UK
Power
Networks
Delivering your electricity

Engaging to deliver impact
for our customers and stakeholders

Ongoing Engagement Report 2023/24

Welcome

Matthew White
Head of Customer Service and Innovation

Welcome to UK Power Networks' first Ongoing Engagement Report

Our Ongoing Engagement Reports set out how stakeholder engagement has continued to help us understand and overcome the challenges customers face. This includes reducing stress and anxiety during a power cut for customers on the PSR who are medically dependent on electricity; supporting local authorities to make it easier to understand, coordinate, and create Local Area Energy Plans; and finding solutions to make it simpler for multi-occupancy buildings to decarbonise their heating. The insights and learnings we gain help shape our decision-making and enable us to take meaningful action to tackle the most relevant issues and deliver greater impact for our customers.

In this report

About this report

Our Ongoing Engagement Report is a new report through which we will report on our engagement programme throughout RIIO-ED2. Through this report we aim to:

- Be transparent about our engagement programme.
- Explain how insights have informed our decision making.
- Demonstrate how engagement has led to benefits for customers.

Over the RIIO-ED1 period, we gained valuable insights from the Stakeholder Engagement and Consumer Vulnerability (SECV) submission and the Panel's feedback. This enhanced our focus on the role engagement has in our decision-making and, although the SEVC process has ended, we remain committed to ongoing stakeholder engagement to deliver positive outcomes for customers and society. Over the last year we've continued to refine our approach, expanding our research capabilities to help us tackle the challenges faced.

Our ongoing engagement commitments throughout RIIO-ED2

We made four ongoing engagement commitments for ED2. Below we provide an update on the progress we've made against these commitments. We will continue to provide an update every year. We have committed to:

Run a comprehensive annual ongoing engagement programme to obtain meaningful insights to help improve our activities and decisions. This will include consulting stakeholders, such as those on our CEO panel and Stakeholder Councils, in the development of our annual plan. Crucially, we will provide opportunities for them to raise issues for discussion.

PROGRESS IN 2023/24:

Our engagement programme is driven by key questions organised into three overarching themes, summarised on p.3. The key questions are informed by horizon scanning, including PESTLE analysis integrated within individual team engagement plans and strategic initiatives, as well as our RIIO-ED2 commitments, explained on the next page. Our central engagement team meets monthly with teams across the business to discuss, shape and track ongoing engagement and research activities. Our flexibility council made up of established flexibility providers helped us shape and develop the first DSO day-ahead flexibility market. We've also worked with our Connections Scrutiny Panel to co-design our digital self-service solutions, assess our Open Data portal data sets and to help us understand the impact of the Future Homes Standard on future connections.

Collate, store and disseminate insights from our ongoing engagement programme to drive more informed actions both internally with our staff, from Board level down, and supply chain partners, as well as externally with stakeholders, regulators and policy makers. We will have measurement and reporting systems in place so we can track business changes attributable to ongoing engagement.

PROGRESS IN 2023/24:

We've designed and built a new Insights Hub to bring insights from engagement and research together in one place. This will allow us to make fuller use of insights across multiple teams, compare new insights against the existing body of evidence, and reduce duplication of effort from repeating existing research. In doing this we aim to make our engagement and research programme more efficient and impactful. Our overall engagement plan is also available to teams across the business in a central location for better visibility, coordination and to avoid duplication of effort. This increases efficiency of engagement and decision making, enabling teams to share learnings, align on processes and get the most out of insights.

Create a dedicated core team of engagement and research specialists with the skills required to develop and maintain a comprehensive ongoing engagement programme.

PROGRESS IN 2023/24:

We've bolstered our research expertise by establishing a new role to shape, plan and carry out high quality research in partnership with teams across the business, ensuring we conduct research and interpret results in line with best practice.

Report annually on the outcomes of our ongoing engagement programme, communicating publicly how it has influenced our actions and decisions.

PROGRESS IN 2023/24:

Through this Ongoing Engagement Report we report on the outcomes of our engagement and research programme, fulfilling this commitment.

Engagement priorities in 2023/24

Our engagement priorities are informed by careful analysis of external factors affecting our business along with the commitments we made in our RIIO-ED2 business plan. We regularly review and refresh our engagement focus to reflect external factors and the evolving needs of our stakeholders. We have refined our engagement themes compared to those set out in the 2022/23 SECV process. Recognising the changing landscape within which we operate, we have reframed our priority from, 'Enhancing whole system resilience' to 'A network customers can rely on', better reflecting the outcomes we aim to deliver for our customers. Over the years our 'inclusion by design' approach has evolved from a standalone focus to integrating vulnerability and inclusion across our business. Vulnerability and inclusion are now established as cross-cutting priorities across each of our focus areas.

	Meeting our customers' and communities' evolving needs	Enabling the Net Zero transition for all	A network customers can rely on
OUR STRATEGIC ENGAGEMENT THEMES	Meeting our customers' and communities' evolving needs	Enabling the Net Zero transition for all	A network customers can rely on
KEY EXTERNAL FACTORS INFLUENCING OUR FOCUS	• Cost-of-living crisis and high energy costs maintain customer pressures and scrutiny on energy companies. • Declining trust in utilities due to perceived profiteering and negative publicity on prepayment meters and water sewage discharge. • Increased focus on data licensing to support open data and secure, standardised data sharing.	• Growing public awareness of and participation in Net Zero and the potential benefits it offers e.g. flexibility participation. • Polarised attitudes and challenges in adopting low-carbon technologies, such as planning requirements for low-carbon heating. • Anticipated changes to the Environment Act affecting nature, biodiversity, waste, water and air quality.	• Increased demand for network investment to support the Net Zero transition. • Increased political scrutiny of transmission connection queues impacting distribution customers. • Increasing frequency and number of high impact weather events i.e. storms and heatwaves.
KEY QUESTIONS DRIVING OUR ENGAGEMENT	• How can we continue delivering industry-leading customer service? • How are customers' needs, behaviours and service expectations changing and what does this mean for our services? • How can we make it easy for customers and stakeholders to access the data and information they need? UPDATED • How are vulnerability and disadvantage evolving, including intersectional impacts? UPDATED • How can we maximise the impact of our support to customers in or at risk of fuel poverty? UPDATED • How can we continue to grow PSR registrations? UPDATED	• How can we ensure customers transitioning to low-carbon technologies receive an excellent service? UPDATED • What actions should we take to support customers, businesses and communities to transition to low-carbon technologies? UPDATED • How can we ensure a fair and inclusive transition to Net Zero? • How should we decarbonise our operations and supply chain?	• How is expected demand on the network changing and how can we ensure the network is ready? • What actions should we take to develop the flexibility market and enable broader participation? • How can we enable those ready to connect to do so more quickly? UPDATED • How can we improve network reliability and resilience? NEW • How can we enhance support for customers during power cuts and major events, particularly through the PSR? UPDATED

Examples of key stakeholders groups we engage with

CUSTOMERS:

Domestic, Business, SMEs, Vulnerable Customers, Connections Customers, Distributed Energy Resources (DER), Developers

SERVICE PROVIDERS:

LCT Providers, Installers and Operators, Flexibility Providers, Car Manufacturers, Charity Partners supporting vulnerable customers, Motorway Service Area Operators

BEYOND THE ENERGY SECTOR:

Water Utilities, Transport Providers, Banking, Technology, EU Energy Networks, Environmental Charities, Non-Profit Organisations, Professional Services, Pharmaceuticals, Ports, Rivers Authority, Trade Associations, Emergency Services

SUBJECT MATTER EXPERTS:

Institute of Customer Service, Consumer Groups, Academics and Universities

COMMUNITIES:

Local Authorities, Local Resilience Forums (LRFs), Community Energy Groups

ENERGY SECTOR:

Ofgem, DNOs, UK Research and Innovation, Department for Energy Security and Net Zero (DESNZ), Energy Networks Association (ENA), Electricity System Operator (ESO), Gas Networks, Energy Suppliers, Smart Energy GB, Energy Retailers

Our Stakeholder Engagement and Research strategy

In 2023/24 we have for the first time set out our research strategy alongside our engagement strategy, highlighting how the two work together to deliver insights and outcomes.

Why we engage and carry out research

Purposeful engagement and research help us make evidence-based decisions that deliver the best possible outcomes. Listening and responding to stakeholders is a key part of our culture of continuous improvement, innovation and high performance. We engage and conduct research for five key reasons:

To shape our strategy and actions

To improve our services

To learn and develop best practice

To share and influence

To deliver against our commitments

We set out to ensure all our engagement and research:

Is purposeful

**Provides insight that drives change**

Incorporates learning to ensure insights gained through engagement are embedded in the right parts of the business to shape meaningful action

Our decentralised model

Engagement is delivered by teams across the business, supported by the engagement and research team who provide guidance and ensure engagement focuses on relevant and material issues. This model means that teams hear directly from their customers and stakeholders, can directly drive changes and action in response, and receive first-hand feedback on the impact of those changes.

We approach engagement as an ongoing dialogue with stakeholders which allows us to test and refine our thinking as we develop initiatives to ensure we deliver the best possible outcomes. Executive-level sponsorship reinforces commitment to engagement and research as well as its role in decision making.

We carry out our market research in line with the Market Research Society's Code of Practice. These principles are followed by research agencies and institutions to ensure research is delivered to the highest standards.
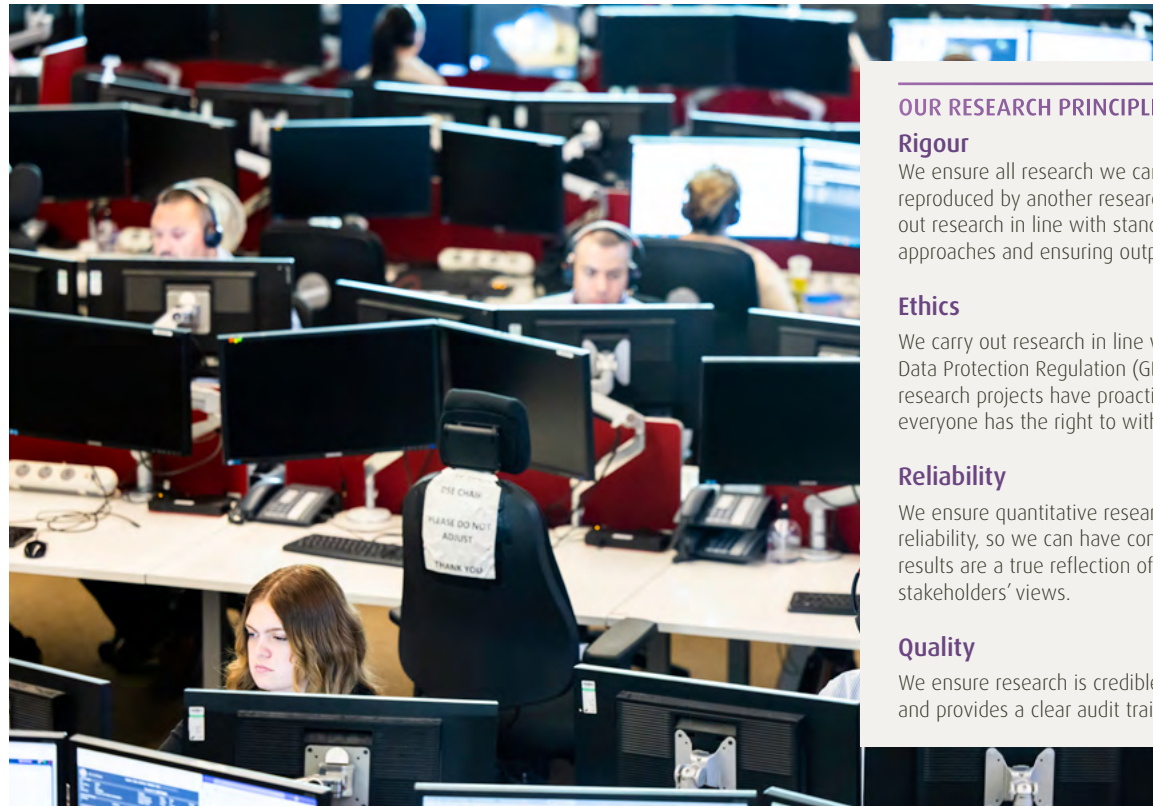
OUR RESEARCH PRINCIPLES

Rigour
We ensure all research we carry out could be reproduced by another researcher, by carrying out research in line with standardised approaches and ensuring outputs are credible.

