

EXECUTIVE SUMMARY

# POWERING COMMUNITIES TO NET ZERO

Our Draft Business Plan for RII0-ED2 2023-2028



Scottish & Southern  
Electricity Networks

Powering our  
community

# AN AMBITIOUS AND BALANCED PLAN TO POWER COMMUNITIES TO NET ZERO



## A message from our Managing Director

The RIIO-ED2 price control comes at a critical juncture for our sector and for our society, as the way we use, manage and even think about energy evolves at a rapid pace.

The climate emergency is firmly embedded in the public consciousness and policy action on net zero is now clear and binding. We must prepare for a rapid acceleration of renewable and distributed energy solutions, millions of new electric vehicles on our roads and a revolution in the way we heat our homes.

All of this will place additional demands on our networks, particularly at a local level, with distribution network operators (DNOs) taking on new system operation capabilities to facilitate the emerging markets that best utilise our infrastructure. We are already at the leading edge of this system change and are determined, as the pace accelerates, that our networks are an enabler for the smart, equitable transition to net zero, rather than a constraint.

In our draft plan we have sought to strike the right balance between this need for accelerated investment that powers communities to net zero and ensuring efficiency and affordability for all. We also remain focused on our primary role, providing over 3.8 million homes and businesses with an essential energy service and have proposed improvements across our core services, ensuring all customers benefit and the most vulnerable are protected.

This approach has been shaped by those who matter most, our customers and stakeholders. Over the last two years we have listened to over 20,000 diverse voices, seeking their views on everything we are proposing, shaping 55 outputs, and engaging at a scale and depth far beyond anything we have done before.

Our draft plan is far richer for this engagement; from the co-design of our strategic outcomes, to exploring new trends, understanding views on future requirements and managing the impact of Covid-19 and other forces – engagement has changed how we plan our network and serve our customers.

### Six stakeholder-led goals, delivering positive impact

We are committed to delivering more for our customers and our plan fully reflects this.

Our customers and stakeholders have helped shape **six clear goals**, built around **our strategic outcomes**, which provide stretching targets across each part of our business that we will deliver by 2028:



## A safe, resilient and responsive network

We have committed to investing £1bn in strategic resilience, including over £130m to proactively replace and upgrade subsea cables in the north of Scotland and £100m of targeted underground cable replacement in our southern region. This will have the twin effect of improving network resilience and reliability, with a targeted reduction in power interruptions of 20%, and providing a solid network foundation for future net zero demands.

## A valued and trusted service for our customers and communities

We will digitalise more of our services, offering customer choice and improving the consistency of our service, achieving a customer satisfaction score of at least 9.2 in every contact area. We will also significantly increase our support for customers in vulnerable situations, providing proactive measures to 200,000 households ensuring no one is left behind.

## Accelerated progress to a net zero world

Our aim is to facilitate the connection of up to 1.3 million electric vehicles and 800,000 heat pumps on our network by 2028. Coupled with connections improvements and delivery of a Distribution System Operation (DSO) proposition, we have proposed an initial £540m investment in network capacity and flexibility in RIIO-ED2, with plans to increase this as the future becomes more certain.

We are the first DNO to commit to taking a 1.5°C science-based target pathway to drive down our own carbon footprint and our plan proposes action to limit our environmental impact, such as replacing 80km of aging oil-filled cables and electrifying 80% of our vehicle fleet.

All our stakeholder-led goals, and the 55 outputs that flow from them, are intended to deliver a positive impact on society, and we have proposed a number of Customer Value Propositions that see us go further still. Focused on vulnerability, energy efficiency and whole system support, they demonstrate where we will go above and beyond to deliver added value for customers and society.

## Balancing ambition and affordability

We never forget our activities and investment are funded through consumers' bills and that it's our responsibility to always provide value for money. Our plan proposes a total RIIO-ED2 expenditure of £4.1bn, which is a 36% increase over an equivalent timeframe in RIIO-ED1 and reflects the additional requirements we must deliver for customers over the five years to 2028.

Our draft base plan will give more to consumers for less, with no planned increases to the amount customers pay for our services. This is in part due to embedded efficiencies and our proposed 0.5% year-on-year efficiency gain in RIIO-ED2, alongside proposed regulatory changes to financing costs.

The future is not certain, in regards to decarbonisation and the electrification of our economy. We have proposed £900m of potential investment under regulatory uncertainty mechanisms to help protect customers and provide the necessary flexibility as positions and policy evolves.

## An invitation to help power our plan

I'm confident that through our enhanced engagement programme we've focused our draft plan on the right priorities and have applied the appropriate balance. But I'm also confident we can improve it further and your views will be essential to help shape our final plan submission later this year.

We'll refine our plan over the coming months, working closely with our Customer Engagement Group, engaging with our stakeholders and using further consumer and policy research to improve and inform our proposals. Our feedback channel is at [www.ssenfuture.co.uk](http://www.ssenfuture.co.uk) and will remain open for the rest of our plan's development.

As the climate challenge accelerates and all eyes turn to COP26 later this year, our mandate to **power communities to net zero** has never been clearer and we look forward to continued collaboration as we plot the best course to make our shared vision a reality.

**Chris Burchell,**  
MANAGING DIRECTOR, SSEN DISTRIBUTION

# EXECUTIVE SUMMARY

## 1. ABOUT SSEN DISTRIBUTION

We are the electricity Distribution Network Operator (DNO) responsible for delivering power to 3.8 million homes and businesses across central southern England and the north of Scotland.

