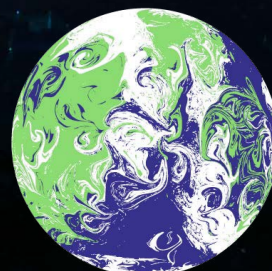


# Enabling the path to Net Zero

Delivering a better future, quicker  
through our RII0-ED2 Business Plan



PRINCIPAL PARTNER  
**UN CLIMATE  
CHANGE  
CONFERENCE  
UK 2021**

IN PARTNERSHIP WITH ITALY

# Welcome and introduction

The United Nations has warned that the next 10 years will be critical to limit the catastrophic events of climate change. As national, devolved and local governments drive towards Net Zero carbon emissions, electricity distribution networks will play an essential role in making these targets a reality.

The next electricity distribution price control, known as RIIO-ED2, is a key part in enabling this radical change. This next five-year 'contract' with the regulator, Ofgem, will set out what we will deliver from 2023 to 2028.

At such an important time, it's more essential than ever that our customers and stakeholders have their voices heard in this process. In developing our RIIO-ED2 plans, we're conducting extensive research and engagement, and we've been listening carefully to your views.

Ahead of our draft plan submission, we think it's important to share some of our emerging proposals as we seek further feedback on our approach.

We have challenging and exciting times ahead for our business. Through our RIIO-ED2 plans, we can support a green industrial revolution, develop the smart grid that we need and keep the customer at the heart of the energy transition.

## What's in this document?

Throughout this document we've presented our draft proposals that will form the basis of our RIIO-ED2 Business Plan. We've built these proposals on the priorities and needs that our customers and stakeholders have told us about through all of our engagement so far, combined with other sources of evidence, like our engineering and internal research.

## How can you get involved?

We want to make sure what we've proposed, and our level of ambition, effectively meets the needs and priorities of customers and stakeholders while ultimately delivering the outcomes they prioritise.

You can tell us what you think about each one of our draft proposals by completing the online surveys here:

[spenergynetworks.co.uk/ChallengeOurPlan](https://spenergynetworks.co.uk/ChallengeOurPlan)

We also welcome your thoughts and feedback by [email to our RIIO-ED2 mailbox](#) and through the various consultations we'll be holding.

# 1

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# A message from our CEO

I'm excited to publish our latest thinking and set out the ambitions for our upcoming RIIO-ED2 Business Plan that runs from 2023 to 2028. This document outlines our draft proposals based on what our customers and stakeholders have told us so far and gives you an insight into how we've been developing our plan.

This is a time of profound change. As national, devolved and local Government drive towards Net Zero carbon emissions, society will need an electricity network that is ready and able to make this a reality. It's our job to make sure this happens.

Our networks were built at a time when mainstream electric vehicles, heat pumps and the rise in renewable energy would have been unthinkable! Our job of serving millions of customers and businesses in Wales, Scotland and England now goes well beyond simply keeping the lights on. Our role is critical to a decarbonised future and a green industrial revolution – we must invest in the people, skills and infrastructure needed to accelerate the shift to a decarbonised economy.

The eyes of the world will be on Glasgow this year as it hosts COP26 and we're immensely proud to be one of the principal partners - underlining our commitment to tackling climate change and helping the country achieve Net Zero.

We understand the ambitious goals of the governments, communities, towns and cities that we serve. We must be bold as we reimagine our network, looking not only to 2028, but beyond to a future that will see an increasing reliance on the electricity system in a way we've never seen before. Now is the time when we set the foundations for this transition.

Our plans have been shaped through extensive engagement with over 14,000 customers and stakeholders so far, creating a plan that's truly built with them at the heart.

It's also important that we're challenged on our approach to developing the plan – that's why our independent Customer Engagement Group (CEG), chaired by John Howard, is a key part of this process. The CEG are an independent panel consisting of industry experts who have provided external examination of our plans to make sure we're always considering the needs and preferences of our customers and stakeholders.

You can be confident that we can deliver on the plans we've set out and I'm proud of our track record which you can read about in this document. You'll see we're doing what we said we would in RIIO-ED1, and you can trust us to do the same in RIIO-ED2.

This will be the most ambitious plan we've ever created, reflecting the increasingly important role our networks play in enabling a better future, quicker.

I hope you find this document insightful, and I'd encourage you to have your say.

**Frank Mitchell**  
CEO, SP Energy Networks



# A message from our Customer Engagement Group Chair

This is a very important moment for us all in the UK as we chart the way ahead to reduce carbon emissions and head off global warming. To meet that challenge, significant changes are being planned in the system that's owned and maintained by SP Energy Networks to bring electricity into your home and workplace.

Those changes to the energy system are likely to be substantial and it's the role of the Customer Engagement Group to challenge SP Energy Networks on what they're planning to spend your money on and whether it can keep costs down by becoming more efficient.

Network companies need to act, and act fast, but because of the uncertainty surrounding exactly how the sector will need to evolve, it's more important than ever that customers and stakeholders, who pay for these services through their electricity bills, have a seat at the table, and have their views taken seriously.

SP Energy Networks has been running a significant research programme of workshops and surveys to find out what customers, businesses, Local Authorities and Governments need from the energy distribution system of the future and how much they're prepared to pay for the changes that will be required to meet the demands of electric vehicles, electric heating, solar power and wind farms.

Members of the CEG have been attending many of these online workshops to check that SP Energy Networks is talking to the right people and that they're genuinely finding out their views. We've been checking the questions they've been asking in their surveys to see if they're asking the right questions and at the end of this programme of research, we will be challenging the judgements SP Energy Networks makes based on the research they've done.

Can they really say they have the evidence from customers that support the changes they are proposing and the pounds and pence they could add to your bill? How are they proposing to use new computer techniques to monitor interruptions to your supply and letting you know when electricity will be resumed? Will they be advising people wanting to install electric vehicle charging points and how will they help local councils with their plans for reaching Net Zero?

We've been challenging SP Energy Networks on these questions and on a range of other factors, such as the company's overall priorities and understanding of the changes occurring in the energy industry on a national and local level, its approach to innovation, future network requirements, and support for vulnerable customers.

Above all else, we believe that the electricity networks of the future must operate in a fair, efficient and transparent manner, protecting the interests of all consumers.

I look forward to continuing to work with the CEG and SP Energy Networks to make sure these principles are upheld.

If you'd like to let us know your views on the way SP Energy Networks is approaching this task or would like to send your comments to us on their plans so far, please contact the CEG through the link on the SP Energy Networks website.

**John Howard**  
Chair of the independent SP Energy Networks Customer Engagement Group

The Customer Engagement Group (CEG) are an independent panel consisting of industry experts who provide crucial external examination of our plans to assess if we're adequately addressing the needs and preferences of our customers and stakeholders.

[Find out more about the CEG on page 12.](#)





# We are SP Energy Networks

We serve over 6 million customers across 3.5 million homes and businesses, 24 hours a day, every day of the year - keeping you connected to your day-to-day life.


Our customers, communities and stakeholders are at the heart of everything we do. That's why we always strive to deliver a first class service - whether that be investing in the network to increase resilience of supply providing support for customers looking to connect to our network or providing guidance to our vulnerable customers when they need us most.

We're committed to speeding up the transition to cleaner electric transport, improving air quality and enabling the communities we serve to realise the benefits of a Net Zero future.

We have the strong backing of a global company as part of both ScottishPower and Iberdrola, one of the world's largest integrated utility companies and a global leader in wind energy, and we believe in developing an energy model that's sustainable for the future.

Recognising the importance of taking care of the environment and people's health, we want to offer society our experience in addressing these urgent social needs through our work on the decarbonisation and electrification of the economy as a whole, enabling renewable energy sources, efficient energy storage, smart grids and digitalisation.

Our values rest on continuing to develop as a leading, sustainable business in the 21st century. To meet our purpose, we're founded on three corporate values that define our identity and form the foundation of our business.

 **Sustainable**  
 We are pioneers of renewable energy. We seek to inspire others by creating economic, social and environmental value wherever we are now and looking to the future. We put this value into action by continually putting safety first, respecting the environment, and acting ethically, rationally and responsibly to meet our commitments.

 **Dynamic**  
 We bring about efficient change, big and small, through constantly challenging ourselves and our processes. We innovate to deliver continuous improvement. We put this value into action by challenging ourselves to do things more simply or efficiently, coming up with ideas and leading innovation and anticipating our customers' needs.

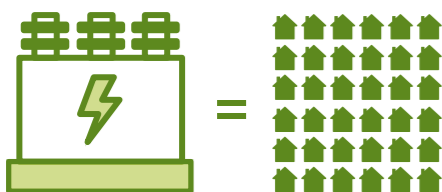
 **Collaborative**  
 We are an energetic and responsible force for change. Through working together, we build and grow talent to achieve our common goals and purpose. We put this value into action by sharing knowledge and information; working together with our employees, suppliers and customers; and by breaking the mould, and encouraging diversity.

We own three regulated electricity network businesses in the UK - SP Distribution plc (SPD), SP Manweb plc (SPM) and SP Transmission plc (SPT).

In this document we set out our future vision to deliver a better future for our customers across our distribution companies, SPD and SPM.

We operate in three of the UK's largest cities (Liverpool, Glasgow and Edinburgh) accounting for 1.6 million (43%) of our customers, as well as three significant rural areas (North Wales, Scottish Borders and Dumfries and Galloway).

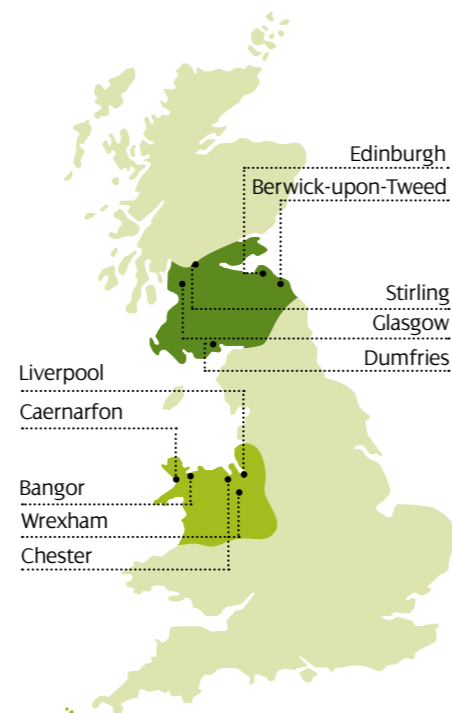
Our distribution network has **30,000** substations



**40,000km** of overhead lines, enough to wrap once around the world



**65,000km** of underground cables, to keep the electricity flowing





# You can trust us to deliver on our plans

We're proud of our track record.

We have a vital role in our society as an essential public service. As the only Distribution Network Operator (DNO) to serve customers in all three government regions of Great Britain, we're acutely aware of the importance of delivering for all of our communities.

As we look towards our RIIO-ED2 plans, our strong track record of delivery shows that you can trust us to do what we say we will.

Throughout RIIO-ED1, we've responded to changing network demands and unforeseen risks across our portfolio of programmes.

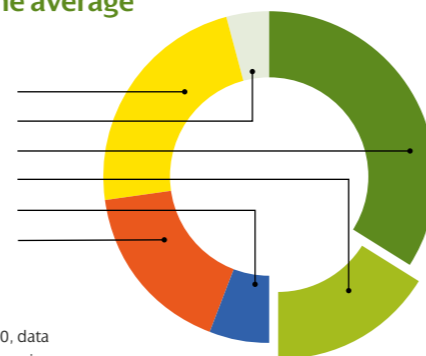
While we've had to be agile and respond to the most changeable environment anyone has seen for some time, we've remained true to our business plan commitments. We've driven efficiency and innovation and continue to prioritise service, safety and security of supply in everything we do.

Here's a rundown of what we've achieved so far...