Ethics
We carry out research in line with General Data Protection Regulation (GDPR), ensuring research projects have proactive consent and everyone has the right to withdraw.

Reliability
We ensure quantitative research has internal reliability, so we can have confidence that results are a true reflection of our stakeholders' views.

Quality
We ensure research is credible and purposeful and provides a clear audit trail for reference.

Our Stakeholder Engagement and Research strategy
continued

Collaboration and partnerships

Partnership and collaboration are often used interchangeably. However, we view these as two different types of relationships with different purposes. Drawing this distinction helps us to be more intentional in the way we approach relationships with stakeholders.

Collaboration:

We collaborate on shared challenges with organisations with which we have common purpose.

On page 29 we explain how we've collaborated to understand the issues driving connections queues and worked with SSEN, the Greater London Authority, West London Local Authorities, the ESO and National Grid Electricity Transmission to shape solutions to deliver a shared objective of connecting customers faster.

Partnerships:

We partner with organisations with complementary capabilities, expertise and capacity to deliver a specific objective.

On page 13 we explain how we've partnered with charities such as Swale Children and Families and Citizens Advice Arun and Chichester to engage with hard-to-reach customers and deliver targeted support to our customers.

Our approach to engagement and research

Capturing insights from engagement and research in a new Insights Hub

We have designed and implemented a new Insights Hub to capture, store and share insights from engagement and research. This allows teams across the business to access and compare insights from a range of sources to help them make informed decisions. This provides wider, easier access to information which was previously held by individual teams.
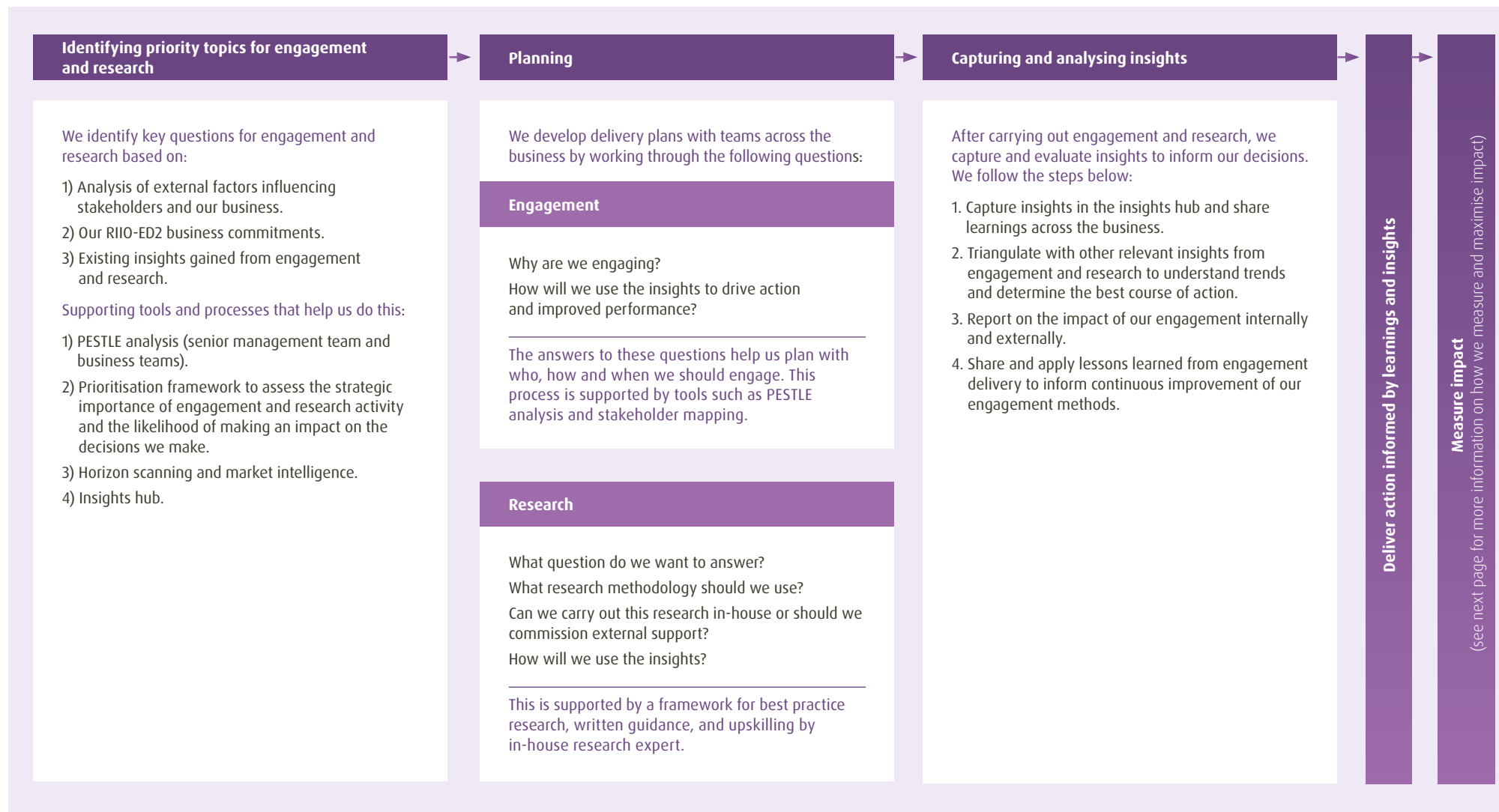
The Insights Hub will support us to:

- Make fuller use of past and current insights from across the business.
- Triangulate insights from different research or engagement activities.
- Reduce the risk of duplicating research where up-to-date insights already exist.
- More easily track the impact of insights on business decisions.

Our approach to engagement and research continued

This page sets out the process we follow to develop, deliver and monitor engagement and research plans. We view research and engagement as complementary activities and as such in 2023/24 we have set out our research approach alongside our engagement approach, demonstrating how we use the two together to inform our decisions and drive impact.

Identifying priority topics for engagement and research

We identify key questions for engagement and research based on:

1) Analysis of external factors influencing stakeholders and our business.
2) Our RIIO-ED2 business commitments.
3) Existing insights gained from engagement and research.

Supporting tools and processes that help us do this:

1) PESTLE analysis (senior management team and business teams).
2) Prioritisation framework to assess the strategic importance of engagement and research activity and the likelihood of making an impact on the decisions we make.
3) Horizon scanning and market intelligence.
4) Insights hub.

Planning

We develop delivery plans with teams across the business by working through the following questions:

Engagement

Why are we engaging?
How will we use the insights to drive action and improved performance?

The answers to these questions help us plan with who, how and when we should engage. This process is supported by tools such as PESTLE analysis and stakeholder mapping.

Research

What question do we want to answer?
What research methodology should we use?
Can we carry out this research in-house or should we commission external support?
How will we use the insights?

This is supported by a framework for best practice research, written guidance, and upskilling by in-house research expert.

Capturing and analysing insights

After carrying out engagement and research, we capture and evaluate insights to inform our decisions. We follow the steps below:

1. Capture insights in the insights hub and share learnings across the business.
2. Triangulate with other relevant insights from engagement and research to understand trends and determine the best course of action.
3. Report on the impact of our engagement internally and externally.
4. Share and apply lessons learned from engagement delivery to inform continuous improvement of our engagement methods.

Deliver action informed by learnings and insights

Measure impact (see next page for more information on how we measure and maximise impact)

Monitoring and evaluation

How we measure and maximise impact

We take an outcome-driven approach to problem solving, working to get to the heart of an issue and taking the action that will make the greatest difference, even when the path is difficult. Engagement is crucial for understanding issues and defining goals. We assess potential actions based on these goals and use engagement and impact measurement throughout our initiative to make informed decisions.

We use a combination of engagement, research and impact measurement to guide our decisions at every stage of an initiative:

1. Understand the needs of stakeholders and impact an action might deliver	2. Compare the potential impacts of several actions we could take to determine best course of action	3. Select the best possible actions to take forward and deliver action	4. Assess our initiatives during development to ensure they are likely to deliver the intended impacts	5. Validate whether an action delivered the impact expected
ROLE OF RESEARCH AND ENGAGEMENT • Engage with stakeholders to understand the issue and identify gaps in our understanding or challenges to address. • Clarify target outcomes and prioritise those that matter most. • Analyse research, market intelligence and strategic changes in the environment.	**ROLE OF RESEARCH AND ENGAGEMENT** • Identify areas where research is required to gain further understanding on key issues. • Engage to explore our potential role and actions we could take. • Assess and triangulate feedback, evaluate costs, benefits, and trade-offs; establish if there is value.	**ROLE OF RESEARCH AND ENGAGEMENT** • Triangulate engagement insights with other decision-making inputs. • Engage to identify partners to take forward actions. • Engage through co-design, testing and/or trialling with customers and/or stakeholders.	**ROLE OF RESEARCH AND ENGAGEMENT** • Provide input and feedback through co-design, testing and/or trialling with customers and/or stakeholders. • Decide whether to scale, change or stop. • Share learnings and outcomes during delivery, e.g. with other DNOs.	**ROLE OF RESEARCH AND ENGAGEMENT** • Understand actual customer and stakeholder impacts experienced. • Share learnings and best practice, internally and externally.
ROLE OF IMPACT MEASUREMENT • Evaluate potential impact of an action. • Identify how to measure intended outcomes.	**ROLE OF IMPACT MEASUREMENT** • Compare and rank the potential impacts of possible actions we could take.	**ROLE OF IMPACT MEASUREMENT** • Understand potential impacts to inform decisions.	**ROLE OF IMPACT MEASUREMENT** • Evaluate impact and update forecast impact.	**ROLE OF IMPACT MEASUREMENT** • Evaluate and report on actual impact delivered.