We serve some of the UK's most remote communities, who receive their vital power supply via more than 100 undersea cables and remote island generators. Our two networks cover the greatest land mass of any of the UK's DNOs, covering 80 local authority areas and 75,000km<sup>2</sup> of extremely diverse terrain.

Our 130,000km of overhead lines and underground cables, and 106,000 substations are managed by more than 3,500 direct employees and many more contractors and support workers.

By enabling a smarter, more resilient electricity network, we're ensuring local communities from the Shetland Islands to the Isle of Wight, and West London to Aberdeen continue to receive the reliable power they need. The five years from 2023 will be transformative for the UK's energy sector, and we're committing to an ambitious work programme that will deliver real and valued benefits during and beyond RIIO-ED2.

## 2. OUR TRACK RECORD IN RIIO-ED1

Our plan for RIIO-ED1 set ambitious targets to deliver improvements in customer service and safety performance, to reduce service interruptions and our business carbon footprint (BCF), and to connect more customers to our networks, more efficiently and with increased customer satisfaction.

We are proud of what we've achieved and have made good progress towards the delivery of a smart, flexible energy system, driving through the necessary changes using smart practices, flexibility and innovation to deliver £89m in customer benefits by 2023.

We have performed well against our outputs and delivered significant improvement levels for customers. Our achievements include:

- ✓ Connected over 60,000 new domestic customers to date. We have increased customer satisfaction for connections by 8% and time taken to quote is down by 13%.

- ✓ Improved customer satisfaction scores by 6% since 2015/16. Both our networks outperformed Ofgem's complaints related targets, resolving 89.06% of complaints within 24 hours, up from 68.54% at the start of RIIO-ED1.
- ✓ Supported 7,500 customers with fuel poverty measures since 2016/17.
- ✓ Reduced average customer interruptions (CI) by 19% and average customer minutes lost (CML) by 25% since 2012/13 for unplanned interruptions.
- ✓ Became the first DNO to commit to a 1.5°C Science-Based Target.
- ✓ On track to deliver £89m in customer benefit through innovation and flexibility, maintaining our leadership position.
- ✓ Reduced average time to connect for new customers by 32%, saving over 90 years of connection delays through flexible connections.

These and other achievements have given us strong foundations on which to improve our performance for customers from the start of RIIO-ED2. While some of the external drivers for future activity will remain, we have needed to consider the impact of new challenges, expectations and risk that have informed our Business Plan and our response to stakeholder needs.

### 3. A STRATEGIC APPROACH, EMBEDDED IN OUR BUSINESS

Our draft RIIO-ED2 Business Plan is centred around **three key strategic outcomes**, all aimed at delivering a positive impact on society.

Developed at an initial phase of the programme through qualitative consumer research and stakeholder insight, these outcomes have guided the development of our strategies, the shape of our engagement and, ultimately, the development of this draft plan.

The outcomes were revised during our enhanced engagement process with clear feedback from our Customer Engagement Group (CEG) and wider stakeholders around language and tone. Feedback included that we should be accelerating, as well as facilitating, net zero, and that all parts of our plan should deliver a positive impact on society, rather than it being presented as a ‘bolt on’ activity. These changes were incorporated early in the process.

Our strategic outcomes have also driven and influenced the direction of our wider business strategy, recognising the need for alignment and integration between our RIIO-ED2 Business Plan and the way we develop and transform our business to deliver it. Following an extensive co-creation programme with our customers, stakeholders and colleagues, who fed back that our current outlook was too insular and lacking customer focus, we redefined our company purpose and vision.

Our new purpose – **we power communities to thrive today and create a net zero tomorrow** – sets out our dual aim to support the communities



we serve, beyond keeping the lights on, and work collaboratively with them to reach their zero carbon goals.

Our new action-led vision – **powering change with every connection** – places the importance of service and engagement right at the heart of our business and makes clear that every connection we make, be it an infrastructure asset or connection with a customer, stakeholder or colleague, matters.

Our new purpose and vision will be delivered through four clear priorities directly linked to our strategic RIIO-ED2 outcomes. This means our short- and long-term decision-making is focused on the requirements of our RIIO-ED2 plan and what needs to be achieved for our customers.



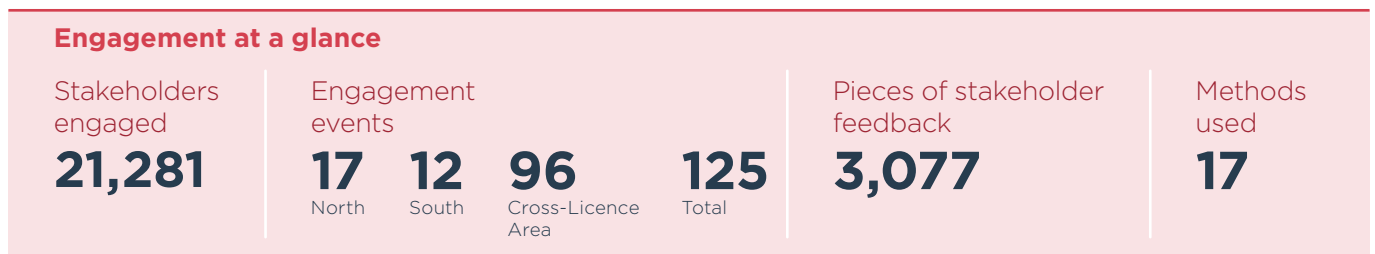
## 4. DEVELOPING A STAKEHOLDER-LED PLAN

Our stakeholder and consumer engagement evolved significantly for our RIIO-ED2 Business Plan process, driven by improvements to our strategy and processes and our response to the challenging circumstances our customers and stakeholders experienced as a result of Covid-19.

