ELECTRIFIED.
RESILIENT.
AFFORDABLE.

A plan to power Britain's electrification era.

SSEN ED3 BUSINESS PLAN 2028-2033

Scottish & Southern Electricity Networks

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1 All prices presented in our Business Plan are stated in 2025/26, unless otherwise specified.

Navigating the report

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Links to further reading/Appendices

Links to our key themes
Throughout the report we use the following icons to demonstrate a direct link to our key themes:

- Enabling Growth and the Energy Transition
- Resilient Networks
- Creating Smarter Networks
- Ensuring a Responsible and Sustainable Business

EXECUTIVE SUMMARY

This is SSEN Distribution's Business Plan for the ED3 period from 1 April 2028 to 31 March 2033.

Our ED3 plan balances what customers need today with what Britain will need tomorrow: investing responsibly to enable electrification and economic growth, strengthening resilience, maximising the potential of a smarter network and ensuring the transition remains affordable and fair.

The ED3 period comes at a critical time for the energy transition. Electrification, new connections and economic growth are increasing demand for electricity, while ageing assets, changing climate risks and growing cyber threats mean the networks our 3.95 million customers rely on must become more resilient. At the same time, dependency on our networks, vulnerability and fuel poverty are increasing.

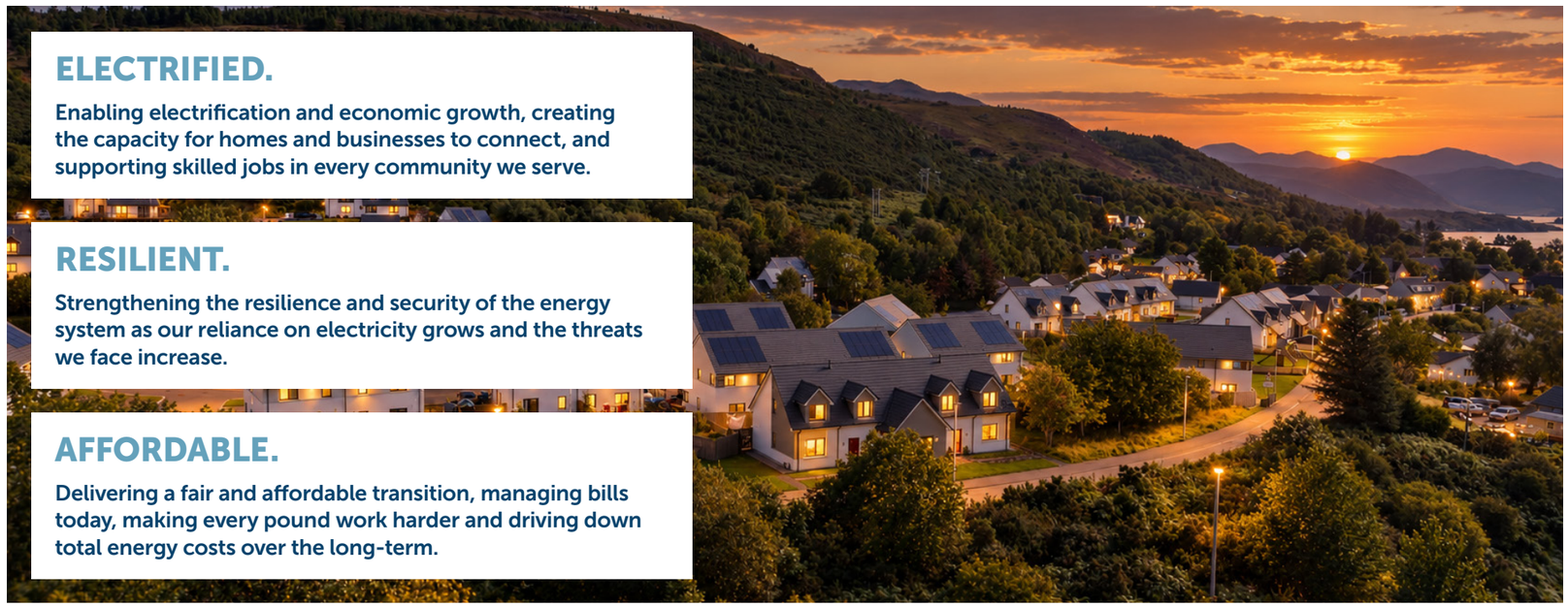
The choices made in ED3 will therefore be pivotal. Distribution networks must be ready ahead of growing demand so that lack of capacity does not constrain customers' ability to electrify or hold back new homes, businesses and economic growth. Getting this right means the network can be an enabler of the transition, helping customers access lower-cost forms of energy while supporting a more resilient and productive economy, and the needs of our customers in vulnerable situations.

At the same time, affordability remains critical. This Business Plan sets out the role SSEN Distribution will play in delivering this shared national mission, and the investment and commitments we will make to help deliver an energy system for our customers, communities and society that is...

...ELECTRIFIED. RESILIENT. AFFORDABLE.

Affordability runs through every investment and every choice we make. Our network investment is critical to enabling the electrification of heat and transport, helping customers reduce their overall energy costs over time. **We are making a bold commitment to customers: investing £8.7bn through ED3 while keeping the distribution element of their bills broadly flat in real terms until 2030.**[1] We have already challenged the cost of our plan, embedding over £0.5 billion of efficiencies, equivalent to 6%, within the £8.7 billion, and we are committing to a further £216 million of ongoing efficiency once the framework is agreed with Ofgem. At the same time, we are increasing customers' share of efficiency gains (that are made during ED3) and we will return 75% of any efficiency savings to customers. As the pace, scale and location of electricity demand crystallise, our investment could increase to around £10.2 billion. Delivering that commitment will require the support of Ofgem and government, with a regulatory and policy framework that enables the necessary investment while managing how and when its costs are recovered from customers.

We are ready to deliver this investment. We enter ED3 having deliberately strengthened our workforce, supply chain, systems and programme capability, giving us confidence that we can deliver safely and efficiently at the scale required.



This is more than a five-year network investment plan. It is an economic growth plan, creating the network capacity that allows places to grow, new homes and businesses to connect and investment to come forward in the communities we serve. It will support 20,000 jobs each year across Great Britain, while within SSEN Distribution we will create up to 1,500 additional skilled roles directly within our business in ED3, bringing long-term careers and economic opportunity into the communities we serve, including through earn-as-you-learn opportunities.

The communities we serve are also the places where we live and work, and our ambition is for the value created by ED3 to be felt throughout those communities. We will back our ambition for communities with equally ambitious commitments. We will triple fuel-poverty support, provide batteries to a further 10,000 households with medical needs or vulnerability, support UK manufacturing and cut our Scope 1 and 2 greenhouse gas emissions by 55%.

Bringing all this together, our Business Plan is built around four themes that will guide how we invest, operate and deliver through ED3.

1. **Investing in growth and for the energy transition.** We will create and unlock capacity where and when it is needed to enable new homes, businesses and the electrification of transport and heat. This is not simply about building more network. We will combine targeted investment with a six-fold increase in flexibility, smarter planning and operation, and innovation to make better use of existing capacity, release capacity sooner and keep costs down. This will help customers and communities connect and participate in the energy transition.
2. **Establishing a more resilient networks for customers.** We will maintain the overall levels of network reliability customers depend on by renewing end-of-life assets and strengthening resilience to severe weather, climate change and cyber threats. At the same time, we will target improvements where customers experience multiple or short interruptions, focusing action where it will make the greatest difference.
3. **Creating smarter networks.** We will use better data, digital technology, flexibility and smarter operation to get more from the network we already have. This will help connect customers sooner, target investment better and reduce long-term costs.
4. **Ensuring a responsible and sustainable business.** We will support vulnerable customers and communities, particularly when they need us most, while reducing our environmental impact and building the workforce and supply chains needed to deliver ED3 at scale. By investing in skills, jobs and UK supply chains now, we will strengthen regional and local economies while building the enduring workforce and industrial capability needed for the continuing transformation of our network to 2050.

1 This is subject to agreement with Ofgem and Government

MANAGING DIRECTOR FOREWORD

Providing a future-ready network and services for the electrification era, delivering local growth, strengthening security and delivering a fair deal for our customers and communities.

CHRIS BURCHELL
MANAGING DIRECTOR
SSEN DISTRIBUTION



A plan shaped by customers

I am delighted to present SSEN Distribution's ED3 Business Plan, developed in close collaboration with our customers, communities, stakeholders and regional partners. It reflects extensive engagement across our licence areas – from Shetland and Orkney in the north of Scotland to Reading and Oxford in central southern England – and the diverse economic, social and environmental priorities of the communities we serve. Our customers and stakeholders have been clear about what matters to them: keeping the transition affordable, maintaining a reliable and resilient network, and preparing their communities for the future. These priorities have shaped every aspect of our plan.

ED3 represents the next five years of the investment needed to prepare our network for the decades ahead. But this is not a plan for investment at any cost; affordability remains at the heart of our thinking. We have taken a disciplined and evidence-led approach, proposing investment only where there is a clear need, making greater use of flexibility and smart technologies where they deliver better value, and taking a long-term view so that we deliver the best whole-life value for customers.

Preparing for the electrification era

This is a plan for a pivotal moment in the UK's energy transition. Demand for electricity is expected to grow significantly in the ED3 period as transport, heating, industry and other sectors increasingly decarbonise and new housing, generation, and industrial growth will all place greater demands on our network.

Together, these priorities shape our ambition for an energy system that can be distilled into three words:

ELECTRIFIED. RESILIENT. AFFORDABLE.

ELECTRIFIED, because we have a responsibility to ensure our network is ready for growing demand and new connections. That means responsibly increasing capacity where there is growing electrification need while using flexibility, data and smarter operation to get much more from the infrastructure we already have. Our ambition is straightforward: our networks should enable economic growth, customer choice and wider electrification, and not become a constraint to it.

RESILIENT, because as our economy becomes more dependent on electricity, reliability becomes more important, not less. Networks must withstand severe weather, changing patterns of demand, ageing assets and growing physical and cyber security threats. Through targeted investment across our diverse geographies, we will modernise our infrastructure to strengthen resilience and strive to improve the reliability of the service our 3.95 million customers depend on.

And **AFFORDABLE**, because the transition can only succeed if customers see value from it.

