confirmed by Ofgem.
7 Does not include SECV reward.
8 LVSSA (single minor connections).
9 Based on average domestic consumption of 2,900kWh. £79.52 in 2020-21 prices.

Safety

Safety is our number one priority and we are on track to deliver our commitments for the ED1 period.

Commitment	Status	Forecast completion
1.1 Remain a leading safety performer, meeting all requirements and halving our accident rate by 2023	Ahead	2022-23

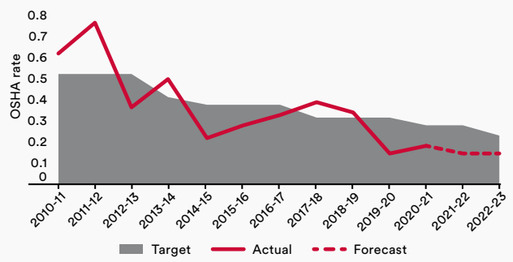
— Our long-term safety performance remains strong, consolidating our place as an industry leader and keeping us on track to achieve our headline commitment to halve our accident rate by 2023.

— Our accident rate in 2020-21 showed a consolidation of our safety performance compared to the prior year with an OSHA accident rate of 0.18, which keeps us on track to achieve our ED1 business plan target. That equated to four accidents in the year and none of those was electrical in nature. We're pleased to recognise a milestone of going 690 days without a lost time accident.

— Our RIDDOR accident rate performance was 0.08 with two reportable incidents in 2020-21.

— We continue to focus on our safety culture, reinforcing safety standards through leadership engagement and our safety champions programme.

OSHA accident rate since 2010



— We maintained strong driving performance in 2020-21, incurring only 33 vehicle accidents across a fleet covering ~13.8 million miles, assisted by our investment in fleet vehicle telematics as well as targeted driver training programmes.

— In 2020-21, we rose to the challenges that COVID-19 presented, keeping our colleagues safe by implementing a robust set of social distancing policies, re-configuring office space, facilitating home working and introducing single occupancy in our fleet vehicles. In addition, we launched a new wellbeing programme aimed at supporting colleagues' mental health and wellbeing throughout the pandemic.

— Looking ahead, we're confident that our awareness and training programmes, paired with our proactive safety culture and annual Safety and Health Improvement Plan will ensure we meet our commitment to halve our accident rate.

Going beyond our plan: We are forecasting to outperform our ED1 business plan target with an OSHA rate of 0.14 (-67%)

Commitment	Status	Forecast completion
1.2 Increase awareness in our communities of the dangers of electricity if not handled properly	On track	2022-23

— Our programme to raise awareness of the dangers of electricity with school children was affected by the COVID-19 pandemic in 2020-21 with schools closures. Despite this, our programme reached around 19,000 school-aged children in the year.

— As schools are re-opening we are working with them to understand how we can re-engage and adapt the programme to adhere to social distancing. This includes delivering a programme that provides the opportunity for in person engagement and continued on-line engagement.

— Our engagement with young people is driven by our diverse school safety awareness programme for primary and secondary schools including our 'Crucial Crew' programme in partnership with the Police, Fire Brigade and Drugs awareness teams. We have also partnered with the Scout Association to deliver the "Home Safety Badge" as well as offering educational talks on how to stay safe around our network.

— During the pandemic we continued to offer online interactive resource for children to access our safety messages.

— A key awareness priority is the risk that overhead power lines pose to farmers, road hauliers and contractors. We continue to engage with the regional executive of the National Farmers Union (NFU) to plan a combined approach to safety communications for the agricultural community. We've continued to use the 'Look Up its Live' material to raise awareness of the dangers of overhead lines which outlines what to do if a vehicle makes contact with our equipment. We have collaborated with the ENA members to produce an educational DVD for the domestic sector to raise awareness of the dangers of underground cables and overhead lines.

— We have delivered electrical safety presentations at major agricultural training colleges during student induction days.

— Looking ahead, we will continue to monitor incidents involving overhead line contacts to review whether our awareness campaigns are having an impact and we will target our engagement to maximise our impact. We will be working through the NFU to raise awareness of our programme to supply warning notices to farming businesses so they can highlight the dangers of overhead lines on their land.

Going beyond our plan: We are forecasting to outperform our ED1 business plan target and engage, on average, >43,000 school age children on the dangers of electricity per year.

Commitment	Status	Forecast completion
1.3 Keep safety as a central driver of investment decisions and appraisals	Delivered	2018-19

— Safety remains a central driver of our decision making processes whether we are operating, extending, maintaining, repairing or replacing the network.

— In line with our commitment we work to an asset investment policy that underpins the principles of developing safe, efficient, coordinated and economical electricity systems that sustainably serve the needs of our stakeholders.

— As an example, since the start of the ED1 period, we have provided quarterly returns to the Health and Safety Executive relating to our service cut-out change programme. In 2020-21 we replaced fewer service cut-outs than the previous year due to the COVID-19 pandemic. In the year, we replaced over 21,000 service cut-outs, removing 860 units that did not comply with Electrical Safety, Quality and Continuity Regulation (ESQCR) safety standards.

Commitment	Status	Forecast completion
1.4 Promptly resolve any network safety issues arising from the smart meter roll-out	On track	2022-23

— The rollout of millions of smart meters to customers by energy suppliers in our region presents a safety risk if the installation is not done properly. To mitigate this risk, we only permit operatives on behalf of energy suppliers to install smart meters on our network if they have gone through a training and competency assessment.

— Since 2016 we have required that any meter operator staff who are or will be installing smart meters on our network attend our training programme. Over 600 installers have completed the course to date. We believe that establishing and maintaining these high-standards will reduce the number of safety issues associated with the smart meter rollout.

— We have well established processes in place for responding to issues identified with meter installations and any problems identified to date have been investigated and resolved promptly. Our service level agreement (SLA) performance for defect resolution is 87% for Category A and 91% for Category B (both against targets of 90%), having resolved more than double as many defects than forecast. Our industry-leading web-based appointments system, launched in 2017, continues to receive positive feedback, avoiding repeat visits for customers by coordinating work between meter operator and our service providers. We continue to participate in industry working groups to ensure that our programme benefits from best practices as smart meter roll out volumes increase.

— The HSE brought in a requirement for DNO's to replace all known 'fused neutral' cut-outs. These cut-outs are usually located beneath the meter and modern equivalents only have the 'live' connection protected by a fuse and the neutral connection is solid. This is primarily to ensure the neutral connection into the property is continuous (in order to ensure that any neutral earth connection to the DNO network remains unbroken as far as reasonably practicable) providing protection to our customers in the event of a fault. In 2019-20, we ran a data project where we developed a 'heat-map' that showed the location of previous interventions and highlighted areas with a high potential to discover cut-outs of this type. Using this data we have identified areas for proactive intervention and are establishing a programme to undertake this work.

— Looking ahead, we'll continue to repair network defects in a timely manner and work with meter operators to minimise the delays, and inconvenience, caused to customers when a smart meter cannot be installed. As a build on our current approach, we will look to expand the functionality of our connections capacity heat maps application to help identify in a more timely and efficient manner potential interventions that are required.

Commitment	Status	Forecast completion
1.5 Reduce the impact of metal theft, including improving substation security	On track	2022-23

— The level of metal theft from our network continues to be low incurring 87 instances in 2020-21 across our network.

— We have continued to engage with the local and national police to respond to incidents. We share sanitised crime data with the National Infrastructure Crime Reduction Partnership (NICRP) receiving crime hot spot analysis and other intelligence from across a range stakeholder sectors. We are able to use this information to develop our proactive crime reduction strategy.

— We continually review our approach and improve our ability to mitigate and respond to theft. We also have a team that focuses on reviewing and reinforcing substation sites that we consider vulnerable.

— In the ED1 period, we will invest £7.3m upgrading Critical National Infrastructure (CNI) sites and remain on course to have upgraded security at all our CNI sites by the end of the ED1 period. As part of our investment in this area, we've developed an Alarm Receiving Centre which we commissioned in the summer of 2021. We have also invested in upgrading substation intruder alarms and will benefit from improved situational awareness and response effectiveness once these alarms are routed to the Alarm Receiving Centre.

— Looking ahead towards ED2, we'll continue to install deterrents such as electric fences and improve intruder detection capabilities at major substations that link to our Alarm Receiving Centre.

Reliability & Availability

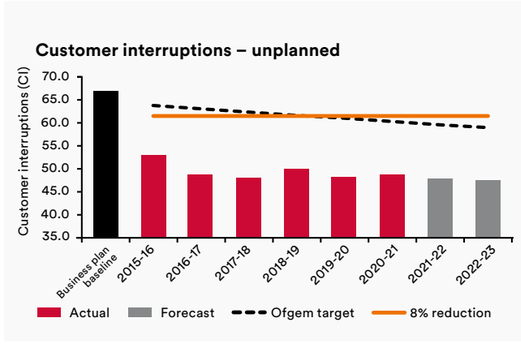
Our customers' number one priority is the reliability of the network and we remain on track to outperform the commitments we made in our ED1 business plan.

Commitment	Status	Forecast completion
2.1 Achieve 8% fewer unplanned power cuts by 2023	Ahead	2022-23

— We are outperforming the targets we set in our ED1 business plan on unplanned customer interruptions (CI) having achieved a 27% reduction relative to our business plan baseline in the period so far.

— In 2020-21, we continued our investment in high voltage automatic fault restoration technology that automatically reconfigures the network in response to faults. We upgraded 73 additional primary substations in the year, taking the total number enabled with the technology to 307 in ED1 to date, covering 42% of substations on our network.

— Fault prediction technology will play an increasingly important role in our plans going forward. This innovative new technology is assessing our network in real time identifying signs of faults before they develop.



Going beyond our plan: We are forecasting to reduce the number of unplanned power cuts by 30%

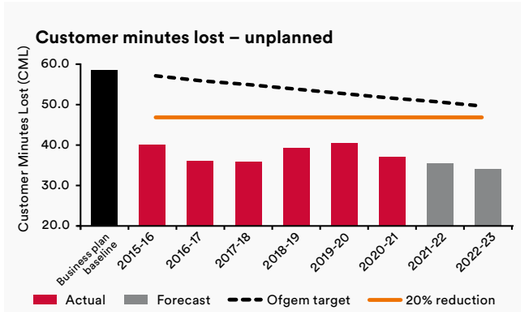
Commitment	Status	Forecast completion
2.2 Reduce the average length of unplanned power cuts by 20% by 2023	Ahead	2022-23

— We are outperforming the targets we set in our ED1 business plan having achieved a 37% reduction so far in unplanned customer minutes lost (CML) relative to our business plan baseline.