Key features of our enhanced engagement programme include: adapting our approach to online methods to be as accessible as possible;

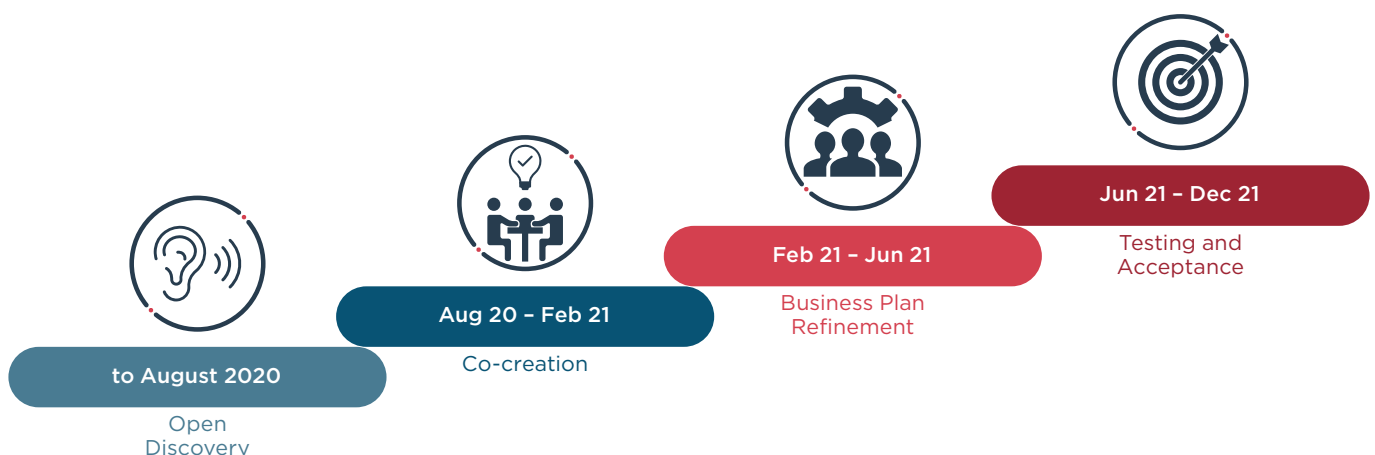
co-creation, an advanced form of interaction with stakeholders which goes beyond traditional transactional approach; and in recognition of the difference between our two licence areas, tailoring our approach to address regional specific issues.

A further innovation was thematic consumer research on topics identified as important to our stakeholders, also involving our own consumers enabling us to propose improved processes and services. Significantly, we witnessed much greater levels of empathy from stakeholders and consumers, urging us to support customers in need which is reflected in our plan.



Our draft plan demonstrates how stakeholder and consumer insights have driven our business, more than ever before, not only in the number and breadth of stakeholders engaged but through direct impact on our Business Plan strategies and outputs. Each of our strategies and outputs has a “golden thread”, mapping these to actionable insights, triangulated by senior leaders. Over 3,000 distinct feedback points were synthesised and built into the development of our draft plan and a further 32 key refinements were made through a two-stage triangulation process, with strategies and proposals adjusted and altered to better meet stakeholder needs.

Our enhanced engagement programme has four phases, three of which have been concluded to produce our draft Business Plan. We will complete phase four of our programme between draft and final plan, undertaking full plan testing with stakeholders and consumers on outputs and costs, including further targeting of vulnerable and fuel poor consumers to ensure we are meeting their needs. We expect this will result in further refinements enabling us to deliver our final Business Plan developed, informed and accepted by our stakeholders and consumers.



We have also proposed a clear and actionable strategy for continued enhanced engagement during the RIIO-ED2 period, capturing the improvements we will make in the next price control to further understand the needs of our stakeholder and customer base and conduct meaningful and innovative engagement. Key to our approach is to apply the learnings of the RIIO-ED2 Business Plan engagement process and ensure our engagement is built around delivery of our Business Plan, while remaining responsive to changing stakeholder needs.

The strength and focus of our plan, and our engagement programme, has been improved

by our Customer Engagement Group (CEG), established in 2019 as part of enhanced engagement requirements for RIIO-ED2. The group, chaired by Tracey Matthews, and with expertise from across sectors and segments, has been a valuable critical friend providing scrutiny and challenge to all aspects of our plan and approach. In 16 formal meetings, the group have been given regular access to the RIIO-ED2 project team and senior leaders at both a Distribution and SSE Group level. This level of access and constructive dialogue will continue as we look to ensure the final Business Plan fully reflects stakeholder and consumer needs.

## 5. EXTERNAL DRIVERS INFORMING OUR RIIO-ED2 BUSINESS PLAN

Preparing for a smart, flexible net zero future has required us to consider a level of policy and system change in the energy sector that has, arguably, never been greater.

Shaped by our enhanced engagement programme and aligned with the Business Plan guidance, the table below lists the 10 core drivers that have framed our thinking and influenced our proposals. Recognising the pace of policy change and impact on our sector, we will continue to review and refresh this perspective in our ongoing engagement and as we develop our plan to final submission. The 10 drivers are fully defined in the introduction to **Section A, on page 17** in the main **Draft Business Plan for RIIO-ED2 2023-2028**.

