



**Placing customers and communities
at the heart of Net Zero**

How we have structured our plan

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A message from our CEO

Having consulted on our Initial Business Plan, I am delighted to present an overview of our Final 2023-2028 Business Plan for RIIO-ED2. Our plan aims to maintain UK Power Networks as one of the best performing network companies in Great Britain. We will do this against a backdrop of transformative change in the energy system and in our society as we decarbonise every aspect of our economy.

We finalised our Business Plan at the same time that the UK was hosting the 26th UN Climate Change Conference of the Parties (COP26). It is clear that decarbonisation is one of the greatest challenges facing our generation. Engaging with our customers, wider communities and stakeholders on our role could not be more important; in fact, I believe it is vital in order to maintain public support for Net Zero. That's why we have undertaken our most extensive customer research and stakeholder engagement to date, involving over 19,000 people right across our regions, to help us develop a Business Plan that delivers on their needs and priorities. This included targeted conversations on our Initial RIIO-ED2 Business Plan proposals, conducted over the summer of 2021.

Our engagement has informed a new vision for our organisation, providing clarity of purpose for our 6,200 employees and our supply chain partners. Reflecting the changing world and our customers' and stakeholders' priorities, our vision can be summarised as four strategic imperatives that support our ambition to be the best performing Distribution Network and System Operator. These imperatives are to be an employer of choice, a respected and trusted corporate citizen, sustainably cost efficient and to enable the Net Zero transition for all.

Our vision

UK Power Networks' vision is to be:



To be consistently the best-performing Distribution Network and System Operator in the UK within an agreed set of values

Respect | Continuous Improvement | Diversity and Inclusiveness | Responsibility | Unity | Integrity

We can all play our part in decarbonisation by becoming "producers" as well as "consumers" of energy and by responding to compelling propositions to consume when it's cheaper and greener to do so. This is key to placing customers and communities at the heart of Net Zero.



Aligned to this vision, we are making clear and unambiguous commitments – backed with targets, so that we can be held to account for our performance.

We will be pushing the frontier performance for our sector in the core areas of safety, customer service, reliability and resilience at the lowest possible cost for customers.

We have already distinguished ourselves in RIIO-ED1 and will now benchmark ourselves against the very best organisations, wherever they may be found.

But we know this is not enough. We heard loud and clear from our customers and other stakeholders that we need to demonstrate leadership to make this exciting Net Zero future a reality.

That's why we are:

- Making clear commitments to support our communities to decarbonise, by co-developing their local area energy plans.
- Proposing innovative approaches to lower connection costs in order to help unlock public on-street charging, tackling one of the key consumer barriers to buying an electric vehicle (EV).
- 'Walking the talk' – being the first DNO to verify its carbon targets, including supply chain emissions, with the Science Based Targets Initiative. Furthermore, setting ambitious Net Zero targets focused on our operational emissions by 2028.
- Going beyond Ofgem's minimum requirements to support those customers suffering fuel poverty who may be at risk of being left behind and vulnerable in this energy transition. We are also one of the signatories to the UK's 'Levelling Up Goals,' collaborating to deliver 14 social mobility goals.
- Playing a proactive role, working with other trusted organisations, to support our customers close the "knowledge gap" on how they can move to a more energy efficient and greener way of living.

Demonstrating the leadership to make Net Zero a reality requires us to recognise that aspects of the future cannot be known with certainty. Whilst the target of Net Zero by 2050 is clear, the pathways to get there are uncertain. We need to ensure that our networks do not block the path to decarbonisation, but we also need to protect consumers from unnecessary bill increases – the importance of this has been heightened by the tough economic conditions resulting from the Covid-19 pandemic and recent energy price rises.

We are going to make this exciting future a reality by:

- Establishing an independent Distribution System Operator (DSO), as a separate legal entity, by no later than 2023. Our DSO will have stretching performance measures and an independent supervisory board that will deliver transparency of investment decision-making and ensure that the overall lowest cost solutions for customers are adopted.
- Setting ambitious targets for opening up competition going beyond Ofgem's expectations. In addition to promoting competition in markets that are already contestable, we have challenged ourselves to lead the way by introducing competition in new areas of our business. We have identified over £100m of work to encourage wider competition in areas of our business not yet fully exposed to competition.
- Accelerating the development of the most open and liquid local flexibility markets that maximise the benefits of smart charging and other demand side solutions.
- Investing in state-of-the-art technology, from sensors in our substations through to Artificial Intelligence, and utilising smart metering data to get the most granular and accurate view of all our low voltage networks to maximise their utilisation and to ensure we invest in the right capacity at the right time.
- Openly publishing our network and asset data to unlock new innovation and customer propositions.
- Collaborating with other organisations to play our role in developing compelling consumer demand response propositions.

But technology and data alone are not enough. We need a different mindset that challenges the traditional view of Distribution Network Operators (DNOs). According to this traditional view, DNOs just invest in building the network, ignoring the full potential of a smarter and more efficient energy system. As we have shown in RIIO-ED1, we do not conform to the traditional stereotype of DNOs. We have built a culture that challenges the status quo, that encourages flexibility, innovation and collaboration, all underwritten by a workforce that operates with agility and pace.

Our extensive modelling, built bottom-up in conjunction with local authorities and technology experts, predicts that there will be anywhere between 1.6m to 2.7m EVs connected to our networks by the end of RIIO-ED2. To keep bills low, our strategy is to maximise the utilisation of the existing network first, to foster energy efficiency, and to promote the use of flexibility and market-based solutions. Only when we have exhausted all other options will we invest to upgrade the networks taking a "one touch" approach – as far as practical, we will seek to make a single intervention which will cover foreseeable future upgrades.

That's why in our Business Plan, we have included investment in our baseline plan of £4.6 billion where we are highly confident of the need. We have forecast the need for an additional £0.9 billion of potential investment subject to uncertainty mechanisms if the transition to Net Zero happens at the pace implied by the CCC's Widespread Engagement pathway. This approach – asking for a level of baseline spend that we are confident will be needed, but also building in the

flexibility to respond to additional needs – will ensure we meet the challenge of Net Zero whilst protecting the interests of our customers; it will protect customers from paying for investments that they do not use.

We recognise our approach will require us to respond with agility if demand exceeds our base assumptions. We know we can do this because we faced a similar challenge in the last decade when we needed to connect renewables and operate a network with 9.5GW of distributed generation.

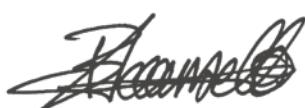
We have already begun work to further strengthen our organisational resilience to respond to higher levels of demand. We will continue to develop detailed plans that will ensure our workforce and supply chains are able to respond quickly as the pathway becomes clearer.

Our Business Plan is ambitious, well justified and delivers long-term value for money for our customers. If society-wide change occurs in line with our baseline plan, which represents the lowest cost pathway to Net Zero, customers will benefit from an average price decrease of 15% in real terms over the RIIO-ED2 period. But we can also deliver the investment required if the highest case scenario materialises, with an average price decrease of 10% in real terms.

Following completion of our Initial Business Plan in July 2021, we have received and acted on feedback from our Customer Engagement Group (CEG), the RIIO-2 Challenge Group and from Ofgem. We have also undertaken further engagement with our stakeholders, have challenged ourselves to be even more ambitious in areas that matter most, and have further developed our planning to ensure we are ready to hit the ground running from 1 April 2023.

I would like to thank all of our customers and stakeholders who gave up their valuable time to help design this Business Plan and to thank our CEG for their constructive challenge.

We do not underestimate the challenge ahead. The scale of the effort needed to decarbonise our society is huge – it is not going to be easy. We must innovate and we must be relentless in our search for new solutions. And, we need to be open minded about where these solutions will come from. This underlines the importance of greater collaboration, listening and ongoing engagement. We are committed to doing this with local and national government, other organisations and citizens from all ages and backgrounds. We need greater collaboration and engagement, so that we can identify and harness the best ideas and ensure the transition to Net Zero is just and fair. Our Business Plan does not mark the end of our engagement by any means. It reinforces our commitment to do more, to do it better and to do it faster, so we can have a positive impact in the communities that we have the privilege of serving.



Basil Scarsella

Chief Executive Officer, UK Power Networks

Chapter 2: Who we are

We are the UK's biggest electricity distributor delivering power to 8.4 million homes and businesses across London, the east and south east of England. We keep the lights on across 29,250 square kilometres, serving 19 million people from Cromer in the east to Brighton on the south coast.

In addition to keeping the lights on, safely and sustainably, we are responsible for caring for our customers in the most vulnerable circumstances across our communities



Maintain the safety and reliability of our electricity networks by doing no harm to people and places and making sure power cuts are as rare and short as possible.



Meet our customers' evolving needs by improving existing services and shaping new ones.