— We can't always restore a fault straight away so we have continued to use mobile generators responsibly to restore power while we make repairs.

— Our investment in low voltage smart fuses and distance to fault technology is also reducing restoration times, allowing us to identify faults quicker for repair.

— We will continue to deliver our network performance investment programme and unplanned power cut restoration strategy, and we have set a stretch forecast to achieve a 40% reduction in the average length of unplanned power cuts by the end of the period.



Going beyond our plan: We are forecasting to reduce the average length of unplanned power cuts by 40%

Commitment	Status	Forecast completion
2.3 Restore electricity within 12 hours - and if we don't, make enhanced and automatic payments to all customers (with extra for our vulnerable customers)	Delivered	2015-16

— We moved to the 12-hour power restoration guaranteed standard and implemented our automatic payment policy at the start of the RIIO-ED1 period. In the event of a failure against the guaranteed standard we make enhanced payments above the mandated amount (of £75) paying £100 (an additional £25) to our customers or £200 (an additional £125) for vulnerable customers.

— Since the start of the period, we have reduced the number of power cuts lasting more than 12 hours by 62% in line with Ofgem's measure (in normal weather conditions and including any clock stops).

— In 2020-21, performance improved by 40% compared to the prior year which had a number of challenging weather events, particularly in Yorkshire, but not at the level where they would be classed as a severe weather event by Ofgem. The deployment of additional generation, through our new mobile generator contract, alongside improved first response contributed to improvement during the year.

— We will continue deliver network and operational response improvements in the remainder of the period to further drive down the number of outages that last longer than 12 hours. To this end we have established a dedicated group to review opportunities to improve performance including making the best use of our fault locating equipment, with improved connectivity into our fault management system; along with implementation of a more robust process to identify the root cause of failures and identify learning points.

— During the year we engaged extensively with stakeholders as part of our RIIO-ED2 business plan process on the topic of long-duration power cuts. They noted that power cuts last 6 hours or more have a significant impact on customers due to the impact on two meals, heating, and food storage. We have introduced targets to reduce 6 hour interruptions through the use of generation and the introduction of shift work for parts of our workforce.

Commitment	Status	Forecast completion
2.4 Planned power cuts to leave customers without power for less time, particularly during winter	Delivered	2019-20

— At the start of ED1 period, we implemented a customer safeguarding policy which means planned power cuts are only scheduled for daylight hours, and during the worst winter months, planned to last for no longer than 4.5 hours.

— In 2020-21, 97.9% of planned power cuts lasted no longer than eight hours, a reduction of 0.2 percentage points from the previous year. In the winter months we achieved our 4.5 hour target 89.8% of the time, an improvement on our 2019-20 performance by 3.8 percentage points.

— We have also reduced the length of planned power cuts and in 2020-21, the average length was 166 minutes, an improvement of 29 minutes from the prior year.

— During the pandemic we introduced a senior review of any planned outage that was planned to last more than 4 hours. This was focused on reducing the impact on customers who were required to isolate at home, with particularly emphasis on vulnerable customers.

— We also enhanced our communication of planned power cuts within our regional operating areas using our app based technology (CRM-Go) to provide live updates on progress.

— Customer satisfaction for our planned power cut service is high with our customers scoring us at 91.6% in 2020-21 (ranking 2nd in the industry), an increase of 5.8 percentage points since the start of the period.

— Looking ahead, we will continue to reduce the length of planned power cuts as well as improving our services to our customers.

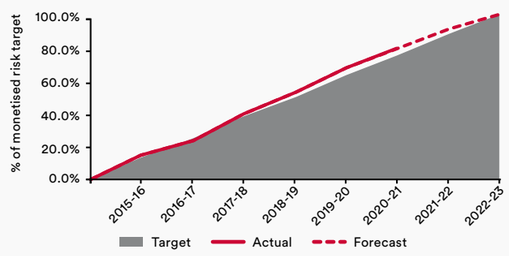
Commitment	Status	Forecast completion
2.5 Maintain the underlying health of the asset base and report on it annually	On Track	2022-23

— Our investment plans targets ageing and highly-loaded assets in order to reduce the risk of failure. Every year we review the condition of the asset base updating our understanding of risks, and how asset condition or loading on assets has changed.

— We make an annual submission to our regulator on asset health and we have also developed a process that allows us to review major changes to asset health on a monthly basis.

— We remain on track to deliver our business plan output targets for the ED1 period, tracking ahead of a straight line profile of Ofgem's asset health and criticality index measure for the period to date at an overall group level (4.1 percentage points ahead). We are 12.6 percentage points ahead of straight-line profile in the Northeast and 5.4 percentage points behind in Yorkshire. We have a healthy pipeline of work to deliver our targets in Yorkshire including completion of significant EHV plant and cable schemes in the final years of the ED1 period.

Outputs vs Ofgem monetised risk target



— We forecast that we will achieve 100% of our ED1 asset health and criticality target by the end of the period whilst spending in line with Ofgem allowances.

Commitment	Status	Forecast completion
2.6 Target network improvements for our worst-served customers	On Track	2022-23

— Ofgem defines a worst served customer as any customer that experiences a total of 12 or more, higher voltage interruptions over a three year period and a minimum of three higher voltage interruptions in each year during the period.

— Whilst we measure our performance against this regulatory definition and currently have no customers that fall under the definition, we continue to focus our improvement plans on those customers who experience lower levels of service than others.

— Last year we initiated an improvement programme to reduce the impact of multiple interruptions for our customers.

— Technology is a key tool that we can use to address customers that experience lower levels of service, including;
  – Installation of equipment that automatically reconfigures the network to isolate faults and quickly restore electricity supply to customer premises during outages.
  – Using the next generation of low voltage technology that allows restoration of supply following intermittent (and often frequent) interruptions without the need for fuse replacement.

— We are focusing our network automation programme on some of the worst performing circuits on our network, and in 2020-21 we addressed 10 of our high voltage circuits in the Northeast and 91 in Yorkshire.

— Looking ahead, we are developing the capability to continuously monitor low voltage circuits and predict future faults whilst developing a microgrid solution for our rural communities.

Commitment	Status	Forecast completion
2.7 Ensure adequate network capacity for customers wanting to connect	On Track	2022-23

Capacity availability

— We continue to routinely assess Load Indices (LI) across our 605 sites . The overall firm capacity availability on our network is good:

Number of sites			Licence	
Loading			Northeast	Yorkshire
Lower bound	Upper bound	Ranking	196 (195)	409 (409)
0%	<80%	LI1	179 (181)	376 (374)
80%	<95%	LI2	14 (13)	26 (27)
95%	<99%	LI3	1 (0)	2 (2)
99%	n/a	LI4	1 (1)	2 (5)
99%	n/a	LI5	1 (0)	3 (1)

* (Values for 2019-2020 in brackets)

Active Network Management (ANM)

— Our first replicable ANM scheme went live at Driffield in March 2019, since then we have continued our ANM roll-out. Our scheme is an economical way of gaining access to headroom on the network and deferring the need for traditional reinforcement.

— We have restructured part of our charging mechanism for ANM to recognise the benefit additional DG connections make to society's overall contribution to net zero. Northern Powergrid will socialise the cost of the communications infrastructure, and the customer will pick up the cost of the final mile connection from the local supply point through to their site.

— At the end of 2020-21 we had four sites with 433MW of capacity, with an additional Driffield site that is due to go live in the balance of ED1 for a further 104MW.

Voltage reduction

— Our voltage reduction programme commenced in 2013 with the aim of assessing a total of 551 substations to release capacity by reconfiguring voltages.

— In 2020-21, we freed up an additional 0.2GW of capacity, across 23 sites. We've released a total of 4.4GW in ED1 to date across 492 sites.

Capacity release

— We routinely evaluate customer usage to see whether connection agreements are still fit for purpose and whether we can release capacity back to other customers. To date in ED1, this released 32MVA of demand and 21MVA of generation.

— In 2020-21, we targeted a further 35 sites where customers were not using at least 75% of their demand or generation capacity, unfortunately no customers agreed to reduce their capacity as part of this exercise.

— We will continue to run the programme for the remainder of the ED1 period.

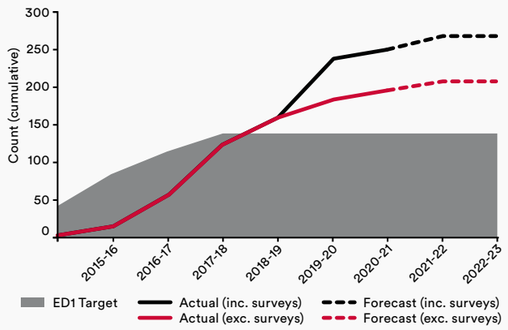
Heat maps

— Our innovative AutoDesign tool provides a view of LV network utilisation once a customer has provided the demand they are seeking to connect. We are exploring further enhancements to provide LV heat maps (similar to that for EHV and HV) whereby customers will be able to see available capacity before deciding on the size of their connection.

Commitment	Status	Forecast completion
2.8 Increase the resilience of the network to flooding	Delivered	2019-20

- Our flood defence programme is an area of high priority for our stakeholders.
- Our original ED1 target was to upgrade defences at 141 sites in the period in addition to 15 carried forward from the previous period (DPCR5).
- We have expanded our ED1 programme from 156 sites to 274 sites in line with the national flood resilience standard (ETR 138). Of the 274 sites, by the end of the ED1 period, we expect 211 will be protected with additional flood defences and 60 have been assessed and will require only minor remedial actions to meet the required standard. The remaining 3 upgrades are larger, more complex schemes that we are completing in partnership with National Grid.
- The expanded programme is being delivered within our original cost allowances due to realising cost efficiencies in design and delivery.
- In 2020-21 we upgraded defences at a further 13 sites, taking our total flood defence upgrades to 199 sites in ED1 to-date at a cost £33.2m.