## Components of the average electricity bill

- 23% Social obligations
- 4% Other
- 34% Wholesale costs
- 16% Distribution
- 6% Transmission
- 17% Supplier costs



Source: Ofgem September 2020, data based on six larger energy companies

## Delivering excellence in customer service

We were awarded the Network of the Year in 2019 at the Network Awards and were a finalist 2020 – being recognised for record high performance, exceeding expectation and over delivering for customers and stakeholders.	<b>Network of the Year 2019</b>	Our exemplary customer service enabled us to become the first utility company in the world to achieve the prestigious BSI (British Standards Institution) Kitemark for Customer Service and verification certification to the BSI Inclusive Service Provision scheme.	<b>A global first!</b>
We've improved our customer service to become the industry leading DNO group in Ofgem's Broader Measure of Customer Service incentive for 2019/20.	<b>First in the Broader Measure of Customer Service</b>	Supporting our vulnerable customers through our Priority Services Register (PSR) and additional services – our strategy has resulted in over 1 million customers joining our register.	<b>1 million customers</b>
When benchmarked against the UKCSI (UK Customer Service Index) Top 50 Companies, we ranked in first place.  This means coming above companies like First Direct and John Lewis!	<b>Benchmarked first by the Institute of Customer Service</b>	Prioritising looking after our most vulnerable customers - 99.9% of our vulnerable customers experienced no supply interruptions or were restored within six hours in 2019/2020.	<b>Looking after our vulnerable customers</b>

## Delivering a safe, secure and flexible network

We provide a 99.9% reliable network - making sure that our customers can stay connected to their lives.	<b>99% reliability</b>	Throughout RIIO-ED1 we've delivered one of the largest innovation portfolios of any of the DNOs.	<b>A focus on innovation</b>
We've delivered a 40% reduction in duration of power cuts in the last 15 years.	<b>40% reduction in power cuts</b>	We're one of the leading DNOs in the pursuit of flexible solutions, already tendering for around 1GW of contracts.	<b>c.1GW of flexibility contracts</b>
We've delivered industry leading Active Network Management (ANM) schemes that will enable 200MW of renewable generation and over £40 million of benefits in Dumfries & Galloway – and we're expanding this to North Wales.	<b>£40 million of benefits</b>	We've maintained a safe, secure and high performing network and have delivered 87% and 74% of our asset health outputs across our SPD and SPM areas to date.	<b>Maintained a safe and secure network</b>

## Enabling Net Zero for our communities

We were awarded the Network Magazine Smart Cities award in 2019 for collaboration with Glasgow City Council, leading in the Smart Street initiative that aims to bring smarter cities to life through innovation and sustainable networks.	<b>Smart Cities Award Winner</b>	We're part of the Net Zero North West alliance with the Metro Mayor of the Liverpool City Region, Cheshire, Warrington and wider industry.	<b>Partnered with our communities</b>
We've enabled the future of Electric Vehicle (EV) rollout through PACE – our partnership with the Scottish Government – delivering a 200% increase in public EV charging and saving taxpayers over £1 million in the process.	<b>£1 million saving to taxpayers</b>	Our Project Charge has combined transport and electricity network planning in our SPM area to understand where EV charge points will bring greatest customer benefit.	<b>Leading the way in EV forecasting</b>

## Delivering a resilient and sustainable organisation

We've continued our commitment to supporting jobs and have recruited over 1,200 new colleagues from the communities we serve, including craft and engineering apprentices.	<b>1,200 new recruits</b>	Ofgem recognised and commended our approach to asset management and the quality of our processes following their on-site audits in 2019.	<b>Recognised and commended</b>
We started building our digital-ready workforce by expanding trainee programmes to include data analytics and cyber security.	<b>Expanding our horizons</b>	Our environmental management system continues to be certified to ISO14001, and we have retained our Planet Mark Verification for a fourth consecutive year.	<b>Planet Mark Certification</b>
We've emphasised diversity and inclusion in our organisation through our award-winning Breaking Barriers partnership, which supports young people with learning disabilities, and our Returners programme, which helps people to return to work after a lengthy career break.	<b>Award winning diversity and inclusion programmes</b>	We've not only focused on helping our communities go green – so far, we've achieved a 55% reduction in combined carbon footprint since 2013/14 (excluding losses).	<b>55% reduction in carbon footprint</b>

# What is RIIO and why is it so important?

RIIO-ED2 is the next electricity distribution price control period which will run from 2023 – 2028.

RIIO stands for Revenue = Incentives + Innovation + Outputs.

It's through this framework that Ofgem scrutinises and approves network plans, making sure that investments deliver value for customers now and in the future.

We operate as a regulated monopoly. In simple terms this means that there's no traditional market competition to govern revenue because we're the only owners and operators of the electricity network in our areas. This is true for many network companies across different sectors (water, gas and electricity).

This price control - our contract with the regulator, Ofgem - will set out our investments, outputs and costs over this period. It will be our roadmap to tackle the climate emergency, create new jobs and support our customers and stakeholders through the energy transition.

**We'll submit our draft business plan to Ofgem in July and we'll then refine and strengthen our plan in partnership with our stakeholders and customers in preparation for our final submission in December of this year.**



**We're acutely aware of the need to make sure our services offer the most efficient benefits possible for our customers**

## Why is RIIO so important?

The RIIO price control will set out how much we can invest in the network and what our plans are, but it also has an impact on how much our customers and communities will pay through their bills.

We're acutely aware of the need to make sure our services offer the most efficient benefits possible for our customers, and we're focused on balancing this need with making sure we can deliver on the opportunities of a Net Zero future - while continuing to operate a safe and reliable network.

Throughout all of our proposals we'll be testing our level of ambition with our customers and stakeholders to understand what investment is right for them and what they think we should be focusing on.

The RIIO framework and the development of our RIIO-ED2 Business Plan puts customers and stakeholders at the heart of our decision-making, and everything we present will be based on sound research and stakeholder engagement on those plans.

## Unlocking Net Zero through investment

RIIO-ED2 will set out how much we can spend on the maintenance and development of our network throughout the price control period and it's important we get this right.

If we're to play our crucial role in developing a network that's ready for Net Zero, we must be able to deliver substantial investment in the network to enable this transition and face the challenges of growing levels of embedded generation, increasing the take up of electric vehicles and facilitating the electrification of heating.

We also recognise that the future will require flexibility in funding, as it's sometimes not clear when and what investments will be needed on the network, or if the investment should be done ahead of need. As part of our plans we'll present robust and thoroughly researched proposals for what we believe will deliver the best outcomes.

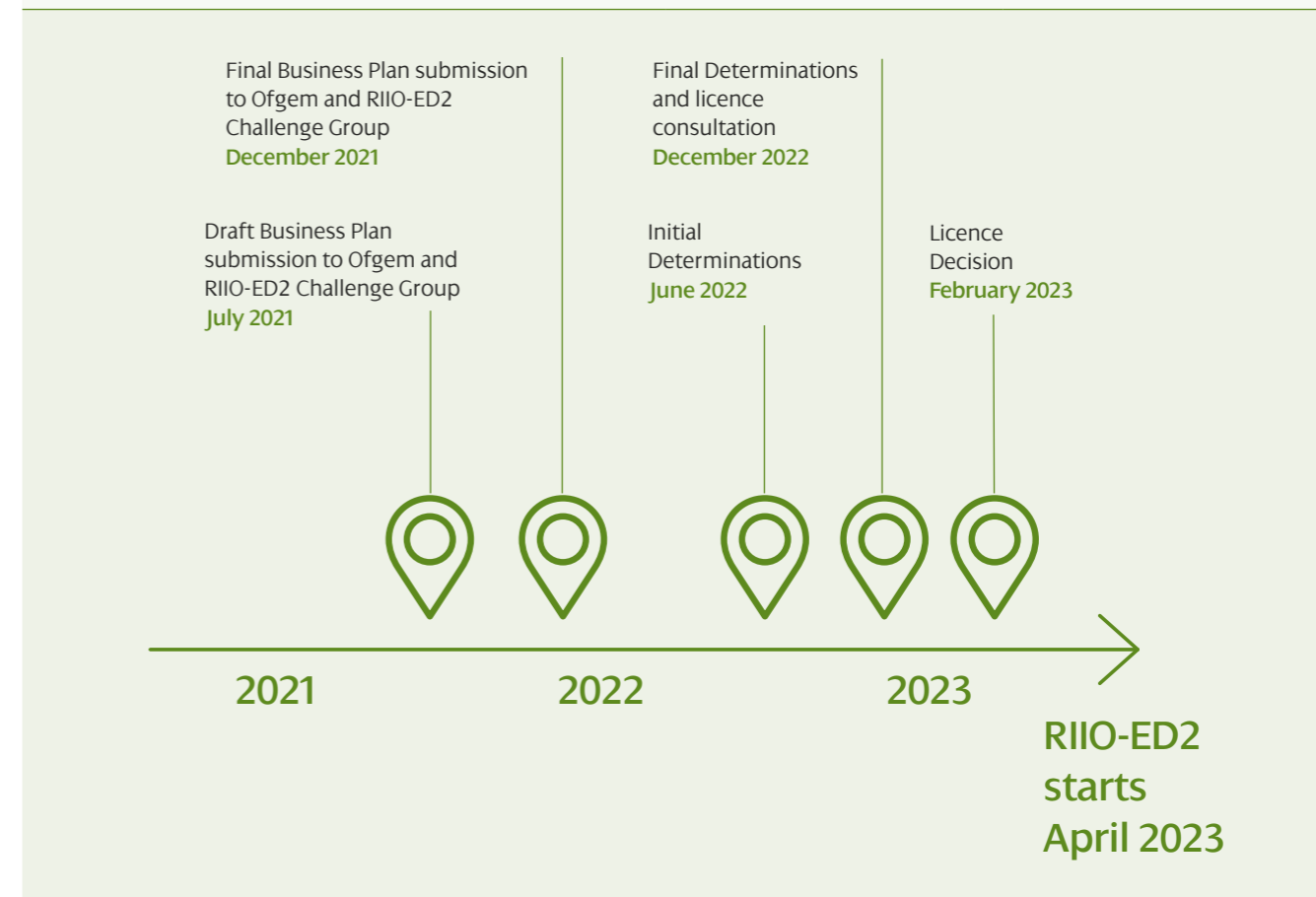
We hope that Ofgem and our partners in Government will recognise our ability to deliver substantial investment and benefits for the communities we serve.



**We hope that Ofgem and our partners in Government will recognise our ability to deliver substantial investment and benefits for the communities we serve**

## An overview of this year's RIIO-ED2 milestones

Today	July 2021	July - December 2021	December 2021
<b>Developing our plans</b>	<b>Draft Plan submitted to Ofgem</b>	<b>Engaging on our Draft Plan</b>	<b>Final Plan submitted to Ofgem</b>
Researching, understanding and exploring the priorities and needs of our stakeholders and customers	We'll submit our initial plan to Ofgem outlining our core thinking	We'll act on further feedback, developments and research to build our final plan	We'll submit the final version of our plan to Ofgem for review





# Co-creating our plans with expert stakeholders

The Customer Engagement Group (CEG) is a vital part in the development of our RIIO-ED2 Business Plan.

They're an independent panel consisting of industry experts who provide crucial external examination of our plans to assess if we're adequately addressing the needs and preferences of our customers and stakeholders.

The CEG plays a crucial role in scrutinising our engagement process and making sure that our business plan is robust by challenging our priorities and understanding of the changes occurring within every level in the energy industry.

They also review our investment proposals and innovation strategies, future network requirements, the support available for vulnerable customers and how we account for the needs of our varying regional stakeholders and customers in network planning.

You've already heard from the CEG chair, John Howard, who has a distinguished 19-year career in regulated industries and consumer affairs.

Following 20 years as an award-winning consumer journalist with the BBC, John was appointed as a Non-Executive Director at Ofgem, where he was a member of Ofgem's RIIO-ED1 Price Control Committee. He also helped formulate the regulator's definition of consumer vulnerability, a key priority for us in RIIO-ED2.

As chair of the independent CEG, John leads the group's interaction with us and Ofgem, as well as leading on the production of the CEG's assessment report which will be submitted to Ofgem's Customer Challenge Group alongside our business plan.



# 23

meetings since establishment

# 550+

actions, challenges, and feedback submitted

# 100+

hours of formal meetings

# 35+

SP Energy Networks presenters, including six directors

## Meet the team

Following an extensive recruitment process led by John Howard, a highly experienced, and diverse group of industry experts were appointed. The CEG meet monthly, working alongside senior managers and directors to scrutinise the development of our plans.

The members come from a range of industries and organisations across our SPM and SPD licence areas. All members have a strong track record of demonstrating leadership at a senior level and a proven ability to challenge opinions, assumptions and vision. In addition to the core membership, the group is also supported by three Special Advisors, who provide adhoc advice and input on their particular area of expertise.

**Speaking on the recruitment of the CEG, John Howard, said:** "I am very pleased that we have been able to assemble such an impressive group of experts to take on this important work. The business plan will be an extensive, technical and complex document requiring sufficient expertise to scrutinise it properly and I am delighted to have been able to attract members with a wealth of experience in the energy industry and beyond."



**Teresa Perchard**

More than 30 years' experience of consumer affairs policy and advocacy in a number of markets, including as board member of the Utility Regulator for Northern Ireland and Director of Policy and Advocacy at Citizens Advice.



**Andy Billcliff**

A former Director of UK Hydropower at RWE Innogy, Andy brings over 40 years' experience in power plant development, construction and operation.



**Professor Janette Webb**

Edinburgh University Professor of Sociology, Co-Director of the UK Energy Research Centre, and member of UK Research and Innovation (UKRI) Energy Scientific Advisory Committee.



**Chris Clark**

Managing Director of one of the UK's largest commercial solar contracting businesses and member of the Solar Trade Association, Scotland.



**Matthew Cole**

Previously npower's Head of Vulnerable Customers, Matthew is now an independent consultant working in and around the energy industry to help companies achieve positive outcomes for customers in vulnerable circumstances.



**Sam Ghibaldan**

Considerable experience in strategy, government, consumer advocacy and utilities regulation and is currently Director, Customer Forum at the Water Industry Commission for Scotland.



**Dr Matthew Hannon**

Works as Director of Research and Senior Lecturer at the Hunter Centre for Entrepreneurship within the University of Strathclyde's Business School, specialising in low-carbon energy technology and business model innovation.



**Benny Talbot**

Specialising in local supply, energy flexibility and community engagement, Benny is Innovation Manager for Community Energy Scotland.



**Gillian Wood**

An experienced councillor for Claughton and Noctorum of Wirral Metropolitan Borough Council. Gillian also holds the position of Deputy Portfolio Holder: Low Carbon and Renewable Energy – for the Liverpool City Region Combined Authority.



**I am very pleased that we have been able to assemble such an impressive group of experts to take on this important work**

John Howard, Customer Engagement Group Chair



# Delivering your Net Zero future

This is a time of unprecedented change and opportunity for our industry. The ED2 period will be an especially crucial time for the UK's Net Zero transition and continuing green recovery from the COVID-19 pandemic.