The impact of our engagement

We track the outcomes of decisions and actions influenced by insights gained from engagement and research to evaluate the impact of our engagement and research programme. We use a range of qualitative and quantitative techniques to evaluate the potential and actual impact of an action. For each initiative we select a mix of methods that best reflects the types of outcomes we are targeting, and the groups intended to experience the impact.

Qualitative tools
Feedback from customers and stakeholder engagement

Qualitative and quantitative tools
Market and customer research
Surveys and polls

Qualitative and quantitative tools
Cost benefit analysis
Social valuation (SROI analysis)
Performance metrics – modelling and reporting

In recent years we have also deepened our understanding of the uses and limitations of Social Return on Investment (SROI) and have learned that social valuation is not appropriate for every type of initiative. As a result, we no longer seek to apply social valuation by default. Rather, we apply a triage process that challenges whether social, environmental and wellbeing benefits are materially important to the aims of an initiative and whether we have sufficient confidence in the inputs and assumptions to provide a credible valuation.

Summary of impacts delivered through engagement and research in 2023/24:

Meeting our customers' and communities' evolving needs

- No.1 DNO on Trustpilot and overall customer satisfaction score of 94% (Top DNO).
- Awarded Utility of the Year at the Utility Week Awards 2023.
- 148,110 customers in or at risk of fuel poverty support, saving an average of £261.36 per customer.
- 62 data sets now available on the Open data portal (+69% on 2022/23).
- 85,168 Open Data Portal users since launch in 2021 (+69% on 2022/23).
- 82% of LCT applications via our smart connect portal auto-approved over 2023/24.

Enabling the Net Zero transition for all

- Enabled 41,989 EV charging points and 17,646 heat pumps to connect to our network.
- Every MSA in our area has enough power for at least 6 high powered chargers (we are the only DNO Group to deliver this).
- £2m benefits in 2023/24 due to 7,397 tonnes of carbon emissions avoided by reduced curtailment of low carbon generation.
- Supported local authorities with free energy planning tool, backed by 52 datasets.
- 100,000 customers at risk of being left behind in the transition to Net Zero supported, delivering £4.35m in net present value.

A network customers can rely on

- 77% of all eligible households registered to our PSR.
- 93.3% PSR customer satisfaction.
- Awarded over 1.5GW in flexibility contracts including to 14 new providers and dispatched 7.8GWh, seven times higher than 2022/23.
- Grew domestic participation through DSO-first demand turn-up product, with 24,000 households receiving more than £1.3m of free electricity.
- Accelerated 5.5GW of connections in areas with transmission network constraints by five years.
- Driven cross-industry action to tackle connection queues, including leading the delivery of Technical Limits, unlocking 30GW of capacity across GB, including 4GW in our regions.

# Meeting our customers' and communities' evolving needs

The cost-of-living crisis has led to an increase in fuel poverty, with more customers than ever before needing support, and the economic and social challenges have contributed to stagnation in customer satisfaction. As customers' tolerance declines and expectations of our service continue to rise, we must work hard to keep our standards high. In addition, as we transition to Net Zero, and more households seek to adopt electric vehicles, heat pumps, and solar power, we're seeing increasing dependence on electricity. Since 2022, we've seen a 44% increase in customers contacting us via our Smart Connect portal, demonstrating the increasing demand from customers as we transition to Net Zero. We must ensure that every interaction with our customers delivers an excellent experience.

We have a key role to play in facilitating this journey, including the changing relationship between DNOs and customers, making it easy and accessible for all.

We have undertaken engagement with our customers, stakeholders and wider communities to ensure we deliver service that meets their evolving expectations and delivers what we have promised our customers.

OUR COMMITMENT
- We're committed to delivering a brilliant service for all, staying in tune with customers' needs and expectations to deliver high quality service.
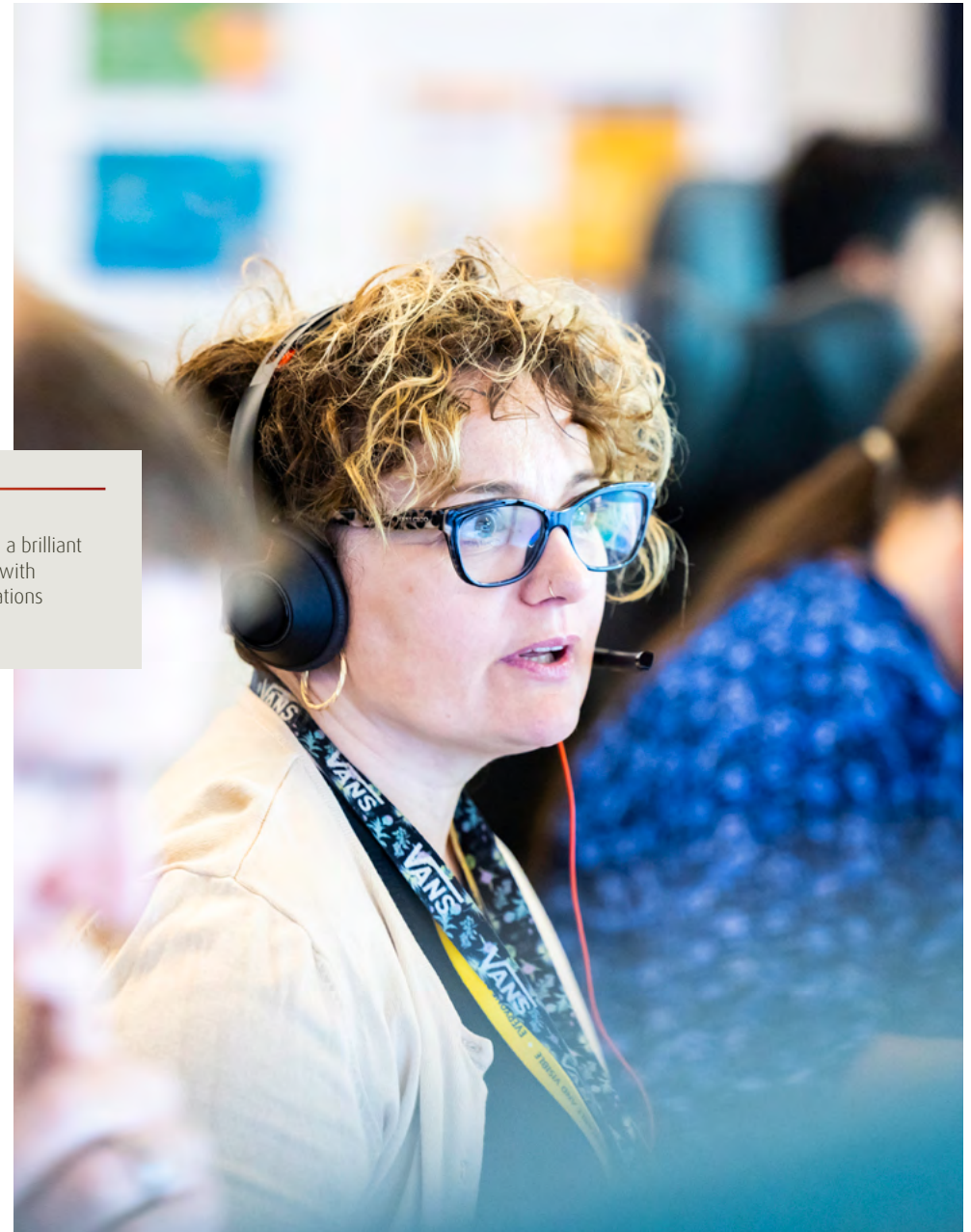
THE CHALLENGE

Continually improving our customers' experience to meet growing expectations

Continued external pressures, such as the cost of living and energy crises, have led to higher expectations and lower tolerance among customers, a trend reflected across the UK Customer Service Index. Customers now expect more from us and to meet this we must understand different customer groups and tailor their experiences appropriately, using data, customer engagement, and industry benchmarking to identify areas for improvement.

WHAT WE DID

Provided customers with better information to prepare for planned power cuts

Despite achieving overall industry-leading customer satisfaction scores of 94%, we were struggling to achieve customer satisfaction scores above 91% for our planned power cut customer journey. Customers experience this service when we carry out work to maintain and improve our network. Planned outages are necessary but disrupt our customers' day-to-day lives. This told us we had work to do to ensure our customers' experience during planned power cuts was the best it could be. We carried out research and engaged with customers through panels and surveys to drill down into the pain points and understand what aspects no longer worked for customers.

We learned that customers want clearer and more detailed information about planned power cuts, including more accurate timing and duration. This information is crucial for customers, as it allows them to plan their day effectively. For example, knowing the exact schedule of a power cut can help them decide whether to work from home or go to the office, or even make alternative arrangements in the evening based on when their electricity will be restored.

Drawing on the feedback we updated our planned power cut journey:

- We appointed a dedicated leader for each planned power cut to manage the customer journey end to end. For each incident, a project manager makes sure the work is going to plan, keeps all stakeholders up to date and acts as single point of contact for call advisors dealing with issues or questions from customers. This means that customers receive correct, timely and relevant information about their situation and enables vulnerable customers to get information and support over the phone.

- Each power cut has a dedicated webpage, making it easier for customers to access information ahead of the work. This page includes a map of the area that will be affected, the number of customers who will be off supply and estimated time for when the power will be back on. Customers can sign up for regular updates and receive notifications about when their power will be back on.

All of this means we can set realistic expectations with customers and provide clear, transparent information on the impact of the work, giving customers a sense of the scale of what is being done as well as the information needed to prepare. Over 2024/25 we will continue to review the whole planned powercuts customer journey in line with customers evolving expectations in order to drive higher customer satisfaction.

Impact
- 94% customer satisfaction across all our services, no.1 DNO.

WHAT WE DID

Adopted convenient channels so customers get service that is right first time

Insights from customer feedback identified the growing importance of quick and easy service and getting it right first time for customers.

While new technologies offer opportunities to advance customer service, through the analysis carried out by our data science team we know that a personalised experience remains key our customers. We applied learnings from internal digital tools to enhance the experience for customers. We've updated how we interact with customers, for example we now introduce advisors by name and do the same when a new advisor takes over at the end of a shift.

We have also implemented a virtual agent to assist customers with requests on our website. We tested the virtual agent with customers which enabled us to configure how the chat bot operates, type of language and tone it uses and speed of response based on feedback, optimising the experience to provide functional support while remaining personalised for customers. Customers can now ask the chat bot for information such as updates on a power cut, check if they are on the PSR or find out who their supplier is, with the ability to hand over to a call agent if they would like to speak to someone.