Affordability is a guiding theme across our plan. We are proposing something different: to keep distribution charges broadly flat in real terms to 2030, while still delivering the investment customers need for the future. This sits at the heart of our approach to affordability, alongside making every pound of investment work harder and enabling electrification that can reduce customers' total energy costs over the long-term.

Unlocking benefits and enabling growth

A modern electricity network is essential to regional economic growth ambitions and the way we approach and deliver ED3 can also bring significant benefits to customers and communities alike. Through this programme we will directly create and enable thousands of jobs, expand apprenticeships and build the skills needed for the future, work closely with local authorities and regional partners to understand and enable their growth plans, and maximise opportunities for UK businesses and manufacturers. We want the benefits of investment to be felt not only through a stronger electricity network, but through stronger local economies and more prosperous communities.

I am proud of our plan. It is ambitious, practical and rooted in the priorities of the customers and communities we serve. Above all, it is a plan to safely maintain and enhance the network people depend upon today, while preparing it to support the opportunities the electrification era represents.

Chris Burchell
Managing Director of SSEN Distribution

A VIEW FROM THE BOARD

A plan for a pivotal moment in the UK's energy transition



MAXINE FRERK
SUFFICIENTLY INDEPENDENT DIRECTOR



PAUL BROWN
SUFFICIENTLY INDEPENDENT DIRECTOR

The electricity system is undergoing one of the most significant transformations in its history. Decisions taken today will shape the service customers experience for decades to come, influencing affordability, resilience, economic opportunity and the pace at which communities can benefit from electrification.

As Sufficiently Independent Directors, we are pleased to support this ED3 Business Plan on behalf of the Board. Our role is to ensure the company acts in the long-term interests of customers, communities and wider society. In reviewing this plan, we have challenged management to demonstrate not only why investment is needed, but why it represents value for customers.

We are satisfied that the plan strikes the right balance between affordability today and the investment required to deliver lasting benefits in the future. Demand for electricity is expected to grow substantially as transport, heat and industry electrify. Modern distribution networks will be essential to enabling that transition, ensuring customers can access the opportunities of a cleaner energy system.

The Board is confident that this plan is ambitious, deliverable and financeable, and will deliver long-term value for bill payers, communities and wider stakeholders, ensuring the benefits of today's investment are shared fairly between current and future generations.

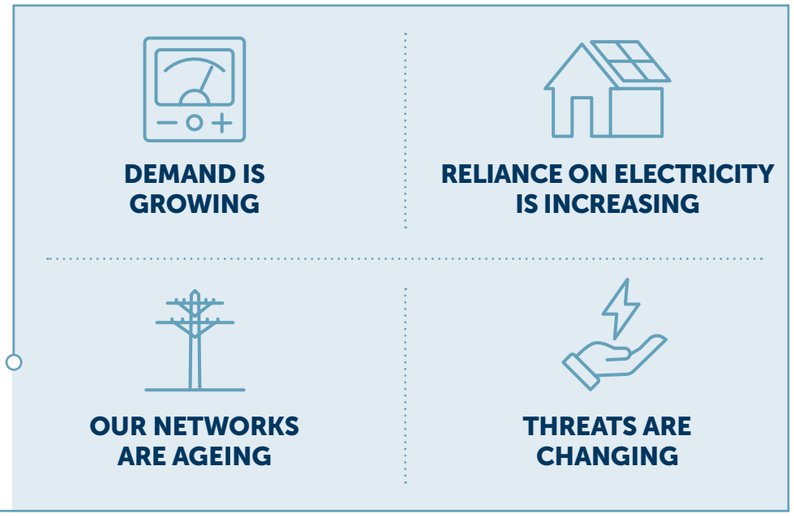
Maxine Frerk and Paul Brown
Sufficiently Independent Directors of SSEN Distribution

ED3 AND SSEN DISTRIBUTION

Electricity is becoming increasingly important to our economy and everyday lives. ED3 is a pivotal period in preparing our networks for that future, while maintaining the safe, reliable and affordable service customers depend on today.

Why action is needed

Demand is growing. Transport, heat, housing and businesses are electrifying, while new electricity-intensive demand is emerging. **Reliance on electricity is increasing.** More homes, businesses and essential services depend on electricity. As that reliance grows, reliability and resilience matter more. **Parts of our network are reaching the end of their asset lives.** We must manage deteriorating assets and renew the network where risk is greatest, without storing up a larger challenge for the future. **The threats are changing.** More severe weather and climate impacts, alongside increasingly sophisticated cyber threats, are changing the risks our network must withstand.



ED3 means tailoring the timing and type of investment to each network's circumstances. Across both networks, we will act early where need is clear and retain flexibility where it is uncertain, combining targeted reinforcement, smarter operation and long-term, place-based planning to provide capacity when and where customers need it, without asking them to pay prematurely for uncertain demand.

One company. Two very different networks

Scottish and Southern Electricity Networks (SSEN) Distribution is the electricity Distribution Network Operator (DNO) responsible for delivering safe, reliable power to nearly four million homes and businesses. We are part of SSE plc, a FTSE-100 electricity company, and we operate two of Great Britain's 14 distribution licences: Southern Electric Power Distribution (SEPD) in central southern England, and Scottish Hydro Electric Power Distribution (SHEPD) across the north of Scotland.

Our distribution networks are regional electricity systems that take power from the transmission network and delivers it to millions of homes and businesses. They host local sources of generation, battery storage and customer-owned technologies such as solar panels and electric vehicles, helping enable a smarter, more flexible and lower-carbon energy system.

Our two networks could hardly be more different, but each is powering local electrification and delivering a resilient service for our customers.

Scottish Hydro Electric Power Distribution (SHEPD)

A long, dispersed network serving over 800,000 customers in both urban areas and remote, rural and island communities, where geography and weather conditions shape capacity, resilience and delivery. From serving key island groups including Shetland, Orkney and the Western Isles to the cities of Inverness, Aberdeen, Dundee and Perth, SHEPD is enabling electrification of core industry, including ports, ferries, whisky and oil and gas production alongside increasing connection of local renewables. Our teams look after more than 470,000 wooden poles, nearly 30,000km of overhead lines, over 19,000km of underground cables and a vital network of over 100 subsea cables serving over 60 islands, maintaining resilience as severe weather events become more prevalent.

Southern Electric Power Distribution (SEPD)

A denser network serving major population centres, where electrification, housing and growth create concentrated capacity pressures. Our SEPD region spans the key commercial hubs of West London and the M4 corridor, the Oxfordshire growth area and the ports of Portsmouth and Southampton alongside rural areas of Hampshire, Wiltshire and Dorset. The region has been a trailblazer in attracting growth and new industry, including digital services and data centres, and is forecast to have the second highest uptake of Low-Carbon Technologies (LCTs) across all the DNO regions. Resilience remains key in this growing network and our teams deliver a safe, secure and reliable supply of electricity to over 3.95 million customers via 129,000km of overhead line and underground cable and 60,000 substations.

Key stats

3.95m
homes and businesses we serve

~1/3
of GB's land area covered

2
licence areas – SEPD & SHEPD

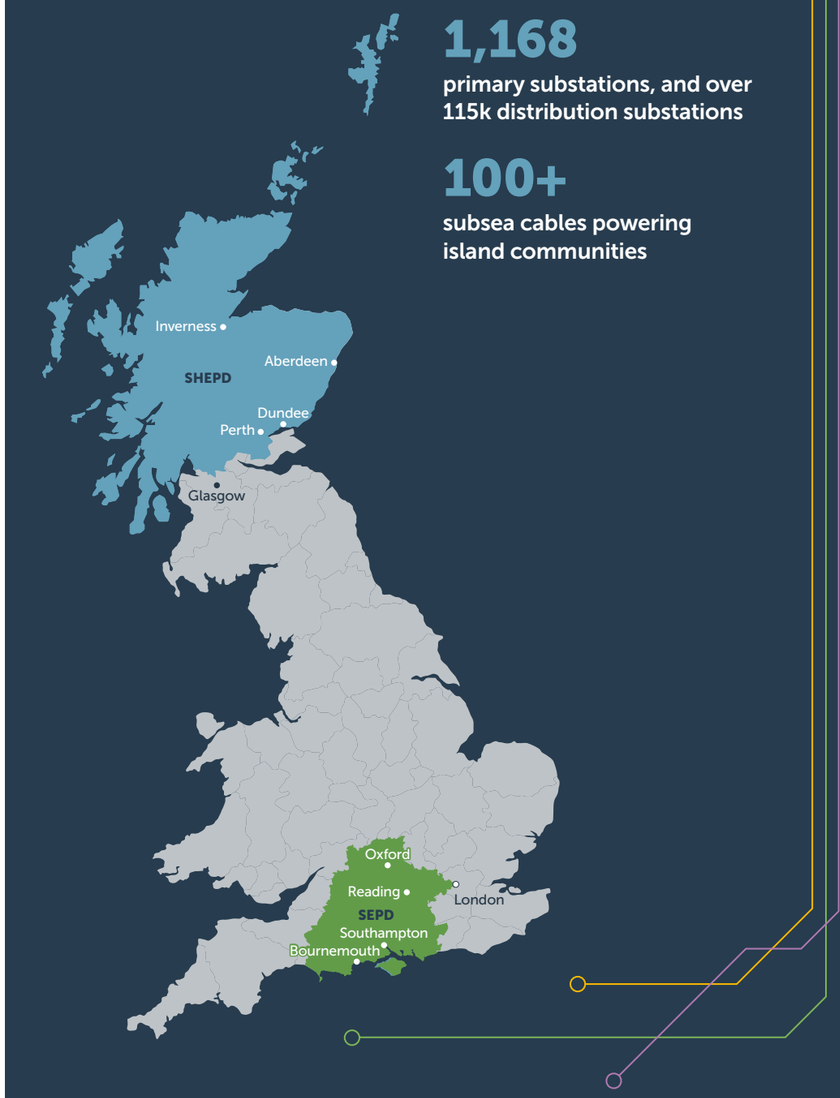
1.3m
customers on our Priority Services Register

129,000km
of overhead lines and cables

Over 4,500
employees across the country

1,168
primary substations, and over 115k distribution substations

100+
subsea cables powering island communities



OUR PLAN AT A GLANCE

Our commitments to customers and society

A plan to power Britain's electrification era. Three outcomes. 12 commitments. 35 metrics.