## The communities we serve have set ambitious, binding Net Zero targets

We've already started prioritising actions to tackle the climate emergency and deliver Net Zero – investing £4.8 billion into our distribution network areas in North West England, Wales and Scotland from 2015 to 2023 to prepare for the future.

As the only network operator to operate across the UK, Scottish and Welsh Governments, we know how vital our role is to support the societal changes that will be needed. We can be pivotal in delivering a just transition for the communities we serve – delivering jobs, economic growth, and environmental benefits.

In response to the global climate change challenge, the UK Government introduced the Climate Change Act 2008. This introduced a legally binding target for the UK to become Net Zero, reducing 100% of greenhouse gas emissions by 2050.

This is in line with the Committee for Climate Change's (CCC) publication 'Net Zero – The UK's contribution to stopping global warming'. In this same publication, the Committee for Climate Change recommends a target of at least a 95% reduction of greenhouse gas emissions by 2050 for Wales. However, the Welsh Government aims to go even further and reach Net Zero by 2050.

The Scottish Government has gone even further again, by introducing a legally binding target for Scotland to achieve Net Zero by 2045.

As national, devolved and local governments drive towards Net Zero carbon emissions, we plan to be the distribution network that leads the way in making the ambition a reality.

# 2



## To reach Net Zero across our licence areas by 2050, and 2045 in Scotland, we must deliver:

### Building a network that's ready for Net Zero

This future will mean a monumental change in our distribution network and could place unforeseen strains on it, pushing it beyond its original design limits in many cases. This poses fundamental challenges to grid operation, system performance and risk to our customers. That's why it's so important we invest now.

To make sure our network has enough capacity and to understand where and when we will need to make changes to our network, we don't just forecast or base our investment decisions out to the end of ED2 – we forecast our customers' electricity needs right up to 2050.

These forecasts cover how much electricity existing and new customers might consume (demand) and how much they might produce (generation).

We call these forecasts [Distribution Future Energy Scenarios \(DFES\)](#).

We use this understanding of future customer needs to plan and design our network – helping us to understand where we might need to create more network capacity, and how our operational and maintenance activities should be carried out. This in turn helps us calculate what financial investment is needed, and to seek approval for this expenditure from Ofgem.

The DFES forecasts are a foundation on which we're producing our RIIO-ED2 Business Plan.

This future will mean a monumental change in our distribution network and could place unforeseen strains on it

**1 Electrification of transport**  
Up to 1.5 million\* new EV's by 2030

\*Values for EVs charging at home

**2 Electrification of heating**  
Up to 0.9 million heat pumps by 2030

**3 More renewable generation**  
Up to 7GW of new generation by 2030 (2.5 x current levels)

\*Values in addition to current levels



## Working together with a shared strategic vision for the future

It's vital that businesses, regulators and governments work together at pace, with a shared strategic commitment to delivering ambitious and timely progress towards cost-effective decarbonisation of the UK economy.

Electricity networks are critical to ensuring the delivery of renewables, hydrogen, electric vehicle chargers and heat pumps and we believe government should play to its strengths by investing in the country's core energy infrastructure.

The acceleration of a smart, green energy network will lead to unprecedented change for network operators. We can support these goals, but we need to start this journey now. Ofgem must realise the capability of the private sector to deliver the radical changes needed to network infrastructure.

We recently welcomed the Climate Change Committee's (CCC) suggestion that additional, immediate, funding in network infrastructure should now be considered against the lower operating costs of a low carbon society in future. This would allow us to take a longer-term view by bringing forward and coordinating investment where it delivers the greatest benefits to customers. This is incredibly important for our customers and will lead to lower network costs, fewer delays waiting for connections to the network, a more resilient and safer electricity supply.

## Investing in our networks will unlock benefits for us all

Enabling Net Zero ambitions through the distribution network will result in real, tangible benefits for our customers, our communities and our stakeholders.

For example: a move to electric vehicles can save customers up to £1,000 a year on fuel costs<sup>1</sup>. Strategic investment in EV infrastructure now can present a net benefit to the economy in the long term and up to 260,000 new jobs (and 140,000 replacement jobs)<sup>2</sup> are forecast to be needed across the UK to deliver Net Zero.

Meeting these challenges will require us to invest efficiently to transform our network and facilitate the necessary energy transition in the coming years.

Targeted strategic investments can unlock existing network capacity and facilitate more renewable generation on our networks, accommodate the uptake of heat pumps and increase charging points for consumer and commercial electric vehicles.

This coordinated approach will deliver greater efficiency for consumers by reducing incremental upgrades to the network whilst boosting wider economic and environmental benefits including better air quality, reduction in CO<sub>2</sub> emissions and more sustainable green jobs and opportunities.

## Building a greener country in the recovery from COVID-19

The impact of the COVID-19 pandemic is unlike anything seen in our lifetimes. It's caused sudden and dramatic changes to our way of life and every industry has felt its effects.

Throughout the pandemic, we've kept our staff and customers safe, kept the supply of electricity secure, and retained our focus on delivering critical infrastructure. We undertook a mammoth task to make sure the safety, security and resilience of our power supplies continued throughout the pandemic – especially to NHS and private hospitals, care homes and other healthcare facilities who are on the frontline of the fight against COVID-19.

As we start to emerge from lockdown restrictions, it's time to start planning for a different future.

It's important to get the economy moving again, and to drive towards a more sustainable future. We believe that electricity networks are a vital part of this process. We can respond quickly to support a green recovery, create jobs and spur investment that helps tackle the Net Zero challenge.

By taking the right approach now, the UK can accelerate the race to zero emissions through electric vehicles, cleaner energy and low carbon homes – incentivising private investment, creating jobs, boosting our domestic supply chain and making sure that no communities are left behind.

Working closely with Ofgem, the Energy Networks Association have already jointly created plans to unlock early investment in the grid to help support green energy infrastructure projects that will accelerate uptake of the technologies of tomorrow, like electric heating and electric vehicles.

This means tens of millions of pounds of funding being allocated for investment in each distribution network licence area over the next two years will be used to fast-track green developments and directed to the most efficient and impactful projects.

We call on all parties to recognise the huge social and economic benefits of this investment, now and into the RIIO-ED2 period.

By taking the right approach now, the UK can accelerate the race to zero emissions through electric vehicles, cleaner energy and low carbon homes





# Our RIIO-ED2 Strategy

Our plan will balance the evolving needs of the network, consumers and the market. It will take a coordinated and collaborative approach to navigating an uncertain future as efficiently and sustainably as possible.

We face unparalleled levels of uncertainty, complexity and risk in making this energy transition happen.

As such, we'll address how we plan and operate the distribution network from the bottom up. We'll change the way we serve our customers and make sure every stakeholder has a voice. Crucially, we'll change how we operate as a sustainable, innovative and digital business.



## A platform for Net Zero

RIIO-ED2 will be a critical platform for setting our business and the wider energy system firmly on the path to Net Zero. As we develop these plans it's crucial that we do so in a way which is constantly mindful of the needs of our customers.

To underpin our commitment to these wider challenges, we've aligned our business to a renewed sense of purpose, captured in our vision statement and three strategic goals that are at the very core of our thinking.

For us, they're more than just words on the wall – they are the very architecture of our RIIO-ED2 Business Plan and will be at the heart of our decision-making and operations as we deliver this plan over the coming years.

### Our core purpose is to:

**“Work with the communities we serve to enable a just transition to our Net Zero future”**

**Working with the communities we serve** means having a relentless focus on delivering value for our customers. It also means building on our strong relationships with stakeholders and partners with whom we have shared goals to achieve greater collective impact.

**Enabling a just transition** means that we're committed to not disadvantaging any customers, and that we will strive to unlock benefits for the wider economy and society as we deliver our plan.

Although there are many tests ahead, meeting Net Zero targets will result in tangible benefits and present huge opportunities for our customers, communities and stakeholders. The transition to a low carbon economy has significant potential to reduce inequality and improve the lives of all. But by its nature, this scale of transition poses a risk that some customers could be left behind in the move towards low carbon technology.


The only meaningful energy transition is a just one, and we must make sure that the network and energy market transformation develops in a way that supports equity and accessibility for all members of society.


And we are focused on **preparing for our Net Zero future** – we fully recognise that the way we invest in and manage our networks will be increasingly central to our customers' and communities' goals around decarbonisation and participation in the energy market.


### The pillars of our strategy

We're experts in running and evolving our networks, but as an essential service provider and facilitator of the energy transition we increasingly face contending priorities.

As we balance the evolving needs of the network, consumers and the market, our strategic pillars underpin all of our ambitious plans.

 **Develop a network that's ready for Net Zero**

 **Be the trusted partner for our customers, communities and stakeholders**

 **Ready our business for a digital and sustainable future**

**Our core purpose is to work with the communities we serve to enable a just transition to our Net Zero future**



### Engagement at the heart of our plans

Engagement is a vital component of our business, helping us to understand our customers and stakeholders to deliver quality, tailored services for them.

Throughout the development of our RIIO-ED2 Business Plan we've continued to put them at the heart of our planning and decision-making.

We've engaged thousands of customers and stakeholders on a vast range of topics ranging from engineering to consumer vulnerability.

All of this helps us to paint a clear and consistent picture of the preferences and needs of our customers and stakeholders – across a multitude of topics, activities and future scenarios.

We've used all of our engagement to help us develop not only our priorities, outputs and targets, but to build our core RIIO-ED2 strategy that guides us in everything we do.

In short, everything we've done is designed to meet the needs of our communities, now and in the future.



### What changes does our strategy need to respond to?

As we've built our plans, we've carried out extensive industry research and our expert team have identified the key drivers of change our plans will need to respond to.

This expert view from our colleagues, industry peers, government and the regulator has helped us to develop the strategy – making sure that our plan delivers on the challenges we'll be faced with.

There are five forces driving us and throughout the process of developing our ED2 plan we're focused on making sure we meet these challenges:

<p><b>The energy transition will push our networks beyond current capability and capacity</b></p>	<ul style="list-style-type: none"> <li>– Decarbonisation and decentralisation will drive huge growth of Low Carbon Technologies and Distributed Generation</li> </ul>
<p><b>The evolving needs of our customers are placing new demands on the role of networks</b></p>	<ul style="list-style-type: none"> <li>– Our services will be central to our customers as the necessity of the electricity network increases</li> </ul>
<p><b>We need to optimise the use of network and non-network assets through new business models and markets</b></p>	<ul style="list-style-type: none"> <li>– We will need to deploy new technical solutions, like flexibility, and enable opportunity for others through open data</li> </ul>
<p><b>Political and societal expectations and regulatory challenges are higher than ever before</b></p>	<ul style="list-style-type: none"> <li>– We will have a critical role in enabling regional and community ambitions for Net Zero targets</li> </ul>
<p><b>Digitalisation offers opportunities to optimise operations, decisions and customer experience</b></p>	<ul style="list-style-type: none"> <li>– Our business must enhance its digital capabilities, driving innovation and new ways of working.</li> </ul>





# Our strategy in action: our customers, stakeholders and communities

We know that we need more than just a well-researched strategy to meet the challenges that face us. That's why everything we've developed has been tested and built following engagement, insight and direction from our customers, stakeholders and communities.

To make sure our engagement and insight is robust and representative of the views of our wider stakeholders on every aspect of our plan, we created an approach to research and engagement through four defined phases.

Each of these phases have been guided by a comprehensive engagement plan that matches specific areas of engagement to the most appropriate groups of customers and stakeholders - via tailored methods.

All the phases of our engagement programme provide us with vital feedback that will allow us to progress from a high-level set of strategic pillars to a group of costed outputs with specified targets.

0. **Customer segmentation** – identifying what's important to our customer groups
1. **Identifying priorities** – What are the overarching outcomes that our customers and stakeholders want us to deliver in the coming years?
2. **Exploring needs** – What are the specific needs and preferences of customers and stakeholders that we need address in RIIO-ED2?
3. **Testing commitments** – Will the proposed commitments deliver the needs and preferences of our communities and, in turn, deliver the outcomes they expect from us?
4. **Acceptability testing** – Do our customers and stakeholders accept the commitments we propose to deliver over RIIO-ED2? This will be conducted ahead of the publication of our final plan in December 2021.

As the table on the right shows - we've engaged with a huge number of customers and stakeholders so far, and we'll continue to engage with our customers and stakeholders until we submit our final business plan in December of this year.