Impact
- Our chat bot receives an average of 2,000 chats a month since it went live in January 2024. We estimate this has saved around 14,000 calls from customers to our contact centre.
- As a result of the changes we have made to our messaging, we have seen an increase in customer satisfaction from 91.42% to 93.14% by the end of 2023.

Trialled first-ever video chat to help customers solve electrical issues in their home

When customers report a power cut, our call advisors talk them through a list of physical checks to identify what could be causing the power cut. It can be challenging and frustrating for customers to explain problems over the phone, especially when they are alone and without power. It can be particularly difficult for those living in vulnerable circumstances; carrying out checks often involves finding your fuse box, which may not be accessible and can be complicated and unfamiliar for many customers.

Customers now have the option to talk to call advisors via video or send short video clips at their convenience. The advisor guides the customer through the necessary safety checks to ensure they get the help they need. They can share pictures of the process and electricity equipment involved, including trip switches and energy meters.

The video calls have made it quicker and easier to resolve issues, guiding customer who are unfamiliar with the equipment in their homes and also means where the issue is due to a problem with the property's internal wiring, we can quickly identify this without needing to dispatch an engineer who won't be able to fix the problem. This means that the customer can call in an electrician and get the issue resolved more quickly. The service will be launching fully into business as usual before the end of 2024 once final systems integration has been completed.

Impact
- Over 300 customers supported through video calls during 2023/24.
- Over 100 engineer visits to identify internal faults avoided, saving customers time in 2023/24.

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We are delighted to partner with UK Power Networks on this exciting opportunity to transform customer experience. Working together, we are committed to empower customers with new and simpler ways of reporting via video saving customer wait times, saving unnecessary field visits and building a strong knowledge base that actively drives intelligence and insight."

Kapil Singhal
Vyntelligence co-founder and CEO
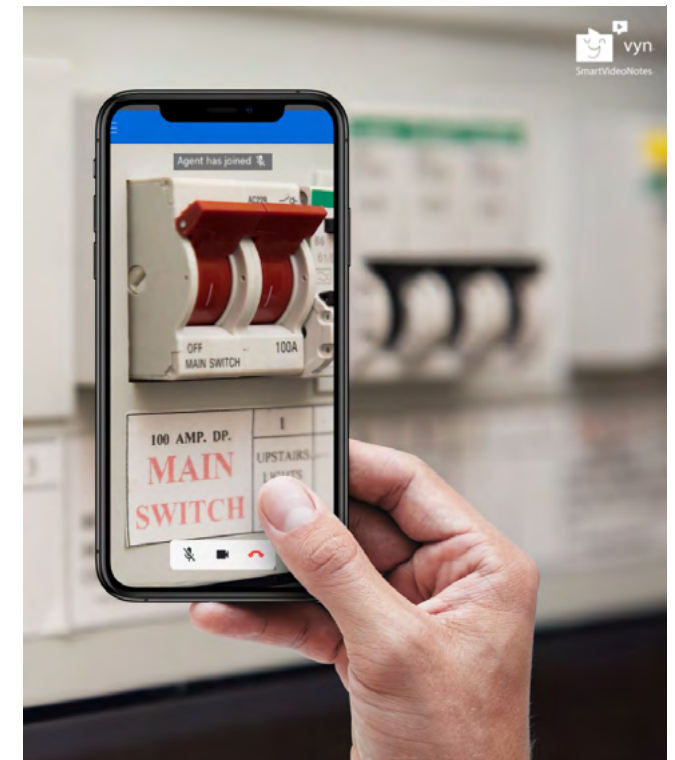
THE CHALLENGE

Tackling fuel poverty

The rising cost of energy and the cost-of-living crisis have pushed more families deeper into fuel poverty. Tackling the fuel poverty crisis is a significant and fast-moving challenge. Our ambition to support 500,000 households over the ED2 period reflects our dedication to addressing this societal issue.

Our strategy has three building blocks: providing personalised, one-to-one support and in-depth advice; providing energy advice to a wide range of customers in or at risk of fuel poverty and providing general fuel poverty information and energy advice to our customers.

These three levels of support work in unison to achieve three goals simultaneously: (i) reaching customers at risk of fuel poverty to prevent them from falling into it, (ii) lifting customers out of fuel poverty and (iii) providing long-term support for customers to find a sustainable way out of fuel poverty.

For more on our strategy and how we support vulnerable customers visit our **Annual Vulnerability Report**.

Research and engagement are helping us meet the challenge by addressing three questions:

- How can we identify and reach customers in/at risk of fuel poverty to target support?
- How can we scale up this support to meet demand?
- How can we deliver meaningful support across vast and geographically diverse areas, each with its own unique characteristics and dynamics?

WHAT WE DID

Reached customers with tailored support across channels that work for them

Engagement with stakeholders highlighted the vital need for customers to be able to access support across a range of channels including online and face-to-face. This ensures that support is accessible and helps communities with intersecting vulnerabilities such as fuel poverty and low levels of literacy and numeracy skills.

We refined the range of partners we work with, and the services they deliver, to meet these evolving needs. For example, we worked with Swale Children and Families to provide face-to-face support to 1,085 customers in areas with high deprivation, providing advice on how they could lower their energy bills and make their income stretch further. We also trialled a new partnership enabling customers to get financial support online, in private. The support includes an income maximisation assessment, the chance to create a personal budget to help manage their income and share financial information with other organisations they owe money to, helping reduce financial worries about paying bills.

Built partnerships to deliver at scale

We need to balance the effectiveness of small, local charities with the need to reach our customers at scale. In 2023/24 we built on our successful, long-standing collaboration with Citizens Advice to create a model that can be scaled up to help more customers. We partnered with Citizens Advice Arun and Chichester to offer fuel poverty support, including income maximisation, home energy audits and grant application support to customers. Working together with the network of Citizens Advice branches throughout our regions, we expanded the support service to work with Citizens Advice Essex, scaling up the support delivered through both branches of the organisation.

Our partners also told us they need longer-term investment to be able to meet the volume of support our programme sets out to deliver. As a result we designed an approach to enable partners to contract to work with us for up to five years. This will help them plan more effectively across financial years, support them to scale up and efficiently manage multiple funding streams.

Impact

- 148,110 customers in or at risk of fuel poverty support, saving an average of £261.36 per customer.
- £36.77m net present value delivered, or £6.37 in SROI for every £1 spent in delivering the programme in 2023/24.

WHAT WE DID

Working together with partners to deliver more impactful support

Our customers have come to expect the same outstanding levels of satisfaction from all services; this is no different for our fuel poverty support. We have a strong track record of leading customer satisfaction scores in other areas of our business, and we aim to bring this experience to bear in our work on fuel poverty, to deliver a service that results in highly satisfied customers.

We have engaged with our partners to share our experience, upskilling and coaching partners in delivering an excellent customer experience, helping them understand trends in customer satisfaction scores and identify areas for improvement in the service they offer. By providing insights and feedback to pinpoint where changes can be made together, we've driven higher performance and realised the true value our partners offer to our customers.

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Even though the CSAT requirement seemed challenging and demanding at the beginning, it was super beneficial to myself and NEF as it helped us better understand our impact on people's lives. Having UK Power Networks to call on and help us through this learning curve has been vital and we couldn't have done it without their support."

Kevin Habib
Project Manager at NEF

Impact

- As a result of our efforts, the support we delivered this year equates to £36.77m in net present value, or £6.37 in SROI for every £1 spent in delivering the programme.
- Achieved customer satisfaction score of 92.1% for fuel poverty services.
- Silver winner for Best Approach to Supporting Vulnerable Customers at the National Contact Centre Awards 2024.

THE CHALLENGE

Expanding support for customers during power cuts

Across our three networks, we estimate that there are currently 3.3 million households who would benefit from extra support during a power cut. This means they are eligible for our Priority Services Register (PSR). We set an ambitious target to register three million customers on our PSR by the end of RIIO-ED2, which is at least 86% of all eligible households in our area.

Over the years, our research and engagement has told us that awareness of the PSR among customers is low. We're working to increase PSR registrations across our network to ensure we know who needs extra help and the circumstances that affect them. This will allow us to deliver the right support at the right time to the right customers.

For more detail about our PSR support, see our **Annual Vulnerability Report**.

WHAT WE DID

Used data-led innovation to identify PSR-eligible customers

We're using data and machine learning to identify customers who are likely to be eligible for the PSR at household level and to learn which engagement strategies are most effective in reaching them. This builds on previous work we've carried out to tailor approaches to register under-represented groups.

The project brings together datasets such as age and address to help us identify at a household level who should be on the PSR and what their needs are. For example, we can pinpoint whether people in the household are over 65 or living with children under five. We are then able to run campaigns targeting these households via different methods. Over time, as we run more campaigns, the tool will use this data to indicate which methods are most likely to be effective in reaching different customer groups and which targeted support would best suit their needs.

Next steps:

Since the tool is still in development, we will report on the impact this project has on growing our PSR next year. We estimate that over the next year we will identify and engage with up to 200,000 customers who are eligible for the PSR.

We're also applying this tool to our Leaving No One Behind and Fuel Poverty programmes to help identify customers who would benefit from other support, and to provide greater understanding of our customers along with real time regional demographic trends.

Collaborated with water companies to share data on customers already registered for extra support

We collaborate with other utilities that serve customers in our regions, to share information about which customers need additional support. This makes it easier for customers to receive support across their utilities, while only needing to register once. During RIIO-ED1, we set up fully automated data sharing processes and bilateral PSR data sharing agreements with seven of the eight water companies in our area.

This year we've gone even further by sharing historical data with two water companies in our regions. This is the first time this data has been shared between a DNO and water company. By sharing this data with Thames Water and Affinity Water, 86,923 customers who registered for support before our data sharing agreement was in place are now registered to receive support across all their utilities.

We've also continued the development of a national cross-utility vulnerability hub in collaboration with Northumbrian Water to trial Support4All, a national cross-utility data-sharing approach. Working together we are building a hub to securely host data on customers in vulnerable circumstances, which can then be shared with other relevant utilities. This means customers only have to tell us once, informing all relevant utility companies of the support they need. This year, sharing data with the Fire Brigade and other support services resulted in over 6,000 new registrations.

Impact
- 2.55m (77%) eligible households registered (+9.4% on 2022/23).
- 119,489 additional eligible households are now able to receive support due to new PSR registrations received via data sharing with water companies (+943% on 2022/23) and 50,270 information updates (+214% on 2022/23), plus 74,062 records shared bi-directionally between water companies and UK Power Networks (+288% on 2022/23).

THE CHALLENGE

Dedicated support for DER customers

Distributed energy resources (DER) and distributed generation are crucial for maintaining power and achieving Net Zero. Operating an energy system with high DER participation requires a new approach and DER customers asked for easier access to accurate information to help manage their operations. Our business has shifted its mindset to deliver a step change in how we serve these customers.