Our plan is built around three outcomes for customers and society — **ELECTRIFIED**, **RESILIENT** and **AFFORDABLE** — delivered through four connected themes covering growth and the energy transition, resilient networks, smarter networks, and a responsible and sustainable business. Across these themes, 12 commitments define what we will deliver through ED3, supported by 35 metrics that will measure our progress and hold us to account. The leading metrics are shown below, with the full suite set out in Section 6.1.

OUR ED3 PLAN DELIVERS THREE OUTCOMES

ELECTRIFIED.
Enabling electrification and economic growth, creating the capacity for homes and businesses to connect, and supporting skilled jobs in every community we serve.

RESILIENT.
Strengthening the resilience and security of the energy system as our reliance on electricity grows and the threats we face increase.

AFFORDABLE.
Delivering a fair and affordable transition, managing bills today, making every pound work harder and driving down total energy costs over the long-term.

INVESTING IN GROWTH AND THE ENERGY TRANSITION

Creating and unlocking the capacity our regions need to decarbonise and grow, enabling customers to connect quickly and affordably.

1. Be ready for growing customer demand
We will expand network capacity by 24%, relative to ED2[1], to meet local electrification needs to provide strategic headroom through to 2050, and alongside proactive upgrades to 40,000 looped supplies, a four-fold increase, targeting areas of greatest need.

2.Scale flexibility to optimise our network
We will maximise flexibility to meet customer capacity needs, helping to keep bills as low as possible by using 13.4GW of flexibility through ED3, a six-fold increase on ED2, to accelerate connections and avoid unnecessary investment.

MORE RESILIENT NETWORKS FOR CUSTOMERS

Maintaining the reliable network customers increasingly depend on, while strengthening our assets, customers and communities against severe weather, climate change and emerging threats.

3. Modernise our network and assets, and strengthen climate resilience
We will reduce overall network risk by targeting investment on our highest-risk assets, rebuilding or undergrounding ~350km of high-risk overhead line and replacing ~250km of climate-vulnerable cable, removing 23% of network risk in SEPD and 12% in SHEPD by the end of ED3.[2]

4. Targeted improvements to reduce unplanned power cuts
We will halve the number of customers experiencing frequent power cuts based on a March 2026 baseline, while maintaining overall 99.98% network reliability by the end of ED3, despite more challenging climate conditions.

5. Strengthen cyber resilience
We will deliver real-time cyber resilience, detecting and containing high severity cyber threats within our defined risk tolerance by the end of ED3.

CREATING SMARTER NETWORKS

A digital-first, data-led network that unlocks capacity sooner and deploys flexibility at scale.

6. Provide earlier access for customers to connect
We will use flexibility to unlock capacity faster, offering 5GW of early access connections by the end of ED3, more than double the 2.3GW we will energise in ED2.

7. Enhance data driven network management
We will reduce wasted energy losses across our network by 47.5GWh and increase hosting capacity by 1GW through enhanced network visibility and real-time control by the end of ED3.

8. Maximise the customer value from innovation
We will deliver £4 of customer value for every £1 invested through our innovation portfolio by the end of ED3.

ENSURING A RESPONSIBLE AND SUSTAINABLE BUSINESS

A safe and responsible business that supports vulnerable customers and communities, reduces our environmental impact and creates lasting value.

9. Reduce our environmental impact
By 2033, we will reduce our Scope 1 and 2 greenhouse gas emissions by 55%, in line with our 1.5°C-aligned Science Based Target, and help manage Scope 3 emissions.[3]

10. Boost jobs and sustainable growth
We will support UK manufacturing by aiming to increase our expenditure across key categories (transformers, switchgear and cable) by 10% by April 2033 (on our ED2 baseline), increasing our UK manufacturing spend by an estimated £157 million in ED3.[4]

11. Build the workforce of tomorrow
We will support regional skills and employment by increasing earn-as-you-learn opportunities to more than 10% of our workforce by the end of ED3, while supporting every successful learner to progress into a substantive role on completion of their programme.

12. Increase support for customers when they need us most
We will strengthen support for vulnerable customers by tripling fuel poverty support and expanding our industry-leading battery programme to reach a further 10,000 households.

1. ED2 is the current distribution price control period which runs from the 1 April 2023 to 31 March 2028
2. Compared to a 'do nothing' baseline
3. By ensuring that suppliers representing 55% of our supply chain spend have set their own Science Based Targets.
4. Subject to market availability, value for customers, delivery requirements and compliance with applicable procurement obligations.

OUR PLAN AT A GLANCE

A value-driven £8.7bn investment plan

Our £8.7bn ED3 investment programme continues the higher level of investment and delivery established in ED2, ensuring our network is ready to meet the needs of a more electrified economy, whilst maintaining the safe, reliable and resilient network our customers depend on today. Every part of our plan is data driven and has been tested for need, efficiency and customer value, with investment targeted where it is needed most and flexibility used to make the best use of existing network capacity, manage changing needs and deliver better value for customers.

Figure 1.1.1: Estimated ED2 totex



Figure 1.1.2: ED3 plan – Baseline[1]

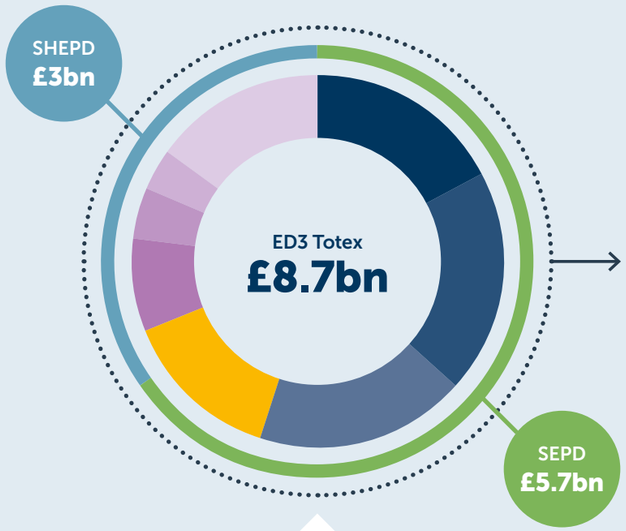
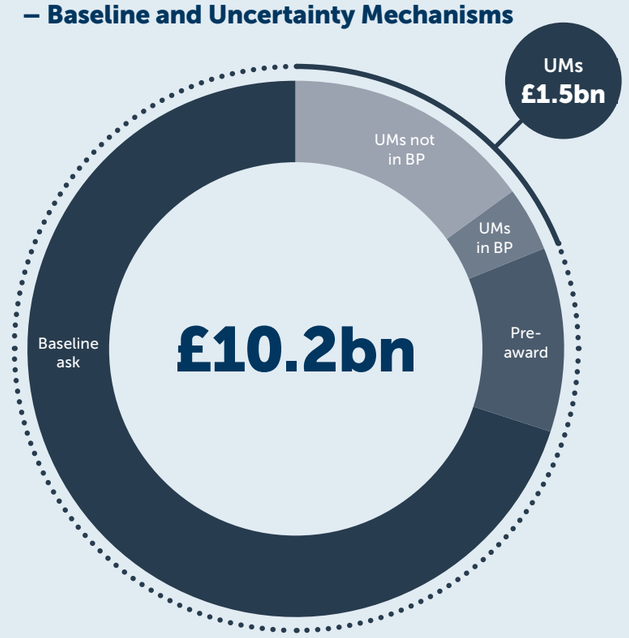


Figure 1.1.3: ED3 plan – Baseline and Uncertainty Mechanisms



Network reinforcement and growth

£1.5bn

Investments in our electricity network to increase capacity to cater for increasing levels of demand.

Indirects and overheads

£1.6bn

Costs not directly linked to physical work on the network, but required to manage our network, such as engineering and design, call centre and customer services, and also the costs of running our business such as HR, regulation, training etc.

Technology and Digital

£0.7bn

Costs to run our IT estate and platforms, including investments to improve these systems and develop new digital capabilities needed for smarter network operation and more granular network monitoring.

Other

£0.3bn

Any expenditure not covered in other categories, such as innovation or non-standard costs.

Asset replacement and refurbishment

£1.7bn

Investments to replace assets to ensure our network can deliver electricity in a reliable way, now and in the future.

Network operating costs

£1.2bn

Costs we incur to undertake routine maintenance and inspections of our networks, including expenditure arising from managing faults. This also includes costs for power and fuels consumed by our substations and remote generation stations on the islands.

Resilience, safety, security and environment

£0.4bn

Costs and investments related to resilience activities (i.e. line clearances), to comply with our legal and safety obligations, physical and cyber security, and environmental measures.

Pre-approved cross over

£1.3bn

Investment that has already been agreed for the ED3 period with Ofgem, including our Load Related Expenditure Uncertainty Mechanism Draft Determination.

What is increasing between ED2 to ED3

We expect to spend a minimum of £8.7bn by the end of ED3, which is 28%[2] more than the estimated £6.8bn[3] totex in ED2. **Our ED3 investment increases because the demands on our network are changing.** Electrification, housing and economic growth require more capacity, while more assets need intervention as condition and risk increase. At the same time, worsening climate hazards and growing physical and cyber threats require greater investment to maintain the reliability and resilience customers depend on. Our integrated approach considers these pressures together, targeting investment where it is needed while retaining flexibility where future need remains uncertain.

Our £8.7bn ED3 investment programme includes £1.3bn of investment already approved by Ofgem. Through this Business Plan, we are seeking approval for the remaining £7.4bn in the baseline.

An efficient plan which delivers maximum value

Every investment we're proposing is driven by a clear need and delivers measurable customer value. We have tested our costs to ensure they are as efficient as possible, and where it makes sense to do so, we will 'touch the network once', avoiding costly repeat work. This approach balances today's affordability pressures with customers' long-term needs, supported by clear links between forecast need, expenditure and customer outcomes. See Sections 5.1 and 5.2 for our costs and the value they deliver.

Our approach to uncertainty mechanisms (UMs)

We use UMs to keep our plan flexible as future needs become clearer, avoiding unnecessary investment while ensuring we can respond quickly as demand materialises. Based on our current forecasts, these mechanisms could enable around £1.5bn of additional investment during ED3, allowing us to invest at the right time to support customers, businesses and economic growth. See Section 5.4 for more detail.

1. Excludes Ongoing Efficiency and Real Price Effects (RPEs).
2. Including UMs, this could rise to ~50%
3. This is dependent on the outcome of the load related reopener decision from Ofgem. We assume c£815m in the Plan.