-  **Meeting the net zero challenge**
-  **A local and just transition**
-  **Ongoing impact of Covid-19**
-  **Digitalisation and open data**
-  **Strategic resilience**
-  **Affordability for consumers**
-  **Whole system working and delivering a DSO**
-  **Changing customer expectations and needs**
-  **Serving our most remote communities**
-  **Safety and compliance**



## 6. A SUMMARY OF OUR DRAFT BUSINESS PLAN

### 6.1 A safe, resilient and responsive network

Future network performance enhancements must be built on a solid foundation that underpins safe and resilient operation for all customers. Resilience cannot be achieved through one-time fixes – changing environmental and social forces will place more demand and strain on the network and we have to keep investing to provide safe and reliable power at all times. The Covid-19 pandemic has increased customer reliance on electricity, and the growing electrification of heat and transport makes reliability even more essential.

We held 38 events and engagements to understand customer and stakeholder priorities in relation to resilience and reliability. Stakeholders expect a safe network that is resilient to threats and ready for net zero. Affordability is a priority but investing now will avoid high bills for future consumers, as long as we focus our investments where there is a high likelihood of failure. They want us to address service underperformance for customers who experience below average reliability and remind us that for remote communities and customers on the Scottish islands, dependency on the power supply is vital.

Safety is our first priority and a key driver of investment. We propose to spend £308m to keep our teams, partners and the public safe by ensuring adequate overhead line clearances, effectively managing tree-growth and vegetation, in particular in SEPD. We will also address key risks prioritised by the Health and Safety Executive. We have over 60,000km of overhead lines, and are using new technologies, such as LiDAR aerial mapping, to help better target our activities.

Beyond safety, we are proposing to invest over £1bn in strategic resilience to 2028. This will allow us to replace those assets on our network that are at highest risk of failure. We will maintain our **inspect > maintain > replace > fix** strategy, using analytics to better target investment.

We're proposing to invest £732m to manage the risk of our assets failing on our network. This is slightly less than our allowance in RIIO-ED1. By targeting those assets with the highest probability

Planned investment 2023-28

£2,234m

Total expenditure (Totex)



53% of overall RIIO-ED2 investment

of failure, we will reduce risk on our network by 11.9%, relative to a future without intervention. We are proposing an additional £90m to ensure the resilience of high voltage (HV) and low voltage (LV) underground cables in the context of climate change and delivering net zero.

We will further scale up the level of automation on the network to reduce customer interruptions and restore supplies faster, investing £23.5m in automation to over 450 circuits. Overall, we aim to reduce the average frequency and duration of unplanned power cuts by 20% and improve network performance for at least 75% of customers that are deemed worst served, prioritising interventions based on frequency of interruptions and vulnerability levels.



We will take a holistic approach to resilience balancing improvements to reliability today with investment in longer-term resilience. Our climate resilience strategy is in line with best practice and identifies 15 potential direct impacts of climate change on our assets and operations, related to temperature, drought, flooding, lightning, and wildfires. Our plan also addresses wider threats such as physical and cyber risks.



Our network in the north of Scotland is unique, providing essential services to communities and businesses on 59 remote islands through 111 subsea cables. We provide continuity of service in the event of a cable fault or outage via seven Remote Island Generation sites which we operate. These assets are exposed to the most extreme weather conditions, and their reliability is vital to the daily lives of islanders and their communities. Our subsea cable network is also central to delivering net zero ambitions, by enabling the export of renewable generation to the rest of Great Britain.

Faults on the cables have increased over the last few years. We have enhanced our understanding of these cables and improved our management approach, with a focus on prioritising targeted investment to maintain continuity of supply. We are proposing investment of £130m to proactively replace or upgrade 16 subsea cables and deliver improvements to the operation of all seven island-based power stations alongside wider fault performance.

Finally, we face a significant increase in claims relating to wayleaves. Wayleaves are the payments we make to land owners for allowing us to use their land to “host” our assets. Land owners and their representatives are increasingly more willing to test their rights, resulting in expected costs of £190m included in our plan.

### Deliver core investment in providing a safe and resilient network

Manage safety and compliance risks, including tree cutting

Effectively manage land and wayleave issues

Target investment on those assets with highest probability of failure

Replace and upgrade strategic assets, inc. subsea links

Invest in automation to improve reliability

Targeted investment to improve reliability for worst-served customers

### Climate adaptation and protection against wider threats

## 6.2 A valued and trusted service for customers and communities

We have established a strong service base that has brought us closer to customers and more responsive to their needs. Those needs are changing, and our services must continue to evolve to support customers’ expectations and help our communities achieve their ambitions for net zero.

We reached over 16,000 stakeholders during our plan design process, collecting and incorporating their feedback and comments. They are clear that we should prioritise affordability and grow our support for customers in vulnerable circumstances. Almost 30% of our customers in Scotland and nearly 10% in the South are considered fuel poor, and Covid-19 is expected to have a lasting impact that could lead to many customers experiencing temporary forms of vulnerability. Our vulnerability strategy will help ensure we continue to provide

#### Planned investment 2023-28

£369m

Total expenditure (Totex)



8% of overall RII0-ED2 investment

enhanced and tailored services to those who need it the most, including support for 200,000 households through fuel poverty and energy efficiency measures. We also have a role to play in ensuring all our customers can benefit from the energy transition. To facilitate access to Low Carbon Technologies, we will build partnerships and provide additional support through our £1.25m company-funded accessibility fund.