WHAT WE DID

Established the first and only dedicated DER customer service team providing 8am-8pm, seven days a week

DER customers contact us with around 60 operational queries every month and before launching the DSO finding the right contact and receiving a timely response was a challenge. Based in the control room and combining customer service and power system skills, the DER Support team was set up to access the right information to answer customers' questions quickly and accurately. Customers can also now get in touch easily via a dedicated contact number and mailbox. Since launching the service, we have seen DER customer satisfaction increase by 20 percentage points.

Reduced curtailment of DER generation during planned outages

Planned power cuts don't just affect our domestic customers (see page 11 for how we are working to improve our planned powercut journey). Generators and batteries may be stopped from generating during planned outages or faults, as well as at times of high constraint on the network. We estimate that each year, around 120 generators and 600MW of capacity are curtailed during planned outages that are necessary to maintain or upgrade the electricity network. This scenario will only become more common as we invest in network infrastructure to accommodate more renewable energy.

We reduced the impact of planned outages on DER customers by using real-world data rather than risk-averse planning assumptions. This fundamental shift in approach was driven by the launch of the DSO. This led to a change in how we viewed our DER providers now as DSO customers, who are entitled to receive excellent customer experience. We estimate this has avoided 63GWh of curtailment in 2023/24, equivalent to keeping the lights on in Colchester for 16 days.

For more information on how we're supporting DER customers, visit our DSO report, page 26.

INNOVATIVE OUTAGE MANAGEMENT IN KING'S LYNN

We pioneered a data-driven approach to keep generators working during planned outages. This avoided 23GWh of curtailment, £2m revenue loss and 4,682 tonnes of carbon emissions during a 12-week outage in King's Lynn. This reflects our mindset shift to manage all types of DER as customers of the DSO.

We developed generation and demand forecasts for the outage under different scenarios. This enabled us to offer each DER customer a day-ahead maximum export limit throughout the outage, based on actual network conditions rather than worst-case scenario assumptions. This meant that they know to what extent they can keep generating during the outage, based on what is happening on the network. This way, they can continue to generate throughout the event, providing their customers with a better service than the traditional approach taken. For more information about this visit our DSO report, page 27.

Impact

- Increased DER customer satisfaction by 20 percentage points between March and November 2023, from 60.8% to 80.8%.
- Reduced curtailment of DER customers by 89%, from 8.7% in 2022/23 to 1.0% in 2023/24, avoiding 4,027MWh annual lost output on average per customer.
- Reduced average monthly curtailment per site (MWh) from 14 in 2022/23 to 1.5 in 2023/24.

THE CHALLENGE

Opening up new datasets to enable stakeholders to make informed decisions

Customers and stakeholders increasingly need a wider range of high-quality, up-to-date data and information to make strategic, commercial, and operational decisions. Across the DNO and DSO, we're making data available to support this, focusing on data that has real-world customer value. By engaging widely across customer groups we understand their needs and the challenges they face whilst raising awareness of how they can get involved in shaping the data and information we share.

We work alongside customers throughout the data release process to understand what information will best meet their needs, considering scope, granularity, and format, to iteratively develop releases based on user feedback. This interactive approach ensures data meets customer needs, maximises its value, and enables rapid feedback and delivery.

WHAT WE DID

Provided DER customers with greater visibility and advanced notice of curtailment to inform their plans

- **Provided curtailment data** that gives unrivalled access to information about past, present, and future curtailment events. DER customers asked for more data on curtailment to help them make operational and trading decisions. This data also helps customers planning a connection to provide assurance that the project is an investable proposition. In September 2023 we also published data on all historical events via our Open Data Portal including daily reports on the reason, amount and duration of curtailment events.

- **Opened up network planning information to help connections customers identify the best access opportunities to the network.** As a result of engaging with connections customers, we understood they needed additional network planning information to identify the best access opportunities to the network, including providing better visibility of what is happening in connection queues to help avoid long connection lead times. We published a clear status of the connections queue and generation headroom for every Grid Supply Point on our Network Operational Data Dashboard.

- **Introduced monthly flexibility dispatch datasets to help flexibility providers make informed decisions on participating in flexibility.** Flexibility providers told us they wanted more timely data on the actual utilisation and pricing of flexibility services, to validate their business case for taking part and to position themselves competitively. We've introduced monthly flexibility dispatch datasets on the Open Data Portal, with details of the time, date, MWh requested and MWh dispatched for every dispatch made since the DSO launched.

For more information on how we're sharing data visit our DSO report, page 11.

Opened up live fault data so customers can charge their EVs with confidence

Over 550,000 of UK Power Networks' customers rely on their electric vehicle being charged to get out and about in their daily lives. This is expected to increase to 4.6 million customers by 2030 and we need to ensure charging infrastructure is in place on our network.

Collaborating with ev.energy, we developed the country's first open source power cut Application Programming Interface (API), trialling a new approach which enables charge point operators to notify EV drivers when charge points are affected by planned and unplanned power cuts. This allows customers to plan where and when to charge their EV with greater confidence.

We continue to engage with ev.energy and other suppliers to roll out the service to customers across our regions. We are also exploring how this power cut API could be used to support vulnerable customers too, such as charities who may want to communicate updates on power outages or support those in need.

Impact

- Supporting DER customer decision-making, from connection to day-to-day operations, through our comprehensive curtailment data offering via our industry leading Open Data Portal.

- 62 data sets now available on the Open Data Portal (+82% on 2022/23).

- 85,168 Open Data Portal users since launch in 2021 (+69% on 2022/23).

- 94% of customers surveyed wanted to continue receiving power cut notifications to beyond the trial of the power cut API.

WHAT WE DID

Providing automated quotes to connect so customers can understand their options

Feedback from commercial customers told us they were dissatisfied with the time it takes to get a quote for a new connection. In addition, around 20% of the quotes generated by our connections team were being accepted by customers, indicating that customers were putting in multiple quotes to assess their options. We engaged further to get their honest feedback on what parts of the process were not working for them.

They told us the process of requesting a quote was arduous and resulted in repeated backwards and forwards via email, which was time consuming for both customers and our connections team. This led us to digitise and optimise the process, introducing a new budget estimating tool to make it easier and quicker for customers to get access to information and cost estimates up front, enabling them to make decisions before going through the whole application process. We are also co-designing a new portal to deliver automated quotes for connections applications, so customers can apply and receive a quote in the same day, reducing time to quote from an average of 45 days to a few minutes.

Impact

- Customers who use Smart Gateway receive their quotes an average of five days more quickly than those who use the traditional application form.
- 12% increase in accuracy of information provided by customers via Smart Gateway.
- Customers using Smart Gateway gave the service a customer satisfaction score 90.44%.

Enabling the Net Zero transition for all

To meet the government's ambitious Net Zero targets, society must shift to electricity to heat our homes and power our transport. To support the transition to Low Carbon Technologies (LCTs) that will allow this shift, we've focused our research and engagement across three main areas;

- Understanding emerging needs and barriers
- Tackling barriers and developing services
- Scaling up initiatives to deliver benefits.

Adoption of LCTs in our region

41,989
EV charging points connected to our network

17,646
heat pumps connected to our network

30%
of distribution-connected generation and storage is in our region, making up 10% of total national generation capacity (transmission and distribution)

OUR COMMITMENTS

Over the next five years we are committed to:

- Support communities and customers to transition to Net Zero, ensuring we are not a blocker to decarbonisation.
- Deliver a low carbon future in the most sustainably cost-efficient way.
- Deliver better, faster and easier connections processes for customers looking to connect LCTs.
- Support 500,000 vulnerable customers to ensure they are not left behind in the transition to Net Zero.
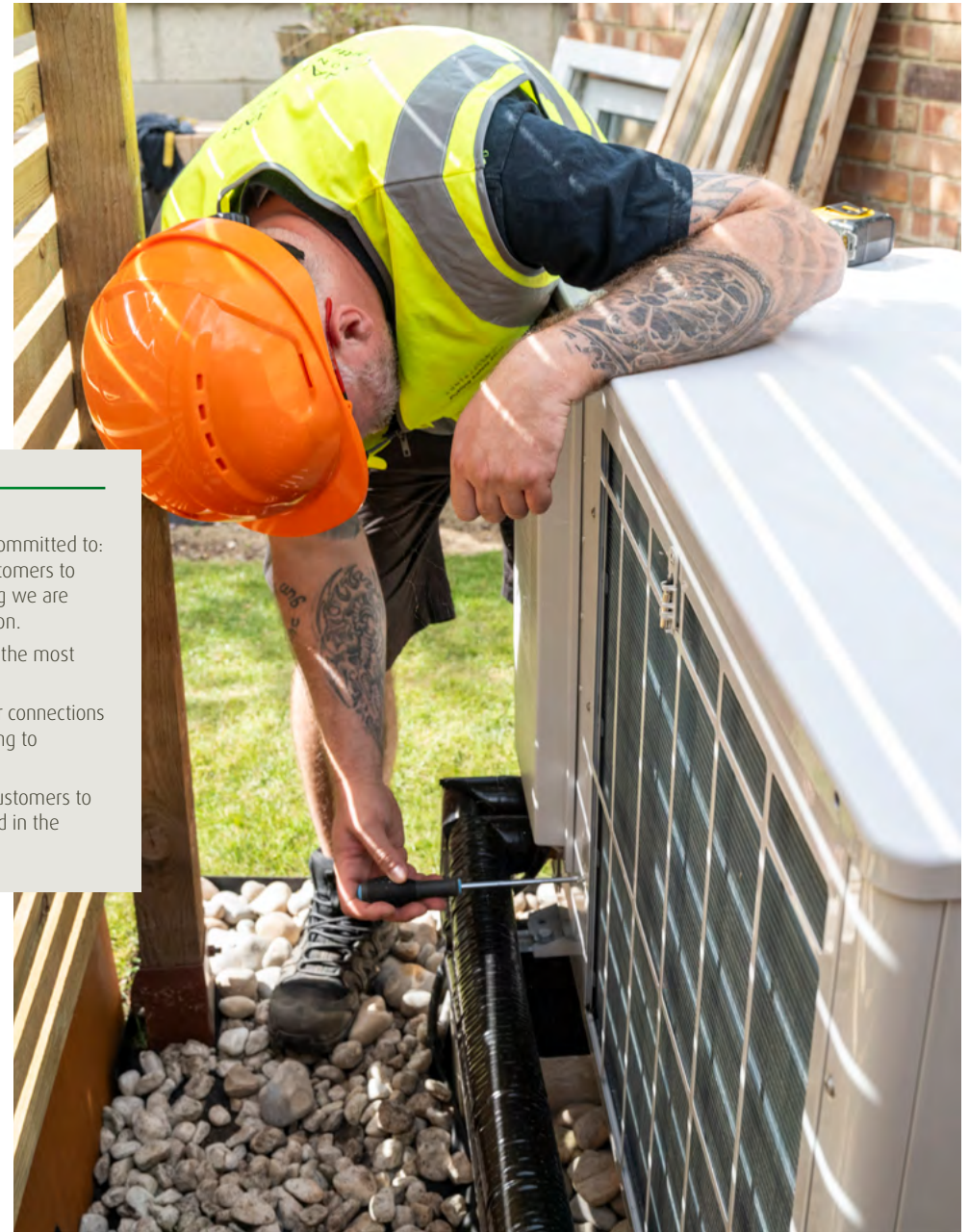
THE CHALLENGE

Removing barriers to facilitate the transition to Net Zero

The increasing electrification of society means we are seeing customers face barriers to adopting low carbon technologies. These barriers are evolving as electrification shifts from early adopters to mass rollout of low carbon technologies (LCTs) and more customers participate in the transition.