Support our customers in vulnerable circumstances and ensure they are not left behind during the complex energy transition.



Take care of the environment by reducing the environmental impact of our operations and enabling our country's transition to Net Zero carbon emissions.



Go above and beyond for our communities by ensuring we remain legitimate and responsible in the eyes of our customers.

Eastern Power Networks

We deliver power to North London and East Anglia, encompassing a diverse range of urban and rural areas as well as a huge coastline.



Read the [EPN plan](#)



London Power Networks

We look after the electricity network for Inner London, with responsibility for delivering power to iconic buildings and businesses as well as high-profile international events throughout the year.



Read the [LPN plan](#)



South Eastern Power Networks

We serve South London, Kent, East Sussex and parts of Surrey and West Sussex, covering a rich variety of customers and locations.



Read the [SPN plan](#)



UK Power Networks in numbers

70,888 GWh

Electricity distributed – 28% of Great Britain's total electricity distribution

9.77 GW

Distributed generation on our network

189,503 km

Total length of overhead (45,578 km) and underground (143,925 km) network

19m

people served – 29% of Great Britain's population

14,169 MW

Peak demand

Chapter 3:

Executive Summary

Placing customers and communities at the heart of Net Zero



We are committed to playing an ambitious role in supporting the transition to Net Zero, at the lowest cost to consumers. We will do this by getting better at identifying emerging customer needs, maximising the use of the existing network, creating opportunities for customer participation through flexibility, and through an efficient, purposeful organisation that has the resilience to respond to different levels of demand.

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3.1 Strategic context

Our RIIO-ED2 Business Plan for the period 2023–2028 is far from “business as usual.”

If we are to deliver Net Zero by 2050, our business, together with the wider energy system and society at large, will undergo significant changes over the next decade.

The Government has made legally binding decarbonisation commitments that will have profound impacts on our lifestyles:

- The Prime Minister’s Ten Point Plan for a green industrial revolution will create 250,000 jobs and bring forward the ban on the sale of new combustion engine vehicles in less than nine years from today.
- The Energy White Paper envisages the installation of 600,000 heat pumps per annum in less than seven years.

We are committed to playing a leading role in supporting the transition to Net Zero. We will do this in a way that protects customers from higher costs over RIIO-ED2, by maximising the scope for customer participation through flexibility and energy efficiency.

The next decade of decarbonisation will bring major change to the lifestyles of people and communities – from the way we refuel our vehicles, to heating our homes and using energy more wisely. However, there are enormous uncertainties about how society will achieve Net Zero – some of which are dependent on the extent to which consumers and businesses engage in the energy sector as “producers” of energy, and the degree to which they respond to price signals to consume energy when it’s cheaper and greener to do so.

These uncertainties create a significant risk of over-investment or mistargeted expenditure resulting in consumers bearing unnecessary costs. This is more than a theoretical possibility. In the past, there have been occasions when customers in Great Britain had to pay for network reinforcement that was not needed. And this has also occurred overseas. For example, some networks in Australia made the mistake of reinforcing their networks to accommodate an anticipated increase in air conditioning load, but then found this reinforcement to be unnecessary as a result of increasing solar generation.

We are committed to playing an ambitious role in supporting the transition to Net Zero. However, we do not believe this requires customers to pay upfront for costly network expansion. To us, being genuinely ambitious means facilitating Net Zero at the lowest cost to consumers. We will do this by maximising the utilisation of the existing network first and exploring the scope for customer participation through flexibility. We are asking for a baseline allowance which is consistent with the lowest cost Net Zero pathway. This will provide us with strong motivation to push network utilisation, energy efficiency and consumer participation to the maximum.

Our strategy has generated a lot of discussion in the industry with “traditionalists” suggesting that we might be unable to respond to an increase in demand and therefore stand in the way of the transition to Net Zero. We believe this is a false premise; a high performing network company that seeks to deploy its capital efficiently and in the best interests of consumers would need to understand how it can meet demand wherever it may arise, and this is true regardless of whether it seeks a large ex-ante totex allowance or not. We recognise that we must be ready to accommodate the whole range of scenarios that could emerge, but that customers shouldn’t have to pay upfront for this if we can use well designed uncertainty mechanisms. We have considered this at length and we believe that we can deliver by:

- Building market intelligence systems that provide early visibility of emerging customer and system needs, so that we have the maximum possible time to respond to unexpected changes in demand;
- Empowering our DSO to make decisions in the best interests of customers, having considered all potential solutions on a “level playing field basis”, so that we can use every possible solution to solve unanticipated problems;
- Investing strategically, ahead of demand, in areas where there is a high certainty of need. These strategic investments include: unlocking an additional 2,400 on-street public chargers, working with Local Authorities; delivering an additional 7-8MW of capacity in areas located near 14 motorway and trunk road service stations; and helping 242,000 off-gas grid homes in our region to transition away from fossil fuels;
- Ensuring we have the resources to respond flexibly to need. We will do this by deploying automation and innovation, building our digital skills through the creation of a Digital Skills Academy and by further promoting competition in the connections market (so that parties who want to connect to our network have genuine choices about who can provide them with the services they want);
- Working with local authorities, community stakeholders and other utilities to help them realise their Net Zero ambitions by unlocking network investment consistently and in a timely way;
- Working with Ofgem to establish flexible and responsive mechanisms that match our funding to the volume of investment that we need to make; and
- Critically, continuously monitoring the implementation of our strategy so we can adjust what we do (“course-correct”) to stay on track.

In summary, our Business Plan is the most efficient way forward to achieving Net Zero at the lowest cost, and we have also planned for the flexibility to respond to the unexpected.

Chapter 3: Executive Summary continued

The digital revolution will go far beyond the way that we interact with customers – it is transforming every aspect of our business.

Customers' expectations of good service are being set by the experience from our everyday lives – from how we bank, to how we shop. And COVID-19 has accelerated the digitalisation of many services in ways that will have a lasting impact on the way businesses serve their customers. More than ever before, we need to look beyond the utilities sector and set service standards that are admired by the best service providers in the market. This means using the latest digital technologies and techniques to meet our customers' individual expectations with ease, choice and convenience.

Data is intrinsic to the energy revolution which is being driven by decarbonisation, the increasingly decentralised nature of energy resources, rapid advances in technology and the emergence of new business models. Our customers and stakeholders need data to guide their choices towards a decarbonised future. Market participants need data to develop new products and services and to support market innovation. We need more accurate data to make better decisions about the way we invest in, operate and maintain our network. Finally, our supply chain partners need more data so they can respond with agility to new and pressing demands.

We need to step-up our capability in handling data, embracing an entrepreneurial and transformational mindset whilst retaining our engineering strengths. We will need to become a disrupter, thinking in new ways that mark a radical departure from the traditional thinking that has guided network companies over the last 100 years. We will need to be dynamic and agile, working in a collaborative way with others and placing an emphasis on innovation. We will be curious and tireless in striving to understand the needs and preferences of our customers. Drawing on the approach adopted by leading digitally-enabled organisations, we will have business and technology teams working seamlessly together on product and service developments. And we will continue to invest in flexible IT systems and infrastructure which will form the backbone of our digital capabilities.

There needs to be a just and fair transition to Net Zero.

It is important that the opportunities presented by this exciting future are open to everyone.

Given the scale of the change, we must think ahead to identify and address new forms of exclusion and inequality. Our customers' understanding of low carbon technologies (LCTs) is generally low, which creates the risk of exploitation, especially for those in vulnerable circumstances. Different customers will face radically different consequences from the transformation ahead of us. For example, those without off-street parking can be forced to pay up to 10 times more to charge their electric vehicles today. We need to be bold, anticipating and calling out situations that will leave our customers at a disadvantage. We need to propose solutions to address inequality and unfairness to help others, in collaboration with government and wider stakeholders.

We need to play an active role in tackling these issues working closely with our regulator and government; doing so is critical to engendering public trust in Net Zero. That trust cannot be taken for granted. Nor can we achieve our country's decarbonisation ambitions without it. We must work collaboratively to develop joined-up services that are focused on customers. We must support local authorities to help communities make the change and we must have a strong public purpose – operating with the highest standards of conduct, delivering positive outcomes for the environment and wider society, commanding trust by being as diverse as the communities that we serve.

Reflecting this new strategic context, we have updated our vision for the company, which sets the purpose and focus for our 6,200 employees and supply chain partners. We have made a clear commitment to enable the Net Zero transition for all. At the heart of this commitment is our ambition to establish the UK's first independent Distribution System Operator (DSO). Our DSO will lead our work to facilitate the transition to Net Zero.