Flood defences installed in ED1 to date



Going beyond our plan: Additional 115 sites added to our ED1 programme

Commitment	Status	Forecast completion
2.9 Use smart meter alarm information to improve network performance and the information we provide to customers	Behind (external factors)	2022-23

- It's well known that the UK Government's national smart meter programme has experienced significant delays due to technical issues and the specification of meters. The North has also been impacted by a variety of ongoing technical problems, for example, radio frequency noise issues between meters and telecoms network equipment.
- More latterly, COVID-19 has impacted the national roll-out programme with volumes of installations significantly down in 2020 and 2021.
- Despite those delays, our systems have been ready on time and to plan. We have connected to the national data communications company (DCC). We have also maintained the security status of our Gateway in line with our obligations under the Smart Energy Code and have been preparing our systems to accept data from early generation smart meters as it becomes available.
- Approximately 2.0 million smart meters have been installed for customers in our region which is just over 50% of our customer base of 3.9m. Of these, 300,000 are first generation meters, 300,000 are second generation meters with the remainder being conventional with no smart data capabilities. Where the national infrastructure permits, second generation meters present the opportunity to start using smart meter data, albeit on a much smaller scale than we originally planned for ED1. First generation meters provide a more restricted dataset to the second generation meters but we are able to communicate with the meters and access system voltage data.
- Our Boston Spa Energy Efficiency Trial (BEET) is using smart meter data in (near) real-time to optimise the voltage at the customer's meter and thereby decrease energy consumption. The project layers intelligent use of data on top of existing investment in smart meters, metering data flows and voltage control improvements to benefit customers. Energy bill savings are expected to far outweigh any capital and operational expenditure, given that other programmes such as the national smart meter rollout already require the bulk of the investment needed. We have included plans for roll-out of the solution in our draft ED2 business plan.
- We continue to seek to ensure that our customers obtain the benefit in the rollout that was originally planned with representations to the central programme, energy suppliers and the UK Government. In the meantime we are adapting our systems and processes to make the most of the smart data available to us.
- We are also ensuring that any investment is not implemented significantly ahead of the ability of the national smart meter programme to provide the data, thereby striking a balance between efficient investment and delivery of the smart meter rollout benefits.

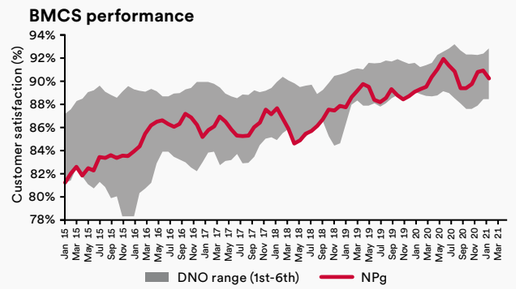
Customer Service

Whilst we are on-track to deliver our ED1 commitments having achieved an 8.2pp improvement in customer satisfaction since the start of the period, we have more work to do to achieve our goal of giving our customers the best service in the industry.

Commitment	Status	Forecast completion
3.1 Make customer service more reliable, better communicated and backed by slicker processes. Be faster, at no extra cost	Delivered	2019-20

- Since the start of the ED1 period, we have achieved an 8.2 percentage point improvement in customer satisfaction. This has in part been driven by continued improvement in the consistency of our communication across all our contact channels (including web, automated telephony system, social media and voice).
- To support more consistent communication, we continue to develop our Quality Framework ensuring it meets the needs of our customers. This framework ensures we deliver high-quality customer conversations.
- In 2019-20, we launched a customer rescue service whereby we proactively contact customers via text after an interaction with us and confirm satisfaction with our service. If customers are not satisfied (score us 8 or below) we contact them to put things right.
- Other key improvements implemented in the period so far include:
  - Continued expansion of our live web chat services for our customers.
  - Continued development of the Customer Relationship Management (CRM) system ensuring our team have all the information they need in one central portal.
  - Centralisation and consolidation of all of our customer data into one central repository to ensure that we have one accurate and up to date record of a customers' contact details.
- All of these initiatives have enhanced the effectiveness of our services while keeping costs down for customers, doing more for less.
- Looking ahead, we'll continue to utilise CRM to broaden the range of communication we have with our customers.
- We are in the process of implementing a new telephony platform and Interactive Voice Response (IVR) system. This will deliver a modern cloud based solution that is scalable and can provide customers even faster with the information they need.

BMCS performance



Commitment	Status	Forecast completion
3.2 Use web-based technology to upgrade our process for general enquiries and minor engineering works	Delivered	2015-16

- Web-based technology has made it simpler and quicker for our customers to access our services.
- Our customer satisfaction levels for general enquires are progressing closer to industry leading levels and in the year increased by 3.5pp to 94.0%.
- We have invested in our systems to provide online self-service functionality for 33 general enquiries services. This includes functionality enabling booking of appointments online, paying for services directly on our website, accessing safety information and reporting problems either with equipment at customer properties or on our network, such as vandalism or trees near overhead lines.
- In 2020-21 we extended the reach of our CRM system to provide dynamic, on the day updates for disconnections customers. In the balance of the ED1 period, we will extend this to other general enquiries service lines.

Commitment	Status	Forecast completion
3.3 Continue to improve the quality and speed of our complaint resolution	On Track	2022-23

— The speed that we deal with customer complaints has improved year-on-year since the start of the period. We measure our performance against Day+1 and Day+31 complaint resolution targets and are achieving our ED1 business plan targets on both measures.

— 2020-21 saw us receive more complaints than normal due to the impact of the COVID-19 pandemic however we resolved 83.3% of complaints in Day+1; a 29.5 percentage point improvement since the start of the ED1 period. We resolved 96.4% of complaints in Day+31 in 2020-21, achieving our ED1 business plan target of 95%.

— As a result of our on-going activity to improve our overall customer experience and get things right first time we have seen a 46% reduction in the volume of complaints since the beginning of RIIO-ED1.

— We expect to continue our improvement and consistently achieve our ED1 business plan targets on these measures.

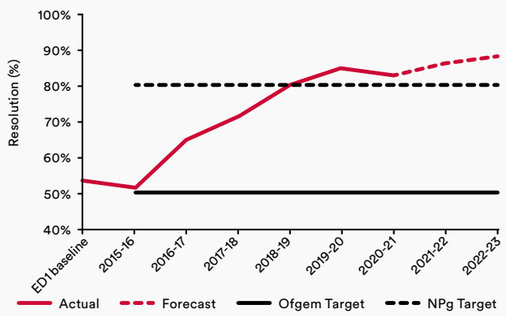
— We have had no repeat complaints since 2015-16 and no adverse ombudsman decisions during the RIIO-ED1 price control period to date.

— Where customers experience multiple interruptions this can lead to complaints. In 2020-21 our Customer Care team pro-actively supported and enhanced our communication approach to reduce the number of complaints and ensure our customers understand the latest position and actions we are taking to resolve the poor service they are experiencing.

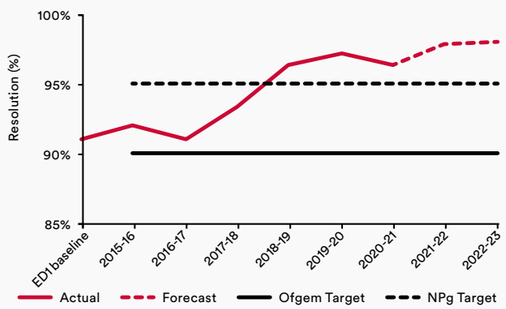
— We have enhanced local accountability for customer service through the introduction of regional customer service managers (CSMs). Our CSMs are working without operational teams to develop tailored customer service plans and embed a customer first culture.

— Our front line colleagues are empowered to put things right for our customers and are actively encouraged to work with our operational teams to resolve customer complaints quickly. In 2020-21, we enhanced our process to aid a swifter resolution of complaints by allocating ownership within our regional teams to enable quick resolution for our customers.

Complaints (Day +1)



Complaints (Day+31)



Going beyond our plan: We are forecasting to outperform our ED1 business plan targets for Day+1 (88% compared to 80%) and for Day+31 (98% compared to 90%)

Commitment	Status	Forecast completion
3.4 Provide better information to customers experiencing power cuts through voice or digital communication channels	On Track	2021-22

— Since the start of the ED1 period, we've expanded our digital communication channels to include live web chat, building on our existing suite of digital channels that includes email, text and social media (Facebook, Twitter and Instagram).

— Improvements have been made to our automated telephony platform (Interactive Voice Response, IVR), to ensure we provide clear and simple navigation to incident updates by postcode area. This is designed to ensure our customers are given the most up-to-date and relevant information for their query as quickly as possible.

— We proactively text customers to inform them about disruption to their electricity supply and provide updates on restoration works, including estimated times of restoration.

— We maintain a live interactive power cut map that gives updates on where the power is off, whether it's planned or unplanned and also provides information for customers about when we aim to have the power back on.

— During 2020 we implemented improved communications for planned power cuts using our CRM system. Customers are now provided with better information about planned power cuts before they happen including when they are happening and when they are finishing with our field teams using a mobile app to provide real time updates.

— In 2021-22, we will be extending this service to unplanned power cuts, using on-site information provided by our field teams to provide customers with real time text updates alongside using our CRM platform for all customer communications. We will also be implementing an innovative machine learning solution for improving our initial estimated restoration times.

Commitment	Status	Forecast completion
3.5 Use technology to enable our contact centre to move from being largely reactive to mostly proactive	Delivered	2019-20

— Our ED1 business plan envisaged moving to a world where 90% of our customer contacts would be outbound with only 10% inbound.

— Whilst we continue to deploy technology and self-service solutions to provide customers with the information they require before they need to contact us, we have seen an increase in the amount of inbound customer calls received into our Contact Centre following the launch of the '105' single emergency number in September 2016. In 2020-21, 73% of inbound calls were routed from the 105 number.

— This means that while our aim to be proactive remains unchanged, we are unlikely to see the 90% to 10% ratio we envisaged in our ED1 plan as we continue to respond to the ways our customers want to get in touch with us. In 2020-21, around 72% of our communications were outbound, with around 1.4 million outbound contacts coming from our contact centre.

— Earlier in the ED1 period we completed a major piece of work to centralise and consolidate all of our customer data into one central repository. This was a key step for us in making sure we have one accurate and up to date record of our customer contact details to enable proactive communications (where appropriate). We hold mobile numbers for 57% of our customers and email addresses for 64% enabling us to proactively contact customers (where appropriate).