We've been addressing barriers to the speed and ease of the customer journey for several years, through projects such as Smart Connect, our automated tool to help installers notify us of new LCTs on our network so we can automatically approve applications. We also worked with Octopus Energy to empower accredited third parties to carry out fuse upgrades themselves when installing an LCT.

Engagement and research have confirmed the need to make it quick and easy for customers to connect to the network and to help them access and use their LCTs efficiently.

WHAT WE DID

Adopted video surveys to make it quicker and easier for customers to provide technical information to connect their LCTs

We are increasingly seeing customers come directly to us for domestic LCT connections, rather than via installers. Engaging with customers, we understood that the fuse upgrade process often requires information they don't have or know where to find. This can lead to incorrect information being submitted which makes the process longer and more complicated.

Building on work we've already done to make the process easier for installers, we've adopted video surveys for customers to complete at their own convenience to request a fuse upgrade. Customers can now follow a series of prompts on their screen, taking photos and videos of their home without having to answer technical questions, making the process quicker and easier for them. UK Power Networks staff can identify what work is required and assign the correct resources to complete the job quickly and it'll be right first time, meaning the customer has only one appointment/interruption, and fewer return visits.

We are now looking to roll this solution out to other areas of the business to improve efficiency in planning work by reducing the number of aborted visits in connection services.

Impact
- Easier and more convenient for domestic customers to request a fuse upgrade without needing to know technical details about their supply.
- 764 customers used the video survey in 2023/24, giving the service a customer satisfaction score of 99.5%.
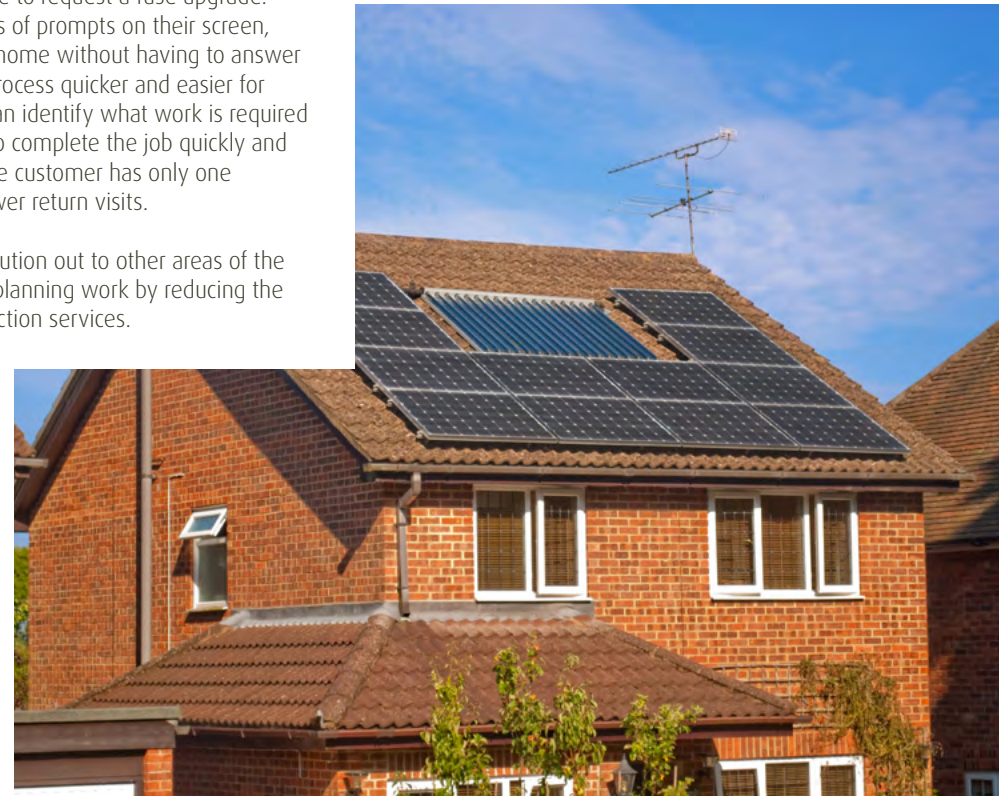
WHAT WE DID

Collaborated to make it simpler for multi-occupancy buildings to decarbonise

Multi-occupancy buildings account for 3.5 million homes in UK Power Networks' area, which is 25% of all domestic dwellings in our regions. We estimate that one million of those customers in UK Power Networks' area could be at risk of being left behind in the transition to zero carbon heating.

Engagement through ED1 highlighted significant challenges in decarbonising heat in multi-occupancy buildings that can discourage heat pump installation. These include complexities in defining responsibility and accountability, as well as fairness in allocating capacity and paying for supply upgrades. Ownership within a block of flats can vary, including private, rented, and council-owned units, meaning multiple stakeholders must cooperate, adding to the challenges.

This year, we engaged with local authorities, housing associations and residents living in multi-occupancy buildings (MOBs) to understand in more depth what challenges they face and the key issues we need to address. Through this we've learnt:

- Customers and Building Network Operators (BNOs) need more information on relevant heat solutions as well as awareness of costs and how they are calculated, as they are often underestimated.

- The whole process can be time consuming, complex and costly, especially where there is lack of information, discouraging residents and building operators from installing the low carbon heating.

- Lack of responsibility felt by any party for internal upgrades in buildings despite policies in place, highlights the need for market and policy intervention.

We are exploring the different heating options to decarbonise various building types and defining the optimal solutions depending on the type of building. In partnership with Baringa, we are developing a tool to provide customers with clear routes to decarbonisation for a range of multi-occupancy building types. The user-friendly tool provides relevant connection information and visibility of up-front costs so customers can make informed decisions.

Expected outcomes

This project, funded through the Strategic Innovation Funding stream, is ongoing and further updates on solutions and we will include outcomes in future reports. Our aim is to provide customers with clear routes to decarbonisation for a range of multi-occupancy building types and deliver a tool to guide MOB stakeholders through the heat decarbonisation process.

Increasing EV charging availability on motorways through proactive collaboration

Lack of public charging remains a barrier to EV uptake. As a result, the government set a target of six high-powered chargers in every motorway service area (MSA) by the end of 2023. To facilitate this, we engaged with MSAs, Government and EV hubs to understand their needs and connect charge points. It became clear that further guidance was needed to understand exactly what was required and meet the target.

We collaborated with the OZEV to develop the blueprint for all DNO and MSA engagement to ensure that we could develop the right solutions to deliver power and deploy chargers as efficiently and quickly as possible. As a result we held bespoke MSA Surgeries that we tested and refined with MSA Operators to meet their needs. Establishing a dedicated team we provided hands-on support to MSAs and coordinate efforts on their behalf, bringing together the relevant MSA, charge point operators and independent connections providers for each location to implement a plan of action. We then supported other DNOs to adopt this process to support other MSAs in their areas.

We also provided temporary connections to get chargers online faster, while work was ongoing and subcontracted UK Power Networks employees to directly support projects.

We are already planning for more power for the next year to make sure capacity is available when it is needed. Based on forecasts of future demand for charging, we are looking to install primary substations in these areas to proactively address future power needs.

Impact
- Every MSA now has enough power for at least 6 high powered chargers.
- Enabled more than 200 high powered chargers to be deployed at MSAs across our area.

THE CHALLENGE

Ensuring no one is left behind

New technologies and behaviours as we transition to Net Zero have potential to lower bills and provide rewards from taking part in flexibility. However, reliance on digitally enabled, sophisticated and often expensive technology means we must address emerging inequalities and vulnerabilities that come with it.

Through engagement and research, we've gained insights into the complex ways that customers' personal situations and the energy market interact to create a range of barriers to taking part in the Net Zero transition. These challenges include lack of information, limited skills needed to navigate the market, and the high cost of installing new technology. Our commitment is to stay at the forefront of supporting customers in overcoming these barriers, ensuring they can fully participate in and benefit from the shift to a more sustainable energy future.

For more information on how we're supporting disadvantaged customers, to ensure no one is left behind in the transition to Net Zero, read our **Annual Vulnerability Report**.

WHAT WE DID

Empowered our customers with the information and skills they need to participate in the Net Zero Transition

We co-designed and launched the Green Home Support Service, providing an accessible self-serve tool for homeowners and renters to take steps towards making their home greener. This service builds on our earlier Home Action Plan guide. We worked with accessibility experts and community organisations including Sopra Steria, Scope and Community Energy South to transform this offering to better suit customer needs. We drew on customer feedback that told us they wanted more accessible and actionable information, including for renters and those with a small budget for investing in LCTs.

We tested the platform with customers who have lived experience of vulnerability, applying their feedback to inform its design and functionality. The new tool provides a personalised, easy-to-understand plan, including straightforward suggestions of how to save money on bills and lower their carbon footprint, without compromising the warmth of their homes.

Impact
- Through the support we have delivered, we generated a total of £4.35m in net present value, or £5.34 in SROI for every £1 spent in delivering support to 100,000 customers over 2023/24.
- 90% customer satisfaction with support delivered to ensure no one is left behind in the transition to Net Zero.

WHAT WE DID

Opened up opportunities for energy efficiency and widening participation in flexibility

Flexibility offers the most value to customers with relatively high electricity use as well as those facing challenges such as fuel poverty, as it can reduce energy bills. However, to maximise this benefit, we need to encourage and enable customers and flexibility providers to participate.

ENGAGING WITH KEY PLAYERS TO INCENTIVISE ENERGY EFFICIENCY AMONG HARD-TO-REACH CUSTOMERS

We engaged with stakeholders, including installers, social landlords and energy suppliers, to understand how we could work together to open up flexibility opportunities for vulnerable customers.

We trialled offering a top-up payment to encourage flexibility providers to secure flexibility from hard-to-reach customers, including those on the Priority Services Register. We are continuing to engage with energy suppliers to develop and scale up this approach in a way that works for everyone involved.

Working with Camden Council and CSE we also engaged with customers to understand energy efficiency upgrades in their home, and provide further energy efficiency advice and education to 46 social housing households.