Figure 1: Our company vision and focus areas

An employer of choice	A respected and trusted corporate citizen	Sustainably cost efficient	Enabling the Net Zero transition for all
<ul style="list-style-type: none"> The safest – with an exemplary record An organisation that employees are proud to work for Creating the most diverse and inclusive DNO and DSO Having a highly skilled and healthy workforce for both today and the long term Strong and collaborative relationships with Trade Unions 	<ul style="list-style-type: none"> Ensuring the most reliable networks Delivering the best customer satisfaction Meeting the needs of our customers in vulnerable circumstances, both now and in the future Being the most socially and environmentally responsible in our sector – through our social contract Being the most innovative in our sector – becoming a disrupter, combining data, technology and new ideas Ensuring our supply chain is efficient, sustainable and ethical 	<ul style="list-style-type: none"> Delivering at the lowest possible cost for our customers Delivering frontier efficiency in the work that we do Delivering on our commitments in a collaborative way with others Delivering profitable growth in our Services and Connections businesses 	<ul style="list-style-type: none"> Establishing an independent DSO to maximise customer participation and efficiency in the network Collaborating with local authorities and stakeholders to unlock regional decarbonisation plans through our DSO Providing our customers and employees with information and support to help them work out the best options to go green Playing a leadership role in addressing inequality and unfairness resulting from the energy transition

To be consistently the best-performing Distribution Network and System Operator in the UK within an agreed set of values

Integrity | Respect | Continuous Improvement | Diversity and Inclusiveness | Responsibility | Unity

3.2 A plan that places customers and communities at the heart of Net Zero

3.2.1 Envisioning the future

To build our Business Plan, we asked ourselves what 2030 could look like. We developed three scenarios (our Distribution Future Energy Scenarios, DFES) working with Element Energy. We tested those scenarios with local authorities including the Greater London Authority and low carbon technology experts, such as the Association of Decentralised Energy and British Solar Renewables. We sense-checked our views against the scenarios mandated in Ofgem's Business Plan Guidance, including the Climate Change Committee (CCC) scenarios published in the Sixth Carbon Budget. As a result, we also modelled a credible "high sensitivity" scenario reflecting the CCC's most aggressive Low Carbon Technology (LCT) take-up projections to understand the range of potential costs.

Together, the scenarios describe alternative ways that the energy system could deliver on the Government's commitments. Further information on our scenarios and forecasts can be found in Section 16.1: Forecasting and scenarios.

3.2.2 The structure of our demand-driven Business Plan

Our strategy is to include high confidence costs in our baseline allowances and ensure that we are ready to scale up to meet any decarbonisation pathway.

As evidenced during RIIO-ED1, it is impossible to predict accurately the roll-out of LCTs such as electric vehicles, heat pumps and distributed generation. In the past, customers have been asked to pay for network reinforcement that has proven to be unnecessary. Despite the electricity sector's best and well-intentioned efforts, and the scrutiny by Ofgem,

forecasts of the uptake of LCTs during RIIO-ED1 proved to be widely inaccurate; only 20%¹ of the LCTs that were forecast actually materialised. As a result, customers ended up paying for investment that was not required and owners of regulated network businesses earned greater than expected returns, both damaging the legitimacy of the sector.

We must not repeat this experience in RIIO-ED2. For this reason, we have spent time to understand and manage the uncertainty implied by the various pathways to Net Zero.

For example, some of the most significant questions surround the way that customers will respond to the need to decarbonise heat. Whilst there is a common appreciation that we will need to move towards greater electrification of heat, the pace and scale of this change is far from clear. We currently have some 27,000 Heat Pump installations across our region, but we forecast the number of installations could grow to anywhere between 150,000 (an annual growth rate of 33%) and 440,000 (an annual growth rate of 59%) by the end of the RIIO-ED2 period. Similarly, the impact of energy efficiency and smart tariffs on peak demand on our networks is not certain.

Recognising this uncertainty, our Plan seeks funding that is flexible and responsive to the level of uncertain demand. Our Plan is based on high confidence investments that are well-justified. We think these high confidence investments are most closely aligned to one of the three scenarios we developed, the Consumer Transformation scenario. This is the lowest cost scenario that will deliver the transition to Net Zero because it assumes customers will change their behaviour to support decarbonisation – for example, by taking up smart charging. However, we can adapt our plan to meet whatever level of demand we face and we have proposed funding requirements that will be responsive to the level of demand associated with the take-up of LCTs.

Chapter 3: Executive Summary continued

The diagram below illustrates the flexibility that is built into our plan for a range of possible scenarios.

By being demand-driven, our Business Plan replicates, as far as feasible, the approach that a commercial business operating in a competitive market would undertake. It ensures that our product (electricity capacity) is available to customers whenever they require at the lowest possible cost, delivered with the best reliability, provided with world class service, resilient to unexpected events and of course preserving the safety of our employees and the communities we serve.

We think our Business Plan will simultaneously support the transition to Net Zero and deliver fair outcomes for our customers. We have thought hard about it and are convinced that it is the best way to deliver Net Zero in the way our stakeholders want, whilst protecting our customers from needless price increases. We are focused on taking actions that will encourage energy efficiency and flexibility. That is why we have proposed totex consistent with the Consumer Transformation scenario and the thrust of our whole Business Plan is to enable the transformational change implicit in that scenario. We will maximise the use of the network we have as efficiently as possible before spending money to expand network capacity. And when we do need to expand capacity, we will do so at lowest cost. If actual demand turns out to be lower than our forecast, then our proposed uncertainty mechanisms would allow for this, reducing allowances and ensuring that customers do not bear the cost of forecasting errors.

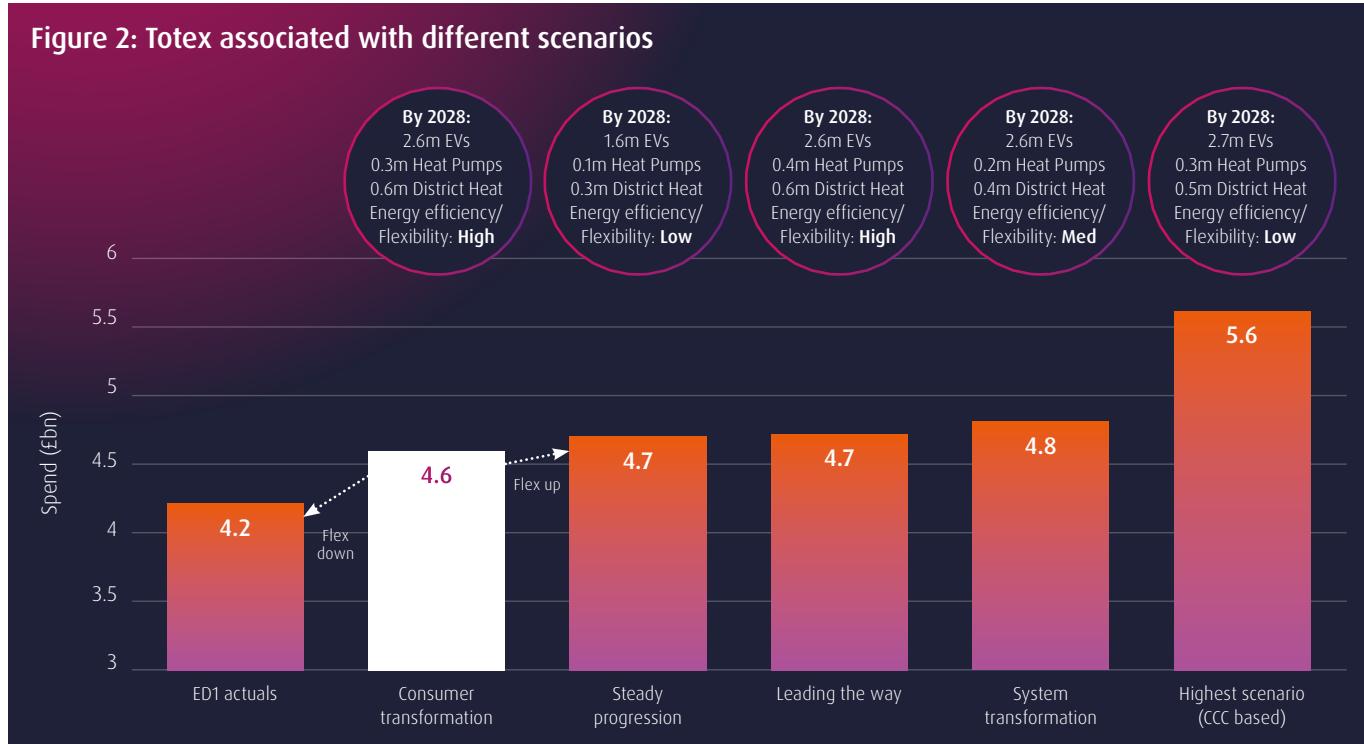
We have stress-tested our investment and operational plans (including our resources, supply chain and financeability) to ensure that we can respond with agility and remain resilient to all credible scenarios. We are confident our organisation has the skills and ability to “flex” to different levels of demand. Having done all this, we not only believe that we will not be a barrier to the delivery of Net Zero within our regions, but that our plan is the most ambitious and effective path to achieve that goal. Further details are provided in Section 10.6: Workforce resilience and Section 16.2: Managing external uncertainty.