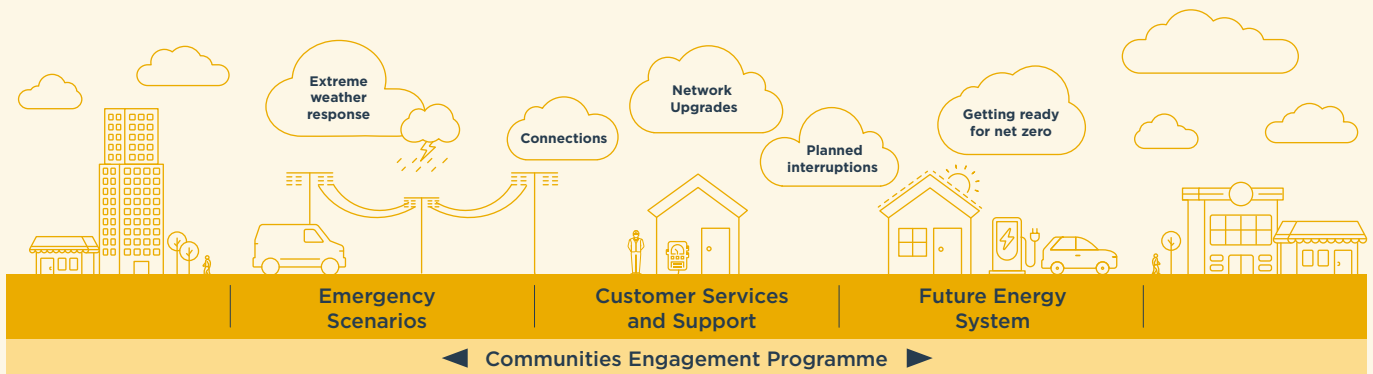
Overall, we estimate that our package of vulnerability support measures will deliver £8.4m financial benefits delivered through targeted fuel poverty support and energy efficiency measures, and £0.7m societal benefits delivered through quality of life improvements and health benefits.

## Delivering leading customer service

We recognise that customer expectations are continuously evolving, shaped by the increased digitalisation of our daily lives. We will improve our services across all key customer contact points, and our ambition is to become industry leaders in customer service across both our network areas. We'll achieve that through stretching and ambitious goals: decreasing our average speed of answering the telephone from 40 to 20 seconds;

achieving a customer satisfaction score of at least 9.2 across all categories rising to 9.3 for digital channels. Responding to stakeholder feedback, we will also improve the services we provide during power cuts. For example, we will introduce a new business support register to improve how we respond to small businesses' needs during a planned or unplanned interruption.

## Customer contact points



A key enabler of our improved performance is a proposed telephony modernisation strategy. It will allow necessary scalability to support an expected increase in customer interactions, driven by the transition to low carbon technologies and the impact of climate change on our networks.

Improved services will be facilitated by open data, which is necessary for whole systems collaboration and enhanced customer services. Energy networks of the future will be digitally enriched, characterised by open data and frictionless information exchange with consumers and network users.

Our broader digital infrastructure is central to delivering net zero and meeting our communities' needs. Our Digitalisation chapter sets out our aim to be at the forefront of the energy system transformation, driving efficiency in our operations, improving asset health and providing customer services which have real value.

Our Digitalisation Strategy and Action Plan (DSAP) underpins the Information Technology (IT) and Operational Technology (OT) investments that are required to deliver the outputs we have co-created with our stakeholders. It will:

- deliver improvements in network reliability, for example through improved management of asset data
- provide more tailored frontline services and a new Customer Relationship Management system
- enhance the customer experience, with a strong focus on digital self-service options
- support DSO functions and the delivery of flexibility services
- be a core enabler of net zero

Our proposed total investment of £266.7m will deliver 31 IT, OT and telecoms projects that will transform how we operate and significantly improve our digital maturity. These capabilities will provide a direct benefit of £292.5m.



## 6.3 Accelerated progress to a net zero world

The exact pace of the transition to net zero will depend on a number of unknowns – political, social and technological. But it is widely understood that all future scenarios will require an increase in distributed generation and extensive electrification of the heat and transport sectors.

Based on the Electricity System Operator’s four possible pathways, we have developed our own evidence-based and stakeholder-driven Distribution Future Energy Scenarios (DFES). Using all inputs, we have aligned our Business Plan with the Consumer Transformation scenario for the first two years of the price control. To safeguard consumers from unnecessary cost increases, our plan is aligned to System Transformation for the remaining years, with additional funding to meet net zero provided through uncertainty mechanisms. **Figure 1** shows the growth of Low Carbon Technologies (LCTs) we expect to see on our network under Consumer Transformation.

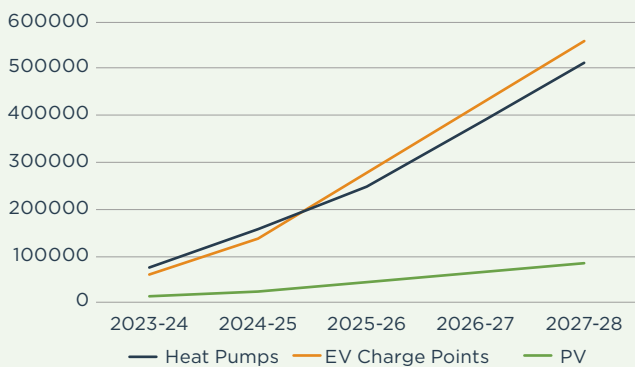


Figure 1: Predicted Growth in Low Carbon Technologies (DFES 2020)

Our forecasting is felt across the whole of our Business Plan, driving our load related investments and informing our DSO strategy. Our detailed analysis has enabled us to view the potential impact of changes in demand and technology and to understand the scale and range of intervention required.