OUR PLAN AT A GLANCE

Keeping our plan affordable

Our proposal is to keep the distribution element of customer bills broadly flat in real terms to 2030, while maintaining the essential investment needed for a reliable and increasingly electrified economy.

Affordability shapes what we invest in, when we invest and how costs are recovered. We have challenged our plan for need and efficiency, will use flexibility and smarter operation to avoid premature investment, and propose to profile charges so that customers are protected from unnecessary near-term increases. We also propose smoothing bills to 2030 to reduce near-term bill impact.

1 WE RECOGNISE TODAY'S ENERGY COST CHALLENGE

Energy costs continue to place significant pressure on households and businesses.

As of November 2026, the average annual GB dual-fuel bill is around £1,724[1] and this is expected to rise further as geo-political events continue to put pressure on the global supply of oil and gas.

Distribution network charges are a part of that bill (around 8%).

By breaking the UK's dependence on imported fossil fuels, electrification will bring bills down over time. And while energy users can reduce the cost burden further by switching to low carbon technologies (LCTs), we recognise this won't be possible for all customers in the short-term.

We therefore have a responsibility to manage our own costs carefully and avoid unnecessary near-term pressure on distribution charges.

Our commitment is to avoid unnecessary near-term bill increases.[2]

Figure 1.1.4: Average GB Dual Fuel Energy Bill[3]

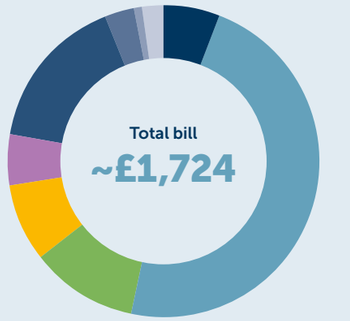
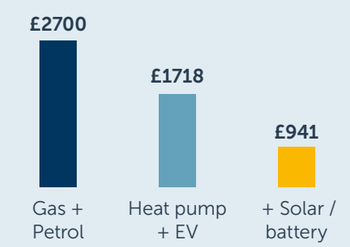


Figure 1.1.5: Typical household running costs[4]



2 WE HAVE A CRITICAL ROLE TO PLAY IN THE SOLUTION

Wholesale energy costs account for 47% of household energy bills and have accounted for the majority of the increase over the past five years.

Distribution charges are one part of those rising bills, but our network has a critical role in the solution. By creating and unlocking the capacity customers need to switch from fossil fuels to clean electricity, while making better use of the network we already have, we can help households and businesses reduce their total energy costs over time.

We modelled the long-term impact on household energy costs, including transport costs (petrol+diesel) considering the change in long-term demand, usage, and energy generation. This shows that energy costs will fall by c30-50% in real terms as a result of electrification. We set this out in Section 5 of our plan. Investing in electricity networks is therefore core to the solution of affordability, security and decarbonisation.

3 OUR PLAN SUPPORTS RAPID INVESTMENT WHILE SMOOTHING COSTS FOR CUSTOMERS

Households need support with affordability now, while the longer-term benefits of electrification take time to emerge. We propose to keep distribution charges broadly flat in real terms to 2030, protecting customers from the near-term impact of ED3 investment and helping bridge the gap to the longer-term savings that investment can enable as more customers electrify and network utilisation increases.

We would achieve this through different approaches reflecting each network's circumstances. In SEPD, we propose to recover some revenue later in ED3. In SHEPD, we will submit a proposal to Government to increase the level of support in the Hydro Benefit Replacement Scheme (HBRS) to help meet the higher costs of electricity distribution in this area.

Time for wider energy costs to fall

As more households adopt LCTs, more can benefit from lower running costs and energy bills. Internal modelling indicates over £400 lower annual energy and fuel costs for a typical household after 2030.[5]

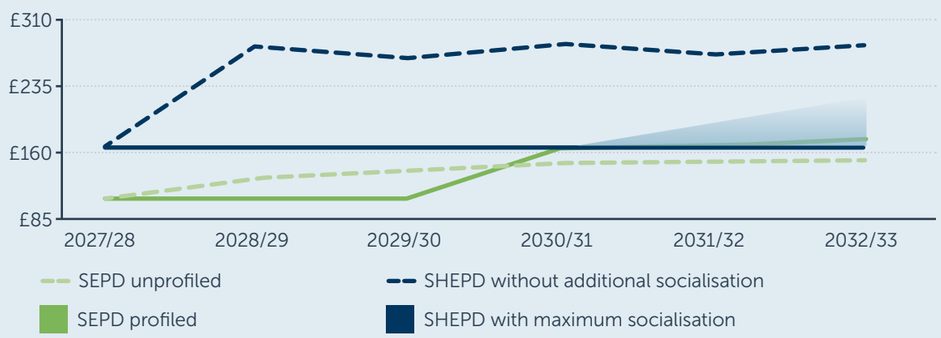
Time for customers to adopt LCTs

Our investment enables switching to LCTs. Greater electricity use spreads network costs across more units, helping to reduce network costs per unit and support lower electricity unit rates.

Time for energy pricing and charging reform

Customers who electrify stand to benefit most directly, while greater network utilisation can reduce network costs per unit for everyone. Pricing and charging reform can help ensure these benefits are shared fairly, including with customers who cannot yet electrify. Our figures assume no additional reform savings.

Figure 1.1.6: Forecast SEPD and SHEPD household bills per year



1. Per the Ofgem Price Cap set for October to December 2026.
2. In real terms vs. 2027/28, at modelled licence-area consumption. Excludes inflation, interest cost changes, pass-through costs, incentives/penalties and UMs. Subject to Ofgem's regulatory determination.
3. Based on a typical household consumer, as defined by Ofgem's Typical Domestic Consumption Value (TDCV), as of November 2026.
4. SSE's report Powering Secure, Affordable Energy
5. Illustrative modelling and not a forecast. Running costs exclude upfront LCT costs. SHEPD socialisation requires a decision and review beyond 2030.

STAKEHOLDER ENGAGEMENT
How we engaged

Our ED3 plan has been rigorously developed and tested with our stakeholders. This section explains how customers, stakeholders and independent experts, including our Independent Stakeholder Group (ISG), have helped shape our plan, the evidence we used, the challenge we received, and how this translated into decisions, commitments and outcomes.

Our approach is underpinned by clear engagement principles and a comprehensive strategy covering how we plan engagement, segment stakeholders, capture and triangulate insights and, critically, translate that evidence into decisions. This creates a clear and auditable golden thread from what customers and stakeholders told us through to the investment choices, service commitments and affordability decisions in our ED3 plan.

Engagement has been integral to the development of our plan, not simply a final-stage validation exercise. Throughout its development, we have used stakeholder and customer insight to shape, challenge and refine our proposals, alongside targeted validation and communication as the plan matured. This provides a robust evidence base for the choices we have made.

Our segmentation approach ensured we heard from domestic customers, businesses, future customers, rural and urban communities, vulnerable customers, local authorities, community organisations, industry partners and expert stakeholders. By applying this level of segmentation, we were able to ensure engagement was comprehensive and relevant, while focusing stakeholders' time on the issues that mattered most to them.

Alongside this wider engagement, we built independent challenge and sustained customer deliberation into the development of our plan. Our Independent Stakeholder Group (ISG) challenged our evidence, assumptions and emerging proposals throughout the process, while our Fair Future Panel gave customers the time and information to explore complex choices and trade-offs in depth. Together, these strengthened the golden thread from evidence and challenge through to the decisions we made.

Fair Future Panel

On the recommendation of our ISG, we set up a deliberative engagement panel, a group of 27 customers, segmented by behaviour (engaged customers; future shapers; and core customers) across both licence areas who met regularly over six months around one defining challenge: **How can SSEN build a future-ready decarbonised network while keeping bills fair for everyone.** Learn more about the panel.



Our ISG

Established in September 2025 as an evolution of our long-standing Customer Engagement Group, our ISG has brought independent challenge throughout the business planning process, testing whether our plans are sufficiently developed, ambitious, deliverable. They have had a particular focus on the needs of customers, including those who are either vulnerable or excluded from digital technology. Our Business Plan is stronger for their scrutiny; through 13 resolved ISG challenges, they helped ensure our Business Plan represents maximum customer value.

See more on our website here

"I feel far more informed. I was pleasantly surprised by how thorough SSEN has been and pleased that our views are being taken on board."

David | Fair Future Panellist

ENGAGEMENT IN NUMBERS

Over 25,000
customers and stakeholders engaged

Over 200
stakeholder events

3
triangulation reports produced

73%
of customers found our business plan acceptable[1]

76%
of customers found our business plan affordable[1]

1. Independent acceptability testing was carried out with 1,106 domestic, business and digitally disengaged customers across our two licence areas. See Section 6.2 for a summary.

Our ED3 engagement programme has been structured around a four stage process, each with defined objectives, activities, and outputs that ensure a systematic and auditable approach to engagement. Our extensive research programme has run throughout the same period.



APR 2025 – SEP 2025
1. Scoping & Discovery
Understanding priorities, identifying stakeholders and establishing the current evidence base.

SEP 2025 – JUN 2026
2. Deliberate engagement & Delivery
Exploring needs, choices and emerging proposals in depth.

JUN 2026 – SEP 2026
3. Refining
Using stakeholder and customer evidence to test ambition, address gaps and refine the plan.

SEP 2026 – NOV 2026
4. Testing & Acceptance
Testing the acceptability of the overall plan.

SSEN-led | Collaborative all DNOs

STAKEHOLDER ENGAGEMENT

How we tested the evidence

We went beyond collecting stakeholder views.

We have systematically tested what we heard during hundreds of engagements and thousands of conversations, using independent triangulation to determine where the evidence was strong, where views converged or differed, and where further investigation was needed.

This gave us a more objective view of what mattered most, prevented individual voices or pieces of research being treated in isolation, and gave us confidence that the choices in our plan were grounded in a robust and comprehensive evidence base.

Triangulating the evidence – what we did

Our engagement evidence was independently triangulated at three points during the development of our ED3 plan. At each stage we tested the evidence against a consistent set of questions, identified areas of agreement and difference, and used gaps in the evidence to inform the next phase of engagement in an iterative process.