3.3 A plan which draws on the views of our customers and stakeholders

A plan based on extensive engagement reflecting the changing environment and recognising that electricity is a low knowledge topic for many customers.

We are passionate about understanding the diverse needs of our existing and future customers, to understand what role they might take in the energy transition and to ensure that no one gets left behind. Building on our work in RIIO-ED1, we have undertaken our most comprehensive, wide ranging engagement programme ever, with over 19,000 customer interactions, 3,000 stakeholder interactions and we have analysed over 336,000 data points – this Business Plan is built on a solid understanding of our customers’ wants and needs.

Figure 2: Totex associated with different scenarios



It is a programme that reflects the difficulties of researching customer preferences – difficulties which are amplified by the fact that our customers are not always knowledgeable about what we do. Our Customer Engagement Group (CEG) rightly challenged us hard to deliver meaningful engagement. Network business planning remains a difficult area to explore with customers because it involves testing issues of which they have no direct experience or often aren't aware. We developed an engagement programme which combined both depth and breadth of customer input, as well as utilising robust research methods and tools appropriate to the topics on which we were seeking customer views. We didn't always get this right first time, but by carefully considering the challenges from our CEG and making improvements, we uncovered actionable insights that helped shape this plan for the benefit of our stakeholders and by customers.

When we tested our Plan with customers we found that, of those who felt they understood our plan, 86% of domestic and 88% of business customers rated our plan as acceptable. This shows strong support for our proposals.

However, 19% of customers did not understand our Plan and proportionally this was higher amongst those in the D and E socio-economic grades (semi-skilled and manual occupations). We debated with our CEG the need to adapt our approach for further acceptability testing ahead of our final submission in December 2021. We concluded that the most value would be extracted by running further focused qualitative engagement with customers in the D and E socio-economic grades to unpick why this group of customers found it particularly challenging to understand our Plan or elements of it. The learning from this will be used to inform our ongoing engagement in RIIO-ED2 and beyond.

3.4 Listening and responding to feedback on our Initial Business Plan

We are pleased that we have been seen by Ofgem and stakeholders as leading the industry in adopting Science Based Targets for carbon emissions and in the way we are setting the pace in establishing an independent DSO and driving greater competition. We believe our leadership in these areas provides clear evidence that will enable Ofgem to challenge the other DNOs to deliver benefits to customers.

Our updated plan has benefited from all of the comments and inputs we have received. In particular:

- Our base costs have increased by £250m. We have responded to feedback on our Initial Plan that we needed to be more ambitious in some areas. The Challenge Group expressed concerns that our initial package of Uncertainty Mechanisms transferred too much risk to customers. We have reviewed and streamlined our proposed portfolio of Uncertainty Mechanisms, which has led to a consequential increase in our base costs. We have also made more ambitious commitments to reduce oil leakage from our cables and our dependence on SF6 switchgear.
- We have thought hard about the proactive steps that we can take to ensure our networks do not stand in the way of the transition to Net Zero. In doing this, we forced ourselves to imagine what might go wrong and the mistakes that we might make that could undermine the transition to Net Zero. (We carried out what Matthew Syed recently described as a “pre-mortem”²) This has sharpened our understanding of the practical steps we can take to support the transition to Net Zero. **We describe the actions that followed from this exercise in a new chapter introduced in this Final Business Plan, titled “Decarbonising our communities”.**
- We have continued our work with regional planning authorities to road test our Local Area Energy Planning Framework that we co-developed with Essex County Council and that we plan to use to assess all local area energy plans. Letters of support from these regional planning authorities are contained in Appendix 27: Letters of endorsement. We also engaged with both the Energy System Catapult and Citizens Advice to get their perspective and challenge. We have been encouraged by their positive feedback on our approach which delivers a practical solution that advances decarbonisation within our regions.
- We have continued to work with Ofgem to develop uncertainty mechanisms that can respond with agility to changing demands. But, we are keen that the mechanisms are not a “blank cheque”. Their operation must protect consumers and we therefore propose the amount of funding that we can access through them is capped at the level of funding required for the High Scenario.
- We have continued to plan the creation of GB’s first independent DSO. We have a detailed blueprint setting out how we will make this happen. And we have evolved our ideas for how our DSO can promote far greater competition. We will bring at least £100m of our RIIO-ED2 project delivery to market including connections-driven reinforcement, diversions of our assets and load related reinforcement. We will work with stakeholders such as ICPs and utility contractors to encourage them to compete for and deliver this work. This goes beyond Ofgem’s baseline competition expectations and, based on our stakeholder feedback, the ambitions of other DNOs.
- Reflecting feedback from the Challenge Group and our CEG, we have refined our commitments to make our promises clearer and to make it easier to monitor what we have achieved.
- We have undertaken targeted engagement on specific aspects of our plan with customers and stakeholders and we have worked with our CEG to refine the way that we demonstrate the line of sight between our proposals and customer insight.
- We have reduced our proposed Consumer Value Propositions to focus on three areas only, which go beyond business as usual and have the strongest support of our stakeholders.

² Matthew Syed, Black Box Thinking: The Surprising Truth About Success.

Chapter 3: Executive Summary continued

Figure 3: Our Seven Keys to Success



3.5 Defining success for our business in this exciting future

Our engagement helped us to understand customer and stakeholder priorities. To focus our efforts, we defined seven 'Keys to Success' to base our plan around, each backed-up with tangible commitments. We have sought to make this process transparent using 'Line of Sight' and Engagement Summary documents that explain our process – the way we have listened, assessed, triangulated and then committed to actions in specific areas. More detail can be found in Section 7.1: Customer and stakeholder engagement.

1 — 2 — 3 — 4 — 5 — 6 — 7

1. Delivering a brilliant service for all

From a position of leadership in our sector, we pledge to show by example that we can push the frontier even further. We will challenge ourselves to achieve the standards of customer experience delivered by best-in-class organisations such as John Lewis, AO.com, First Direct, Marks and Spencer, Amazon and Netflix.

We are the best performing DNO on customer service and we plan to remain the best. We will challenge ourselves to deliver the highest standards of customer service and will go further to protect vulnerable customers.

We will get the essentials of customer service right even more of the time. We are making firm commitments to continue to be rated as the number one customer service provider in our sector and to increase our Broad Measure of Customer Satisfaction (BMCS) score.

We will give our customers a stronger voice by offering them the chance to provide feedback and rate our service every time they interact with us going well beyond the regulatory customer service measurement. We will segment the feedback from our vulnerable, low carbon and small business customers to understand how we should improve our services for their changing needs given the changing Net Zero context. All of our customers will be asked how we compare against the best of the best organisations they deal with in their day-to-day lives. Customer views will be independently scored by Trustpilot surveys and benchmarked by the Institute of Customer Service (ICS). Our ambitious commitment to be scored in the upper quartile of UK service providers by ICS by the end of the RIIO-ED2 period and be a 5^{*} rated company on Trustpilot.

The table below summarises our key commitments in this area and highlights our commitments which are new for RIIO-ED2.