We are proposing a total of £542m investment in our network, to be complemented by additional funding throughout the period, to support the connection of c.1.3m EVs and c.800,000 heat pumps by 2028, delivering £80m carbon benefits and £90m customer financial benefits each year.

### Planned investment 2023-28

£1,089m

Total expenditure (Totex)



26% of overall RIIO-ED2 investment

To drive a better understanding of the impact of net zero on our low voltage (LV) network in particular, we will install 21,000 LV network monitors, focusing on all assets projected to be overloaded during RIIO-ED2, or projecting to reach over 80% of their capacity. This will mean at least 19% of our network will be covered by LV monitoring, with additional monitoring to be potentially funded through an uncertainty mechanism.

Stakeholders want us to support the substantial growth in these technologies, with no delays and through simple connections processes. This will require a step-change in our own activities if we are to continue to meet customer expectations and deliver quick connections.

### Learning from the Green Recovery

The collaborative Green Recovery Scheme, created in partnership between Ofgem and network operators, took an agile stakeholder-led approach to unlocking key investment in the network. We are proposing to work with our stakeholders to explore options for a similar mechanism for funding locally-led net zero initiatives. Further information on our initial thinking can be found in **Chapter 10**.

This step-change will be driven by end-to-end improvement to our connections processes, with a strong focus on digital self-serve options in line with stakeholder feedback. As a result, we expect to improve time to connect by one to two days and are targeting an average connection customer satisfaction score of 9.2 out of 10. Our major connections strategy will also help ensure we are meeting the specific needs of major connections customers. Our proposals will deliver £4.6m cost efficiency benefits through improved processes, and £3.8m additional benefits through time saved and increased customer satisfaction.

**We will continue to apply a flexibility first approach to investing in our network, and we expect to save customers up to £58m from the procurement of flexible solutions, and up to £417m through flexible connection schemes, deferring the need for wider reinforcement on our network.**

Flexibility services are at the heart of our DSO strategy. As a DSO, we will need to coordinate and balance regional grids; maintain and manage new connections; procure demand-side management flexibility, create new markets with maximum participation from innovators and community groups; capture, process and share network data.

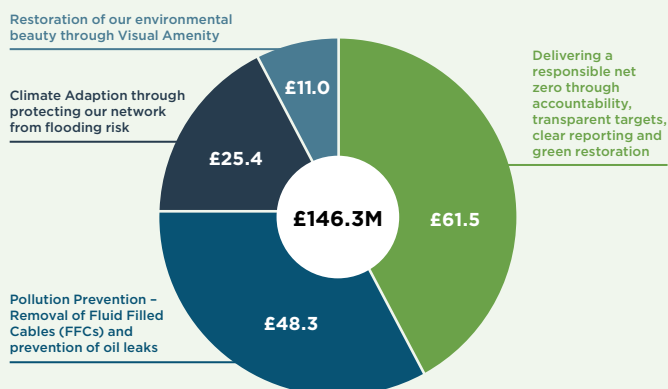
We have engaged widely on DSO, reaching over 2000 stakeholders through nine dedicated events. Our stakeholders expect us to demonstrate a robust approach to planning and network development and deliver an efficient and effective network operation that can cope with the increasing role of distributed energy resources. They want us to be ready in advance of net zero targets, prioritising flexibility and whole system solutions. We're proposing £75.1m investment to deliver the DSO functionality required for net zero. Customers will benefit from wider societal gains, including reduced carbon emissions and considerable savings in deferred reinforcement activities, as already noted.

**We see our role as a facilitator of others' net zero ambitions and our vision is for continuous collaboration with stakeholders. We will play an active role in addressing our, and others', challenges through the delivery of whole system solutions.**

Enabling net zero for others will go hand in hand with our programme of activity to reduce our own business carbon footprint (BCF): **we are the first DNO to commit to setting Science-Based Target (SBT) 1 for CO<sub>2</sub> emission reduction, and our plan is aligned with 1.5°C SBT, and consistent with stakeholder feedback. We are committing to reduce our own BCF by 35% (scope 1 and 2) by 2028 from a 2020 baseline.**

Electricity losses are responsible for 91% of our BCF, and we will be deploying innovative solutions to reduce losses. We estimate that our proposals will deliver £34m societal benefits through energy savings and lower carbon emissions resulting from reduced losses. Leaked sulphur hexafluoride (SF6) gas from insulators is another significant contributor and we have ambitious targets to reduce SF6 leakage by 35%, producing £4.5m societal benefits through reduced carbon emissions.

We face specific challenges in our SHEPD region, where diesel generation currently plays a central role in ensuring a reliable electricity supply. We will explore alternative solutions to mobile and embedded diesel generation, with the aim of delivering £2.4m in direct benefits by reducing fuel costs, and £3.5m wider benefits from reduced carbon emissions. Finally, we will reduce our travel-related emissions, for example by electrifying 80% of our core vehicle fleet by 2028, delivering £1.9m benefits in reduced carbon emissions.



Our Environmental Action Plan (EAP) aligns with our 8 United Nations Sustainable Development Goals and proposes investment of £157m across both licence areas for targeted outputs across these and other activities. Around one third of that investment is for our programme to replace 75km of leaky fluid-filled cables, delivering £6m of societal benefits. Activity that promotes diversity net gain in the longer-term (including restoration of up to 2,000 Ha of carbon absorbing peatland and woodland) and completing flood related activities at 73 sites make up another third of the total.

Stakeholders have asked us to improve the visual amenity of lines in National Parks and Areas of Outstanding Natural Beauty, and we have included a "use it or lose it" allowance to underground 70km of overhead lines.