# 14k+

Stakeholders and customers have been engaged on our plans so far

# 18

Different engagement methods have been used to gain insight and feedback

# 10

Targeted and tailored engagement activities



Engagement Phase	What we engaged on?	Who did we engage?	# of customers/ stakeholders
<b>Phase 0 – Customer Segmentation</b>	Customer attitudinal segmentation	Representative sample of domestic and commercial customers	<b>3,097</b> <i>through in-depth interviews and online surveys</i>
<b>Phase 1 – Priorities and Ambition</b>	Stakeholder priorities gathered across various surveys	Key expert stakeholder groups including: Local Government, Academia, Charity, Transport, Renewable Developers, Water, Construction, Government, Suppliers, Aggregators, Community Groups and more	<b>91</b> <i>expert stakeholders, through in-depth stakeholder surveys</i>
	Customers' priorities and ambition	Representative sample of domestic and commercial customers	<b>1,550</b> <i>through in-depth interviews and qualitative engagement methods</i>
<b>Phase 2 – Needs and Preferences</b>	Detailed engagement on customer needs and preferences	<b>Customer groups engaged:</b> Domestic customers (including vulnerable customers), Small businesses, Large businesses, UMS, Generators	<b>5,450</b> <i>through in-depth interviews and qualitative engagement methods</i>
	Detailed engagement on stakeholder needs and preferences	<b>Key expert stakeholder groups including:</b> Local Government, Academia, Charity, Transport, Renewable Developers, Water, Construction, Government, Suppliers, Aggregators, Community Groups and more	<b>227</b> <i>expert stakeholders, through workshops and surveys</i>
<b>Phase 3 – Testing proposals</b>	Testing proposals, service levels, ambition, willingness to pay and affordability	Representative sample of domestic and commercial customers	<b>3,900</b> <i>customers, through workshops and surveys</i>
	Detailed engagement on draft commitments	<b>Key expert stakeholder groups including:</b> Local Government, Academia, Charity, Transport, Renewable Developers, Water, Construction, Government, Suppliers, Aggregators, Community Groups and more.	<b>417</b> <i>expert stakeholders so far, through facilitated works, surveys and bilaterals</i>
<b>Phase 4 – Acceptability</b>	Overall acceptability of the plan	Testing final proposals and acceptability of the final overall bill with customers and stakeholders.	<b>July - Dec 2021</b>



This approach has delivered our most comprehensive, open and transparent programme of engagement that we've ever carried out

### How we're delivering our engagement

Despite the complexities of the COVID-19 pandemic we've engaged with over 14,000 customers and stakeholders so far, overcoming the challenges of the pandemic through agile working and adapted, innovative methods.

While online activities were the focus of our programme, such as virtual meetings, interactive surveys and messaging platforms we supplemented this by adapting our more traditional engagement approaches such as socially distanced door-to-door surveys and phone interviews to make sure that the full breadth and diversity of our customer and stakeholder base, including those in vulnerable situations or specific circumstances (e.g. customer off the gas grid), can be involved in shaping our plans.

Importantly, our engagement isn't just lip service – wherever possible our engagement has been delivered by the same teams building our plan, to make sure that no messages get lost and customer and stakeholder insight is embedded in our thinking throughout the plan development process.



# Understanding our customers

We've engaged directly with more customers than at any other time in our history, to best understand their current and future needs, and to make sure the services we develop deliver maximum benefit for them.

Real power comes in understanding where their priorities and ambitions lie, and this knowledge has been key to building the further blocks of our strategy and plans.

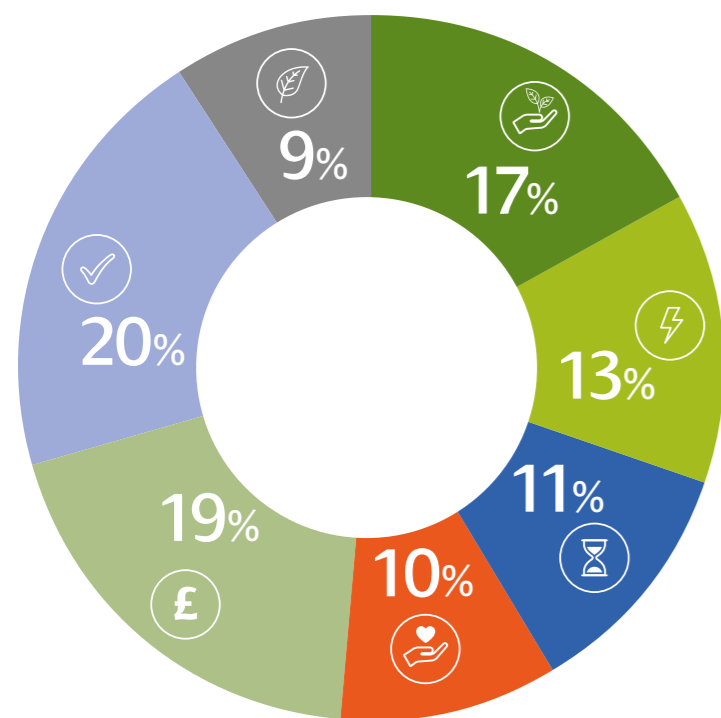
So, to help us understand this, we undertook a comprehensive analysis to find out what areas they deemed priority, and where they believe our level of ambition should be against each.

We want to make sure our future plans respond to these priorities and helps to serve our customers in the best way possible. That's why our customer segmentation approach is so important.

Our research so far has sought to understand what's important to our customer groups, and we've developed a robust segmentation model that illustrates the kind of things our customers expect from us.

## Domestic customer segmentation

We identified seven different attitudinal segments or 'mindsets'. These are based on the level of engagement customers have with the energy landscape and how active they are in managing their own household energy.



\*percentages rounded to nearest whole number

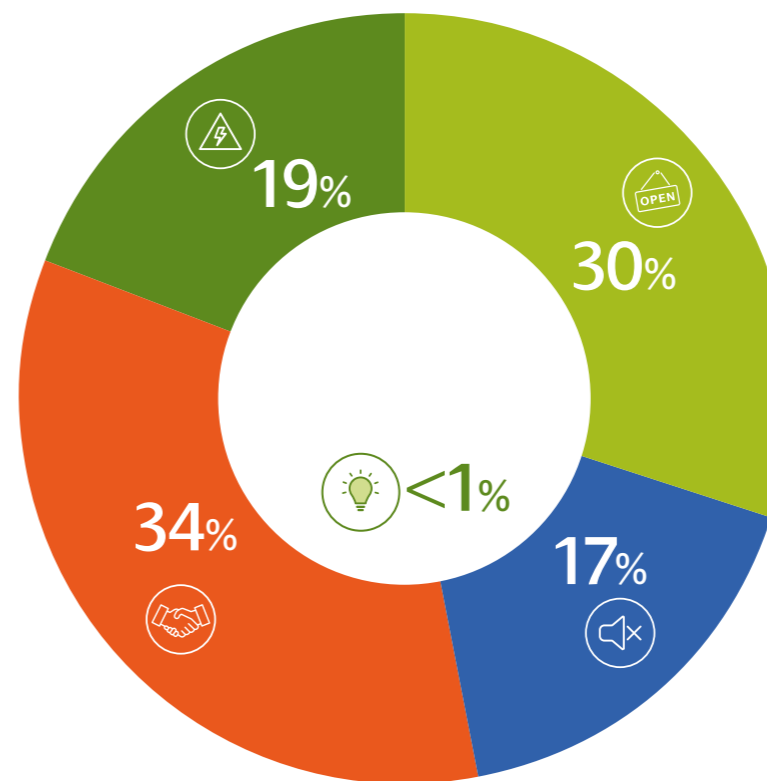


- Control seekers**  
"Help me feel more in control around my current and future energy usage/ footprint"
- Cost is king**  
"Help me find ways of saving money and avoid waste"
- Actively Green**  
"Inform and empower me to make an even bigger positive environmental impact"
- Unplugged**  
"Keep the power on and be there for me in an emergency"
- Go with the flow**  
"Take the lead and make it easy for me to make small changes in my life"
- Careful and caring**  
"Support me in trying to make a difference to my life and others in my community"
- Seen to be green**  
"Keep me up-to-date and 'in the know' so that I can try and do the right thing"



## Commercial customer segmentation

We were able to identify five different attitudinal segments or 'mindsets' based on the level of engagement customers have with energy as a business lever, and the level of importance they place on how they use and manage it.



- Deal seekers**  
"Help me optimise energy efficiency and get the best deal"
- Open for business**  
"Support them and their businesses"
- Hoping to harness**  
"Make it easy and help them control their energy and save money"
- Silent partner**  
"Keep the power on"
- Energy experts**  
"Partner with me"





### Customer and stakeholder priorities

In this phase of research we set out to identify the overarching priorities of our customers and stakeholders – testing different sets of priorities that reflected the differing viewpoints of customers and stakeholders.

This is because we know that many customers typically have a more limited understanding of our role and are better placed to prioritise a more granular set of ‘simply worded’ priorities. Stakeholders, on the other hand, have expert understanding of the energy system and can understand higher level priorities that more closely reflect the strategy model and guiding principles we’ve developed.




Following this research, we’ve combined our customer and stakeholder priorities together using a weighted model. To do this, we:

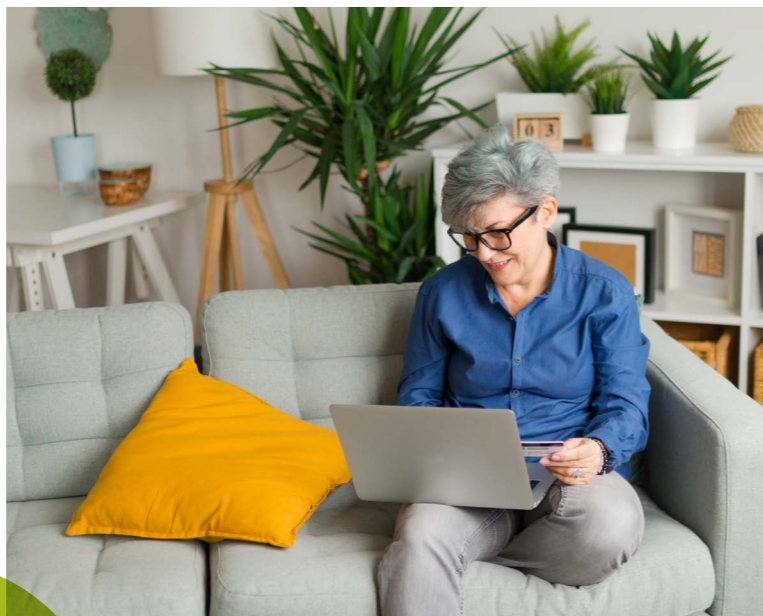
1. Assigned each of the domestic and commercial customer priorities a weighting, based on the order of ranking.
2. Calculated an average customer weighting across both sets of customer groups.
3. Assigned weights to stakeholder priorities, using the same approach.
4. Matched each customer priority to one of the overarching stakeholder priorities.
5. Combined the priorities together to reach an average weighting.

This gives us a consolidated view of what’s important for us to address in our plans. To make sure we understand how this relates to our strategic goals, we mapped each priority to our pillars.

All of this research and segmentation has combined to inform the importance we place on each of our priorities and to benchmark that our plan delivers what our stakeholders and customers need it to.

All of this research and segmentation has been combined to inform the importance we place on each of our priorities

Customer and stakeholder priorities		Ranking
<b>Develop a network that's ready for Net Zero</b> 	Ensuring a safe and reliable electricity supply	1
	Developing the network of the future	3
	Providing timely and efficient connections to our network	8
<b>Be the trusted partner for our customers, communities and stakeholders</b> 	Delivering excellent satisfaction and enhanced services for all customers	6
	Supporting vulnerable customers and communities to ensure no-one is left behind in the energy transition	2
	Working with customers, stakeholders and communities to facilitate the energy system transition	7
<b>Ready our business for a digital and sustainable future</b> 	Making a positive impact on the natural environment	4
	Embed digitalisation to unlock Net Zero benefits for our customers and stakeholders	5
	Promoting an inclusive, skilled and healthy workforce	9



### Forming proposals

Meeting these goals will take a coordinated and collaborative approach but throughout everything we've done, and everything we will do in the future, these pillars guide us on that path.

During Phase 2 engagement we conducted in-depth research and held focused stakeholder workshops to understand what customers and stakeholders would like us to do across these nine priority areas.

The detailed results and analysis from engaging over 5,000 customers and stakeholders helped all of our colleagues working on the ED2 project to develop a series of commitments based on the feedback we've received. These are the proposals we're now sharing with you in this document.

These proposals represent the needs, preferences and desires of our stakeholder groups and will form the basis for further development of our plans. These high-level ambitions are categorised under our key strategic pillars for RIIO-ED2 and while they're reflective of the feedback and insight so far, they're not finalised.

You can find more information on our proposals on the following pages - including links to our website where you can have your say.





# What we're proposing for RIIO-ED2

As we develop our RIIO-ED2 plans, we've been engaging with the customers, stakeholders and the communities we serve to develop the proposals we'll outline in our business plan.

As we've moved through the process, we've used all of our engagement and what our customers have told us to develop a draft set of proposals.

These high-level ambitions are categorised under our key strategic pillars for RIIO-ED2 and while they're reflective of the feedback and insight so far, they're not finalised.

We're using these to test our direction and understand if these feel ambitious enough, if we need to go further or if we need to consider other options.

Until we submit our draft business plan in July of this year, we'll be working with our stakeholders to further refine and strengthen these. If you have any views, opinions, or you'd like to feedback – we'd love to hear from you.

visit: [spenergynetworks.co.uk/ChallengeOurPlan](https://spenergynetworks.co.uk/ChallengeOurPlan)

You can have your say on if you think we've got them right and we'll continue to refine our proposals until we submit our final plan later this year.