Ref	Our commitment
CS1	We will maintain our position as the number one service provider amongst our peers over the RIIO-ED2 period. We will aim to be the #1 DNO Group as measured by customer satisfaction, or to achieve at least a 93% score on average across our networks in each year of RIIO-ED2, whichever is higher.
CS2	We will benchmark ourselves against the UK Customer Satisfaction Index, demonstrating we are providing an excellent customer experience as compared to the best companies across the country. We will target to be in the upper quartile of service providers by the end of the RIIO-ED2 period. ** NEW **
CS6 	Where we owe our customers compensation under the Guaranteed Standards, we will pay them directly through the method of their choice including directly to their bank account or working with suppliers to credit their energy bill. We will target a 90% digital payment rate by the end of RIIO-ED2. ** NEW **
CS7	We will improve our services through RIIO-ED2 based on a better understanding of our customers in vulnerable circumstances and from our low carbon and small business customers. We will target to be the #1 DNO Group as measured by customer satisfaction, or to achieve at least a 93% score on average across our networks in each year of RIIO-ED2 by measuring and reporting on these specific customer segments. ** NEW **
VS4	Our customers will only need to register to a Priority Services Register (PSR) once. We will develop automated data links by 2024 (at the latest) with other utility companies so that customers will automatically receive enhanced service from us and other organisations providing essential services. ** NEW **
VS5	We will help all medically dependent PSR customers realise the benefits of having a smart meter by sharing targeted advice every two years throughout RIIO-ED2. For example, we will utilise smart meters to establish new arrangements so that carers are automatically notified when a power cut occurs by 2024. ** NEW **
VS6 	We will offer increased support for our medically dependent PSR customers by dispatching battery banks to customers who are at risk of being without power for more than 4 hours between 2024 and 2028. ** NEW **
VS7	In collaboration with regional partners we aim to provide targeted support to a total of 500,000 fuel poor customers over RIIO-ED2, investing £18m to support over 200,000 directly and 300,000 through partnership programmes, delivering £67m of benefits by 2028. Additionally, we will provide fuel poverty information to 800,000 customers each year, working with trusted partners.
VS8	We will provide information and help to 500,000 vulnerable customers over RIIO-ED2 to ensure no one is left behind in the changing energy system, at no cost to customers. As part of this, we will also co-fund grants towards the installation of low carbon technology systems via the UK Power Networks foundation. ** NEW **
VS10	We will deliver industry leading innovations to improve support to disadvantaged and vulnerable customers, ringfencing £5m of our Network Innovation Allowance (NIA) investment over the RIIO-ED2 period to focus in these areas.
MC3	Through continuous engagement, we will drive service improvements and the development of new connections products and services. We will measure our performance through a range of surveys on our connections services (including our Connections Engagement Satisfaction Survey, Ask the Expert, Distributed Generation Surgeries and Feasibility Studies). We will target at least an average customer engagement feedback score of 9/10 over RIIO-ED2.
COMP 1 	We will adopt a frontier approach in driving competition into our traditional activities to maximise cost efficiency by opening up over £100m of work to competition during RIIO-ED2. The scope of this work will be drawn from load-related reinforcement schemes as well as connections-driven reinforcement and diversionary programmes. We will work with stakeholders to define the detailed scope of this work. ** NEW **

Details of our full list of commitments and more are described in Chapter 9: Meeting the needs of consumers and network users.

Chapter 3: Executive Summary continued

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2. Facilitating decarbonisation at the lowest cost

We will create an independent and legally separate DSO that delivers whole system value for consumers. Our DSO will deliver direct benefits of approximately £410m and could enable between £780m to £2.6bn of wider whole system benefits (in net present value terms) up to 2040.

Our vision is of a dynamic distribution system with electricity demand and supply flexing in response to distribution-level conditions and market signals. This will lead to a more highly utilised distribution network with faster and cheaper access for the Low Carbon Technologies that will be needed to achieve Net Zero.

We will be deploying 26 innovation solutions developed in RIIO-ED1 to create more capacity and deliver more efficiently. Our plans already have c.£137m of savings incorporated from these solutions – over 21% more than we delivered in RIIO-ED1 on a like for like basis. When we are likely to exhaust the capacity in the existing network, we will utilise market-based flexibility solutions to create capacity at lowest cost. We will do this all the way down to the low voltage network to maximise opportunity for domestic level participation and cost savings for consumers.

The table below summarises our key commitments in this area and highlights those which are new for RIIO-ED2.

Ref	Our commitment
DS03	Our DSO function will deliver up to £410m reduction in load related expenditure during RIIO-ED2 through increased competition and use of LV flexibility, including at the domestic level.
DS05 	We will collect real time data through monitoring in all LV networks where we are forecasting constraints over RIIO-ED2, and will target 100% coverage of the rest of the network through advanced analytics using smart meter data. This will give us better insight to run the network at higher utilisation and to defer reinforcement actions for as long as possible. ** NEW **
DS06 	We will develop a new DSO stakeholder satisfaction survey. Once we establish a baseline at the start of RIIO-ED2 we will commit to improving our score by at least 10% over the period and publishing an annual DSO forward plan that will explain how we are responding to stakeholders' priorities. ** NEW **
DS07	We will make a range of firm and flexible connection products available to all customers, from lowest cost through to highest access, with a maximum curtailment commitment from the start of RIIO-ED2, and will annually update our products based on stakeholder feedback. Where customers can't choose such products, we will explain the reasons why to those affected. ** NEW **
DS08	We will be the UK's leading DSO in network data provision through a best practice service that opens data according to user priorities and customer value-add. Our ability to meet users' needs will be measured as part of an annual stakeholder survey from the start of RIIO-ED2. ** NEW **
DBP1	We will fulfil and exceed the recommendations outlined by the Energy Data Taskforce through the active open publication of our data across the RIIO-ED2 period, prioritised based on stakeholder engagement and an understanding of value to consumers. Our data will be appropriately licensed to enable third party use to support the development of an Open Energy System, facilitating Open Innovation and creating data services that deliver wider benefits to energy customers.
WS5	We will expand the geographic area of our South East Regional Development Programme (RDP) in RIIO-ED2 and deliver a RDP in East Anglia by 2024, as agreed with the ESO. We will unlock up to £130m of whole system benefits during RIIO-ED2.

To do this, we will establish an independent and legally separate Distribution System Operation (DSO) business unit by 2023 with an independent supervisory Board. This Board will produce an annual conflicts report which will be publicly available and highlight any conflicting decisions between the DNO and DSO. As a "DNO first", working with stakeholders, we will co-develop a DSO-DNO Operational Agreement that will clearly and unambiguously set out the respective roles, decision-making processes, operating and reporting procedures and ongoing governance arrangements for the DSO (as distinct from the DNO).

Our DSO will operate very differently to a traditional DNO. We will bring in new skills, people and systems for a business unit that will be highly focussed on technology, data and customers. Importantly, it will signal transparency and independence of investment decision making. Our DSO will deliver direct benefits by reducing the need to reinforce our network. It will also deliver wider system benefits, including by reducing the need to build larger scale renewable generation plant. We have worked closely with Imperial College London and the Carbon Trust to estimate the benefits that this will deliver for our customers. Chapter 12: Enabling whole system solutions sets out our commitments and the value that we are proposing from our strong working relationship with the ESO.

Ref	Our commitment
WS6 	We will work with the ESO to expand the Power Potential trial to be a business as usual offering across our EPN and SPN regions by 2028. This will be a world-first large scale rollout of a whole system reactive power management solution. **NEW**
WS7	Over RIIO-ED2 we will deliver 1GW of distributed energy resources (DER) capacity at no more than £8m, using smart interventions and new innovations, reporting progress in our annual business plan.
WS10 	We will develop an energy efficiency flexibility product, running tenders every 6 months, starting in 2023. ** NEW **
WS12 	We will run a process to identify and address market failures with respect to the provision of on-street charging, unlocking over 2,400 public charge points in areas of market failure by the end of RIIO-ED2. ** NEW **
WS13	We will run a process to identify and deliver an additional 7-8MW of capacity in areas located near 14 motorway and trunk road service stations, by running a call to market in 2024 and 2025, ensuring a maximum of 30 miles between charging across our regions.
WS15	We will ensure that 71% of off-gas grid homes in our regions have the suitable capacity to decarbonise their heating and transport by the end of RIIO-ED2. ** NEW **

Details of our full list of commitments and more are described in Section 12.1: Establishing a DSO and Section 12.2: Whole systems. Section 10.6: Workforce resilience and Section 17.6: Financial information. These chapters explain our activities that enable us to respond quickly for any decarbonisation scenario that materialises.

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3. Investing to maintain a safe, reliable and resilient network

We know that customers value a safe, reliable and resilient supply of electricity, not just today but in the future. This is core to our purpose. As the energy system transitions to a more decarbonised and decentralised system with greater reliance on electricity, we will need to continually adapt our approach to maintaining system resilience and respond to

extreme events such as the 9th of August 2019 low frequency incident which resulted in disruption across the South East.

This includes working closely with the ESO to develop innovative and lower cost solutions to technical issues arising from greater levels of distributed generation and other low carbon technologies connected to our networks. It also includes taking a co-ordinated approach to regional planning to optimise the use of these resources across transmission and distribution to deliver the lowest overall system cost. We explain our strategies and the actions that we are committing to in RIIO-ED2 within our DSO and whole systems sections of the Business Plan.

The table below summarises our commitments in this area and highlights our commitments which are new for RIIO-ED2:

Ref	Our commitment
S1	We will minimise injuries to our staff as measured by the Total Recordable Incident Rate (accident rate per 100,000 hours worked) striving to be less than 0.05 by the end of the RIIO-ED2 period.
OR1 	We will continue to improve our organisational resilience capabilities by considering the changing risks our business faces. We will aim to achieve a “Good practice” rating against the BS65000 standard that will be independently assessed by the Emergency Planning College (EPC), by the end of the RIIO-ED2 period.
NR1	We will improve underlying network reliability (as measured by customer interruptions (CIs) and customer minutes lost (CMLs)) by the end of RIIO-ED2. This improvement will not be impacted by the volume, type or location of low carbon technologies connecting to our network.
NR2	We will reduce 12-hour interruptions in normal weather conditions by 25% on average across RIIO-ED2 in each of our EPN, LPN and SPN regions, compared to the RIIO-ED1 average.
NR3 	We will achieve a 10% reduction in the number of short interruptions experienced per customer (excluding those which are as a result of avoiding a customer interruption and those relating to exceptional events) by the end of RIIO-ED2 when compared to that experienced by our customers in the last five years of RIIO-ED1. We will also make an automatic compensation payment of £25 to customers who experience more than 25 high voltage short interruptions during a regulatory year (excluding those relating to exceptional events).