SOURCES OF EVIDENCE

- Primary Consumer Research
- Conferences
- ISG
- Secondary research
- Online events
- Deliberative Consumer Research
- Policy Papers
- Bilaterals
- Expert Panels
- Surveys

Robust?	We tested the rigour of evidence collection and whether the resulting conclusions were credibly and fairly interpreted, including consideration of differing views and potential bias.
Representative?	We tested whether the evidence reflected the right mix of customers, stakeholders and perspectives across our two licence areas. This included considering whether priority and under-represented groups had been heard, whether barriers to participation had been addressed, and whether differences between groups and regions were visible in the evidence.
Relevant and comprehensive?	We tested whether the evidence was current, relevant to the decisions we needed to make and sufficiently comprehensive to answer the material questions underpinning our ED3 plan. Where gaps remained, these were identified and used to inform further targeted engagement.
Points of agreement / divergence?	We compared findings across different research, engagement and evidence sources to understand where they pointed to a consistent conclusion and where views differed. Areas of convergence gave us greater confidence that an insight reflected a genuine and consistent priority, while areas of divergence helped us understand important differences between customer groups, stakeholders and regions.



THE RESULT

A tested and comprehensive evidence base for the priorities and trade-offs underpinning our ED3 plan

- **290** evidence sources independently reviewed and synthesised
- **26** thematic insights identified
- **159** key messages assessed across the evidence base

STAKEHOLDER ENGAGEMENT

What we heard

Our engagement identified seven priorities that define what customers expect from ED3. It also revealed tensions over the pace, cost and timing of investment, which we distilled into three trade-offs to balance throughout our business plan.

The seven insights revealed broad agreement on what customers value, alongside conflicting priorities. The ISG and Fair Future Panel (FFP) helped clarify these tensions and the trade-offs we balance throughout our business plan.

ISG

Our ISG kept us focused on trade-offs and interdependencies. Members challenged us to prioritise and consider what investment in one programme meant for other parts of the plan.

Fair Future Panel (FFP)

Deliberative research gave customers time to understand the evidence and explore the consequences of complex, long-term choices. The panel helped crystallise insights on how to share costs and benefits across generations, asking customers to consider what felt fair for others as well as themselves.



THE KEY INSIGHTS

1

Reliability and resilience are non-negotiable

Keeping the network reliable and resilient is customers' highest priority. 28% of households and 33% of businesses ranked it first, and customers strongly rejected allowing service to deteriorate in return for lower bills. Customers also support targeted actions for those who experience poorer outcomes.

2

Affordability and fairness shape every choice

Customers recognise the need to invest, but support depends on keeping costs proportionate and sharing them fairly. 45% of customers said they struggle to pay bills at least sometimes, making clear evidence of need, benefit and who pays critical to acceptance.

3

Invest for tomorrow, without overburdening today

Customers support investing ahead of need where the future requirement and long-term value are clear, but want costs phased fairly between current and future customers. New capacity and flexible networks received 36% of investment-priority votes, the highest of the areas tested.

4

The energy transition needs visible customer benefit

There is support for the energy transition, but customers need to see what investment delivers for them: lower long-term costs, reliable supply, faster connections, local jobs and energy security. Support depends increasingly on tangible progress and benefits rather than abstract targets.

5

Expectations are rising as electricity becomes more important

Customers expect the network to keep pace with electrification, climate risks and growing digital dependence. 84% of SSEN storm survey respondents expect storm-related power cuts to become more challenging over the next 5-10 years, while businesses increasingly prioritise cyber security, connections and network readiness.

6

Target support where it is needed most

Customers consistently support additional protection for vulnerable, medically dependent and worst-served customers. Fairness means responding to genuine need, while maintaining a clear minimum standard for everyone.

7

Trust is built through transparency

Customers want clear explanations of why investment is needed, what it will cost and what they will receive in return. Only 9% know SSEN well, while 51% want more information about the ED3 plan, reinforcing the importance of plain English and visible evidence of delivery.

THE KEY TRADE-OFFS

INVEST TODAY VS **KEEP BILLS AFFORDABLE**

Investing earlier can avoid higher costs and constraints later, but near-term bill impacts must remain affordable. Our Fair Future Panel offered a key insight: once participants understood the benefits, they were more willing to pay a little more for network capacity delivered "just ahead of need". This reinforces the importance of clear communication.

MOVE AT PACE VS **INVEST PROPORTIONATELY**

Customers want us to start multi-decade programmes, such as low voltage (LV) upgrades and climate risk mitigation, while avoiding overbuilding where demand remains uncertain. At one stakeholder event, 63.7% chose a medium pathway for LV upgrades, compared with 27.4% who favoured the high, immediate acceleration option and 0% who chose the low, business-as-usual option.

CURRENT CUSTOMERS VS **FUTURE CUSTOMERS**

Customers recognise the need to invest now for future demand, but do not expect today's bill payers to fund all the benefits future generations will receive. All Fair Future Panel groups said costs should be shared across current and future generations. In wider public research, 50% favoured spreading critical infrastructure costs evenly over many years, while 28% preferred lower bills now, even if this meant higher costs later.

STAKEHOLDER ENGAGEMENT

How it shaped our plan

Customer insights have shaped all our ED3 investments. The examples below link each priority to the considerations and commitments it informed.

Insight did not simply inform our plan, it changed it. We used what customers and stakeholders told us, insight from the Fair Futures Panel and scrutiny from the ISG to shape our strategies, set commitments and invest further where the evidence and support were strongest. This gives us confidence that insight runs through the decisions and investments in our ED3 plan.

KEY INSIGHT

Reliability and resilience are non-negotiable 1

Consideration
Overall network reliability is already high. The challenge is therefore to maintain that performance as climate and network pressures grow, and focus improvement on customers who experience a much poorer service than the average suggests.

WHAT WE DID
We have focused reliability investment on customers experiencing the greatest disruption. Our ED3 plan will maintain 99.98% overall network reliability and halve the number of Worst Served Customers from the March 2026 baseline, improving reliability for 13,329 customers. A new early-warning trigger will help us identify deteriorating performance sooner.

Affordability and fairness shape every choice 2

Consideration
Customers recognise the need for investment, provided the case is clear and the costs remain proportionate. For ED3, that means preparing the network for significant growth without asking customers to fund capacity before there is sufficient evidence that it will be needed.

WHAT WE DID
Flexibility plays an even greater role in ED3 than it has in ED2. We will use it to release capacity sooner, manage uncertainty and defer reinforcement where that offers better value. We're targeting 13.4GW of flexibility across ED3 and 5GW of early-access connections, with UMs used where the timing or scale of future need is less certain. We're also proposing to keep bills relatively flat for our customers until 2030, when more customers have adopted LCTs.

Invest for tomorrow, without overburdening today 3

Consideration
Waiting for risks to become problems can mean more disruption and more expensive fixes later. Acting too soon carries a different risk: customers pay for investment before the need is clear. Our approach is to act now where the evidence is strong and continue developing the evidence where uncertainty remains.

WHAT WE DID
ED3 marks a shift towards earlier, risk-based action on climate resilience. We will rebuild 318km of high-risk overhead line, underground 39.5km and replace around 250km of climate-vulnerable cable. Better climate modelling and monitoring will help us target future investment, alongside stronger preparedness and restoration arrangements. The aim is to maintain network resilience as climate risks increase and direct investment to the places where the consequences for customers are greatest.

The energy transition needs visible customer benefit 4

Consideration
The benefits of electrification will not reach everyone at the same time. Cost, awareness, accessibility and digital exclusion can all make it harder for some households and communities to adopt low-carbon technologies. Our plan needs to make electrification work at a community level, including for people who are not yet in a position to adopt new technologies themselves.

WHAT WE DID
We are combining network investment with more practical support for communities. This includes dedicated community support, digital and non-digital advice, targeted activity in areas facing the greatest barriers to low-carbon technology adoption, and a 50% increase in our shareholder-funded Community Benefit Fund, from £500,000 to £750,000 a year. The additional £250,000 each year will support community-led projects in areas benefiting from LV network investment.

Expectations are rising as electricity becomes more important 5

Consideration
As homes, businesses and essential services rely more heavily on electricity, the impact of disruption increases. Stakeholder expectations are widening too, covering cyber security, connections, access to better information and stronger support during severe weather alongside traditional network reliability.

WHAT WE DID
Our ED3 plan responds to that broader dependency. We will enhance our cyber resilience, give connections customers better information and greater visibility of project progress, and strengthen severe-weather support. That includes at least 100,000 storm-specific Resilience Plans, at least 100 community resilience hubs and a target to reduce welfare mobilisation from upto eight hours today to less than one hour.

Target support where it is needed most 6

Consideration
Vulnerability looks different from one customer to another and can change over time. Fuel poverty, medical dependence on electricity, digital exclusion, rural isolation and difficulty accessing LCTs all create different needs. That makes targeted support more effective than a single offer applied in the same way to everyone.

WHAT WE DID
We are significantly increasing the reach and depth of support in ED3. We will reach more than 90% of eligible households through the Priority Services Register and support 240,000 households experiencing fuel poverty, a 300% increase on ED2. We will provide up to 10,000 additional battery back-up units for medically dependent customers, building on the 20,000 provided in ED2, and Personal Resilience Plans for more than 500,000 customers. We will also support around 40,000 households through our Access-Purchase-Use approach to LCTs.

Trust is built through transparency 7

Consideration
Customers want to understand the decisions that affect them: what is happening, why it is needed, what their options are and what progress is being made. That matters most where work causes disruption, involves unfamiliar technology or requires difficult choices between cost, pace and long-term benefit.

WHAT WE DID
We will prioritise transparency during ED3. For unlooping, customers will have forward visibility of planned programmes, with proactive upgrades targeted where need is greatest. Connections customers will receive better network information, clearer milestones and greater visibility of risks and progress through improved digital tools. We will also report more clearly on the deployment and benefits of innovation, alongside regular reporting against our environmental commitments.

Please note this is not exhaustive – see stakeholder engagement log more detail

READY TO DELIVER IN ED3

ED2 built the foundations. ED3 will deliver the benefits

ED3 is the next stage of a multi-decade transformation of our network. We used ED2 deliberately to build the people, supply chain, systems and capability needed for that journey. Guided by our Long-term Integrated Network Plan (LINP), we enter ED3 ready to deliver safely, optimise the network where possible and maintain the reliability customers depend on, while building enduring capability for what comes next.