## 6.4 Ensuring value for money for consumers

### 6.4.1 Delivering an efficient Business Plan

Our plan is ambitious, and at every stage we have considered its deliverability; to understand the implications for our workforce, skills base, infrastructure and cost.

We have taken a balanced approach on innovation, conducting research on new technologies and thinking to shape the networks of the future, alongside practical trials that will have timely application into business as usual, delivering benefits for customers now. We have already identified over £100m of cost efficiencies from digitalisation, using innovation, our supply chain and other commercial strategies.

Stakeholders have urged us to improve transparency around procurement and supply chain, and our Strategic Portfolio Deliverability approach focuses less on simple unit cost reductions to explore wider efficiencies available during the whole purchasing process. This will drive efficiencies through our contracting strategies and strategic relationships with our supply chain partners.

Deliverability of our plan is underpinned by a robust workforce resilience strategy. Stakeholders recognise that our people strategy will need to evolve so we can deliver the outputs they have asked for. We're forecasting a 20% growth to our direct workforce and will improve diversity by pro-actively targeting the segments of the UK workforce who do not traditionally apply to work in our sector, and will extend our mental health and wellbeing initiatives to help support employee confidence, satisfaction and retention.

By overlaying a 0.5% annual efficiency ambition, we will reduce costs by a further £102m over RIIO-ED2. After applying benchmarking, cost efficiency savings will result in a 3.5% reduction in total asset replacement costs over the period.

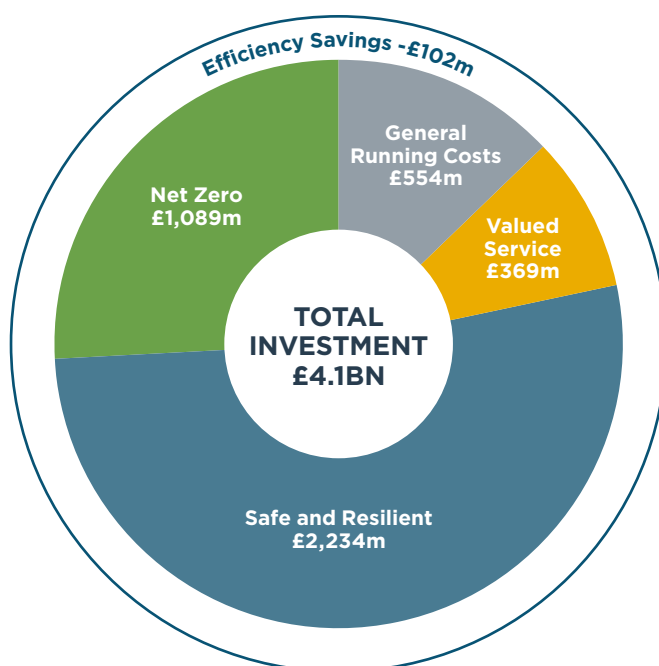
We have also embedded and enhanced competition within our regulated activities and have introduced new mechanisms that will further enable innovation, flexibility and cost efficiency. We have not proposed any projects that meet Ofgem's threshold for late or early competition. In many instances, projects have been consolidated to enable the use of native competition to drive efficiency.

We will continue to engage with all our stakeholders over the next few months to further refine our proposals and provide assurance that our plan delivers at the lowest possible cost, without compromise to safety, reliability or net zero ambition.

### 6.4.2 Proposed expenditure in RIIO-ED2

Our Business Plan proposes a total RIIO-ED2 investment of £4.1bn, to deliver a resilient network for the future and a service that customers and consumers can continue to depend on today. This is our current view of the most efficient costs necessary to meet the expectations of our customers and Ofgem and deliver our plan.

Across most of our network activities we forecast expenditure will continue at levels equivalent to the current price control, securing existing high levels of service. In key areas, we will invest more to ensure safe network operations, address specific areas of environmental and reliability risk, and provide a network capable of connecting the volumes of low carbon technology that a net zero future requires.



This targeted investment increases expenditure by £1.1bn on an equivalent five-year period in RIIO-ED1.

Details of our £4.1bn investment proposals are fully outlined in each chapter and our supporting documents.

Our individual investments create benefits for stakeholders across a wide range of areas. To summarise the impact we forecast Totex around our three strategic outcomes.

- **Valued and trusted service:** investing in our IT and telephony capability to give customers the choice over when and how they want to interact with us and enable us to meet their needs first time.

- **Safe and resilient network:** continued core expenditure to ensure safety of our customers and staff as well as maintaining network resilience and reliability. Targeted investment to address areas of increasing faults and strategic importance of our network to communities.

- **Accelerated progress to net zero:** developing Distribution System Operator capabilities to manage a step change in network capacity and complexity, enabling benefits from flexible solutions including quicker connections at lower cost.

In addition, we need the support of a skilled and professional workforce to deliver these strategic outcomes. General running costs are the cost of our back-office functions and other general expenditure which do not easily align with one of our three strategic outcomes, but which benefit them all.

### 6.4.3 Impact on consumer bills

We recover our allowed revenue from customers through distribution use of system (DUoS) tariffs calculated using industry standard charging methodologies. DUoS charges are just one part of the overall electricity bill paid by homes and businesses. The electricity bill comprises wholesale, network, environmental, operating and other costs.

Delivering this step change in customer and net zero outcomes and associated increase in baseline investment, does not, however, have a resultant impact on the quantum of costs we recover from consumers.