Chapter 3: Executive Summary continued

Ref	Our commitment
NR4	We will invest up to £28m which will deliver at least a 25% improvement in reliability for eligible Worst Served Customers (WSC). We expect that the equivalent of 10,000 customers per annum will see an improvement in the reliability of their power supplies from this investment. We will also explore innovation solutions to improve the service received by WSC where costs of traditional solutions prohibit their implementation.
AR1	To manage the risk of disruption to our customers from failure of our assets, we will target the replacement of the poorest condition assets on our network, delivering a NARM monetised risk point delta of £1.57 billion by the end of RIIO-ED2.
AR2	We will enhance our compliance with ETR138 across our network, protecting the electricity supplied to customers from 85 substation sites deemed at risk from flooding by the end of RIIO-ED2.
C1	We will continue to enhance our resilience to sophisticated cyber-attacks throughout RIIO-ED2 and comply with the Network and Information Systems Regulations 2018 through the National Cyber Security Centre (NCSC) Cyber Assessment Framework; in order to protect our networks, secure our customer data, and keep the public safe.
CR1	We will establish a steering group with key internal stakeholders to own and monitor the risks identified as part of the climate change strategy. The steering group will report to UK Power Networks' executives and publicly report on actions taken to mitigate against identified risks throughout RIIO-ED2 using the Annual Environmental Report.

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4. Delivering the lowest possible bills whilst enabling Net Zero

During the COVID-19 pandemic, we learnt that nearly 38%³ of our customers experienced a drop in their disposable income. However, the impact of the pandemic has been uneven across households, with lower income groups being hit particularly hard. Furthermore, the recent increases in gas prices are forecast to place even more families in fuel poverty⁴.

Our baseline plan delivers a 15% reduction in bills in real terms over RIIO-ED2. Our approach protects customers from overpaying for assets that may not be required.

Given many of our customers face economic uncertainties, it is imperative that we keep electricity bills as low as possible. With this firmly in mind:

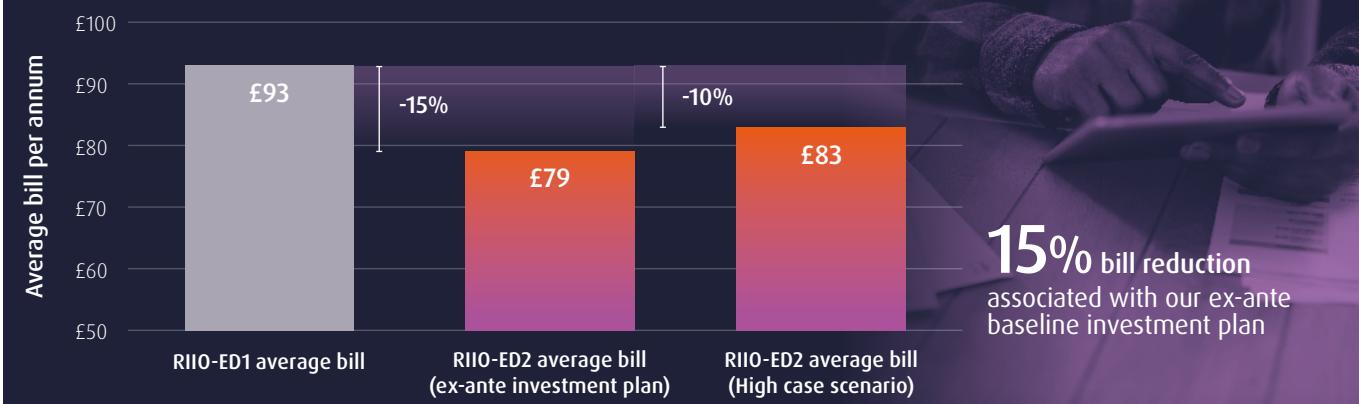
- We have only included “high confidence” costs within our baseline allowances.

- We have already incorporated savings of approximately £137m into these baseline costs by deploying innovative solutions. We are building on our strong record of innovation in RIIO-ED1 where we delivered 3 times the innovation savings compared to the nearest DNO through 50 solutions (more than double any other DNO).
- As well as benchmarking as the frontier company for efficiency in RIIO-ED1, each year we will deliver four times the efficiency improvements seen in the wider economy⁵. This equates to 1% per annum and approximately £230m of savings over the RIIO-ED2 period.

As explained, given the uncertainties in decarbonisation pathways, we have proposed well justified uncertainty mechanisms that will flex-up additional allowances if demand materialises necessitating investment in our networks.

The figure below shows the bill impact in real terms from both our high certainty ex-ante plan and what the bill could rise to if the High case scenario materialised and we had to invest up to £5.6 billion using the uncertainty mechanisms.

Figure 4: Domestic customer bill analysis



3 Savanta Covid Tracker Jan-April 2021

4 <https://www.bbc.co.uk/news/business-58831110>

5 Bank Of England Total Factor Productivity Analysis, 2019

The table below summarises our key commitments in this area:

Ref	Our commitment
DS04	We will keep our costs down by taking a “flexibility and energy efficiency first” approach over RIIO-ED2 and ‘will market test’ all network needs before considering reinforcement. These needs will be procured through a range of long-term and short-term markets and products, which are inclusive by design and ensure no customer is left behind in the energy transition.
INN01	We will ring-fence £25m of our totex allowance and allocate a further £25m for investment of our own money over RIIO-ED2 to improve network performance for our customers through innovation projects. We will publish key business challenges quarterly in a structured process as well as remaining open to innovation ideas at any time.
INN02	We will allocate £25m Network Innovation Allowance (NIA) funding over the RIIO-ED2 period, of which £20m will go to third parties, targeted to ideas that deliver 4x wider societal return on investment.

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5. Being a force for good in the communities we serve

We will use all our resources – our people, data, expertise, networks and investment – to improve the environment and economic prospects for the communities that we serve.

During RIIO-ED2, we will use our expertise, data and influence to bring together local communities to deliver on their climate emergency plans. We will establish a dedicated local energy planning team as part of our DSO that will work with all regional planning authorities (over 100) in our regions, plus community energy groups and other local stakeholders, to develop actionable decarbonisation plans. This is a direct response to calls of support from local authorities who cite a lack of skills and data to develop delivery plans.

As a “DNO first”, we have designed a systematic approach with County Councils to assess local plans and enable network investment to be unlocked quickly and consistently. Further details about this approach can be found in Appendix 19b: Local Area Planning Framework. Our framework supports decarbonisation planning in a pragmatic way reflecting the realities faced by many local authority planning functions; it has been tailored so that it can be used by individuals in Local Authorities who may not be familiar with the energy industry. We have already tested this approach with Essex County Council as a trial (to learn and improve so that we can scale it with confidence). We will support all regional planning authorities to make progress and build momentum. We have 15 regional planning authorities already providing their endorsement and support for this approach as a result of their involvement in helping to design the framework. Importantly, we recognise that given this is a fast-changing area, we will need to keep the framework under review. We will make improvements each year with regional planning authorities as we learn and improve together.

We will work with government, Ofgem and Local Authorities to address market failures in the provision of on-street and en-route EV charging. Being bold and calling out the “gaps” and more importantly, proposing solutions to address inequality and unfairness in collaboration with government

and wider stakeholders is crucial. During RIIO-ED2 we will socialise a greater share of the network upgrade costs to facilitate widespread public charging. We have demonstrated this approach and its benefits through our Green Recovery investment programme and our Charge Collective trials. Hence, we have included a Consumer Value Proposition (CVP) to ensure that some regions do not get left behind during this transition to electric vehicles, including those in rural areas. We believe that our approach to support regions that are at risk of being left behind could deliver £16m in benefits over 10 years, for which we have provided a detailed cost benefit analysis. We will work jointly with Local Authorities to provide a compelling case to Ofgem for why the regulatory framework should be modified to unlock this type of investment.



This new approach with UK Power Networks has helped us understand local barriers to EV uptake and plan public charging in the right locations for our communities – a key step towards achieving Norfolk’s ambitious 2030 Net Zero target.”

Dominic Allen,
Sustainability Manager,
Norfolk County Council

We will continue to ensure that our communities remain safe around our electricity assets. We will work in collaboration with trade associations and other partners, combining data analytics with high impact communications, to reduce the number of third-party overhead line and underground cable strikes by at least 20% over RIIO-ED2. We will also ramp-up our Be Bright, Stay Safe campaign to reach 300,000 people every year, with advice and guidance to remain safe around our assets prioritised (based on risk using data about injuries).