People: building the workforce and skills to deliver at scale

We have grown our workforce by almost 1,000 FTE during ED2, while strengthening our pipeline of apprentices, trainees and adult learners and accelerating routes to competence in critical roles. This gives us a stronger skills base from which to scale ED3 delivery, rather than starting to build capability when the price control begins.

Delivery: increasing delivery and mobilising ahead of ED3

We have deliberately increased delivery through ED2, with capital delivery now around 80% higher than FY24 levels. We are using the final years of ED2 as a runway into ED3, progressing design, development and mobilisation early so that ED3 begins with delivery already in motion.

Supply chain: securing the capacity we need ahead of demand

We have strengthened our supply chain partnerships and moved towards longer-term, programme-based delivery, giving suppliers greater visibility and confidence to invest in capacity. Year 1 manufacturing capacity for grid and primary transformers is already secured, with critical long-lead equipment being committed ahead of ED3.

Systems & Capability: building a smarter and more productive business

ED2 has strengthened the systems and capabilities that underpin efficient delivery, including DSO, network planning, flexibility services, data and digitalisation, programme controls and Project Bridge. SSEN is now recognised as a top-performing DSO. These capabilities give us better visibility of future need, help us make greater use of existing network capacity and support more efficient planning, investment and delivery through ED3.

Alongside these foundations, ED2 has improved customer experience and connections satisfaction. Reliability remains an area for improvement, with investment in automation, asset replacement and reinforcement supporting a more resilient network through ED3 and beyond.

Project Bridge: An ED2 strategic transformation programme Project Bridge is fundamentally modernising how we operate, by redesigning and digitising end-to-end business processes and the systems that underpin them. This is improving customer service, operational efficiency and our ability to deliver higher levels of network investment, while creating the foundations for further digitalisation, automation and smarter ways of working in ED3. Bridge will deliver around £105m per year of customer value, with around 30% already enabled through completed releases.

Learning from our ED2 performance

Our ED2 performance demonstrates strong delivery against stretching targets. Our relative position across DNOs varies by measure and should be considered in the context of the level at which individual company targets were set. We have delivered strongly across a number of areas, providing a solid foundation for ED3. We are also clear about where we need to improve. Reliability performance has been mixed and scaling delivery has created challenges. We have used those lessons to strengthen our ED3 reliability, resilience and delivery plans, with clearer accountability and earlier intervention where performance is off track.

Customer satisfaction

- Overall Customer Satisfaction has increased through ED2 to 9.05 (9.33 in SHEPD and 8.80 in SEPD) vs target of 9.01, up from 9.23 (SHEPD) and 8.39 (SEPD) in 2024/25

Capital delivery

- Significantly increased network investment delivery: Capex delivery has increased by ~ 20% year-on-year

Capability

- Increased workforce capacity by c.1,000 FTEs, including 306 apprentices, trainees and adult learners
- ED3 Year 1 manufacturing slots for Grid and Primary transformers are already secured, and proposed ED3 volumes have been shared and tested with suppliers

Connections

- Customer satisfaction has increased through ED2 to 9.42 (SHEPD) and 8.82 (SEPD) vs target of 9.01, with a steady improvement year-on-year
- Time to Quote of 1.06 days (SHEPD) and 1.44 (SEPD) vs target of 3.26 days for low voltage simple service alteration (LVSSA); approximately halved from 2.04 (SHEPD) and 3.26 (SEPD) days in ED2 Year 1
- Major Connections Incentive score of 9.00 (SHEPD) and 8.44 (SEPD) vs target of 7.41, up year-on-year from 8.89 (SHEPD) and 7.92 (SEPD)

DSO

- Stakeholder Satisfaction Score of 9.2 vs target of 7.7
- Performance panel score of 8.79 vs target of 5.0

Environment

- Business Carbon Footprint reduction of 31% against a target of 25% (on track for 35% by 2028)
- SF_6 reduction of 18% against a target of 19% (on target for 35% by 2028)

Reliability and availability

- IIS performance has been mixed with only unplanned customer interruptions in SEPD ahead of target.
- For Network Asset Risk Management (NARMs) we had delivered 83% (SHEPD) and 40% (SEPD) of our ED2 target by the end of year 3, and are forecast to hit our risk reduction targets by the end of ED2

Vulnerability

- Priority Service Register reach of 91.6% (SHEPD) and 79.8% (SEPD) vs target of 69.5%
- Customer battery initiative launched for 20,000 PSR1+ customers

All performance measures are ED2 Year 3, unless stated otherwise

ED2 foundations mean we are ready to scale in ED3

ED2
1 April 2023 – 31 March 2028
Foundations & scaling capability

ED3
1 April 2028 – 31 March 2033
Scaling delivery, innovation and improving efficiency

ED4
1 April 2033 – 31 March 2038
Scaled delivery and top-tier DNO performer

GUIDE TO OUR BUSINESS PLAN

The remainder of our Business Plan provides the detailed evidence behind the proposition summarised in this opening section.

It follows a clear sequence from the long-term future we are planning for, through what we will deliver and how we will deliver it, to the value, affordability and regulatory framework underpinning our proposals.

Our Business Plan is founded on 20 detailed strategies, plan, annexes, brought together here to connect our long-term ambition with what we'll deliver in ED3, how we'll deliver it, and the value we'll create for customers, communities and society.

Our plan is designed to balance the need to invest ahead of growing electricity demand with the need to protect customers from unnecessary cost.

We are asking Ofgem to approve an efficient baseline for well-evidenced need, provide agile UMs where future requirements have not yet crystallised, and establish an investable and financeable framework that holds us accountable for delivering the outcomes and value set out in this plan. Section 5.4 sets out our regulatory proposals in full.

2.0 THE FUTURE WE'RE BUILDING TOWARDS

We're planning for the long-term

LONG-TERM INTEGRATED NETWORK PLAN (LINP)

Our LINP and regional growth evidence set out how customer needs and the electricity system could develop to 2050 and how ED3 fits within that longer-term pathway.

3.0 WHAT WE'LL DELIVER

ED3 delivers the next stage of our long-term plan

INVESTING IN GROWTH AND THE ENERGY TRANSITION

Load Annex
Our role in LCT rollout

66 EJPs[1]
See Section 3.1

MORE RESILIENT NETWORKS FOR CUSTOMERS

Network Asset Management Strategy
Reliability Strategy
Climate Resilience Strategy
Cyber Security Strategy

35 EJPs[1] and 12 cyber papers
See Section 3.2

CREATING SMARTER NETWORKS

DSO Strategy

4 EJPs[1] and DJPs[2]
See Section 3.3

ENSURING A RESPONSIBLE AND SUSTAINABLE BUSINESS

Environmental Action Plan
Islands Strategy

8 EJPs[1]
See Section 3.4

4.0 HOW WE'LL DELIVER

We're scaling up and enhancing our existing capabilities

Vulnerability Strategy
Targeted support for customers
See Section 4.1

Targeted Customer Storm Support Strategy
Supporting customers when severe weather comes
See Section 4.1

Connections Strategy
A better connections experience for every customer
See Section 4.2

IT & Telecoms Strategy, Data & Digitalisation Annex
Embedding digitalisation and becoming data driven
16 EJPs[1] and DJPs[2]
See Section 4.3

Innovation Strategy
Nurturing and deploying innovation
See Section 4.4

Delivery Strategy
Delivering ED3 at scale, safely and efficiently
See Section 4.5

5.0 WHY OUR PLAN DELIVERS VALUE

We're balancing today's needs with tomorrow's

Finance Annex
Ensures our plan is investable and financeable.

Cost Assessment Annex
Ensures our customers get best value and we are as efficient as possible.

Regulatory annex
Our key ask of Ofgem to ensure an effective regulatory framework.

SSEN ED3 Business Plan Value Report
An independent assessment of the socio-economic value of our investment.

1. Engineering Justification Papers 2. Digital Justification Papers

2.0 THE FUTURE WE'RE BUILDING

IN THIS SECTION

		Relevant further reading
2.1 Our Long-Term Plan for Networks	14	→ Long-term Integrated Network Plan (LINP)
2.2 A Plan for Growth	17	→ ED3 Business Plan Value Report

Great Britain is undergoing a once-in-a-century transformation of its energy system. The prize is not only more affordable and secure energy, but the jobs, investment and regional economic growth that electrification can enable.

Realising that opportunity requires the network to stay ahead of changing needs. Our **Long-term Integrated Network Plan (LINP)** sets out what our network needs to deliver through to 2050, with ED3 forming the next stage in building the network our customers, communities and economy will need.

By taking a long-term, integrated view of growing demand, asset condition, climate resilience and environmental need, we can invest at the right time and in the right place, meeting growing demand while avoiding unnecessary future costs and retaining flexibility where needs remain uncertain.

That investment creates value far beyond the network. It can lower costs for customers and unlock the homes, businesses, jobs and economic activity that depend on having network capacity available when and where it is needed.

This is the future we're building.



Our LINP and ED3 plan will deliver[1]

£1.8bn
Potential customer value realised from well timed investment in ED3.

Stakeholder priorities
Balance investment for future needs with affordability today.

£1.2bn
Estimated net value of emission reductions enabled by our ED3 plan

Stakeholder priorities
Stakeholders support reducing emissions by enabling LCT adoption and responsible, sustainable network delivery.

84p in £1
Spent on UK goods and services.

Stakeholder priorities
Stakeholders want early engagement of regional supply chains.

4,400 jobs
Supported each year across Great Britain (additional).

Stakeholder priorities
Delivery partners support long-term skills and local capability.

£10.2bn
Additional economic activity enabled.

Stakeholder priorities
Stakeholders recognise our networks are central to enabling wider growth.

1. Value figures are based on Baringa's assessment of the economic and societal impacts of our ED3 Business Plan. Presented above are net values which represent the additional value relative to an ED2 counterfactual. The study also notes the gross values which represent the total estimated value associated with delivery of the plan. The ED2 counterfactual uses a projected outturn of £6.8bn, including inflation and actual and projected uncertainty mechanism expenditure. ED3 values are based on our £8.7bn baseline ED3 plan and exclude potential future uncertainty mechanism expenditure which remains uncertain and subject to Ofgem decisions. See 'The socio-economic value of SSEN Distribution's ED3 Business Plan' for full details.