Through this engagement we identified new opportunities to collaborate with social landlords to optimise benefits for customers through flexibility and plan to explore these further throughout 2024/25.

GROWING OPPORTUNITIES FOR DOMESTIC CUSTOMERS TO BENEFIT FROM FLEXIBILITY

UK Power Networks' DSO is the first to procure demand turn-up flexibility services. We also have the lowest flexibility participation threshold (10kW) of any DSO. These two factors create more opportunities for domestic customers to get involved in our twice-yearly flexibility tenders. Demand turn-up enabled the launch of Octopus's Power-ups, an offer which allows customers with a smart meter to use spare green electricity at no cost. 24,000 customers enrolled for this in 2023/24, with 77% taking part at each event, which is a higher participation rate than the National Grid's ESO's Demand Flexibility service.

We ran sessions with Octopus Energy to share our learnings with other DSOs, to support the service to scale up, so that more customers across Great Britain can take part. We are pleased to see National Grid Electricity Distribution (NGED) committing to introduce demand turn-up from 2025. Building on the success of our work with Octopus, we engaged with other energy suppliers with significant customer bases to understand their appetite to provide flexibility and identify any barriers we could help address. This resulted in us awarding contracts to British Gas and OVO which, together with Octopus, supply energy to more than 50% of domestic customers in the UK.

Impact

- Increased opportunities for domestic customers to benefit from taking part in flexibility services.
- 24,000 households taking part in Octopus's Power-ups received over £1.3m worth of free electricity.
- Demand turn-up has already delivered £27m in deferred network reinforcement benefits in 2023/24, with potential to scale up further.
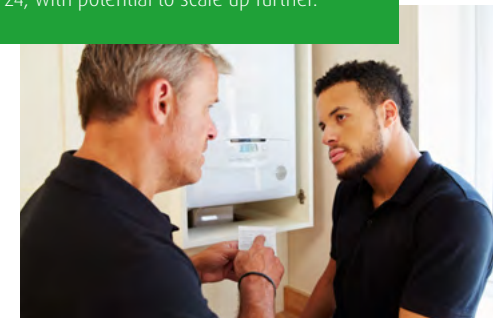
THE CHALLENGE

Leading by example

Our analysis found that 50 of our 1,250 suppliers accounted for 63% of the total 2021 supply chain emissions. We are working towards ambitious carbon reduction targets verified by the Science Based Targets initiative (SBTi). We are refining our insights to develop an in-depth understanding of which parts of our operations are generating the most emissions as well as working with our suppliers to take targeted action to reduce our impact on the environment.

WHAT WE DID

Made carbon-conscious decisions when planning work

We need better visibility of carbon output at a project level to make informed decisions about environmental impact when planning infrastructure projects. By working with the Infrastructure Client Group Carbon Working Group, we gained insights into the tools and databases that other companies use, to inform our way forward.

Together with sustainability consultancy, Minimum, we developed our Embodied Carbon Calculator, which estimates carbon production based on design parameters for major projects. The calculator allows us to balance cost and delivery timescales against using lower-carbon materials such as limestone (a waste product from quarries). We now use this tool on projects over £1 million to assess the carbon impact of materials and sourcing choices, helping us plan lower-emission projects that deliver for our customers, the business, and at lower cost to the environment.

Implemented targeted Carbon Action Plans to reduce supply chain emissions

In 2022/23 we launched our Supply Chain Carbon Reporting tool to capture a more accurate picture of carbon in suppliers' operations. Since then, we've continued to engage and support our suppliers to submit data into the system such as the types and quantities of materials they use, in line with our code of conduct. Over 80% of our supply chain have now signed up to our code of conduct which includes an agreement to live up to the standards of ethical conduct that our customers rightly expect of us. About 60% of our suppliers have submitted data, providing us with an accurate understanding of carbon emissions across the majority of our supply chain. This analysis of supply chain emissions is based on their actual practices, which provides a more accurate picture than our previous approach of using spend-based emissions based on average carbon factors.

In 2023 we identified the top 12 emitting suppliers at the time. Since then we have engaged with them to develop targeted action plans to reduce emissions where the biggest impact can be made. These plans include:

· Reducing emissions associated with diesel by using electric vehicles and alternative fuels such as hydrotreated vegetable oil fuels, as well as enhancing the tracking of fuel usage to monitor savings.

· Investigating and trialling other renewable energy sources, such as solar.

· Encouraging the reuse and regeneration of materials and products where possible, for example by recycling aggregates or reusing excavated materials.

Of these suppliers, five have already signed up for a Science-Based Target, aligning their strategies with global targets to reduce emissions and accelerate to Net Zero.

Impact
· Since its launch in mid-Jan 2024, the Carbon Calculator has been used in 24 major projects, 12 of which have been completed resulting in approximately 15% total carbon saving.
· 182 suppliers signed up to our code of conduct; this covers over 80% of our supply chain.
· We have targeted action plans in place with the 12 top emitting suppliers as of 2023/24.

A network customers can rely on

Society's reliance on electricity grows with the adoption of more low carbon technologies (LCTs). This means delivering a reliable and resilient service is increasingly crucial for customers' daily lives. We need to provide the right level of network capacity where and when it's needed, at the lowest overall cost to customers, to ensure we are not a blocker to the transition to Net Zero. Connection queues, which are primarily driven by transmission constraints, are one of the biggest issues facing our customers, with connecting customers facing waits into the 2030s.

At the same time, we are experiencing more frequent and severe weather events. These require adaptation and management to prevent supply disruption. Amidst this, the need for greater energy security in the UK remains a significant concern, especially since the war in Ukraine began.

OUR COMMITMENTS

To deliver a service our customers can rely on against the backdrop of these challenges, we have committed to:

- Identify and offer increased support to more vulnerable customers in the event of a power cut.

- Develop innovative ways to provide greater access and unlock capacity to the network.

- Deliver greater resilience and reliability across the whole system to minimise disruption and maximise system access.

THE CHALLENGE

Supporting customers in the event of a power cut

We know power cuts don't happen often, but when they do we have a duty to ensure we can support our customers and communities.

Our PSR enables us to identify vulnerable customers who may be particularly impacted by a power outage enabling us to deliver the right support at the right time. However, through engagement and research we realised there was a gap across the support available to vulnerable customers. For some of our most vulnerable customers, their main concern is to keep their medical equipment going which, in some cases, is lifesaving equipment.

Over the past year, we have continued to deliver industry-leading satisfaction levels for our PSR customers, and worked to expand the support we offer to ensure those who are most impacted get extra care that makes a difference.

In addition, while the risk of rolling planned power cuts heightened in the winter of 2022/23 and has since reduced, we have a role to play to ensure plans are in place should they ever be needed. Engaging with Local Resilience Forums (LRFs) we learned there was a need for greater support to help LRFs understand the role they play and support available to communities in the event of a large disruption in order to help them plan effectively.

WHAT WE DID

Expanded our PSR service by trialling portable batteries for medically dependent customers

For many customers who rely on vital medical equipment to go about their everyday lives, the thought of an unexpected power cut can be a source of anxiety. In our ED2 Business Plan we committed to delivering increased support to these customers on the PSR by dispatching battery banks to customers who are at risk of being without power for more than four hours.

We carried out engagement and research with the Research Institute for Disabled Customers to understand customers' needs, challenges and expectations around support they receive during power cuts. Over 2023/24, through our innovation project, Power Protect, we trialled the deployment of portable batteries for customers to supply power to their medical equipment during power cuts that last longer than four hours. 67% of customers who took part in the trial rated the service 10/10 and we have incorporated what we learnt into the service to make it even better for our customers.

As a result of the success of this trial we are rolling this out as business-as-usual in time for the coming winter. Over the next year, every medically dependent customer will be offered a battery pack as part of our PSR service, providing particularly valuable support during winter when storms are more prevalent.

Cross sector preparation in the event of severe disruption

Local resilience forums (LFRs) are required to have a plan in place to support local areas in the event of severe disruption caused by extreme weather or power cuts. During winter of 2022/23 we convened winter readiness sessions with local resilience forums across our regions to prepare for the risk of rolling planned power cuts. Although the risk of rolling planned power cuts has since reduced, local resilience forums told us they valued this engagement and joint planning. This led us to continue holding winter readiness sessions last year, in addition to 1-2-1 engagements with LRFs or Local Authorities who wanted to develop their plans in more detail.

We held individual meetings with 11 local resilience forums (all of those in our areas) to support their emergency planning process. We did this by helping them understand our role, what support is available, who to contact and what else needs to be put in place in the event of an emergency.

Impact
- 93.3% PSR customer satisfaction.
- Customers who are medically dependent on electricity have the option to receive a portable battery in the event of an unplanned power cut lasting more than four hours.
- Supported all 11 local resilience forums in our areas to build resilience plans.
- Local resilience plans for high-impact events reflect electricity needs and support mechanisms.

THE CHALLENGE

Delivering the capacity needed to enable Net Zero at the lowest cost to customers

Our vision is to deliver an electricity network that provides the right level of capacity to enable the Net Zero transition, and to do so safely and reliably, where and when it is needed and at the lowest overall cost to consumers. However, there is significant political and regulatory uncertainty on the path to Net Zero. We need to understand future needs so that we can plan where and when additional capacity is needed, and be able to adapt in the face of uncertainty.

WHAT WE DID

## Deepened understanding and visibility of network needs at a local level

Our engagement with local authorities (see page 28) gives us insights into their emerging decarbonisation plans. We have made changes so local area energy plans will be included in our Strategic Forecasting System; this will help us to plan the capacity needed to enable Net Zero at a local level. This forms part of wider engagement with external and internal stakeholders to identify future network needs (described in more detail in the DSO Performance Panel Report).

Our Distribution System Operator (DSO) is using smart meter data to uncover deeper insights into network utilisation at street level. We have built a world-leading predictive data science model that reveals utilisation across our whole LV network, by analysing data from network monitoring which covers 30% of households in our regions. Our DSO engaged with the Department for Energy Security and Net Zero (DESNZ) to request access to disaggregated consumer datasets to improve the accuracy of the model. We were granted access to 162,535 datasets for a year; we are the only DSO to be granted permission to access this granular data.

By analysing smart meter data, we learned we needed to develop much more granular consumer consumption profiles than the two standard industry profiles. We used the data to segment our customers into 26 personas, reflecting the range of impacts of LCTs. The enhanced modelling provides predicted utilisation across our LV network, which we use to inform our network planning decisions.