— In 2019 we launched a multi-channel approach to pro-actively contact any customers with Priority Services Membership (PSM) customers who had not had any communication with us for a 2 year period to ask if they wished to remain on our PSM. We also undertake an automatic review any time a customer contacts us directly. The process has ensured that we reach a wider audience as part of our on-going data cleanse and that our PSM contains only those customers who continue to require the extra support that we can offer them.

— Our launch of on-the-day updates for our planned power cut customers in February 2020 has paved the way for additional roll-out of proactive communications with the same service launched for unplanned power cuts in the 2021.

Commitment	Status	Forecast completion
3.6 Make it easier for our customers to keep in touch – via internet, mobile, meetings, phone, email, social media, or text	Delivered	2019-20

— We know that people keep in touch with each other in many different ways and our aim is to make it as easy as we can for our customers to contact us in whatever way they prefer.

— In addition to our 24-hour telephone lines, we operate 24/7 social media channels, email and mobile phone texting services in addition to our live web chat services until 8pm. The launch of the national ('105') power cut number in 2016-17 made it even easier and quicker to get in touch with us, 73% of inbound calls now come via that route.

— We offer a variety of customer digital self-service options to make it easier for our customers to access the information they need including our online power cut map, on-line power cut logger, knowledgebase articles and dynamic FAQs on our website. In 2020-21, we extended our live web chat offering into connections, enabling more choice in the ways our customers can communicate with us.

— We are currently in the process of implementing a new telephony platform and Interactive Voice Response (IVR) system. This will deliver a modern cloud-based solution that is scalable and can provide customers even faster with the information they need.

— Looking ahead, we will extend live web chat across all service lines and progress our pilot for inbound reply text messaging with customers.

Social Obligations

Our regions have some of the highest levels of vulnerability across the UK. Our aim is to deliver the best possible support to our vulnerable customers through the use of effective partnerships, tailored services and meaningful engagement in our communities.

Commitment	Status	Forecast completion
5.1 Route calls from Priority Service Customers directly to contact centre advisors, bypassing automated messaging	Delivered	2015-16

— Since the first year of ED1 all of the calls we receive from customers who have Priority Services Membership (PSM) bypass our automated messaging service and go directly through to a member of our Contact Centre team so that we can respond to their specific needs as quickly as possible.

— Making it as easy as possible to communicate with us is essential, in 2017-18 we introduced a comprehensive suite of tools to support our vulnerable customers with specific communications needs including services such as Browse Aloud text-to-speech and 'language line' translation.

— We measure vulnerable customer satisfaction and gather feedback on our service through an independent survey which has been running since 2013. In January 2021 we completed the 11th phase of quantitative tracking research through 1,200 vulnerable customer telephone interviews. From this we know that one of the most important things we can do during a power cut is to keep our vulnerable customers proactively informed. In 2020-21 we recorded over 1.8 million proactive contacts for our PSM customers, this figure is increasing year on year since we introduced a target of 400,000 in 2018-19. This year we have also been trialling text messaging for PSM customers.

— As we engage with our vulnerable customers on current and emerging needs for the RIIO ED2 period we remain committed to making communication with us during a power cut as accessible and reassuring as possible, with an emphasis on being pro-active and personalised.

Commitment	Status	Forecast completion
5.2 Build partnerships with organisations to help us deliver our social programme	On Track	2022-23

— Trusted partners are key to delivering services that have a positive impact on our vulnerable customers and communities. Our "Stronger Together" partnership strategy guides our approach as we continue to expand our partnerships with charities, community groups and other third party organisations to deliver more support for our vulnerable customers.

— Our Partnering Communities Fund established in 2017-18 which merged with Northern Gas Networks' Community Promises Fund to create the Community Partnering Fund continues to offer £100,000 to community groups over a 12 month period with 2 rounds of applications per year. The fund makes grants for projects that tackle fuel poverty, promote energy efficiency, educate communities about the dangers of carbon monoxide and electrical safety, encourage interest in STEM (Science, Technology, Engineering and Maths) subjects or promote our Priority Services Register (PSM). 14,000 people of all ages have benefited from the projects funded this year, including local residents facing poverty and financial hardship, people with multiple disabilities, people who are homeless or living in temporary accommodation, families, users of community centres, young people aged 18-25 moving into their first tenancies and primary school children.

— Since we began our partnership with Citizens Advice Newcastle back in 2014 we have scaled up the services we offer to our customers experiencing fuel poverty and affordability issues. Our Powergrid Cares programme simplifies access to debt-advice and wider provision through two direct points of contact with Citizens Advice Leeds and Newcastle and also through our wider partners Green Doctor. A dedicated number means our colleagues and partners can fast track customers who need extra support. The service responds to the personal needs identified by our customers and helps them receive relevant support.

— In 2020-21 we partnered with the Money Advisor Network to support any customers who may have money worries, recognising the need for multiple entry points and the extension of fuel poor services which can be accessed before crisis points. Our customers can access free independent and impartial money and debt advice over the phone or online. Customers can also access the Money Navigator Tool that helps customers find guidance if they have been impacted by the coronavirus pandemic.

— We also supported our partners during the pandemic to deliver their advice to the most vulnerable through digital and telephone methods until face to face interventions resumed. This enabled more people to access the services and has continued as part of a hybrid delivery model.

— In addition to funding direct support for customers, we have a responsibility to use the resources available to us to support our partners to be sustainable within their communities. We have refreshed the resources and communications available on our website, continued to offer our partners access to our social data and delivered training to increase the support they can offer. The key outcomes were:

- Organisational sustainability has been supported through the creation of 7 new jobs and 6 additional grants or donations that have been secured as a result of the Community Partnering Fund.
- Around 250 people have been trained to support sustainability and extend the reach of those able to deliver energy efficiency advice to vulnerable customers in our region; including Level 2 Fuel Debt Advice in the Community certification, National Energy Action's Level 3 Award in Energy Awareness, Green Doctors BPEC Energy Efficiency Training and Yorkshire Energy Doctor's interactive online course.

— We have aligned our engagement and social programmes with our asset investment programmes to meet specific local needs. We profile the investment area to understand its vulnerability profile and set aside a budget based on the scale and impact of our works. Then, through an intensive period of community outreach and in partnership with local stakeholders, we design an engagement and social programme in a way to minimise the level of disruption for local people and maximise a project's lasting social impact. This was piloted on the Bradford Cable Project and was rolled out to a further four schemes in 2020-21 resulting in an estimated social benefit of £1.6m. We aim to apply the model to a further six schemes in 2021-22.

— Activities this year included investment in laptops in Scarborough to help unemployed individuals into work, investing in the woodland creation project in Dinnington with a view to extending this within other schemes in South Yorkshire and additional funding to the No Child Cold project in Bradford providing small grants to families who cannot afford to pay higher fuel bills to keep their children warm while they are learning from home.

— Looking ahead, we are exploring partnerships with organisations in Humber and South Yorkshire to extend the Powergrid Cares model with more local hubs and greater reach.

Commitment	Status	Forecast completion
5.3 Promote and raise awareness of our Priority Services Register to and with other partner organisations	On Track	2022-23

— The partnerships we have established and grown continue to help us to identify the most vulnerable communities in our region and tailor our PSM campaigns accordingly. We currently have 350+ local referral partners identifying individual needs and referring the people they support onto PSM and other wider support services we offer including Parish Councils, NHS Trusts, Local Authorities, Charities, Community organisations and other 3rd sector partners.

— Following research into barriers and challenges of engaging with the PSR, this year we launched our Priority Services register as a membership club. From the engagement we have carried out with stakeholders, some customers did not want to be added to the register as it has negative associations. Repositioning our PSM as a membership club means it as one less thing for someone who is vulnerable to worry about as they do not need to identify as vulnerable to engage.

— In 2020-2021 we saw a further 127,000 PSM registrations. Whilst we are seeing a year-on-year decline in the overall number of registrations, we believe this is due to improved quality of data and whilst overall the figure has decreased the share over those registered through our activities rather than supplier data sharing is increasing, indicating that our targeted recruitment and partnership approach is working.

— Our analysis has shown that we still have vulnerable categories that are under-represented, so during 2020-21 our campaign has included specific targeting for customers that speak English as a second language. We have had excellent engagement, with over 40,000 views of our recruitment video.

— We have also purchased additional data which allowed us to analyse, at neighbourhood level, energy efficiency of homes alongside fuel poverty data. This information has informed the targeting of our Energy Saving Campaign, trialling a new animation which offers short, simple tips and advice to help customers save money on their energy bills as well as promoting the PSM. It also aimed to support local people who may be trying to save money on their bills whilst at home more or who may be struggling with their annual energy costs. We targeted the nine geographic locations most in need based on our data using display ads on Google and video ads on YouTube. It was the most successful campaign of this type in terms of reach and efficiency that we have ever run.

Commitment	Status	Forecast completion
5.4 Enhance our training for frontline staff providing additional support for Priority Service customers	Delivered	2018-19

— Understanding and responding to the needs of our customers, particularly those who may be more vulnerable, is everyone's responsibility in our company.

— In 2017-18 we designed bespoke face-to-face and online vulnerability training programmes for all Northern Powergrid employees. The training was developed in collaboration with experts from Money Advice Trust, who are regarded as best practice leaders in vulnerability within the financial services sector, and National Training Academy, experts in online training. We have been able to demonstrate the impact the training has had on our employees' knowledge and confidence in supporting customers in vulnerable situations.

— In 2018-19, we achieved our target to train all employees in the business. For new starters, we've introduced a 'best welcome' induction process that includes the training for all new employees.

— In 2019-20, over 700 front line staff received 'Customer First' training. This course provides information about the behaviours and skills needed to consistently deliver high levels of service and an excellent customer experience.

— Making sure our colleagues have the right skills to identify this and are empowered to take action to deliver a service that best meets the needs of the customers they are supporting is key to providing vulnerable customers the support they need. In order to make sure that our culture reflects this in 2020-21 we have ensured:

- 100% of new colleagues have received consumer vulnerability training – that is 94 people this year with others completing 2 year refresher training.
- 100% of colleagues have received customer first training.
- 200 colleagues completed new safeguarding training which supports colleagues working with young people. We have fast tracked our mental health training through MIND to those most likely to interact with customers experiencing issues.

— As well as training our employees to deliver high-quality services for our vulnerable customers, we have issued over 1,000 PSM toolkits to our frontline staff. The toolkits outline the support services available to our customers and make it quicker and easier to get customers the support they need.