2.1 OUR LONG-TERM PLAN FOR NETWORKS
Our 2050 network vision

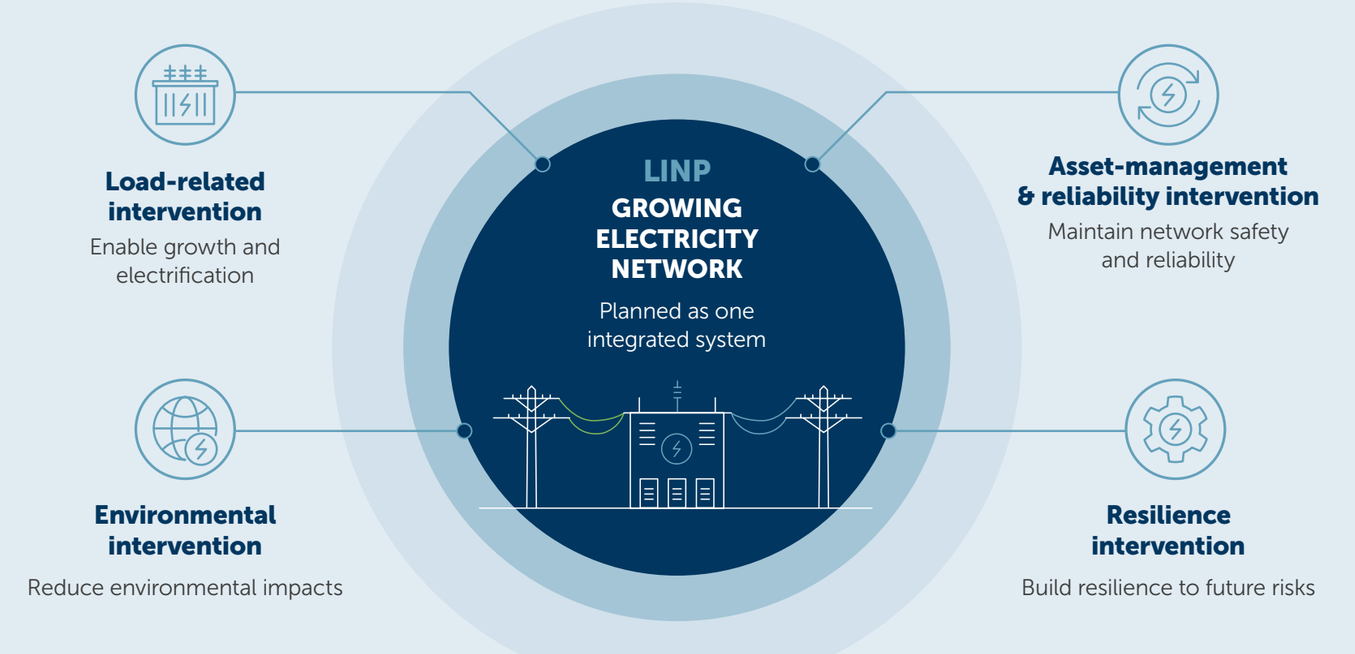
Our 2050 vision is for a network that enables an affordable, secure and sustainable energy system as electricity demand grows, supporting customers, communities and economic growth.

A long-term view for better decisions today

The Long-term Integrated Network Plan (LINP) considers how customer needs, network requirements and investment decisions will evolve through to 2050 across successive price controls. It guides the interventions needed during ED3, while looking ahead to the capabilities and investment required in ED4, ED5 and beyond. This allows us to coordinate investment over time, make better decisions today and avoid choices that could create unnecessary cost or constrain future options.

Long-term, place-based and integrated planning is not new for us. Our pioneering Strategic Development Plans established this approach, and our LINP now builds on that foundation, bringing capacity, asset condition, climate resilience and environmental performance together into a single, integrated view of our network's needs through to 2050.

Our networks are under growing pressure as electrification and economic growth increase demand, ageing assets need renewal and worsening climate hazards require greater resilience. At the same time, expanding and maintaining the network has an environmental impact that we must minimise. These pressures interact across the same network and must be considered together as we maintain and enhance it over the coming decades.



A long-term plan driven by customer outcomes

The LINP is a long-term network plan, but fundamentally it is designed to deliver better outcomes for customers. It has been, and will continue to be, shaped by the views and requirements of customers and stakeholders. Informed by their priorities and input, we have set a clear 2050 vision:

To be the UK's leading intelligent network builder and operator, delivering a clean, affordable and available electricity network that enables growth, protects customers and communities, and stewards network assets for long-term value.

We'll do this by continually working towards five long-term outcomes for customers:

1. **Ensure our network is ready for future growth.**
We will ensure capacity is there when and where it's needed. From homes to major industrial and data centre loads, our customers can connect quickly and affordably.

2. **Customers can participate easily.**
We will ensure our customers can access the data, information and advice they need to participate in an increasingly local, flexible and interconnected energy system.

3. **Enhanced reliability and resilience.**
We will maintain and improve everyday network reliability while progressively strengthening the network's ability to withstand and recover from severe weather, changing climate conditions and other significant hazards, including cyber hazards.

4. **Enhanced asset management.**
We will proactively steward a healthy, safe and adaptable asset base that supports both current network performance and future development. Asset condition, risk, criticality and performance will inform when assets should be maintained, refurbished, replaced or retained in service, helping assets deliver their full value.

5. **Reduced environmental impact.**
The growth, operation and renewal of our network progressively reduces its impact on the environment and contributes positively to the places and communities it serves.

2.1 OUR LONG-TERM PLAN FOR NETWORKS

Turning our 2050 vision into the right decisions in ED3

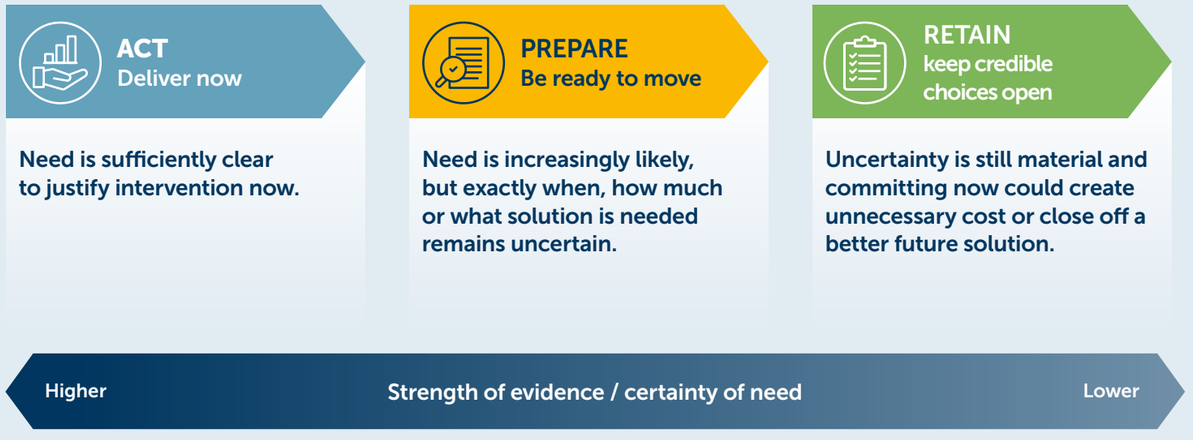
ED3 is the next stage of a multi-decade investment plan. Planning across price controls allows us to balance affordability today with future customers' needs, build enduring capabilities, and coordinate investment so we intervene at the right time while retaining flexibility where requirements remain uncertain.

Our long-term approach allows us to see these needs together and evolve our response as the scale, location and certainty of future requirements become clearer. An integrated plan gives us our best full picture of the network's long-term needs and how they evolve across time and place. Our 'Act, Prepare, Retain Options' approach helps us coordinate interventions and optimise their timing and scope, adapting as evidence changes to deliver better outcomes and long-term value for customers.

'Act, Prepare, Retain Options' approach

We do not need to make every future investment decision today. LINP helps us act where evidence justifies intervention now, prepare designs and enabling work where needs are emerging, and retain credible options where uncertainty remains. Better data and asset intelligence help us judge when to move from preparation to delivery.

We apply this approach across capacity, asset health, climate resilience and environmental needs in one plan. This allows us to combine interventions where they add value, coordinate their timing across price controls and use existing capacity and flexibility. We can avoid premature investment without leaving action too late, balancing affordability today with long-term customer outcomes.



ED3 is a staging post on the journey to 2050



1 APRIL 2023 – 31 MARCH 2028

ED2: Building the foundations

We are already responding. Through ED2 we are ramping up investment to meet growing demand and deliver our network risk reduction targets, with significant activity in the final two years of the period. At the same time, we have strengthened our climate forecasting and adaptation planning, reduced environmental risks and invested in the capabilities and partnerships needed to deliver more efficiently and at greater pace.

1 APRIL 2028 – 31 MARCH 2033

ED3: Accelerating and adapting

ED3 represents a material step-up as these pressures increasingly come together. We will expand network capacity by 24% relative to ED2, while scaling flexibility to 13.4GW, six times ED2 levels, where future demand is less certain. We will make 40,000 proactive upgrades to prepare local networks for low-carbon technologies (LCTs), while increasing investment in asset replacement as network risk grows. Climate resilience investment increases by 59%, alongside accelerated action to manage our environmental footprint.

1 APRIL 2033 – 31 MARCH 2038

1 APRIL 2038 – 31 MARCH 2043

1 APRIL 2043 – 31 MARCH 2048

Beyond ED3: Scaling and evolving

The transformation in our networks continues well beyond 2033. As electrification accelerates across heating, transport and industry, and new electricity-intensive demand emerges, we expect the need for network capacity to continue to grow. At the same time, a larger population of assets will require intervention, and climate hazards will intensify. Our long-term ambition is to build an increasingly resilient network that can withstand the impacts of a changing climate, while progressively reducing the environmental impact of how we grow, operate and renew the network. Part of this work will be continuing to upgrade local networks ready for LCT growth, a multi-decade programme of work that begins in the last two years of ED2, accelerates in ED3 and concludes by 2050.

2.1 OUR LONG-TERM PLAN FOR NETWORKS

The value for customers of long-term integrated planning

Long-term integrated planning helps us deliver lasting value from every pound customers fund. Our LINP connects investment choices with the capabilities and partnerships needed to deliver them. This helps us reduce avoidable costs and strengthen delivery, whilst balancing affordability today with long-term value for customers.