# 4

## Develop a network that's ready for Net Zero



To 'develop a network that's ready for Net Zero' we will:

- Use strategic investment to develop the network of the future that enables the energy system transition and facilitates Net Zero targets
- Support a smart, flexible energy system by leading the transition to DSO
- Make sure that we keep electricity supplies reliable and secure
- Deliver timely and efficient connections to our networks

## Be the trusted partner for our customers, communities and stakeholders



To 'be the trusted partner for our customers, communities and stakeholders' we will:

- Support vulnerable customers and communities to make sure no-one is left behind in the energy system transition
- Provide new and enhanced services along with excellent satisfaction levels
- Work with our stakeholders and communities to enable local energy solutions
- Continue robust and transparent consultation, engagement and reporting with our stakeholders and customers throughout RIIO-ED2

## Ready our business for a digital and sustainable future



To 'ready our business for a digital and sustainable future' we will:

- Transform our digital capabilities and services
- Put data at the heart of our operations
- Make a positive impact on the natural environment
- Achieve a step change in social and economic sustainability
- Enhance our workforce with skilled jobs from the communities that we serve



Our draft proposals on the following pages don't cover everything that will be in our plan, but give you an indication of our approach in these areas.

It's important to note that these proposals are still in draft. As we test these with our customers and stakeholders, some might change or be removed if feedback tells us we should be focusing in other areas or if our research indicates we need to make changes.









# How we'll develop a network that's ready for Net Zero

The energy landscape is changing. To help our customers in the move to Net Zero, we must develop a network that's ready for Net Zero.

This means creating additional network capacity, enhancing our Distribution System Operator (DSO) activity and enablers, delivering a new approach to managing the LV (low voltage) network and taking on a greater whole system role.

As society decarbonises to Net Zero, our customers are increasingly turning to electric vehicles (EVs) and heat pumps for their transport and heating. We're also going to see a further leap in renewable generation to power these new low carbon technologies (LCTs), and experience more dynamic and complex power flows as customers become increasingly active participants in the energy system.

These customer-led changes are far beyond what the existing network is designed for. This creates four core areas we must deliver, so we can accommodate decarbonisation and maintain a safe, reliable, and efficient electricity supply for our customers:

-  **Additional network capacity**  
So we can accommodate our customers' EVs, heat pumps, and generation.
-  **Manage increasing network complexity**  
So new markets and services can develop efficiently and safely.
-  **Recognise increasing network criticality**  
Our customers are becoming increasingly dependent on a reliable electricity supply for all their activities.
-  **Manage accelerated asset deterioration**  
This results from increased utilisation by greater levels of demand and generation.

We'll achieve our goal to 'Develop a network that's ready for Net Zero' by focusing on the key priority areas that our customers and stakeholders have told us are important to them...

- 1** Ensuring a safe and reliable electricity supply
- 2** Developing the network of the future
- 3** Providing timely and efficient connections to our network

## What our customers and stakeholders have told us:

- Customers and stakeholders consider that developing the network of the future to enable the Net Zero transition should be one of our top three priorities for the ED2 period.
- Stakeholders have told us that our operational response should always follow safe working practices and that any network operator must operate in a way that first and foremost ensures safety for staff and consumers.
- There's clear support from stakeholders that sophisticated monitoring and control of the electricity network will be essential as we move towards a low carbon energy system - all commercial customers agreed that the principle of early detection of power issues through monitoring equipment would be beneficial to both SP Energy Networks and their businesses.
- Stakeholders agreed that network investment solutions should be explored to reduce the likelihood of customers experiencing Multiple Short Interruptions, and that we should invest in additional network control as a priority to reduce the number of Customer Interruptions on the network.
- The majority of domestic and 88% of commercial customers believe that the security of supply is paramount and that we should strive to minimise both the duration and number of interruptions to customers.
- 72% of domestic customers believe that we should continue to proactively invest in resolving potential safety risks from electrical equipment in the long term, even if this could lead to a bill increase.

# 88%

of commercial customers believe that security of supply is paramount and that we should strive to minimise both the duration and number of interruptions to customers.





# 1. Ensuring a safe and reliable electricity supply

The push towards Net Zero will drive systemic change in the distribution network. These changes will place unforeseen strains on the network, pushing it beyond its original design limits in many cases.

We anticipate the decarbonisation of heat and private transport will most acutely impact our network at the point of connection: our Low Voltage (LV) system. This is the 'last mile' of the distribution network, which brings electricity into customers' homes.

Historically, these systems were not designed and constructed to accommodate the demands of Net Zero. This could lead to safety and performance issues which will directly impact customers.

A range of interventions will be needed to manage these risks. Proactive, targeted investment programmes, such as the rollout of LV network monitoring and upgrading of cables, will be necessary, along with new solutions.

In RIIO-ED2 customers will benefit from increased levels of reliability, achieved through our targeted, optimised and efficient investment to manage risk and reduce asset deterioration. Our networks are safer and more resilient than ever, and we plan to build on this strong foundation.

We'll employ innovative techniques and industry best practice to reduce public safety risk and develop our network to be more resilient to the changing climate and emerging security risks.

**We know how important keeping electricity supplies reliable and secure is to our customers, stakeholders and communities. Through our extensive RIIO-ED2 engagement programme they have indicated strong support for us to:**

- Continue to proactively invest in resolving potential safety risks from electrical equipment in the long term, even if this could lead to a bill increase.
- Deploy sophisticated monitoring and control of the electricity network which will be essential as we move towards a low carbon energy system.
- Strive to minimise both the duration and number of interruptions to our customers.
- Actively invest in managing the environmental impact on our network, ensuring we build a sustainable network considering the impact of climate change.



## Our proposals in this section cover...

Managing the overall risk (health and criticality) of our network to deliver a safer, more reliable and resilient network, with lower environmental impact:

- **Safety** – reduced risk to our staff and the public.
- **Reliability** – reduced frequency and duration of customer power cuts.
- **Resilience** – greater resilience of our network to a range of external factors.
- **Lower environmental impact** – reduced adverse environmental impact from our network.
- **Enabling Net Zero** – a safe and reliable network is the foundation to accommodating the electrification of heat and transport and further renewable generation.



## Some highlights of what we're proposing to do in RIIO-ED2:

- Continue to optimise the level of network risk and improve reliability, ensuring that on average, customers will be 15% less likely to experience an interruption, and the average duration should reduce by 10%.
- Improve reliability for over 2,400 of our 'Worst Served Customers' by 25% through delivery of 45 dedicated network performance schemes.
- Improve public safety risk by replacing over 2,000 of our poorest condition underground link boxes, and modernising over 2,000 low voltage pillars in publicly accessible areas during RIIO-ED2.
- 50% of our substations will have additional monitoring equipment to help us manage the network as new technology, like EVs, connect.

# 2,000

of our poorest condition underground link boxes will be replaced

## Our draft proposals for: ensuring a safe and reliable electricity supply

Our customers are increasingly dependent on electricity as they decarbonise. We'll maintain the health, reliability, and safety of our network for them by continuing to lead the way in asset management in RIIO-ED2.

- 1 Increased network visibility**  
Increase visibility of our low voltage networks by rolling out over 14,000 monitors at 50% of our local substations and enhancing our use of smart meter data. This will enable us to maximise utilisation of the existing network, identify targeted areas for upgrades, and facilitate customer flexibility.
- 2 Stewardship of Critical National Infrastructure**  
As a steward of critical national infrastructure, we will maintain our ISO55001 accreditation and ensure all our asset managers are certified with the Institute of Asset Management. We will continue our strategic partnership with the IET and our leading contribution to the IEEE, CIGRE and CIRED.
- 3 Improving the reliability of our networks**  
Continue to optimise the level of network risk and improve reliability, ensuring that on average, customers will be 15% less likely to experience an interruption, and the average duration should reduce by 10%.
- 4 Improving service for our worst served customers**  
Improve reliability for over 2,400 of our 'Worst Served Customers' by 25% through delivery of 45 dedicated network performance schemes.
- 5 Improving public safety from our LV assets**  
Improve public safety risk by replacing over 2,000 of our poorest condition underground link boxes, and modernising over 2,000 low voltage pillars in publicly accessible areas during ED2.



- 6 Adapting and responding to flood risk**  
Continue to improve the flood resilience of our network by working with our regional environment agencies and continue to target 100% compliance as flood maps and assessments evolve during ED2.
- 7 Integrated substation safety**  
Improve fire safety at over 1,000 substations integrated in other buildings, through a prioritised, risk-based investment programme during ED2.
- 8 Smarter security measures at electrical sites**  
Deploy smarter security measure and access restrictions to 100% of our ground mounted substation sites over the course of ED2, to reduce unauthorised access and improve traceability and management of our third-party contractors.
- 9 Proactive safeguarding of residents**  
Safeguard 50,000 residents of flats and tenements by proactively managing the risk associated with deterioration of Rising and Lateral LV Mains (regardless of ownership) through our risk-prioritised modernisation programme which upgrades poor condition assets where they are identified.

What do you think of our draft proposals? Each one is presented, along with the context of our current performance, on our website so you can have your say at: [spenergynetworks.co.uk/ED2NetZeroNetwork](https://spenergynetworks.co.uk/ED2NetZeroNetwork)

# £50million

Potential savings for our customers in ED2 by embedding learnings from our innovation projects and adopting best practice from successful industry trials.



## 2. Developing the network of the future

The creation of a flexible power grid will be an essential part of the response to the changes brought on by Net Zero.

It will be vital when it comes to coping with the short-term demands on the system as investment in the network can take many months and years of planning. We must make sure that we proactively manage risks to safety, network integrity and security of supply on all aspects of our system.

We'll plan and develop our networks to meet our current and future customers' needs as Britain transitions to Net Zero. This includes making sure customers can connect their low carbon technologies (LCTs) - including through proactive replacement of looped services, sizing assets to accommodate future Net Zero needs and making sure that new high voltage (HV) and low voltage (LV) equipment is smart-enabled to actively manage the network of the future.

We'll unlock the network capacity and system architecture that readies our network for Net Zero using an efficient balance of intervention solutions (flexible, smart, reinforcement, energy efficiency). This will release up to 700MW of additional capacity in SPD and 330MW in SPM and enable the connection of up to 3GW of low carbon generation in SPD and 2GW in SPM.

Our future network must also be actively managed. Transitioning to the DSO role is also critical to enabling a Net Zero future. To support this transition, we need better visibility of our network. We'll undertake a vast programme of network monitoring and control, provide transparent data, and evolve our business practices to be a DSO.

And, by embedding 'whole system' thinking, we'll create a more transparent and collaborative approach in our planning to realise opportunities for more efficient solutions to network and customer needs.

**We know how important this is to our customers, stakeholders and communities. Through our extensive RIIO-ED2 engagement programme they have told us that:**

- Developing the network of the future to enable the Net Zero transition should be one of our top priorities for the RIIO-ED2 period.
- We should invest strategically to proactively remove constraints for LCT uptake and coordinate activities as part of our asset intervention programmes to reduce customer disruption, and to maximise efficiency and resource use.
- Effective adoption of innovation and collaboration will be critical to finding the best ways to manage the network of the future.
- We should consider a range of solutions such as flexibility and smart solutions as part of a balanced approach.
- Technology-enabled solutions such as advance/online monitoring should be deployed to enable Net Zero.
- By sharing network data, we will ultimately be able to manage the network more efficiently and effectively.
- We should promote and encourage support for businesses and households seeking to provide the demand-side response and other market-based services.



### Our proposals in this section cover...

- Readying the network for Net Zero, by delivering the network capacity and LV network management system needed to accommodate customers' EVs, heat pumps, and generation.
- Delivering DSO activities and enablers, so we can continue to safely, efficiently and reliably plan and operate the network and support the growth in new markets.
- Taking on a greater whole system role, to efficiently manage greater interactivity and coordinate more efficient solutions across multiple vectors.
- Managing network asset risk, to safeguard the reliability, resilience, safety and environmental impact of our network.
- Delivering additional network capacity and a new LV network management system. These will support at least our baseline forecast of over 650,000 electric vehicles, 400,000 heat pumps and 5GW of additional generation in RIIO-ED2.



### Some highlights of what we're proposing to do in RIIO-ED2:

- Proactively work with local authorities to support the planning and roll out of widescale low carbon solutions.
- Install equipment so generators can connect safely to our network on a larger scale than in ED1.
- Install technology to get the most out of our lines and cables, keeping customer bills down by considering a wider range of alternative solutions before investing in new lines and cables.

# 50%

of our substations will have additional monitoring equipment to help us manage the network as new technology, like EVs, connect.

## Our draft proposals for: developing the network of the future

The energy landscape is changing. To help our customers in the move to Net Zero, we must create additional network capacity, update our Distribution System Operator (DSO) tools, deliver a new approach to managing the LV network, and take on a greater whole system role.

- 1 Managing fault levels to enable generation connection**  
Install innovative fault level monitoring across 20 constrained locations on our HV and EHV network to help safely accommodate more renewable generation.
- 2 Innovation as BAU**  
Deliver over £50 million of savings for our customers in ED2 by embedding learnings from our innovation projects and adopting best practice from successful industry trials. We will keep innovation at the core of everything we do, to continue delivering benefits for our customers and the wider energy system.
- 3 Investing strategically to enable Net Zero**  
Develop a network that enables our communities to transition to Net Zero with over 700 smart-substations, 800km of cable and over 47,000 service cables. We will size and coordinate interventions to 'touch the network once' where this delivers benefits for our customers.
- 4 Flexibility as part of a balanced approach**  
Continue to assess flexibility, smart and reinforcement solutions for all of our load related interventions, and carefully select the most efficient, co-ordinated and economic interventions. This will include assessing energy efficiency actions ahead of starting any work.
- 5 Accurate forecasts, informed by effective engagement**  
Continuously work with the ESO, UK, Scottish and Welsh governments, and other key stakeholders, to accurately forecast our customers' future needs and to facilitate Net Zero pathways. This will include updating our DFES forecasts annually.