Impact
- Better network visibility to inform accurate network planning.
- 26 customer personas reflecting the range of impacts of LCTs.
- Local carbonisation plans can now be reflected in our Strategic Forecasting System to inform our network plans.
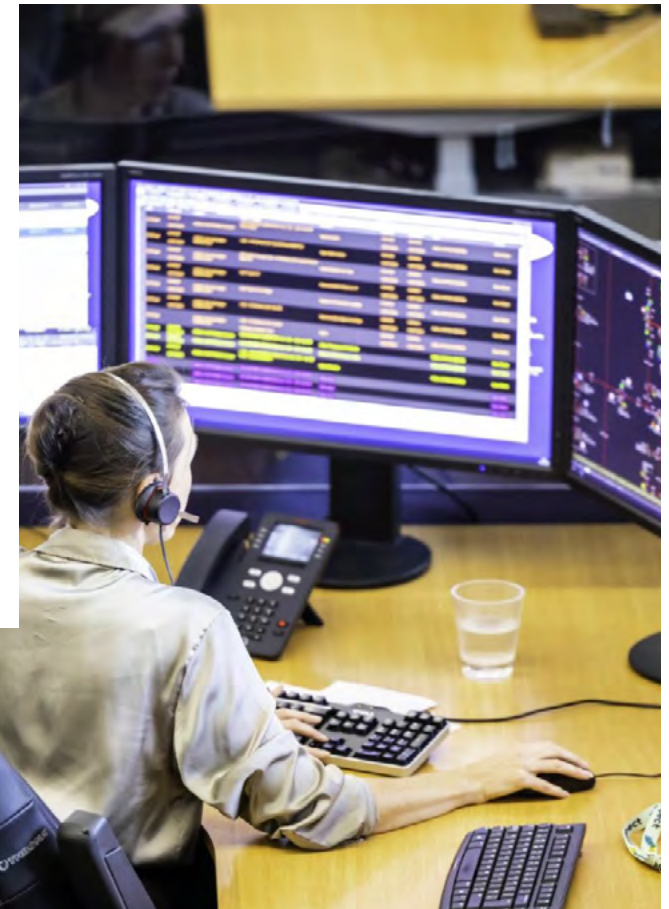
THE CHALLENGE

Making it easier for Local Authorities to create Local Area Energy Plans by developing tailored data-driven tools

We serve 133 local authorities in our regions, 88% of which aim to reach Net Zero before the national 2050 target. We need to develop a thorough, shared understanding of local authorities' emerging Local Area Energy Plans to provide the right network capacity when and where it is needed. This will enable local decarbonisation of communities and support the delivery of Net Zero.

Through engagement, we understood the challenges that local authorities face when planning to decarbonise and implement those plans. These include lack of relevant expertise, knowledge and resources and inadequate data. We also learnt the range of maturity of local authority's plans: some are just starting the process whereas others are well developed.

WHAT WE DID

ESTABLISHED A DEDICATED LOCAL NET ZERO TEAM TO PROVIDE TAILORED SUPPORT

Our Local Net Zero team proactively reviewed all 133 local authorities' published decarbonisation plans. They are helping to develop decarbonisation plans further, understand emerging plans in areas such as the deployment of EV charging points and offer one-to-one support and training on our tools.

LAUNCHED YOUR LOCAL NET ZERO HUB

In October 2023, we launched a free online energy planning tool to make it easier for local authorities to create credible, robust and investable energy plans. The tool is backed by easy access to over 160 detailed datasets on GB's first and only dedicated Local Area Energy Planning Open Data page, with datasets prioritised by local authorities and organised into themes to support decarbonisation planning, e.g. Social Benefit and Just Transition.

SUPPORTED MORE COORDINATED CROSS-UTILITY PLANNING

Twenty-eight local authorities in our regions are served by more than one DSO, and other utilities have a role to play. To simplify this interface, we provided local authorities with access to gas network data from SGN and Cadent through our energy planning tool, as well as data from other DNOs. We also helped local authorities understand how their plans influence electricity and gas networks.

MADE IT EASIER TO SHARE EMERGING PLANS AND SCENARIOS WITH US

Local authorities can now share their plans with us through Your Local Net Zero Hub. We also created extra digital tools and guidance to make it easy for local authorities to share their plans with us at different stages of development. For example, we introduced a DFES widget that allows local authorities to share high-level targets with a drag and click.

We also helped Local Authorities get the most out of our data and tools by publishing case studies from seven local authorities and two LAEP practitioners sharing how they have made the most of our data. Podcasts and videos are also available to bring real-world uses to life and help local authorities get started.

Impact

- Supported 39 local authorities by assessing their evolving local area energy plans against our forecasts.
- Proactively reviewed the published decarbonisation plans of all 133 local authorities in our regions.
- 87 local authorities are actively using Your Local Net Zero Hub to develop plans, with over 60 projects designed.
- Provided a new regional planning guide to help local authorities understand how to influence electricity and gas network investment.
- DFES widget and data dictionary make it easier for local authorities to share plans at different stages of development.

THE CHALLENGE

Collaborating to operate the network and whole system more efficiently

Flexibility has the potential to provide additional capacity more quickly and at lower cost than reinforcing the network. Flexibility providers are playing an increasingly important role in providing capacity and managing the network efficiently. We are using flexibility to manage 30% of sites that need additional capacity; we have proved that flexibility works, both technically and commercially. Understanding the emerging needs and preferences of flexibility providers and widening participation are essential to developing a thriving market that supports the network and the wider system.

Increasing levels of renewable generation are connecting to the network, but transmission-level constraints are resulting in connection lead times as late as the 2030s in some areas. This is one of the most important issues affecting connecting customers.

Engaging with flexibility providers

Our flexibility engagement in 2023/24 focused on raising awareness of flexibility opportunities, understanding flexibility customer needs and pain points, shaping new services and enhancing existing services, as well as improving coordination between the DSO and the Electricity Service Operator (ESO). This included:

· Going to our stakeholders, rather than expecting them to find us. We spoke at 14 industry conferences to connect with customers in storage, renewables, electric vehicles, energy suppliers and industrial energy users, and hosted four events of our own.

· Continuing our twice-yearly in-person Flexibility Forums, to understand stakeholder priorities, share our plans and progress, report back on how we have acted on feedback, and deepen relationships with providers.

· Launching a new Flexibility Council with the 12 most experienced flexibility providers, to discuss key issues in greater depth than is practical at Flexibility Forums, which attract a broad range of stakeholders.

We proactively engage with the wider energy system to develop and assess whole system options to meet network needs. This includes the ESO, other DNOs and DSOs, connecting customers and regional bodies including the Greater London Authority.

WHAT WE DID

Launched the first DSO day-ahead flexibility market

A day-ahead market was the number one request during conversations with flexibility providers, which led us to reprioritise our plans and launch this market in 2023/24. This unlocks opportunities for flexibility providers to provide services to other markets by aligning with ESO and wholesale market timescales and so to combine multiple revenue streams. It also provides more frequent opportunities for them to bid and more opportunities for those who cannot commit to provide flexibility far in advance (such as industrial participants whose operational plans vary week to week).

We developed and launched the day-ahead product in collaboration with flexibility providers and the ESO. Insights from our Flexibility Council of experienced flexibility providers helped us shape the requirements for the market. Following trials with three participants in December 2023, more than 100 stakeholders registered for the rollout webinar, indicating significant potential to increase participation.

WHAT WE DID

The flexibility provider customer journey: How we are making each step simpler

Stage: Awareness and feasibility

HOW WE HAVE ENHANCED OUR SUPPORT

- **Personalised support** for first-time flexibility providers.
- **Publish monthly data** on all flexibility dispatches, including volumes and pricing in response to flexibility providers requests.

Stage: Registration and bidding

HOW WE HAVE ENHANCED OUR SUPPORT

- **Simplified registration processes** to better suit customer needs, minimising the administrative burden.
- **Implemented standard registration** questions, products and contracts, including all Open Networks deliverables and recommendations to provide more consistency across DSOs.

Stage: Delivery and payment

HOW WE HAVE ENHANCED OUR SUPPORT

- **Revamped Dispatch API documentation** – making it easier for providers to integrate and reduce manual operational work.
- **Began to calculate payments automatically** through new market platform, so customers get paid quickly, fairly and transparently.

Making each step of the flexibility process simpler

We developed our flexibility provider customer journey based on years of practical experience with flexibility. The engagement summarised on the previous page, alongside our experience, helped us identify where we could make it easier for flexibility providers to take part. Left, we summarise the key improvements we have made to the customer journey, making processes simpler and more consistent. These are explained in more detail in the DSO Performance Panel Report.

Impact

- £91m customer benefits in 2023/24 by using flexibility to deliver capacity, saving the cost of distribution network reinforcement, with £410m benefits forecast during RIIO-ED2
- Awarded over 1.5GW of flexibility contracts, including to 14 new providers, of which six are entirely new to flexibility
- Launched the first day-ahead procurement of DSO flexibility, enabling wider market access
- Dispatched 7.8GWh of flexibility to support the network, which is seven times higher than 2022/23, building confidence in the market.

For more information on how we are making it easier for flexibility providers, visit the DSO report, page 16.

WHAT WE DID

Collaborated to address whole system issues

Opening up opportunities for distributed energy resources to provide flexibility to the ESO

Most flexibility providers are interested in taking part in multiple markets, across DSOs and the ESO, to maximise their revenue. The DSO and ESO require radically better visibility of what assets are connected and available to provide flexibility, so they can coordinate and make informed decisions about using flexibility services.

We collaborated with the ESO to develop a Megawatt (MW) Dispatch service that allows distributed energy resources to provide flexibility to the ESO. This service is underpinned by extensive, industry-leading data exchange which we developed in collaboration with the ESO. This includes world-first day-ahead and intra-day data exchanges which gives the ESO up-to-date information. This means that the ESO and DSO can more confidently make decisions to procure and call on flexibility.

Driving cross-industry action to tackle connection queues

To tackle connections queues, we have driven forward the Technical Limits solution in collaboration with distribution and transmission companies through the ENA Strategic Connections Group. This is unlocking up to 30GW of capacity across GB, of which 4GW will directly benefit UK Power Networks' customers.

These changes improve how transmission and distribution coordinate the connections queue by creating clear and consistent technical limits at the boundary between transmission and distribution and equitable re-allocation of capacity. We drove structured problem-solving via the Strategic Connections Group to bring others with us, putting forward proposals that we collectively built on through weekly calls.

You can read more about these initiatives in our DSO Performance Panel Report.

Impact

- 1.5GW capacity unlocked over RIIO-ED2 through MW Dispatch, accelerating 50 customer projects to connect 10 years sooner than they would have without it.
- Implemented world-first day-ahead and intra-day data sharing with the ESO, supporting coordinated dispatch decisions.
- Unlocking up to 30GW of capacity across GB during RIIO-ED2, including 4GW in our regions, by driving forward the Technical Limits solution with distribution and transmission companies.
- Together, Technical Limits and MW Dispatch are forecast to deliver £205m wider system benefits over RIIO-ED2 by enabling more low carbon generation to connect sooner.

For more information about how and why we
engage with customers and other stakeholders,
visit our website here.

If you would like to give us feedback or speak
to our engagement team, contact us at
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A full list of our contact details can be found at:
www.ukpowernetworks.co.uk