— Looking forward we will be refreshing our vulnerability training programme, using a completely new training module designed with colleagues and key stakeholders to be rolled out in January 2022.

— We will be fast tracking mental health training for front-line staff as part of our induction for all new starters. Through our attitudinal tracking throughout the pandemic and partner feedback we know that mental health issues and isolation increased significantly. We have developed the training in partnership with MIND to promote the support they provide through our customer communications as well as help support themselves and their colleagues.

Commitment	Status	Forecast completion
5.5 In conjunction with local authorities, identify socially-deprived areas and prioritise our support towards them during a power cut	On Track	2021-22

— Following the significant enhancements we made in 2016-17 to the data we hold on social deprivation, we have continued to evolve our approach to engaging with customers so that our services and interactions are better tailored to their specific needs.

— Over 120 users, including Local Authorities, the NHS, Citizens Advice and local housing authorities continue to use our mapping, which includes PSM customers affected by live planned and unplanned power cuts allowing us to better coordinate incident response and giving our partners access to the information needed to support local communities.

— We have developed a Local Authority welfare provision which is an agreement with Local Authorities in our area to provide support for customers during escalated events. This activity has been delayed due to the pandemic but is a priority for the remainder of ED1. We're aiming to expand our Local Authority welfare provision – with the ultimate aim for this to be an agreement with all Local Authorities in our region.

— In 2019-20, we developed data sharing agreements with some Local Authorities, which supported local response to the impact of COVID-19 by enabling data sharing of our PSR information through Resilience Direct.

— In 2020-21, we ensured there were agreements in place with all local authorities and continued to share our Priority Services data through Resilience Direct which Local Authorities have used in their own responses to the pandemic.

Commitment	Status	Forecast completion
5.6 With others, explore the feasibility of community-level aggregated-demand response in return for a community rebate	Delivered	2018-19

— Activating Community Engagement (ACE), an innovation project, led by Northern Powergrid in partnership with a consortium including GenGame Ltd, Open Energy, Serious Games International and Newcastle University, came to an end in 2017-18 after three years. The project, focused on residential demand side response (DSR), educated people about their energy usage and actively engaged communities to make small changes to how and when they use electricity in exchange for winning prizes for themselves or local groups.

— The close down report was published and learning dissemination events took place during 2018.

— We are using the learning developed during ACE on the GENDRIVE project to investigate the use of similar techniques to provide flexible electric vehicle charging. As a regulated network operator we are not driving the project but hold a consultative role in support of it.

— In October 2019 we published our update to our DSO strategy (DSO v1.1). This followed extensive engagement with our stakeholders on our initial proposals that were shared in December 2018, developed in close collaboration with the Energy Networks Association Open Networks project and flexibility providers. This has paved the way for some of our service level offerings in our draft ED2 business plan.

Commitment	Status	Forecast completion
5.7 Introduce friends and family register and 'good neighbour' scheme to support vulnerable customers	Delivered	2018-19

— Our Priority Services Membership (PSM) is set up so that a named contact (e.g. a friend or a family member) can be added if a customer requests additional support. We recruit onto our PSR through targeted campaigns using multiple channels, community partners, friends, family and carers, allowing them to register vulnerable households.

— We consider our approach to have delivered the outcome of this commitment without the need for a separate scheme, keeping our PSR service simple and easy to navigate.

— In 2016-17, we improved our online and paper-based PSM application processes so that people who need to add a friend or relative can do so more easily. Our PSR welcome pack also includes referral postcards that can be given to family and friends.

— In 2017-18 we reviewed our approach to third party referrals to ensure it is in line with best practices in relation to data protection, maintaining our duty of care to known vulnerable customers by placing them on the PSM but awaiting contact with the customer before signing-off consent to share their data with partners.

— Direct communication took place with those on the PSM during the pandemic, including referencing those who would have someone who would benefit from being on the PSM to ensure more people were made aware of the PSM and the services available.

Commitment	Status	Forecast completion
5.8 Explore the possibility, with Northern Gas Networks, of upgrading to electrical connections in high-rise tower blocks for safety reasons	Behind (external factors)	2022-23

— We have a mobilised programme upgrading electrical connections in high rise tower blocks (rising and lateral mains replacement).

— Our programme for ED1 however was significantly impacted by COVID-19 with restrictions on access due to social distancing and safe working measures.

— We currently forecast that we will have invested £2.2m by the end of the ED1 period.

— Delivery of a package of work at high rise blocks in Leeds is on hold due to COVID-19 – we are seeking to re-mobilise contractors with increased focus on risk assessment and planned appointments to comply with COVID-19 policies .

— Low-rise inspections were also put on hold due to the COVID-19 with works restricted to an essential only basis with individual risk assessments and booked appointments as short visits to multiple buildings with few customers were impractical.

— We will are targeting a further £1.3m of investment in the remainder of ED1 as restrictions are lifted and we can continue with our programme.

— Our draft business plan for ED2 contains further investment to upgrade electrical connections in high rise tower blocks as a continuation of our programme.

Commitment	Status	Forecast completion
5.9 Explore solutions to connect rural communities to the network	On Track	2022-23

- In 2018-19, we launched our £2.7m Network Innovation Allowance funded 'Microresilience' project. The project is assessing the technical viability and comparative economics (including non-financial benefits) of resilience solutions enabled by smart technologies for:
  - Critical customers on vulnerable connections
  - Remote customers on vulnerable connections
  - Opportunities for micro-grids (using already present DG)
  - Simple storage options.
- The project intends to provide guidance for the appropriateness of the various solutions tested and their technical benefits and disadvantages.
- The level of resilience improvement will be assessed alongside the level desired by customers. For example, critical customers on a vulnerable connection may have different requirements to a microgrid implementation with a significant degree of embedded generation.
- The project has been delayed both by technical challenges and more recently the COVID-19 pandemic however site works have now commenced. We have included plans for roll-out of microgrid solutions in our draft business plan for ED2.
- As part of our ongoing support for off-grid customers in our region we are taking part in a taskforce set up by Community Action Northumberland which will look at innovative options for connecting those customers where possible. We are in regular contact with Northumberland County Council and Northumberland National Parks Association to ensure that we remain part of the conversation with off-grid households.

Commitment	Status	Forecast completion
5.10 Provide more customer support vehicles along with more services in them	Delivered	2018-19

- Since we engaged on and wrote our ED1 business plan, our understanding of the needs of vulnerable customers and communities has increased exponentially. We know that proactive communication is key but when our customers are most impacted by loss of power on-site support becomes increasingly important. We offer an extensive programme of on-site support from phone charging to hot meals, tailored to the needs of the individual and the situation.
- We have five customer support vehicles (CSVs) in our fleet and in 2020 we introduced our first three Silent Power vans as a pilot. After successful trials, the vans were released for regular use by our Operations teams and are now an embedded part of our power cut response for vulnerable customers and communities. They provide a clean alternative to generating power for customers during a power cut replacing diesel generators and helping to reduce carbon emissions and reduce air and sound pollution.
- We provide various services from our CSVs, including hot water and microwave facilities, mobile phone charging points and refrigeration facilities for the storage of medication. In colder conditions, we offer customers winter warmer packs (hats, scarves, gloves, blankets etc.) to keep them warm, as well as face-to-face updates from Northern Powergrid employees on power cuts and more importantly, when the power is likely to be back on.
- Since 2018-19 we have implemented a new escalation process for enhanced service provision for vulnerable customers during power cuts which includes the deployment of CSVs to impacted communities. In the year we recruited six new Customer Service Managers who have responsibility for looking after vulnerable customers and communities on site, including the deployment of CSVs in their regions, leveraging the data we hold on social deprivation to best utilise these in power cut situations.
- We will continue to measure, record and report deployment of our services for vulnerable customers and conduct engagement and research to understand customer satisfaction levels, areas for improvement and emerging needs.

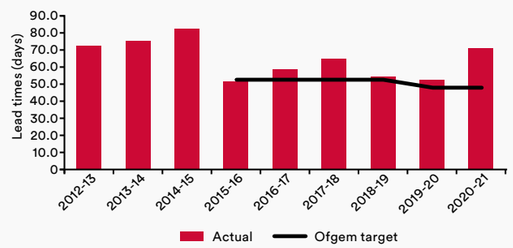
Connections

Our connections customers continue to shape the range of services we offer. We've delivered five of the six commitments we set out in our ED1 business plan and we expect to deliver our final headline commitment to reduce small works end-to-end lead times by 30% by 2023.

Commitment	Status	Forecast completion
6.1 Reduce end-to-end connection timescales for small works by more than 30%	Behind	2022-23

- In ED1 to date we have reduced connections end-to-end lead times for small works by an average of 18% relative to our ED1 business plan baseline. Whilst this improvement is tracking behind a straight-line improvement profile for the ED1 period we still expect to deliver the targeted 30% reduction by 2023.
- Improving customer satisfaction continues to be our primary objective through offering a single point of contact for all connections and our quote on-site service. This has driven a 10.2 percentage point improvement in satisfaction with our connections services since the start of ED1. Customers are able to meet their small works Technician (single point of contact) to discuss requirements and liaise with them during the preparation of their quotation and then continue this liaison post the quotation should they wish to go ahead with the delivery of the connection.

Small works connections – lead times



- Satisfaction levels in 2020-21 increased by 0.5 percentage points however we missed our own and Ofgem's targets for time to quote and deliver for both licenses.
- Lead times in the year were significantly impacted by COVID-19 due to restricted access to customer premises, in particular businesses where sites were closed.
- On quotations, high volumes of customers continue to prefer site visits and quotations on site, increasing lead times but improving satisfaction. Delivery lead times have also been impacted by a small number of long-running jobs that require wayleaves or where customers have requested delayed connection dates.
- Small works connections volumes continue to increase. In 2020-21 quotation and delivery volumes for LVSSA increased by 22% and 59% respectively driven by LCTs and the telecoms fibre rollout. We are scaling our resources to respond to these increasing volumes and in 2021 injected additional contractor resource teams to clear post-COVID-19 backlogs of work.
- In the remainder of the ED1 period we will continue to scale our delivery capacity to meet incoming volumes and focus on the delivery of works following customer acceptance of a quotation to help us deliver to customer requested timescales and meet our commitment to reduce lead times by 30% by the end of ED1.
- We will also expand on our innovative AutoDesign solution for budget quotations to all LV connections with the aim to save time and cost for customers whilst increasing the quality of our services.