## 6

### Market development: Neutral market facilitation

Be a neutral facilitator of an open and accessible distribution flexibility services market. This will have efficient dispatch processes and infrastructure, transparent procurement, and will be underpinned by a comprehensive conflict management regime.

## 7

### Data provision for collaborative network operation

Share planning, operational and market data with customers, stakeholders and market participants through an online data portal. This will include visibility of our short and long-term forecasts via user-friendly digital platforms.

## 8

### Strategic optimiser for local authority LCT support

Provide a dedicated team of technical specialists that will partner with Local Authorities and regional Governments to support the development and implementation of Low Carbon Technology roll-out.

Engage with 100% of local authorities and regional Government bodies to support the optimisation of network planning, design and implementation of public EV charging and heat electrification initiatives. We will publish an annual report on our work across these areas, identifying cost savings and benefits for customers.

## 9

### EV chargepoint provider of last resort

Where Local Authorities have been unsuccessful in finding an EV chargepoint provider to serve areas within their transport plan, we will work with them to assist in their EV chargepoint rollout by taking ownership of the EV charging infrastructure for a limited period (until an alternative suitable provider can be identified).

Respond to 100% of requests by Local Authorities to take on this role, with the aim of becoming the last resort provider where this is feasible and approved by Ofgem.

What do you think of our draft proposals? Each one is presented, along with the context of our current performance, on our website so you can have your say at: [spenergynetworks.co.uk/ED2NetZeroNetwork](https://spenergynetworks.co.uk/ED2NetZeroNetwork)



### 3. Providing timely, efficient connections to our network

To deliver this fundamental aspect of our operations we have a strong focus on what our customers expect as part of this service. Our Distributed Future Energy Scenarios predict significant uptake of low carbon technologies as UK and devolved governments outline a transition to Net Zero – making the process of getting connected to the network even more important.

Throughout RIIO-ED1 we've continuously engaged with our customer base to make sure we're aware of the needs of our customers. When planning for our RIIO-ED2 Business Plan, we've engaged with conventional domestic customers at a level far surpassing any previous engagement for connections – recognising that we'll see a marked increase in the number of consumers looking to get connected to the network.

Our enhanced connections strategy for RIIO-ED2 is founded upon three key principles:

- Simplification
- Self-service
- Efficiency

Within each of these areas we've developed several initiatives to deliver an ambitious, customer-centric approach to connections.

Through our extensive RIIO-ED2 engagement programme our customers have told us that they prioritise:

- Customers would like clear, understandable information on the process of gaining a connection.
- Customers want to receive tailored, relevant communication. And they appreciate our guidance and support.
- Customers would like to receive information, quotations and project delivery efficiently and on time. Agility is crucial in all areas of our connections process – from pre-application and the quotation process to eventual project delivery.



#### Our proposals in this section cover...

- Meeting our customers' expectations in terms of provision of connection quotations and consultations.
- Improving our connections delivery timescales year on year.
- Providing dedicated points of contact for connection customers.
- Providing regularly updated network capacity maps to enable customers to make informed decisions when considering Low Carbon Technology investments.



#### Some highlights of what we're proposing to do in RIIO-ED2:

- Deliver quotes to customer timescales in at least 90% of cases and improve delivery timescales year on year.
- Offer customers the option of a pre quotation consultation and have dedicated account management for high volume customers.
- Network capacity maps will be available and refreshed every three months.



Our Distributed Future Energy Scenarios predict significant uptake of low carbon technologies as UK and devolved governments outline a transition to Net Zero

### Our draft proposals for: providing timely and efficient connections to our network

We need to adapt our network design principles and processes to deliver an efficient and valuable service for our customers. We'll focus on facilitating a simple connection process for the increase in low carbon technologies and achieving the best outcomes for customers who want to connect to our network.

- 1 Average time to quote**  
Meet the timescales our customers seek in relation to the provision of an offer, at least 90% of the time.
- 2 Average time to deliver**  
Improve delivery timescales by 2% year on year from the start of ED2.
- 3 Reassuring customers**  
100% of customers will be offered a pre quotation consultation (face to face or virtual).
- 4 Dedicated point of contact**  
100% of customers requesting 30 or more quotations per year, or have a single project exceeding £1 million in value will be assigned a nominated point of contact.

- 5 Capacity maps**  
Capacity maps will be available from ED2 and will be updated every three months.

- 6 Customer choice**  
80% of HV and EHV customers will be offered the choice of a firm and a flexible connection where a known constraint exists.

What do you think of our draft proposals? Each one is presented, along with the context of our current performance, on our website so you can have your say at: [spenergynetworks.co.uk/ED2NetZeroNetwork](https://spenergynetworks.co.uk/ED2NetZeroNetwork)

# 80%

of HV and EHV customers offered the choice of a firm and a flexible connection where a known constraint exists.







# How we'll be the trusted partner for customers, communities and stakeholders

Our customers, communities and stakeholders are at the heart of everything we do.

In RIIO-ED1 we set out an ambitious plan backed up by a series of commitments that we would deliver to make sure our customers received an ever-improving service, tailored to their specific needs.

RIIO-ED2 brings a new set of challenges, set against the backdrop of an ever-changing landscape. Customer behaviours and expectations are evolving at a faster rate than ever before, and we must use the successes of RIIO-ED1 as the foundation for delivering consistently excellent service in RIIO-ED2, but recognise that we must go much further to make sure the service we deliver continues to provide customers what they need.

Our customers, communities and stakeholders are at the heart of everything we do

We'll achieve our goal to 'Be the trusted partner for customers, communities and stakeholders' by focusing on the key priority areas that our customers and stakeholders have told us are important to them

1

Delivering excellent satisfaction and enhanced services for all customers

2

Supporting vulnerable customers and communities to ensure no-one is left behind in the energy transition

3

Working with customers, stakeholders and communities to facilitate the energy system transition

## What our customers and stakeholders have told us:

- Customers and stakeholders expect us to strive to have the best customer satisfaction levels amongst DNOs, with satisfaction levels primarily being driven by keeping the power on.
- 66% of domestic and 87% of commercial customers expect us to know their preferred communication channel and for vulnerable customers - accessible and preferred contact channels are particularly important.
- Both commercial and domestic customers shared a desire for us to support them in a range of areas including energy auditing, acting as an energy partner to support them with planning and ongoing needs, and energy efficiency and tariff switching advice. Some stakeholders, however, told us that we should avoid providing services that are already offered by other organisations.
- Customers and stakeholders suggested that we should allocate additional resources to promote the Priority Service Register and focus on registering more people in situations of vulnerability. Some customers also suggested that by partnering with local support systems, that are already established, we would be able to direct customers on our Priority Services Register to the support they most need but did not know was available.
- A large portion of customers feel that we have a role to play in making sure everyone is afforded the same opportunities to benefit from the Low Carbon Transition.
- In general stakeholders believe that we should play a significant role in supporting vulnerable customers. This role should include working in partnerships with organisations, promoting energy efficiency, funding advice services and energy efficiency upgrades. Several stakeholders pointed to the importance of working with local communities to better support vulnerable customers.
- While most commercial customers think that support to fuel poor customers should be provided by the government, they, along with domestic customers, believe we have a role to play.

# 260,000

new jobs forecast to be needed across the UK to deliver Net Zero

Source: National Grid: Building the Net Zero Energy Workforce Report





# 1. Delivering excellent satisfaction and enhanced services for all customers

Activity levels will increase significantly with the predicted uptake of new low carbon technologies, the introduction of which also has the potential to bring a level of disruption to customers as the network is upgraded to make sure it's fit for purpose.

At the same time, customer expectations will also increase, especially relating to how interactions with organisations will change in a digital era. Customers expect information to be available when they need it, in the format that suits them best. We need to make sure that we adapt to meet those changing needs.

In RIIO-ED2 we'll build on our leading customer service position and challenge ourselves to go even further and we're making a step change in the number of customer satisfaction commitments in RIIO-ED2.

We believe this is the right thing to do given the changing energy landscape and our expectation that this will drive greater engagement from our customers, communities and stakeholders. We'll ramp up our advisory services for all of our customers and offer a range of services to reduce household or business costs, drive efficiency and increase access to the benefits of the low carbon transition.

**Through our extensive RIIO-ED2 engagement programme our customers and stakeholders have indicated strong support for us to:**

- Strive to have the best customer satisfaction levels amongst UK companies, widen the channel offering for customers and include a greater use of digital technology.
- Provide full and timely information about power cuts, restoration and the available support.
- Resolve complaints and enquiries swiftly and effectively, particularly where these relate to safety issues.
- Offer a range of enhanced advice services and support, where we're best placed to do so.



## Our proposals in this section cover...

- Delivering exceptional customer satisfaction levels for all our customers.
- Improving our contact model with our customers through enhanced channel offering and a shift to proactive contact.
- Resolving complaints and enquiries in a timely manner.
- Providing advice services to support customers in a drive to be more energy efficient.



## Some highlights of what we're proposing to do in RIIO-ED2:

- 80% of Power cut restoration times will be accurate first time.
- Deliver customer satisfaction levels of 9.4 out of 10 for all services and customers.
- Deliver service equivalent to the Top 5 Companies in the UK for customer service. Achieve international standards in customer service, environment and asset management.
- Provide energy advice and support to all who register for it.
- Offer proactive contact to vulnerable customers as well as any customer who registers for this service. A customer can register their preferred method of contact and language, and this will always be used in any contact with us.
- Regardless of the channel customers use to contact us, we'll respond on average in 10 seconds or less for emergency and power cut, and make sure we abandon less than 1% of calls.



## Our draft proposals for: delivering excellent satisfaction and enhanced services for all customers

Customer expectations are ever-increasing, especially when it comes to interactions with organisations in the fast-changing digital era. Customers expect information to be available when they need it, in a format that suits them best. As a result, we're committed to delivering the excellent levels of customer service customers have received from us during RIIO-ED1 into RIIO-ED2 and beyond.

1

### Customer satisfaction

Deliver customer satisfaction levels of 9.4 out of 10 across ED2.

2

### Major connections customers and commercial Services customer satisfaction

Deliver customer satisfaction levels for Major Customers and for those customers receiving our Advice Services of no less than 9 out of 10, rising to 9.4 out of 10 by the end of ED2.

3

### Contacting us to report a power cut or emergency

Regardless of the channel customers use to contact us, we will respond on average in 10 seconds or less, and abandon less than 1% of calls. We will provide a multi-channel offering including - phone, live chat, social media (Twitter/Facebook), WhatsApp and 2-way SMS.

4

### Proactive contact

Allow customers to register with us to receive proactive contact via their preferred method of communication when a power cut occurs, including updates throughout the power cut and notification when power is restored. We will contact at least 99% of those who have requested this via their preferred method.

5

### Proactive contact for Priority Services Register

Proactively contact customers registered on our Priority Services Register when a power cut occurs via their preferred method of contact, including updates throughout the power cut and notification when power is restored. Customers will also be able to state at the point of registration if they would like to be contacted at all times of the day and night.

6

### Proactive contact for high risk groups

Proactively contact customers in our highest risk groups via a personal phone call when they go off supply to give them additional comfort. Calling at least 99% of those who are medically dependent on electricity or struggle with mental health.

7

### Work completion timescales - safety

When customers contact us and ask us to carry out checks for safety - 99% or more will be visited within three hours of receipt of the contact.

8

### Accurate restoration times in a power cut

At least 80% of customers will be restored within the restoration time initially provided to them.

9

### Timescales for written notification of planned power cuts

Customers will be notified in writing at least two days ahead of a planned outage with at least 90% notified 10 working days ahead, and with a reminder sent via voice or text prior to work starting.

10

### Information provided ahead of a planned power cut

At least 99% of Letters will include five key pieces of information our customers tell us are important.

What do you think of our draft proposals? Each one is presented, along with the context of our current performance, on our website so you can have your say at: [spenergynetworks.co.uk/ED2TrustedPartner](https://spenergynetworks.co.uk/ED2TrustedPartner)



## 2. Supporting vulnerable customers and communities to ensure no-one is left behind in the energy transition

As we accelerate our move to a low carbon future, we'll support those customers and communities who are at risk of not reaping the benefits of the energy transition – making sure that it's fair for all.

We'll support our most vulnerable customers to make sure they're not negatively impacted by the energy transition, and we'll expand our network of partners to continue to deliver cost effective support to those who need it, when they need it most.

A just transition to Net Zero will also recognise the benefits to the wider economy through jobs and growth. As we face a historic recession following the unprecedented impacts of the COVID-19 pandemic, our national and devolved governments should recognise the opportunity across the industry to help lead a green recovery and promote a just transition.

We must also recognise the wider benefits that enabling Net Zero will create and our evolving role in the transition. We need to make sure that the RIIO-ED2 framework doesn't abandon or penalise customers during the low carbon transition, particularly vulnerable customers who might find it difficult to engage with and benefit from new markets and services.

**We know how important this is to our customers, stakeholders and communities but also that they want us to go much further. Through our extensive RIIO-ED2 engagement programme they have indicated strong support for us to:**

- Allocate additional resources and broaden our partnerships with communities and local organisations to support more people in situations of vulnerability.
- Play our role in making sure that everyone is afforded the same opportunities to benefit from the low carbon transition (such as financing the uptake of low carbon technologies and providing information on the opportunities and benefits).
- Help vulnerable customers through promoting energy efficiency, funding advice services and energy efficiency upgrades.
- Offer more innovative and tailored assistance to vulnerable customers in a power cut, such as welfare support or provision of batteries to avoid supply interruptions.