We will establish a social fund (The UK Power Networks Foundation), with contributions by both the shareholder and employees of up to £4m (equivalent to approximately 1% of annual profits) to advance good causes in the communities that we serve.

Chapter 3: Executive Summary continued

The table below summarises our commitments in this area and highlights our commitments which are new for RIIO-ED2:

Ref	Our commitment
WS1	We will engage with all 127 regional and local planning authorities on their climate plans each year of RIIO-ED2, offering a three-tiered support service utilising a framework to assess, develop action plans, and deliver investments where a prescribed level of certainty is achieved in period. ** NEW **
WS2	By 2024, we will provide core planning datasets via an on-line self-service energy planning tool to support the planning process for our local authorities, helping them make the best choices for their communities.
WS4	We will embed a requirement to have explicitly considered whole system solutions as part of our investment planning and investment governance by the start of RIIO-ED2.
S2	We will reduce the number of third-party overhead line and underground cable strikes by at least 20% over RIIO-ED2 (relative to the average of RIIO-ED1 actuals from 2015-2020).
S3	We will increase our commitment to engage with the public around safety issues, focusing on those who are at highest risk of injury from contact with our networks by engaging with 300,000 people per year during RIIO-ED2 (vs. 250,000 people per year during RIIO-ED1).

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6. Being an employer of choice

Our people have been the driving force behind our performance improvement in RIIO-ED1. A competent, motivated, and stable workforce is an essential pre-requisite to our provision of a highly reliable network and excellence in customer service. We are among only 2% of organisations our size, and the first DNO, to hold an Investors in People Platinum Award.

We will match our workforce to the diverse population that we serve, fostering stronger links with, and building trust from, our communities. We will continue to improve our recruitment processes to ensure equality of access for all people. We will increase BAME applications for early career roles, working closely with local schools. We will establish a “see it to be it” work experience programme to help over a hundred candidates from disadvantaged and under-represented groups to progress their careers. We will also reduce the gender pay gap achieving gender parity in non-direct roles by 2028.

The table below summarises our commitments in this area and highlights our commitments which are new for RIIO-ED2:

Ref	Our commitment
WR1 	We will sustain high levels of employee engagement throughout RIIO-ED2, ensuring that the benefits of a motivated workforce are passed onto our consumers. We will benchmark nationally and globally as a leader in the field and target retention of our Platinum Investors in People accreditation and Best Companies listing throughout RIIO-ED2.
WR2 	We will continue to build a diverse workforce to reflect and serve our communities by further improving equality of employment access, measuring continuous performance improvement. We will retain our NES accreditation and status as a Top 50 Inclusive Employer throughout RIIO-ED2.
WR3	We will establish a Digital Skills Academy to provide DSO and digital future skills, deliver 510 accredited apprenticeship NVQs in Leadership and Management and 200 IET accredited technical or digital apprenticeships throughout RIIO-ED2. We will target the achievement of an “Outstanding” OFSTED rating for our training programmes in the period.

Full details of these commitments and more are described in Section 10.6 Workforce resilience within Chapter 10: Maintaining a safe and resilient network.



I believe UK Power Networks are the first DNO and indeed major utility to achieve the prestigious Platinum award. This is an exceptional achievement given the disparate nature of the workforce and just reward for the entire organisation’s persistent drive over the past ten years to become genuinely high performing.”

Bruce MacRae
IIP-licensed practitioner

We will be recognised as an employer of choice and will continue to seek independent verification of our performance by Investors in People (IIP) and Best Companies. Our aim will be to retain our Platinum status with the Investors in People and be one of the Top 25 Best Companies to work for in the UK.

1 - 2 - 3 - 4 - 5 - 6 - 7

7. Being a company that is worthy of your trust

In the context of a changing energy landscape, we are placing increasing importance on the social purpose of our company including the introduction of a Social Contract.

We face an exciting future, but one that can only be realised if customers trust us to do the right thing and to act with the highest standards of conduct.

We will place increasing importance on the social purpose of our company. We will introduce a Social Contract informed by our customers and stakeholders. This will bring together, in a single place, all our Environmental, Social and Corporate Governance arrangements and performance reporting, maximising transparency and public scrutiny and going further than the UK Corporate Governance Code. The Social Contract is our way of communicating why we are a company that is worthy of customer trust.

We will update our Articles of Association to embed an explicit public interest commitment – a “DNO first”. By making this change, we will demonstrate to our customers that social purpose is at the heart of everything we do and is aligned

with our ambition to be the most socially and environmentally responsible DNO. To make this change effective and embedded in our culture and ways of working, we are also proposing the following further changes:

- We will enhance both our short and long-term remuneration schemes to link reward to a balanced set of specific customer and environmental targets at all levels within the organisation. We will report on this annually and be held to account for our performance.
- We will continue to operate a flexible and responsible dividend policy - returns will be linked to performance and we will maintain a level of debt that is consistent with an investment grade credit rating.
- We will “walk the talk” on the environment, by reducing our directly controlled carbon emissions to Net Zero by 2028. We will reduce our NOx emissions by over 30% to reduce negative air pollution impacts on our communities. We are committed to going twice as far as future legislation will require in improving biodiversity. We will also deliver stretching targets for the recovery, reuse and recycling of waste and promote circular economy principles in our supply chain to minimise waste.
- Our shareholders will spend £20m of their own money to support customers in vulnerable circumstances.

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Ref	Our commitment
OE2	We will collate, store and disseminate insights from our ongoing engagement programme to drive more informed actions both internally with our staff, from Board level down, and supply chain partners, as well as externally with stakeholders, regulators and policy makers. We will have measurement and reporting systems in place enabling us to track business changes attributable to ongoing engagement.
SC2	We will enhance our Annual Review for greater transparency by publishing our performance against our Environmental, Social and Governance commitments every year during RIIO-ED2. ** NEW **
EAP1	We will review our Environmental Action Plan annually to ensure our work continues to meet our customers' evolving expectations, that our response is based on the latest science and that we incorporate any emerging best practice. We will establish a new sub-committee of the Board to monitor our performance and will report our progress through our Annual Environmental Report. ** NEW **
EAP2	For our full carbon footprint, including losses and indirect scope 3 emissions, we will exceed our reduction target approved by the Science Based Target initiative (SBTi) at Well Below 2°C. We will commit to the Business Ambition for 1.5°C SBTi campaign. We will report our progress through our Annual Environmental Report and update our targets in line with SBTi protocols. ** NEW **
EAP3	We will reduce our directly controllable carbon emissions (scope 1 and 2 emissions, excluding losses) exceeding a 1.5°C reduction trajectory and offset any remaining residual emission to achieve Net Zero by 2028 using high quality verified offsets. We will report our progress through our Annual Environmental Report. ** NEW **
EAP4	As part of our verified Science Based Target, we will work with our suppliers to reduce our supply chain carbon emissions (scope 3) by 25% by 2028, compared to a 2018/19 baseline. We will report our progress through our Annual Environmental Report. ** NEW **
EAP5	We will develop and implement a circular economy tool to address our high impact materials by the start of RIIO-ED2. We will subsequently set and monitor our reduction targets through our Annual Environmental Report. ** NEW **
EAP7	We will increase the biodiversity of new major substation developments by a net-gain of 10-20% and at 100 existing sites by a net-gain of 30% overall over the RIIO-2 period, compared to the beginning of the period, as measured by the DEFRA biodiversity tool.
EAP8	We will reduce NOx emissions by 33% over the RIIO-ED2 period compared to the beginning of the period, improving air quality for our customers.
EAP9	We will reduce annual leakage from Fluid Filled Cables by 15% by the end of the RIIO-ED2 period compared to the beginning of the period.

Chapter 3: Executive Summary continued

3.6 A team that will deliver

We know our plan is ambitious; it needs to be, given the scale of the decarbonisation challenge that we must collectively overcome to achieve Net Zero. However, we resolutely believe that we can deliver on our ambitions, because:

- We have a track record of delivering on our promises.
- We are forward thinking, preparing for the risks ahead and guarding against complacency.
- We have already started – we can hit the ground running both financially and operationally.

We have a strong performance track record.

We have turned around our business completely, transforming it into the leader in the sector. We are ready for the next phase of our journey to maintain this leadership position.

In 2010, UK Power Networks acquired the three networks of London Power Networks (LPN), Eastern Power Networks (EPN) and South Eastern Power Networks (SPN). These networks were perceived as poor performers. Immediately after the change of ownership in October 2010, we sought to establish the core purpose of the organisation – to serve our customers and communities. Through extensive stakeholder engagement we established a clear business vision.