Commitment	Status	Forecast completion
6.2 Better payment terms – customers will not need to pay as far in advance	Delivered	2015-16

- In response to customer feedback, we implemented a payment process in 2015-16 that allows small works connections customers to pay for connections work up to 12 days before the works begin.
- We continue to review customer feedback to understand how the 12 day payment process is delivering for our customers.
- Looking ahead, we will keep our payment terms under review and engage further with customers to understand the best way forward.

Commitment	Status	Forecast completion
6.3 Provide more flexible quotations, including online self-service and faster quotes	Delivered	2019-20

— In 2016-17 we updated our online services to provide customers with more information on pricing, timescales and capacity. This, along with our guided online process allows customers to complete much more of their connection application themselves.

— In August 2019, we implemented a new quotation management system that allows small works connections customers to receive a quotation from our staff in the field via handheld technology.

— Our fast-track connections process also makes it easier and quicker for customers to turn a budget estimate into a firm quote. In January 2020 we launched AutoDesign, a free online, self-service, low voltage design tool, to help users identify the best new EV charging point connection locations. The system allows customers to quickly explore connection options and create budget estimates in minutes.

— We have also significantly improved our service alterations process for our customers, giving them the option to obtain a quote online or request a pre-quote site visit ahead of receiving a connection quote.

— We are increasing the flexibility and reducing the cost of connecting to our network in constrained areas by deploying Active Network Management (ANM). In March 2019 we deployed our first replicable ANM scheme on our network in Driffield, East Yorkshire.

— As of March 2021 we had four Active Network Management sites with 433MW of contracted flexibility. In the remainder of the ED1 period, we expect further connections which will take our total to 537MW.

Commitment	Status	Forecast completion
6.4 Introduce a web-based system to help customers understand the capacity on our network and the likely cost of connection	Delivered	2016-17

— In 2016-17 we introduced interactive generation and demand heat maps on our website. These webpages detail what capacity is available on our network, give a description of any network constraints that would affect connections and set out our guide prices and payment periods for typical jobs.

— We continue to support customers in using these tools. As well as providing on-going assistance, we have delivered additional user training to ensure that stakeholders are better informed about how to use our heat maps and the network information available and have an opportunity to provide feedback to help inform future developments.

— In 2020-21, we continued our routine refresh of our heat maps and contracted capacity register as part of the monthly process.

— We also enhanced the information that we include in our heat maps by publishing data on the known transmission system constraints, offering stakeholders access to more timely and accurate data in relation to the transmission system.

Commitment	Status	Forecast completion
6.5 Implement a tailored service for large projects, including 'account management' where needed or requested	Delivered	2019-20

— We rolled out a single point of contact model for connections to guide customers through the application and delivery process. The process enables customers to liaise directly with a named member of our team through the lifetime of their project. The single point of contact is accountable for the delivery of all aspects of the works and is able to resolve issues and communicate progress effectively.

— We have introduced measurable engagement milestones to ensure that our customers receive proactive updates from the single point of contact throughout the quotation process.

— In addition to our single point of contact model, we have also improved our connections surgery experience to provide all customers with the opportunity to communicate with NPg in respect to business planning and project development outside of the formal application process.

Commitment	Status	Forecast completion
6.6 Provide a better service for non-contestable elements of work – regularly publishing key indicators	Delivered	2015-16

— We established our dedicated Connections Input Services team in 2015 to serve Independent Connections Providers (ICPs) and Independent Distribution Network Operators (IDNOs), alongside implementing new streamlined competition in connections (CIC) processes.

— We publish key performance metrics for our range of input services on our website to report how we are performing to our stakeholders. These key indicators provide monthly and year-to-date average timescales in relation to time taken to issue SLC15 quotations along with the average time taken to approve an ICP design. This allows ICPs to establish timeframes for responses ahead of making applications or submission.

SLC15 quotations issued (Medium & Large works)	Within standard		Outside standard		Total
	Count	%	Count	%	
NPg	**1,228**	**99.68%**	**4**	**0.90%**	**1,232**
Northeast	**499**	**100.00%**	**0**	**0.00%**	**499**
Yorkshire	**729**	**99.45%**	**4**	**0.00%**	**733**

— We continue to run our monthly ICP surgeries, along with two bi-annual seminars and additional subject specific workshops engaging with our stakeholders to further develop our services in this area. New ICPs working in our licence areas are asked to attend a workshop with us to provide an overview of processes and requirements, to ensure a seamless progression for their enquiries.

— In 2020-21, 0.9% of our quotations in the year were issued outside of the guaranteed standard timescale – that's only four of the 1,232 issued.

— As competition has increased we have seen IDNOs adopt single and three phase small works connections to electric vehicles charging points. To better facilitate competition in this area we have revised our policy to make it no longer mandatory to install a link box for service connections putting this decision at the discretion of the IDNO.

— Following stakeholder feedback we also agreed to modify our existing Alternative Providers Register to highlight those ICPs which are suitably accredited and authorised to carry out Self Determination of Point of Connection (PoC), Self-Design Approval and Self Connections. This provides customers with further information to support their choice of connections provider and also reassures local authorities and other similar organisations of ICP authorisations in these areas.

— Looking ahead, we're developing a wayleave portal following direct stakeholder engagement. The wayleave portal will provide an instant update as to the legal status of connection schemes. It will also facilitate more efficient signing of documents via electronic methods. We will look to run a trial with interested stakeholders and then provide this as a solution to all of our customers.

Smart Energy

We're continuing to deliver our smart grid enabling investment programme, laying the foundation for a more flexible, active and customer-led network. At this stage the uptake in low carbon technologies remains lower than forecast and we are navigating around delays in the national smart meter roll-out programme.

Commitment	Status	Forecast completion
7.1 Invest £83m in smart grid enabling technology that, as a minimum, pays for itself by 2031 – the more likely result will be a much larger saving, possibly as high as £400m-£500m	**Behind** (external factors)	2022-23

— Our investment in smart grid enabling infrastructure was one of our headline initiatives in our ED1 business plan and remains a key enabler for our transition to delivering DSO.

— Our programme is upgrading the control units in our substations to make the network compatible with modern digital communications along with establishing the communications network from our control centres to those units. This includes:
- Upgrading/replacing Remote Terminal Units (RTUs) – control points at our substations;
- Upgrading/replacing automatic voltage control points – transformer relays at all of our supply points and primary substations;
- Upgrading our telecoms communications network from control centres to our substations (both primary and secondary SCADA networks);
- Installing low voltage (LV) monitoring across our network.

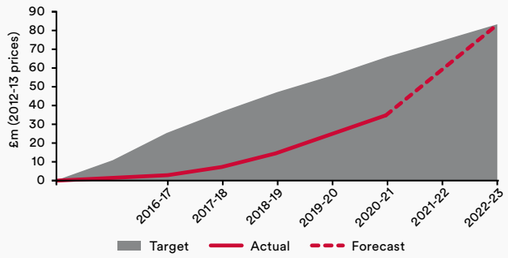
— This investment is giving us greater ability to control and analyse how our network is operating in real-time, enabling us to respond to the uptake in low carbon technologies.

— Whilst our expenditure in the early years of ED1 was below plan, we have had to overcome more technical challenges than originally anticipated, including substantial recruitment and retraining of engineering staff to deliver the programme. More recently we have encountered technical performance challenges with our primary and secondary SCADA replacement projects, these have now been resolved and we are in the rollout phase after both proof of concepts were completed during the year.

— The programme continued to be impacted by COVID-19 during 2020-21 regulatory year. In quarter 2, 2020 the programme had to be paused because it was one of the few that required people to work closely together in relatively confined spaces while we developed a new set of working methods for those tasks. Travel restrictions have also impacted the use of contractors from outside the UK across the projects.

— However, in 2020-21 the programme has accelerated, with 754 units installed on the network and £10.8m invested during the year. This took our total expenditure in ED1 to date to £35.3m on smart grid enablement.

Cumulative Smart Grids expenditure



— Our programme is in widespread roll-out and we expect to deliver our commitments by the end of the period.

— Key milestones on the programme so far include:
- Delivering the replacement of transformer control relays and substation remote terminal units whilst installing LV monitoring units across the network.
- Commencing the upgrading and where necessary replacement of HV regulators with modern IP based control equipment.
- Commencing the upgrade of our serial low bandwidth primary communications network with a secure and resilient IP based system. We are now replacing and upgrading all of our backhaul and last mile links to our major substation sites.
- Completing the proof of concept for replacing our secondary communications network with an IP based one and placed a contract for the rollout.
- Starting a series of information and operational technology projects to upgrade and replace foundational systems used to store, process and enable analytics for our DSO business functions.

Commitment	Status	Forecast completion
7.2 Invest £52m in smartgrid network reinforcement that pays back by 2023 through avoiding £86m of traditional reinforcement – a net saving of £34m compared with traditional reinforcement methods	**Behind** (external factors)	2022-23

— Requirements for reinforcement in the ED1 period to date have continued to be below forecast due to the uptake of low carbon technologies being at the low end of expectations.

— We continue to be proactive with our smart grid investment including replacing looped services, the cable used when two properties share a single electricity supply, to mitigate potential issues as a result of future low carbon technology (LCT) uptake. In ED1 to date we have replaced almost 15,000 looped services at a cost of almost £13.5m.

— We are committed to exploring alternatives to traditional reinforcement and have continued to explore innovative solutions to maximise the capacity of our existing assets. These include:
- **Voltage reduction:** The purpose of this programme is to create voltage headroom on our network so customers can connect. In 2020-21, we have completed 23 sites releasing a further 207MVA of generation capacity. Through ED1 we have now completed 492 sites (90% of target) and it is estimated that these actions have released 4,428MVA of voltage headroom to date, allowing connection of more distributed generation such as domestic solar PV to the LV network fed from each primary substation.
- **Voltage regulation:** We are using HV voltage regulators and HV transformers with on-load tap changer capability as innovative solutions to provide voltage control as an alternative to traditional reinforcement. Schemes for HV voltage regulation have now been approved with planned investment totalling over £1m.
- **Active Network Management:** We are installing technology to provide real-time information on the levels of electricity demand and generation so that we can actively monitor capacity limits on the network. We currently have 433MW of contracted flexibility operational across 4 sites with another 104MW expected to be connected by the end of the period.