### Our proposals in this section cover...

- Increasing our Priority Services Register reach.
- Supporting vulnerable customers in a power cut.
- Data sharing with others.
- Directing support to disadvantaged customers.
- Achieving external accreditation and benchmarking to ensure we are following best practice.



### Some highlights of what we're proposing to do in RIIO-ED2:

- Delivering support in a power cut by providing hot food and drinks, contacting relatives, providing generators, uplifting medical supplies, providing hotels and understanding customers' specific needs.
- Offer a 'Register Once' service to make it easy for customers to register with us for Priority Services and access benefits from other organisations at the same time. Validate customer records every two years to make sure they're up to date and reach 70% of customers when we do this.
- Help customers benefit from new low carbon technologies, access financial support and access services such as befriending and dementia support.
- Reach 80% of customers in vulnerable circumstances and develop systems to identify those who may need more help, e.g. digitally excluded customers, to access services and new technologies.



# 80%

of customers in vulnerable circumstances will be reached

## Our draft proposals for: supporting vulnerable customers and communities to ensure no-one is left behind in the energy transition

We know that we have a role to play in supporting and protecting customers in vulnerable situations. As the landscape changes, the support we deliver in RIIO-ED2 will evolve to address new and emerging issues being faced by our customers. We'll look to make sure we protect those in vulnerable situations and make a positive difference for all of our customers.

**1 Supporting vulnerable customers in a power cut**  
Capture customer needs through our contact channels and ensure those needs are met. 99% of needs will be tracked and met.

**2 How we support vulnerable customers in a power cut**  
Support customers in a range of ways through a power cut:

1. By identifying individual needs and supporting them in whatever way is appropriate for the situation
2. Uplift of medical supplies
3. Provision of Hot Food
4. Provision of Hotel Accommodation
5. Provision of Welfare Vehicles
6. Provision of Welfare Support
7. Provision of Welfare Packs
8. Provision of a generator

**3 Working collaboratively**  
Have the Nexus of Partnership model in place in 2023. We will also have a vulnerability champion as part of our Executive Team.

**4 External accreditation**  
Benchmark our service externally every year to make sure we measure up against best practice. Achieve the BSI Kite Mark Standard annually:

– **BS 18477: 2010 Inclusive service provision**  
Identifying and responding to customers vulnerability in relation to electricity distribution

– **BS 8477: 2014 and ISO 10002:2014**  
Customer Service and Complaints Management

Conduct benchmarking with the Institute of Customer Services and achieve at least equivalent to top five ranking or higher each year.

**5 Data sharing with others**  
Our 'Register Once' service will make it easy for customers to register with us for Priority Services as well as register across other organisations such as Gas, Water and wider partnerships.

What do you think of our draft proposals? Each one is presented, along with the context of our current performance, on our website so you can have your say at: [spenergynetworks.co.uk/ED2TrustedPartner](https://spenergynetworks.co.uk/ED2TrustedPartner)



Customer behaviours and expectations are evolving at a faster rate than ever before, and we must use the successes of RIIO-ED1 as the foundation for delivering consistently excellent service in RIIO-ED2



### 3. Working with customers, stakeholders and communities to facilitate the energy system transition

We want our communities to be actively involved in tackling Net Zero, and we can be an active partner for local energy solutions in RIIO-ED2.

What's the fairest way to manage this urgent transition? How do you decide on an approach that's economically viable and sustainable?

The answer is to get people involved – with individual and local-level engagement across Britain's urban, suburban, rural, isolated and island communities.

Finding the right approach will require individuals, communities and local workforces to work together and understand how the energy system is changing and what this means for everyone's behaviour when it comes to using energy. People will need help and support to understand how they can best use and manage their energy needs in their local area, such as in heating their homes or using electric vehicles.

We're committed to helping local community-based energy projects in our areas. These are a particularly effective way to drive the transition to a smarter, more flexible network.

With our significant role in the energy sector, and project delivery experience to date, we'll support community-level action on demand management, storage-based heating, local supply, electricity storage and EVs. We'll also continue to take an active leadership role with regional and local bodies to deliver Net Zero. Electric vehicle charging is a prime example and we're already demonstrating advantages through our strategic partnership with the Scottish Government.

As we lead the way for our customers and stakeholders on the journey to Net Zero, we'll also engage on the topics that matter most to them and directly embed their feedback in our decision making. We'll build on our leading stakeholder engagement approaches and to do more in RIIO-ED2 to continue to be a trusted partner and deliver a business which meets the needs of our customers and stakeholders, both future and current.

**Through our extensive RIIO-ED2 engagement programme our customers and stakeholders have indicated strong support for us to:**

- Continue to evolve our engagement approaches to give our customers and stakeholders a strong voice in shaping our plans and operations throughout RIIO-ED2.
- Ensure our decisions and operations are transparent and informed by effective understanding of the evolving needs and priorities of our stakeholders.
- Work with our communities and authorities to support local energy plans and community energy ambitions.
- Continue to develop our Zero Carbon Communities Hub and the ensuing strategy on community energy to help further support local communities to mobilise, develop and run their own schemes.
- Provide education on local energy solutions.



#### Our proposals in this section cover...

- Strategically embedding community energy solutions in to how we operate as a business.
- Increasing customer knowledge and awareness of the opportunities of community energy solutions.
- Supporting community energy schemes with technical advice, handholding and signposting.
- Creation of a Distribution Net Zero Fund which will support innovative low-carbon projects.
- Maintaining engagement excellence through standards and benchmarking and making it easy to engage with us.
- The ongoing role for our independent external group.
- Delivering value as a direct result of our engagement with stakeholders.
- Regular engagement at a Senior level to shape our business.



#### Some highlights of what we're proposing to do in RIIO-ED2:

- Annually test priorities with stakeholders, using online tools to make engagement easier.
- Annually report on engagement performance to an independent panel for review.
- Create a Net Zero Fund to support innovative low-carbon projects and provide a dedicated team of specialists to support the Low Carbon Technology roll-out.
- Develop a Community Energy Strategy and look to educate customers in the benefits Community Energy can bring. Provide hand holding support to those communities looking to progress such schemes.

We're committed to helping local community-based energy projects in our areas

### Our draft proposals: working with customers, stakeholders and communities to facilitate the energy system transition

Central to everything we do is engagement with our stakeholders. We are truly leading the way for our customers and stakeholders on the journey to Net Zero, making sure we continue to engage on the topics that matter most to them and directly embed feedback within our decision making.

We're also putting community energy projects at the heart of our plan. Communities need to be actively involved now to make Net Zero a success and prevent the irreversible damage of climate change over the next decade.

- 1 Community Energy Strategy**  
Develop a stakeholder-led Community Energy Strategy with not-for-profit, sister organisations Community Energy Scotland, Community Energy England and Community Energy Wales. Embed the role for domestic and community level LCT solutions into our investment and planning decisions and ED2 delivery activities.
- 2 Community Energy: offering support**  
Seek to offer extra hand-holding support to individuals and local communities who wish to explore LCT activities and community energy schemes in their local area. Providing early technical advice and optioneering services as well as sign-posting to impartial support organisations and links with known wider area activities such as local energy planning initiatives that we may have sign of.
- 3 Energy landscape education programme**
  1. Deliver Advice Services to all customers
  2. Support vulnerable customers
  3. Support customers interested in community energy schemes
  4. Create opportunities for bill efficiencies through local energy solutions
  5. Address the need for essential network upgrades in local areas to allow for rapid LCT and EV uptake.
- 4 Distribution Net Zero Fund**  
Create a Distribution Net Zero Fund which will support innovative low-carbon projects within our licence area. The fund will be aligned to Scotland's, Wales's and the UK's Net Zero aims, whilst supporting our cities and local communities' decarbonisation ambitions. The fund will create positive environmental benefits, deliver strong social value, support the most vulnerable in our society, generate shared learnings and boost local economic growth.

- 5 Global Stakeholder Engagement Benchmark**  
Achieve AA1000SE industry standard for stakeholder engagement. We will aim to reach the highest categorisation possible on the AccountAbility maturity ladder, following a robust evidence check and senior manager interviews – demonstrating our commitment to industry leading engagement practices.

- 6 Independent external group**  
Re-test our priorities with stakeholders on an annual basis and present results to our independent external group every year along with our action plans. Our plans will be inclusive, ensuring our engagement covers all stakeholder and customer groups.

- 7 Making it easy to engage**  
Launch a new fit-for-purpose online tool, which gives our stakeholders easy access to a collaboration and engagement platform where they can engage with relevant content and influence our decision making. We will ensure better targeting our stakeholder communications, increasing active participation rates.

- 8 Delivering value as a result of our stakeholder engagement**  
Report annually on our engagement performance through transparent stakeholder reporting, including social return on investment generated by our stakeholder initiatives. We will commit to achieving a positive SROI value for every £1 spent on a project or initiative over a five year period.

- 9 Regular engagement at a senior level to shape our business**  
Embed an annual programme of engagement across each of our strategic topic areas, allowing stakeholders to directly participate in engagement events to influence our decision making throughout RIIO-ED2 and assess the delivery of our plans. At an executive level, we will hold director-led strategic stakeholder engagement events demonstrating senior-level buy in and engagement with our stakeholders.

What do you think of our draft proposals? Each one is presented, along with the context of our current performance, on our website so you can have your say at: [spenergynetworks.co.uk/ED2TrustedPartner](https://spenergynetworks.co.uk/ED2TrustedPartner)





# How we'll ready our business for a digital and sustainable future

This is a time of significant change, and so our organisation must change too. Our people, processes and systems must develop to meet new challenges - and continue to deliver our essential public service.

We play a critical role in supporting the UK's ambitious climate change targets for a sustainable, Net Zero future. While we do this, we must reduce our own environmental impacts, adapt our world-class, resilient network to the effects of climate change and continue to deliver sustainable value for all our customers.

We're also digitalising our network, upskilling our people and strengthening our supply chain and recruitment as we look to a cleaner, greener and more sustainable future.

We play a critical role in supporting the UK's ambitious climate change targets for a sustainable, Net Zero future

We'll achieve our goal to 'Ready our business for a digital and sustainable future' by focusing on the key priority areas that our customers and stakeholders have told us are important to them...

1

Making a positive impact on the natural environment

2

Foster Digitalisation to unlock Net Zero benefits for our customers and stakeholders

3

Promoting an inclusive, skilled and healthy workforce

## What our customers and stakeholders have told us:

- The majority of domestic customers (75%) and all commercial customers believe that we should be taking active measures to reduce our carbon footprint.
- 72% of domestic and 81% of commercial customers agree that we should make sure our supply chain has ambitious sustainability targets in place.
- Stakeholders believe that it's ambitious but achievable for us to divert 95% of waste from landfill by 2023, recycle or re-use 100% of waste by 2030 and move to a circular zero waste model by 2050.
- Stakeholders argued that sophisticated monitoring and control of the electricity network will be essential as we move towards a low carbon energy system. Furthermore, they clearly believed that energy networks should collect and share data with other parties in line with data protection regulations.
- 66% of both commercial and domestic customers agree that they trust us to look after their data. Nevertheless, some domestic customers have concerns over data being leaked or stolen.
- Stakeholders have suggested that one of the barriers to achieving Net Zero is the lack of experienced workforce within relevant organisations.
- Domestic and commercial customers told us that when assessing the reputation of a company, one of the aspects that they would consider is how well staff were treated within an organisation.

# 72%

of our domestic customers agree that we should make sure our supply chain has ambitious sustainability targets in place





# 1. Making a positive impact on the natural environment

Our plans for environmental sustainability are more ambitious than ever before. We play a critical role in meeting the UK's ambitious climate change targets and enabling the transition to a sustainable, Net Zero future.

While we do this, we must reduce our environmental impacts and increase efficiency through constant innovation. We'll adapt our world-class, resilient network to withstand the effects of climate change and deliver sustainable value for current and future customers.

During RIIO-ED2 we'll achieve a step change in environmental sustainability and we'll fully and transparently embed environmental considerations and sustainability principles into our decision making, innovation, operations, supply chain and collaboration with stakeholders.

The actions and costs for our minimum environmental requirements will be built into our business plan. But throughout our sustainability strategies – we'll aim to go beyond compliance. Our vision is to be a sustainable networks business and we'll embed the principles of sustainability in our decision-making.

**Our proposals in this section cover...**

- Setting verified Science Based Targets and Net Zero targets.
- Efficient and economic actions to reduce our business carbon footprint.
- How we'll deal with embodied carbon.
- Supply chain sustainability.
- Sustainable resource use, waste reduction and preventing pollution.
- Improving biodiversity & natural capital.
- Accreditation and transparent performance.
- How we'll deal with visual amenity issues.

**Some highlights of what we're proposing to do in RIIO-ED2:**

- Achieve Net Zero by 2040 and replace all existing fleet vehicles with electric alternatives by 2030.
- Reduce greenhouse gas leakage by 10% and avoid network losses equivalent to the power required to light 2.2 billion LED lightbulbs.
- Divert 100% of waste from landfill and reduce waste by 20%.
- Make sure that 80% of our suppliers comply with our enhanced environmental management standards.
- Increase environmental value by implementing a Biodiversity plan.
- Remove 35km of overhead lines in areas of outstanding natural beauty.