In the same five-year period, using Ofgem's financial parameters set out in its guidance and taking account of our base cost proposals, average bills would fall by £5.80 and £5.30 per annum for SEPD (our central southern England network) and SHEPD (our north of Scotland network) respectively.

This is due to a combination of factors within our control – including increased efficiency and innovation – coupled with changes made by the regulator to the underlying financial framework, including an extension to asset lives in the treatment of capital depreciation and proposed changes to cost of capital. A combination of all these factors leads to this forecast reduction in the average domestic bill in RIIO-ED2 compared to RIIO-ED1.<sup>1</sup>

It should be noted that Gas and Transmission networks have appealed elements of their financial parameters for RIIO-2 to the Competitions and Markets Authority (CMA). This process is ongoing, and we will respond to the outcome ahead of our final Business Plan.

### 6.4.4 Managing uncertainty

Our plan includes seven proposed uncertainty mechanisms targeting specific uncertainties across our plan. These are in addition to the mechanisms already included in the regulatory framework. These items, which include provision to increase investment in areas such as load capacity, installation of low voltage substation monitoring and responsive replacement of subsea cables, total a potential £905 million, not included in our baseline Totex allowance. By introducing uncertainty mechanisms rather than including spend as part of our baseline allowances, we are protecting customers from unnecessary cost increases.

If all our proposed uncertainty mechanisms are triggered to their full amount, consumer bills are expected to remain broadly flat compared to the average in RIIO-ED1, using Ofgem's financial parameters.

<sup>1</sup> Calculated using industry standard 8-year RIIO-ED1 average and 5-year RIIO-ED2 average

## 7. OUTPUTS AND CUSTOMER VALUE PROPOSITIONS (CVP)

Our plan contains 55 outputs, distributed across the chapters in Sections B to E of our plan.

Alongside our Business Plan goals, our outputs represent the ambition we share with our communities and have co-created with our stakeholders, responding to the opportunities and challenges driven by external factors including net zero and the climate emergency. They are aligned to the requirements of the regulatory framework and the obligations we hold under our licence.

The outputs are listed at the beginning of each chapter where they apply. In each case we have identified the output category, cost of delivery,

and what we will achieve for consumers and customers. All of our outputs and our level of ambition will continue to be tested via our extensive and ongoing enhanced engagement programme.

Our plan is fully aligned with stakeholder and customer priorities and we have set out a number of areas we will go the extra mile to deliver what customers want. Our six Customer Value Propositions have yet to be finalised but we expect them to appear as fully developed proposals in our final plan.

The three CVPs listed in this first table are well developed and will be refined further prior to our December submission in line with stakeholder and consumer views:

Customer Value Proposition (CVP)	Summary	Costs (£m)	Gross Benefit (PV, £m)	Customer and Societal Benefits NPV (£m)
<b>Embedded Whole Systems Support Services for Local Authorities</b>	We will provide collaborative and embedded support to local authorities and community groups with whole system challenges and net zero opportunities through optimising opportunities to make best use of the electricity network.	10.7	22.3	11.5
<b>Energy Efficiency Accelerator for Smarter Networks</b>	Building on the success of prior projects, we will deploy targeted intervention of energy efficiency measures matched to constraint areas on our network. Supporting up to 120,000 households we will work with partners to drive customer value and benefit to the network.	21.1	47.7	26.6
<b>Personal Resilience Plans</b>	PRPs will be provided for all new PSR registrations (estimated at over 200,000) and proactively offered to our most vulnerable customers (more than 44,000), tailored in each case with clear actionable support and, in certain situations, provision of personal battery storage.	4.6	7.7	3.1

The three CVPs listed in the second table will be developed further for our final plan both through engagement and analysis to ensure we accurately report the cost of delivery and their benefit to customers and wider society.

CVP	Summary
Supporting broadband to island communities through our assets	We will help connect up to 10 island communities with broadband using optic cores in subsea cables giving remote communities access to multiple benefits arising from better connectivity. A proactive engagement programme will match opportunity to solutions.
Local and community flexibility market stimulation	We will increase local flexibility market participation by empowering communities and vulnerable customers to participate in the provision of system services.
Protecting marine biodiversity: Life Below Water	A programme of targeted seagrass meadow planting around the Islands to improve biodiversity, reduce coastal erosion, improve water quality and help deliver net zero.

## 8. BOARD ASSURANCE STATEMENT

The RIIO-ED2 team provided a detailed overview of the content of the draft RIIO-ED2 Business Plan submission at a meeting on 11 June 2021.

Members of the Board acknowledged and confirmed that the plan properly set out the level of assurance that has been provided by the Directors, in terms of being satisfied that the associated costs have been tested for accuracy, ambition and efficiency, all in compliance with the Ofgem Business Plan Guidance for this draft submission of the RIIO-ED2 Business Plan.

The Board also acknowledged and confirmed that the Directors are satisfied that the licensee is financeable on both a notional and actual capital structure and that all applicable measures to aid

financeability have been considered, including supporting evidence and justification, in support of this submission of the draft Business Plan.

The Board acknowledged and confirmed that they were satisfied that the Directors had provided the level of assurance required by and in compliance with the terms of the Ofgem Business Plan Guidance and were satisfied that the accuracy and quality assurance processes in place ensures that the Board has had the opportunity for oversight and input throughout the development of the draft plan and that it is in the best interests of existing and future consumers.

The Board further note that the Business Plan will continue to be refined throughout the remainder of 2021 and that full and final approval of the Business Plan will be submitted in advance of our Final Plan submission in late 2021.





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