— These solutions are all supported by the installation of automatic voltage control relays as part of our smart grid programme across our primary substations. This will allow greater network flexibility including the ability to meet high load conditions in winter and increased embedded generation activity through the summer months.

— In 2020-21, we began our Green Investment programme as part of a £300m national scheme, developed in collaboration with Ofgem and the Energy Networks Association, to stimulate a green recovery of the economy by accelerating vital investment infrastructure. We will be investing over £53m in the next two years across the Northeast, Yorkshire and northern Lincolnshire to support green growth projects to come to fruition faster and of local green jobs and industries.

— As phase 1 of this programme, we have committed to deliver £30m of low voltage network reinforcement as part of our ED1 allowances that will enable around 20,000 customers across our Northeast and Yorkshire regions to adopt low carbon technologies, unlock the potential for participation in flexibility markets; and significantly reduce electrical losses on the parts of the low voltage network.

Commitment	Status	Forecast completion
7.3 Provide opportunities for customers to participate in demand side response to reduce the cost of running the network	✓ On Track	2022-23

— We updated our stakeholders on our approach to deploying customer flexibility when we published our DSO v1.1 plan in October 2020. This set out what we were doing to roll-out flexibility in the near- and medium-term. Our approach, in close collaboration with the Energy Networks Association Open Networks project and flexibility providers, is to seek opportunities to deploy customer flexibility to maximise efficient use of the network for three key use cases: deferral of traditional reinforcement, planned maintenance and emergency support.

— Throughout the year, we have continued to look for opportunities to utilise flexibility as an efficient network investment option for managing load. In November 2020 we conducted an expression of interest in flexibility services in a number of regions where we are forecasting possible network constraints in the future. This exercise provided valuable feedback from the market to guide our planning and optioneering for efficient future investment in our network, and useful insight into the nascent flexibility market.

— Internally, we are developing our processes and systems to enable use of customer flexibility when the need arises. In autumn 2020 we commenced implementation of the Flexible Power operational system to manage the purchase and operation of flexibility services. This collaboration now includes the majority of DNOs and offers flexibility providers an easier, lower cost, standardised route to market.

— We published our flexibility procurement statement in March 2021. This set out our contracted flexibility needs and proposed tendering process and pricing strategy for the year ahead, giving stakeholders the visibility and opportunity to comment on our plans.

— We considered the use of flexibility services to manage constraints at two primary substations on our network, however our network options assessment, which we shared with stakeholders, suggested that in these cases, network flexibility was the most economical option.

Commitment	Status	Forecast completion
7.4 Modify our trading and customer service systems to realise benefits from the new smart meter data	On Track	2021-22

— The national smart meter roll-out programme continues to experience delays due to technical issues. This was further impacted by suppliers pausing installation activities during the pandemic lockdown.

— Despite the ongoing delays, we have taken a number of positive steps internally to prepare to realise benefits for customers. In 2020-21 our Data Privacy Plan setting out our proposals for accessing half-hourly electricity consumption data was approved by Ofgem (see commitment 7.5).

— We have continued to make progress on system integration projects and maintained the accreditations for secure network communications with our smart metering system. We have a number of projects that make use of smart meter data in our trading and Customer Services systems including;

- **Smart Telephony:** Integrating smart meter data with our telephony platform to route power outage voice traffic dependent on smart meter status
- **Smart Asset Models:** Providing visibility of smart meter and status on a layer on our asset model map to assist fault location investigations and restoration confirmations
- **Smart Customer Info:** Notifying contact centre staff to update outbound recorded messages on the status of a power cut and to trigger outbound updates about outage and restore activities to customers

— We continue to keep under review the most efficient delivery approach for our projects dependent on our access to smart metering data, which remains limited due to the national system issues in the North.

— We are experiencing the same challenges as the other DNOs with regards to the inconsistency of Power Outage and Power Restoration alerts and the inconsistent behaviours experienced from different meter and firmware combinations for voltage data and time periods. We are continuing to collaborate via various forums with the DCC, suppliers and DNOs to resolve these issues. We are also putting significant effort into analysing smart meter data and trying to reconcile smart metering alerts to 'on the ground' activities.

— Looking ahead, we will continue to progress our projects (where efficient) so we are ready to make use of smart meter data as it becomes available.

Commitment	Status	Forecast completion
7.5 Use smart meter data to optimise network investment and reduce losses	Behind (external factors)	2022-23

— The national smart meter roll-out programme continues to experience delays, most latterly due to COVID-19.

— We achieved connection to the national smart meter system in November 2017 however we have received limited smart meter data to date due to national system issues in the North.

— So far around 2 million smart meters have been installed in our region, of which we have access to data from around 600,000.

— In 2020-21 Ofgem approved our Data Privacy Plan, which outlined our proposals and controls for accessing, aggregating and utilising half hourly electricity consumption data. Our systems are now being amended to allow us to gather consumption data in line with our approved submission.

— Our innovative Boston Spa Energy Efficiency Trial (BEET) was authorised in 2019-20 and has since been exploring how data flows from smart meters can be used to improve voltage control and reduce low voltage energy use – assisting decarbonisation and saving customers money. In 2020-21 the project successfully completed desktop network, design and benefits studies and was authorised to enter its field trial phase. We have included plans for widespread roll-out of the solution in our 2023-28 business plan.

— Looking ahead, we will continue to work with the DCC, other DNOs and industry parties to seek to resolve the issues with smart meter data and continue to leverage smart meter data, in particular for our BEET project.

Commitment	Status	Forecast completion
7.6 Trial the potential for combining Smart Grids and smart meter data to provide additional information services	On Track	2021-22

— In 2020-21 we continued with innovation projects to make advanced use of smart meter and smart grid data.

— Our Smart Network Design Methodologies project for example aims to improve LV design and modelling tools with smart meter data being used to inform probability distributions for demand.

- The project was generally successful in providing a better understanding of how to model modern power networks and developing significantly improved demand modelling techniques across multiple voltage levels.
- However integrating smart meter data was unsuccessful due to the low numbers of second generation smart meters available from which to harvest data and the aggregation rules that prevented segregation of the phases needed for certain techniques on three phase systems.
- Now that our data privacy plan has been approved, we are exploring the options for integrating smart meter data into our LV design tool.

— We are also progressing our Boston Spa Energy Efficiency Trial (BEET) – details can be found here.

Commitment	Status	Forecast completion
7.7 Establish a dedicated team of technical staff to perform timely modifications to our equipment when they are needed to enable the smart meter installation to proceed	Delivered	2018-19

— At the start of the period we established contracts with our service providers to resolve defects identified through the smart meter roll-out on our behalf. We continue to work closely with them to ensure the arrangement delivers high quality service levels for our customers.

— We have continued to experience significantly higher smart meter defect rates than Ofgem's original forecast – 3.4% compared to the Ofgem assumption of 2%. Our service level agreement (SLA) performance for defect resolution is 87% for Category A and 91% for Category B (both against targets of 90%), having resolved significantly more defects than forecast.

— In 2018-19, we increased resourcing in our contact centre to create a dedicated smart team for responding to calls and online queries from Meter Operators and energy suppliers.

— We also implemented a database and reporting suite in the year to streamline the management of our remediation records for customer jobs.

Environment

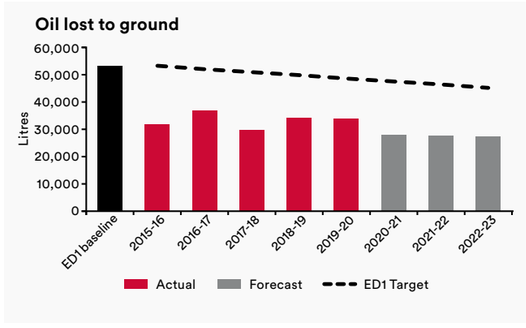
We are on track to deliver and in many cases go beyond our original environmental commitments setting stretch forecasts in a number of our key output areas.

Commitment	Status	Forecast completion
9.1 Reduce oil/fluid leakage to ground by 15% by 2023	Ahead	2022-23

— Our 2020-21 oil and fluid loss performance of 28,055 reflects a 17% reduction compared to prior year and a 47% reduction compared to our business plan baseline of 53,245 litres.

— We continue to invest in technologies such as perflourocarbon (PFT) leak detection. Since the start of ED1 we have invested £2.8m to have PFT injected into 48 fluid-filled cable circuits – 8% of cables of this type in service across our network focused on our high risk assets.

— We are in the final stages of trials for our innovative self-healing cable additive solution aimed at improving network performance, generating cost efficiencies and reducing the impact of cable leaks. Subject to successful trials we will begin dosing circuits with this additive in the latter stages of the ED1 period.



— We achieved our previous stretch forecast of 47% in the year and are forecasting to continue our strong run. Our current trajectory sees us achieve a 49% reduction by the end of the period relative to our ED1 business plan baseline.

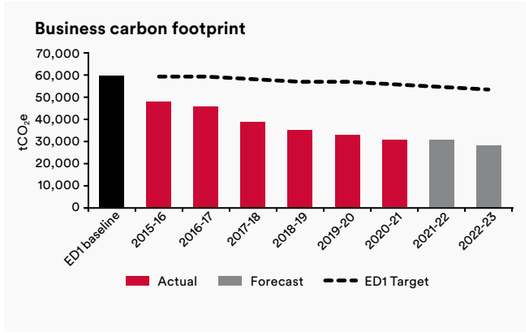
Going beyond our plan: we are forecasting to outperform our ED1 business plan target and reduce oil/fluid leakage to ground by ≥49%

Commitment	Status	Forecast completion
9.2 Reduce our business carbon footprint by 10% by 2023	Ahead	2022-23

— We continue to make strong progress in reducing our business carbon footprint. In 2020-21, emissions of 31,241 tonnes represented a 6% reduction relative to 2019-20 and a 48% reduction relative to our business plan baseline of 59,700 tonnes.

— In the year, we maintained our carbon footprint ISO 14064 certification, 'Gold' standard, by the Certified Emissions Measurement and Reduction Scheme (CEMARS), which we achieved in 2018-19 as a result of demonstrating year-on-year reductions in our business carbon footprint since 2014.