# 95%

of waste should be diverted away from landfill by 2023

## Our draft proposals for: making a positive impact on the natural environment

It's important that, as we support our governments' ambitions for Net Zero, we also push ourselves to deliver a sustainable future for our network. We must reduce our own environmental impacts, adapt our world-class, resilient network to the effects of climate change, and continue to deliver sustainable value for all our customers.

- 1 Science Based Targets**  
Reduce the carbon impact of our activities and achieve Net Zero by 2040.
- 2 Fleet decarbonisation**  
Aim to decarbonise our operational fleet by replacing 100% cars and vans with electric alternatives by 2030.
- 3 Adopting alternatives to greenhouse gas**  
Reduce our SF<sub>6</sub> leakage by 10% over the RIIO-ED2 period from that in RIIO-ED1.
- 4 Losses**  
Implement Losses Strategy to avoid an estimated 20 GWh of network losses, limiting losses to a lower level than would otherwise be the case, where this is economic and provides benefit to customers.
- 5 Supply chain sustainability**
  1. Further enhance environmental management standards and KPIs within contract specifications and supplier codes of conduct (including requirements for public disclosure of metrics) and cascade to all relevant suppliers by 2023.
  2. Target more than 80% of RIIO-ED2 suppliers (by value) meeting these enhanced environmental standards by 2026.
  3. Report on the actual percentage of suppliers (by value) meeting these standards by 2023.
- 6 Biodiversity and natural capital**  
Implement a Biodiversity and Natural Capital Action Plan by 2023 to identify targets to increase environmental value across our network.
- 7 Visual amenity**  
Target the removal of 35km of overhead lines in Areas of Outstanding Natural Beauty and National Scenic Areas where our stakeholders support this action.

- 8 Data and reporting**
  1. Continue to provide transparent reporting of our environmental and sustainability performance by publishing an annual report of our progress against all environmental and sustainability commitments in line with metrics and a format developed in collaboration with the other DNOs.
  2. Maintain and continually improve our ISO14001 certified Environmental Management System to achieve 'beyond compliance' environmental performance.
- 9 Fluid filled cables**  
Reduce the volume of fluid (oil) used to top up our pressurised cables by around 2,200 litres by 2028.
- 10 PCBs**  
Eliminate PCBs from our network in compliance with the relevant legislation and in line with the industry approach agreed with the Environmental Regulators by 2025.
- 11 Bunding**  
100% of our retrofit bunding projects to utilise HDPE bunding system where technically feasible during ED2.
- 12 Preventing pollution**  
100% of our new projects to have Pollution Prevention Plans for RIIO-ED2 and beyond.
- 13 Sustainable resource use and waste reduction**  
Divert 100% of our waste from landfill by December 2030.

What do you think of our draft proposals? Each one is presented, along with the context of our current performance, on our website so you can have your say at: [spenergynetworks.co.uk/ED2DigitalSustainable](https://spenergynetworks.co.uk/ED2DigitalSustainable)



## 2. Embed digitalisation to unlock Net Zero benefits for our customers and stakeholders

Digitalisation and the better use of data are critical enablers for the decarbonisation of our energy system in line with the UK's Net Zero targets and delivery of our RIIO-ED2 Business Plan. They'll help us to deliver a modern digitalised energy system that facilitates a fair transition in a cost-effective way that represents value for money for our customers.

Not only do we need to invest to maintain and enhance our existing platforms, we've developed an ambitious programme of digital initiatives to transform our business and facilitate the efficient delivery of our broader RIIO-ED2 ambitions. Our Digital Strategy Action Plan and Data Strategy initiatives include the internal and external resources we'll need to deliver them alongside the programme wide resourcing requirements.

While we strive to make sure our network is digital ready, we'll make sure that our internal team has the skills and capabilities we need, and that we're supported by external specialists where needed in recognition of the significant strategic importance of our programme in contributing to a modern digitalised energy system.

Evolutionary change won't be enough to deliver the services our customers need in a Net Zero world and so we're readying ourselves to enable a just transition that delivers value for money.

To further build on the digitalisation of our network and operations during RIIO-ED2 we'll make our business more transparent sharing 'open data' with our partners and stakeholders, create a 'digital first' culture using technology to automate and speed up our processes, investing in digitalisation tools such as IoT, machine learning, AI and big data platforms so we can manipulate our rich data sources more efficiently.



### Our proposals in this section cover...

- Publishing, refreshing, and progressing our Digitalisation Strategy and Action Plan.
- Implementing the recommendations from the data best practice guidance and developing our new energy data hub.
- Delivery of a new digital platform to drive better continuous engagement with our customers and stakeholders.
- Ensuring Cyber Resilience, strong data security and enhanced data governance.
- Building a digital ready business by equipping our people with new digital skills and focusing our recruitment activities on attracting digital talent.



### Some highlights of what we're proposing to do in RIIO-ED2:

- Deliver an online portal that customers can access data and forecasts and achieve £50 million savings to customers through innovation projects.
- Develop digital and data strategies that are updated regularly and deliver maximum value from the data we hold.
- Underpin our move to a digital era with safeguarding and controls, backed up by a strong cyber security framework.



## Our draft proposals for: embedding digitalisation to unlock Net Zero benefits for our customers and stakeholders

RIIO-ED2 will see a dramatic increase in the volume, velocity and breadth of data required to operate a modern digitalised energy system, to respond to the climate change emergency, to facilitate the connection of high volumes of LCT, and to enable consideration of cross-sectoral and whole-system factors.

### 1 Unlock the value of data through improved data capture, data analysis and data sharing

Create a data strategy which enables us to manage an increased volume, velocity and breadth of data, supports the move towards active management of the LV Network, facilitates the creation and operation of new models and markets, drives maximum value from the data we master in combination with new external datasets, and enables a collaborative approach to energy data sharing with external parties.

To achieve this we will look at new technology to capture and analyse the data. This will include IoT, edge computing, mobility solutions, machine learning, AI, big data platforms and data analytic tools. We will collaborate with Ofgem, the ENA and other external organisations through the sharing and exchange of data, proactively evolving our data strategy in line with the requirements of external stakeholders.

### 2 Ensure cyber resilience

Operate a risk based approach to the management of vulnerabilities and threats to the cyber-security and resilience of our IT estate and data. Continually assess our current position, review the threat landscape and create action plans to apply proportionate technical and organisational mitigation steps.

Coordinate our IT and OT related cyber-security activities to ensure robust protection of our electrical networks.

### 3 Digitalisation Strategy and Action Plan

Create a new digital environment to underpin our future plans and strategies. Build a digital representation of our energy system and operation which will enable the following;

- Forecast and model the uptake of low carbon technologies
- Understand the impact of distributed energy resources
- Develop solutions to operate a flexible low voltage network
- Create a collaborative environment to facilitate whole system considerations and the sharing of data and information
- Deliver customer focused solutions that meet the needs of our entire customer base
- Undertake our operations as efficiently and effectively as possible

Utilise technology to drive these initiatives, such as Machine Learning, AI, VR/AR, Robotic Process Automation, Drones, edge computing, new communication channels, cloud technology, and improved data analytics.

Track, measure and publish our progress via the DSAP, at six month intervals, and provide a full refresh every two years.

## We will operate a risk based approach to the management of vulnerabilities and threats to the cyber-security and resilience of our IT estate and data

What do you think of our draft proposals? Each one is presented, along with the context of our current performance, on our website so you can have your say at: [spenergynetworks.co.uk/ED2DigitalSustainable](https://spenergynetworks.co.uk/ED2DigitalSustainable)



### 3. Promoting an inclusive, skilled and community based workforce

The transition to Net Zero requires many changes to the way we work, and it's crucial that we have the skills and experience to adapt. Our employees are some of our most important stakeholders and meeting their needs is crucial to the effectiveness of our plan.

As we adapt to new future scenarios and technology, our workforce must evolve to meet the challenges of new technology and digitalisation. We'll require new skills, new ways of working and more flexibility. Leadership will play a critical role in shaping and delivering our future and we will create opportunities for our staff to develop new skills within their current roles and in new areas.

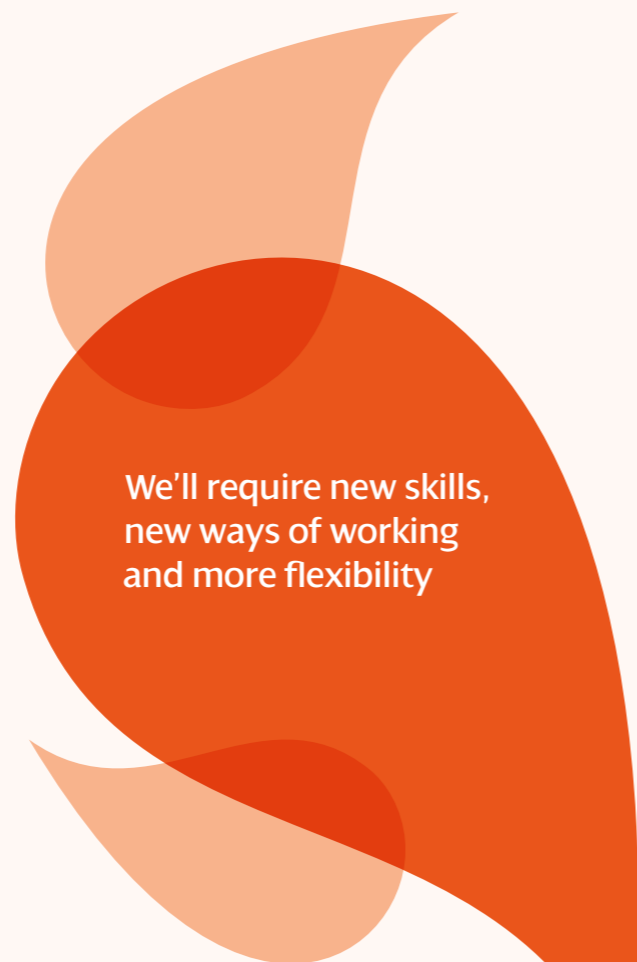
We're forecasting high levels of staff retirement by the end of RIIO-ED2 and in the following five-year period. This will challenge us to maintain a well-trained, experienced workforce to support our core activities but gives us the opportunity to grow and strategically recruit the new skills we will need.

 **Our proposals in this section cover...**

- How we will grow our talent.
- Building an inclusive and diverse workforce.
- Developing the skills our business will need in the future.
- Staff Health & Wellbeing.

 **Some highlights of what we're proposing to do in RIIO-ED2:**

- Grow our own talent through multiple inclusive workforce renewal programmes from the communities we serve.
- Invest in developing staff skills and promoting inclusion and diversity.
- Safeguard the health and wellbeing of all our colleagues through engagement with our workforce.



#### Our draft proposals for: promoting an inclusive, skilled and healthy workforce

Our plans will focus on achieving a truly inclusive and diverse workforce, engaging with our workforce and safeguarding the physical and mental health and wellbeing of our people.

What do you think of our draft proposals? Each one is presented, along with the context of our current performance, on our website so you can have your say at: [spenergynetworks.co.uk/ED2DigitalSustainable](https://spenergynetworks.co.uk/ED2DigitalSustainable)

- 1 Growing our talent**  
Grow our own talent through multiple inclusive workforce renewal programmes from the communities we serve.
- 2 Building an inclusive and diverse workforce**  
Continue with our relentless drive to achieve a truly inclusive and diverse workforce through our recruitment processes and our people leaders.
- 3 Developing skills**  
Create opportunities for our staff to develop new skills through development, upskilling and training plans aligned to our digital transition and journey to Net Zero.
- 4 Staff health and wellbeing**  
Through engagement with our workforce, continue with our long-standing proven commitment to safeguarding the health and wellbeing of our people.

**Continue with our relentless drive to achieve a truly inclusive and diverse workforce through our recruitment processes and our people leaders**





# Have your say: #ChallengeOurPlan

Stakeholder engagement has always been a vital part of everything we do. We're building on our approach and strong links with our customers and communities throughout the development of our future plans. It's important that you have your say.

# 5

## Commenting on our proposals

Throughout this document we've presented our draft proposals that will form the basis of our RIIO-ED2 Business Plan. We've built these on the priorities and needs that our customers and stakeholders have told us about through all of our engagement so far, combined with other sources of evidence, like our engineering and internal research.

We want to make sure what we've proposed, and our level of ambition, effectively meets the needs and priorities of customers and stakeholders while ultimately delivering the outcomes they prioritise.

We'll use everything you tell us to help strengthen our plan before we submit it to Ofgem later this year.

You can tell us what you think about each one of our draft proposals by completing the online surveys [here](#).

We'll publish our draft business plan in July 2021 and look forward to further engaging on all aspects of the plan following this.

## Be kept in the loop

If you'd like to be kept up-to-date with the latest information and our RIIO-ED2 activities, you can [register as a stakeholder](#) and [join our stakeholder online community](#). We also welcome your thoughts and feedback by email to our [RIIO-ED2 mailbox](#) and through the various consultations we'll be holding.

You can also keep up to date with the latest news [on our website](#).









# SP ENERGY NETWORKS

SP Energy Networks  
320 St Vincent Street  
Glasgow, G2 5AD

## Contact us

 [facebook.com/SPEnergyNetworks](https://facebook.com/SPEnergyNetworks)  
 [twitter.com/SPEnergyNetwork](https://twitter.com/SPEnergyNetwork)  
[RIIO\\_ED2@spenergynetworks.co.uk](mailto:RIIO_ED2@spenergynetworks.co.uk)  
[spenergynetworks.co.uk](https://spenergynetworks.co.uk)