This vision was converted into clear, simple and challenging business targets that were aligned: from the Board, to the CEO and right through the whole organisation at all levels. We developed a sustainable high-performance culture within the organisation – every employee and partner organisation knew the purpose of the company and felt responsible and accountable for their performance and actions consistent with the company's goals and targets.

Our track record in RIIO-ED1 speaks for itself. Since 2010 we have delivered: the best safety record, been recognised as one of the Top 25 Best Large Companies to Work For (the only DNO in the list), have achieved the highest network reliability, delivered the best industry customer service, and delivered nearly £284m of innovation driven savings – 3 times more than the nearest network company. And we have delivered these results whilst keeping customer bills low; our customers will have benefitted by approximately £444m in the form of lower bills over the full RIIO-ED1 period and we now rank first in terms of efficiency compared to the other DNO groups.

You can read more about our track record in Chapter 6: Our RIIO-ED1 track record.

Figure 5: Our cost benchmark against peers in RIIO-ED1

Rank	Group	Efficiency score (ratio between costs and industry average)
1st	UKPN	91%
2nd	ENWL	96%
3rd	NPG	98%
4th	SSE	102%
5th	WPD	109%
6th	SP	110%

Source: Cost benchmarking undertaken by UK Power Networks and assured by NERA.

For further information on our cost benchmarking see Chapter 17: Costs and financial information.

We deliver on our promises and have a culture that continuously seeks improvement from the best and applies it for the benefit of our customers.

As part of our RIIO-ED1 Business Plan, we committed to 77 outputs that were crafted with our customers and the communities we serve. We are on track to deliver all bar one of these commitments – the only commitment that may not be delivered relates to the undergrounding of overhead lines in Areas of Outstanding Natural Beauty (AoNB), which we explain further in Chapter 6: RIIO-ED1 track record.

We have continued to engage with our stakeholders and customers on an ongoing basis going beyond some of our original commitments, and are delivering more than we promised by listening and acting proactively:

- We delivered class leading customer service performance (92.8%⁶ satisfaction) by learning and adapting advanced techniques from consumer retail, fintech and technology sectors into our customer services. Ofgem's own independent expert panel cited UK Power Networks as class leaders in our approach in 2020.
- We currently have 1.97m households on our Priority Services Register – delivering tailored services to those most vulnerable and in need of help in our regions.
- We are the first DNO to establish an Environmental Action Plan with carbon reduction commitments verified by the Science Based Targets initiative and aligned to the UN Sustainable Development Goals.
- We are the first DNO to establish a DSO strategy deploying a leading-edge advanced network management system, Low Voltage monitoring sensors (which provide more visibility of the utilisation of our network than ever before) and procurement of flexibility ahead of peers in the UK and we are independently recognised as the global leader in smart grid development.
- We delivered sector-leading levels of network reliability as a DNO group.

We have demonstrated that by being good listeners, we can drive better performance. This ethos will be even more important in RIIO-ED2 as we will need to work collaboratively with many more parties to achieve success.

Figure 6: Listening and acting on feedback

What a fantastic company

What a fantastic company, as large as they are they could easily fob off the customer but they do the absolute opposite!! Customer service is outrageously good and the after sales is on par with that. I don't even pay these people direct and they treated me like the most valued customer ever!! I have to say I'm shocked with pleasure and I wouldn't want any other provider covering my area (for want of another phrase ha ha ha) THANK YOU UKPN!!!

Michael Bullen



UK Power Networks has shown it is willing to listen to stakeholders, including those beyond the energy industry. They have recognised the importance of listening and sharing knowledge in order to innovate towards achieving win-win outcomes.

Technology Innovation Manager

Society of Motor Manufacturers
and Traders



If all the DNOs were as good as UK Power Networks we would be delighted! I cannot emphasise enough how much they have done over the years to open up the markets. It has been so valuable for us and there is not much else that they could really do. We are very pleased and we do not have any complaints about the service.

David Overman

GTC, Electricity Networks Director
(Independent Connections Provider)

We have detailed implementation plans

We have translated our ambitions into actionable plans. Through the development of these plans, we have considered the impact on our resources and supply chain, as well as what might go wrong, and we have robust plans for mitigating these risks. For example, we have modelled the impact of increasing investment by up to 31% to facilitate increased low carbon technologies. This has indicated there will be demand for an additional 1,515 full-time equivalent employees (FTE) across the business over a 5-year period from a mixture of directly employed staff, contractors and supply chain partners. Importantly, we have developed these plans with the individuals and supply chain partners who will be responsible for delivering them and they have made their personal commitment to delivering on these promises. In short, we have the team, a strong supply chain and the "can-do" mindset to make this happen. Further details of our approach are contained in Section 10.6: Workforce resilience.

We are ready to hit the ground running in RIIO-ED2

We are ready to demonstrate delivery from day one of RIIO-ED2. We have started already:

- We are working with six regional planning authorities to co-develop a framework to unlock local investment. We have written support from County Councils and we are mobilising our team to scale up and deliver at pace – starting now in RIIO-ED1.
- We are adapting our customer journeys based on research and feedback – we worked with over 1,750 customers to explore how they are likely to interact with us to work out how we need to adapt our services to support them better, including how to connect an EV charger or heat pump. That insight is being used to inform changes that we are trialling now, so we can scale-up during RIIO-ED2.
- We are building a detailed blueprint for a newly established DSO – we have undertaken the most in-depth design for how an independent DSO will operate to provide complete transparency of investment decisions. Our plans are already underway to recruit the new skills and establish the independent supervisory Board overseeing the DSO development before the start of RIIO-ED2.
- We are well advanced in our flexibility programme. As a DNO first, we have recently contracted 310MW of flexibility capacity to be delivered by electric vehicles and domestic storage in our regions. By working proactively with others, we will demonstrate first-hand how this smart future is being made a reality – providing further confidence in our strategy and being the pathfinder for others to follow, learn and benefit. We are super excited by this!

Chapter 3: Executive Summary continued



It is fantastic to see UKPN's leadership in using residential flexibility from EVs to keep network bills down for all. In working with UKPN, we are creating a smart charging system that easily enables consumers to charge at the lowest possible cost, using the greenest energy, which is critical for achieving our Net Zero targets"

David Watson
CEO Ohme

- We are undertaking detailed resource planning for Net Zero scenarios – as part of our workforce and supply chain resilience plans, we are putting in place the arrangements needed to enable us to flex our delivery capabilities (both internally and with our supply chain partners) to deal with any scenario that transpires. We have undertaken extensive engagement with the leadership of our supply chain partners to set the right “tone from the top” within all the organisations critical to success.

3.7 A plan that has been through rigorous assurance

We have followed best practice and implemented an assurance strategy that provides confidence in the quality, completeness and accuracy of our plan. This is based on:

- The use of internal assurance to review and challenge the Business Plan, including independent benchmarking of our efficiency.
- Where appropriate, input from specialist external advisers for topics such as financeability.
- Formal external assurance by EY, who were appointed to confirm the accuracy of data submitted in the plan, as well as other specialist assurance providers for our customer research.
- Critically, the extensive involvement of our Board in the development of the plan.

We have also had extensive challenge from our CEG on material aspects of our plan and what it means for customers such as on our investment strategy, customer research and preparedness to adapt to future decarbonisation pathways.

Our Board has satisfied itself that our plan is high quality and that UK Power Networks is financeable during the RIIO-ED2 price control period, on both the notional and actual capital structure using the Ofgem SSMD working assumptions. However, this assurance should not be interpreted as the Board's acceptance of Ofgem's financial framework and the proposed working assumptions for cost of capital allowances. We set out our views on financeability in Appendix 25a: Financial information.

3.8 Board Assurance Statement

Set out below is the Board Assurance Statement from the board of directors of our three DNOs.

“Having approved the assurance framework, reviewed the assurance findings and management’s response, we have collectively and individually satisfied ourselves that the assurance undertaken demonstrates that the Business Plan has a strong research base, is accurate, ambitious, efficient, deliverable and financeable (on both a notional and actual capital structure basis, using Ofgem working assumptions for cost of capital allowances).”

Andrew John Hunter

Director and Chairman – UK Power Networks Holdings Limited and UK Power Networks' wholly owned subsidiaries



3.9 Sufficiently Independent Directors' Assurance Statement

Set out below is the Assurance Statement from the Sufficiently Independent Directors of our three DNOs.

“Having approved the assurance framework, reviewed the assurance findings and management’s response, we have satisfied ourselves that the assurance undertaken demonstrates that the Business Plan and associated costs have been tested for accuracy, ambition and efficiency.”

Christopher Clarke

Sufficiently Independent Director of London Power Networks plc, Eastern Power Networks plc and South Eastern Power Networks plc



Paul Jeffery

Sufficiently Independent Director of London Power Networks plc, Eastern Power Networks plc and South Eastern Power Networks plc





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