— 2020-21 emissions from our business travel reduced by 43% compared to prior year as a result of the pandemic. We are looking to utilise the remote working tools and techniques adopted as a result of COVID-19 restrictions to have an enduring positive impact on our emissions.



— On operational transport, we continue to reduce fleet mileage assisted by our vehicle telematics systems and the strategic deployment of staff. We will see further benefits as we accelerate the introduction of ULEV/ZEVs into our fleet.

— We are maintaining our focus on Sulphur Hexafluoride (SF_6) gas emission reduction using thermal imaging technology to detect leaking switchgear and we are working with our service providers to reduce their fuel consumption and energy use.

— Our Silent Power battery powered generator units are now used in business as usual during power cuts to enable us to meet both our Customer Service and environmental targets. We are planning to increase our use of zero emission generators and low emission fuels as we progress into ED2.

— Looking ahead, we are aiming to have around 8% of our fleet as ULEV/ZEV by the end of the period and we are planning to install solar panels at our depots and substations to reduce our own energy consumption.

— Our latest forecast is set to reduce our business carbon footprint by 50% by 2023 relative to our business plan baseline.

Going beyond our plan: we are forecasting to outperform our ED1 business plan target and reduce our business carbon footprint by ≥50%

Commitment	Status	Forecast completion
9.3 Underground ~100km of overhead line in Areas of Outstanding Natural Beauty (AONB)	On Track	2022-23

— Since the start of the ED1 period, we have removed 74.9km of overhead lines in Areas of Outstanding Natural Beauty (AONB). In 2020-21, we did experience some delays in the delivery of our plan with key service providers furloughing staff though we are still on track to deliver our commitment.

— Our stakeholders have made it clear to us that this is a priority commitment area. Our strategy for project assessment and delivery is designed to meet the needs of representatives from the Designated Areas. We have a jointly agreed Assessment and Stakeholder Participation Policy. Our stakeholders draw up a priority list of potential projects taking into account the characteristics of each site and the visual and environmental impact of the overhead line. This leads to each site being given a Stakeholder Rating which, alongside our own engineering wayleaves and value-for-money assessment, results in a project either progressing to authorisation or being deferred or cancelled. This methodology helps our stakeholders make informed decisions.

— A detailed view of our schemes, their progress and relative stakeholder scores can be found in the environmental report here.

— As a result of our continuing engagement with Local Authorities and National Parks representatives, we have set a stretch forecast for additional 16km by the end of 2022-23, which represents an additional £2m investment.

— As we look to close out our programme in the balance of the ED1 period, we have re-mobilised works with key service providers following the delays experienced during COVID-19 and made good progress in developing our pipeline of work for delivery.

Going beyond our plan: we are forecasting to outperform our ED1 business plan target and remove an additional 16.1km of overhead lines from AONBs (114km in total)

Commitment	Status	Forecast completion
9.4 Replace 134km of fluid-filled cables and use perfluorocarbon tracers (PFTs) to quickly replace leaks	Delivered	2019-20

— In the period to date, we have replaced 176.5km of fluid filled cable which is more than we originally planned in the whole period (133.6km).

— The combination of fluid filled cable replacement and faster detection (using PFT tracer technology) and repair of leaks means we are already significantly outperforming our fluid loss targets for the period and further reducing our environmental impact.

— During 2020-21, we closed out the first phase of our Bradford Cable project, we have now commenced work on the second phase of works which are set to complete on time and within budget by the end of the period. The £32m capital programme will see 43km of underground oil filled cable replaced delivering benefits to over 160,000 customers.

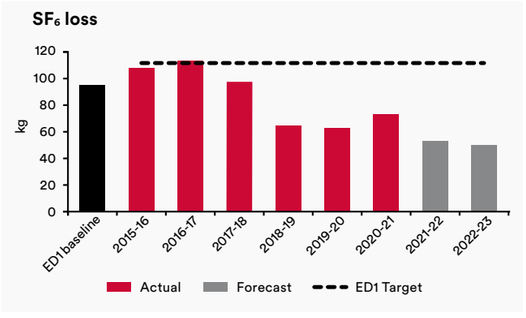
Going beyond our plan: we are forecasting to outperform our ED1 business plan target and replace an additional 90.8km of fluid filled cable (224.4km in total)

Commitment	Status	Forecast completion
9.5 Maintain SF_6 losses as the volume of gas in our switchgear assets increases	Ahead	2022-23

— Our 2020-21 SF_6 losses of 73kg represented a 35% reduction compared to our business plan target of 112kg albeit this was a step back compared to our best ever performance of 63kg achieved in 2019-20.

— The increase in the year was due to two specific switchgear circuits identified using an SF_6 thermal imaging camera -Haverton Incinerator and Kirkstall B to Beeston Royds No3. As a result of the sustained leak rates we brought the replacement of these two units forward.

— Despite the 2020-21 increased levels, our investment programme to replace the poorer performing circuits and continuing to leverage technology means we are still on track to achieve our stretch forecast of 50kg.



Going beyond our plan: we are forecasting to outperform our ED1 business plan target and reduce SF_6 losses to ≥50kg by the end of ED1

Commitment	Status	Forecast completion
9.6 Deliver faster and higher quality street works reinstatement when we dig up the street	On Track	2022-23

— We achieved a 92% success rate in 2020-21 for our annual streetworks reinstatement quality. We've exceeded our ED1 business plan target of 90% in every year of the period to date.

— We continue to be involved in the ongoing development of the Street Manager, Plan & Manage Road Works system, with attendance at national webinars, and forums. This system is improving planning and coordination of our streetworks activities.

— Going forward, we'll maintain the standard of reinstatement using routine site inspections and targeted training. We're confident of delivering consistent performance levels in excess of our 90% ED1 target.

Commitment	Status	Forecast completion
9.7 Make sure reduction of electrical losses is explicitly factored into investment decisions for a wider range of assets	Delivered	2018-19

— We have changed our policies around how we design and build network assets to explicitly factor losses into our investment decisions.

— Over ED1, we have continued to increase our understanding of electrical losses across our network and how it is impacted by the connection of low carbon technology via a variety of projects described in our losses strategy and losses discretionary reward submissions – you can find out more information on losses here. We've also trained more staff to understand the principles and we have shared our methodology with other DNOs.

— More detail on how we manage losses can be found in our environment and innovation report.

Commitment	Status	Forecast completion
9.8 Continue to operate a full revenue protection service	Withdrawn	2015-16

— In 2015 we informed our stakeholders that we intended to cease providing a revenue protection service for energy suppliers following the decision from our key service provider in our region to withdraw from this activity. This meant it was no longer practical for us to provide this optional service cost-effectively for suppliers and as we received no objections, we stopped providing the service in April 2016.

— We are required under our licence to investigate and resolve relevant electricity theft (theft in conveyance). The above service provider also undertook this activity on our behalf until they withdrew their services and since they withdrew, we have trained front line staff who now carry out investigation of electricity theft cases.

Finance

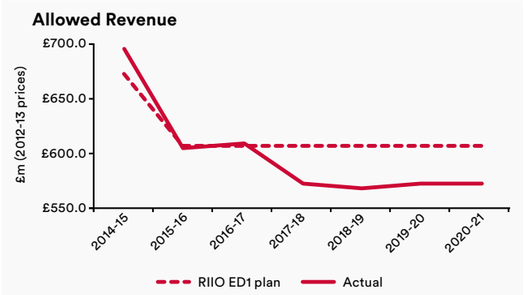
Our headline commitment in ED1 was to deliver more for less for our customers – we delivered a 14% price reduction at the start of the period and we are forecasting to exceed our output targets. We're also tracking ahead of our target to create 1,000 new job opportunities in the period.

Commitment	Status	Forecast completion
10.1 We will deliver an immediate 10% price reduction at the start of the period	Delivered	2015-16

— We delivered a 14% price reduction to domestic customers in April 2015 (the start of the ED1 period).

— The underlying base revenues that we are allowed to earn remain flat in real terms (i.e. excluding the effects of price inflation) but our prices move during the period according to the way the regulatory price control mechanism works and changes in charging methodologies for the industry.

— The impact of the 14% price reduction and the other factors mentioned above is set out in the graph below showing our allowed revenue.

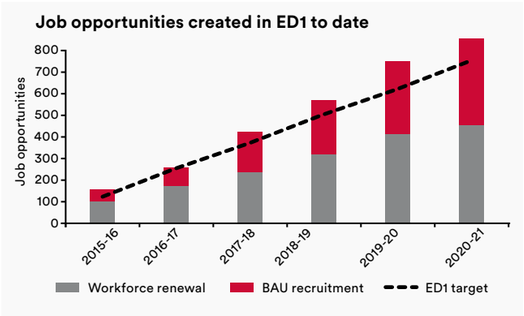


Commitment	Status	Forecast completion
10.2 We expect to create 1,000 job opportunities in the organisation during the ED1 period	Ahead	2021-22

— We have created 855 job opportunities in our region since the start of ED1, including 454 new recruits via our workforce renewal programme (WFR). As the total numbers of recruits represents more than 85% of our target, we remain confident we will exceed our expectation to create 1,000 job opportunities by the end of the period.

— In 2020-21 we created 107 job opportunities of which 40 were WFR recruits – all of which were apprentice and technical trainee roles in the operations part of our business.

— In the year, we finalised our recruitment drive which began in 2019-20 for six new regional customer service managers (CSMs) to work alongside the operations managers in each of our regions. Our CSMs now drive the delivery of locally tailored customer service improvement plans alongside General Managers in our regions.



— Our regional operating model means we are able to adapt our operations to meet the differing needs and demands of the region we cover. We are developing our workforce to better reflect the region we serve and have updated our recruitment practices to appeal to a broader range of people, with local activities in each of the areas to target under-represented groups. This approach will continue and grow as we aim to appeal to a more diverse range of potential candidates to apply for the new job opportunities available with us.

— We are committed to narrowing the gender pay gap and are doing this by actively seeking to attract more females into engineering and senior roles. It will take time but we are targeting year-on-year progress and will continue to take positive actions to attract and retain a diverse mix of talented people to our company.

Going beyond our plan: We are forecasting to outperform our ED1 business plan target and create 1,150 job opportunities by the end of ED1.

Contact us

We believe that our customers and stakeholders are the best judges of our performance. We always want to hear your views and opinions on the services we provide and your ideas for what we could be doing. If you would like to comment, you can contact us in a number of ways:

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