Planning further ahead allows us to make better decisions today

1 Invest at the right time

Invest ahead of need only where the evidence supports it, while using flexibility and smarter solutions to make better use of existing capacity and retain options where future requirements remain uncertain. Doing less today can cost more tomorrow. Looking beyond individual price controls allows us to coordinate investment, assessing requirements across multiple drivers including resilience, and intervene at the right time, balancing affordability today with longer-term customer value.

2 Plan and procure earlier

Greater visibility of future network needs allows us to engage our supply chain earlier and provide greater certainty of the programme ahead. This gives suppliers the confidence to invest in skills, jobs, equipment and manufacturing capacity, while helping us secure the resources needed for delivery. Our LINP provides a stronger evidence base for where investment needs are sufficiently certain to support earlier commitment, reducing the risks of stop-start investment while retaining flexibility where future needs remain uncertain.

3 Build capability for the long-term

Building the network of 2050 requires more than investing in assets. A longer-term view allows us to build the enduring skills, systems and capabilities needed to plan, deliver and operate an increasingly complex and intelligent network. Through ED3, we will strengthen our engineering, operational, digital, data and commercial skills; develop more integrated and place-based planning and delivery; improve forecasting, network visibility and asset intelligence; scale proven innovation; and deepen partnerships with customers, communities, local authorities and our supply chain. These capabilities are critical, including to retaining optionality in future price controls.

Our ISG challenged us to ensure that public acceptance and affordability is considered alongside the cost and deliverability of our investment programme. In response, we have used the LINP as a tool to ensure affordability is not a standalone consideration. It ensures we plan long-term, consider investment drivers together rather than in isolation, and commit investment only where there is robust evidence of need. We estimate the value of well timed investment in ED3 will save customers £1.8bn.

£1.8bn

of potential customer value could be realised through our ED3 plan by avoiding, deferring or more efficiently sequencing future network investment, according to independent analysis.[1]

1 See the socio-economic value of SSEN Distribution's ED3 Business Plan – £1.8bn is a net estimate. The gross estimate is £2.5bn.

Innovation's contribution to LINP: Innovation is a key enabler of LINP, helping us anticipate future customer and network needs and develop new ways to build and operate the network towards 2050. Our ED3 innovation portfolio directly aligns with LINP outcomes, tackling emerging challenges from electrification and climate adaptation to workforce constraints and increasing network complexity. See our ED3 Innovation Strategy

2.2 A PLAN FOR GROWTH
Enabling local growth

ED3 creates economic value in two ways. Firstly, delivering our investment programme supports thousands of jobs and opportunities in SSEN and for our supply chain partners. However, the bigger economic opportunity comes from making network capacity available when and where it is needed, thereby enabling homes, businesses to thrive and unlock investment that could otherwise face delays or constraints.

Investing in the network creates growth...

4,400
Additional jobs supported each year across Great Britain[1]

84p
ED3 spend on UK goods and services for every £1 invested[2]

As customers adopt electric vehicles, solar panels and heat pumps, our network needs the capacity to accommodate them. Delivering that capacity also supports jobs and UK suppliers.

ED3 will be a significant jobs and skills programme in its own right. Our workforce plan identifies a requirement for 1,467 additional FTE in critical frontline roles, building on growth of almost 1,000 FTE since April 2021. We will grow our own talent pipeline alongside this recruitment, with apprenticeships and earn-as-you-learn routes central to that growth. We already have 306 apprentices, trainees and adult learners and, during ED3, will maintain at least 10% of our workforce in earn-as-you-learn opportunities, up from 7% in ED2 and twice the 5% industry benchmark, while supporting successful learners into substantive roles.

This is our contribution to a much bigger national opportunity. The Electricity Networks Sector Growth Plan sets out how the expansion of Great Britain's electricity networks can drive jobs, skills, manufacturing and economic value across the country. Realising that opportunity requires sufficient long-term certainty to give us and our supply chain the confidence to invest in the people, skills and capacity needed for delivery. Our ED3 investment will support that ambition directly through our own workforce and through the UK businesses and supply chains that will help us deliver it. See Section 4.5 for more detail on our workforce and skills plans.

Our investment will create opportunities well beyond our own workforce. An independent report estimates that delivering our ED3 plan will support around 20,000 jobs each year across Great Britain, across construction, manufacturing, engineering, digital and other sectors. Its analysis also estimates that around 84% of our £8.7 billion ED3 expenditure will be on UK goods and services, supporting businesses and supply chains across the country.

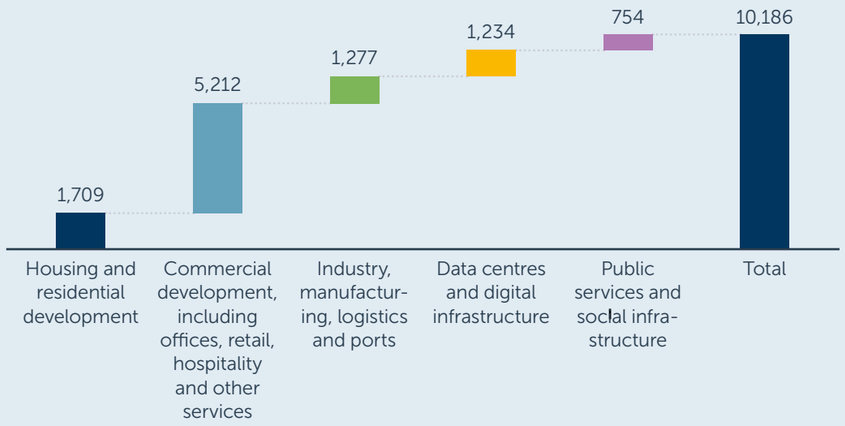
...but the bigger opportunity is the growth the network enables

£10.2bn
Additional economic activity over ED3 could be delayed or lost if investment stays at ED2 levels[3]

Our ED3 plan helps ensure the network does not become a constraint on that growth. An independent report estimates that £10.2 billion of additional economic activity over ED3 could be delayed or lost under a lower-investment pathway, if ED2 levels of spend are continued. See the Fleet and Farnborough case study on the next page for an example of how our ED3 plan enables regional growth by ensuring the network is ready for future demand.

Economic activity enabled across our licence areas

Figure 2.2.2: Estimated net GVA growth by sector from connections across our licence areas (£m)



Boost jobs and sustainable growth

We will support UK manufacturing by aiming to increase our expenditure across key categories (transformers, switchgear and cable) by 10% by April 2033 (on our ED2 baseline), increasing our UK manufacturing spend by an estimated £157 million in ED3.[4]



1 See 'The socio-economic value of SSEN Distribution's ED3 Business Plan'. 4,400 is a net estimate. The gross estimate is 20,000.
2 See 'The socio-economic value of SSEN Distribution's ED3 Business Plan'. The gross and net estimate are the same.
3 See 'The socio-economic value of SSEN Distribution's ED3 Business Plan'. £10.2bn is a net estimate. The gross estimate is £72bn.
4 Subject to market availability, value for customers, delivery requirements, and applicable procurement obligations.

2.2 A PLAN FOR GROWTH

Case study: Fleet and Farnborough

Working with local authorities to invest ahead of demand to enable local growth

Our work on networks serving Fleet and Farnborough demonstrates how our long-term, place-based planning turns intelligence about future demand into investment decisions that enable economic growth. By combining network and demand forecasts with intelligence from local authorities, businesses and other local stakeholders, we can build greater confidence in where growth is coming and when capacity will be needed. This helps us invest at the right time and in the right place, bringing investment forward where the evidence supports it while retaining flexibility where demand remains less certain. In Fleet and Farnborough, growing demand from homes and businesses is increasing pressure on the existing network, creating a risk that new homes, jobs and economic activity are constrained if capacity does not keep pace.

Fleet and Farnborough are neighbouring areas in Hampshire in our Southern licence area where significant housing and commercial growth is coming forward. The corridor includes Farnborough's aerospace cluster, the Blackwater Valley growth area, defence establishments, advanced manufacturing and technology businesses. Without timely investment, electricity capacity risks becoming a constraint on that growth.

Several network assets are forecast to require intervention during 2030–34. Without timely reinforcement, parts of the network could become constrained. This could defer 100–200MVA of demand into ED4, potentially delaying ~10,000 homes, 150,000–250,000m^2 of commercial development and 50–150MW of major new connections.

Our ED3 plan is designed to stay ahead of that need. We propose targeted reinforcement alongside flexibility to release around 150 MVA of network capacity, creating capacity for new homes and businesses to connect and supporting the electrification of heat and transport, while avoiding unnecessary investment ahead of need.

Having that capacity available when and where it is needed could enable around 10,000 new homes, support around 6,000 jobs and unlock around £1.2bn of economic activity, rather than allowing electricity capacity to become a barrier to local growth.

This brings our LINP to life: long-term planning that anticipates where growth is coming and enables us to invest in the right place at the right time, so the network enables rather than constrains local growth.



~10,000[1]
new homes enabled, helping planned housing development proceed without electricity capacity becoming a barrier

~6,000[1]
jobs supported by enabling businesses and new developments to connect and grow when they are ready

~£1.2bn[1]
of economic activity unlocked rather than risking investment being delayed or scaled back



1 These are net estimates

3.0 WHAT WE'LL DELIVER

IN THIS SECTION

		Relevant further reading
3.1 Enabling Growth and the Energy Transition	20	→ ED3 Load Related Expenditure Annex → Our role in LCT and Energy Efficiency Rollout
3.2 More Resilient Networks for Customers	30	→ ED3 Network Asset Management Strategy → ED3 Reliability Strategy → ED3 Network Operating Costs → ED3 Climate Resilience Strategy → ED3 Cyber Resilience Strategy
3.3 Creating Smarter Networks	40	→ ED3 DSO Strategy
3.4 Ensuring a Responsible and Sustainable Business	45	→ ED3 Environmental Action Plan → ED3 Islands Strategy

Key commitments in this section

Commitment: Be ready for growing customer demand

Expand network capacity by 24% versus ED2 to meet local electrification needs and provide headroom to 2050. Proactively upgrade 40,000 looped supplies, a four-fold increase, targeting greatest need.

Stakeholder priority
Customers told us they want the network ready for future demand before it becomes a barrier to electrification, while avoiding unnecessary investment and cost.

Commitment: Scale flexibility to optimise our network

Use 13.4GW of flexibility through ED3, six times ED2, to meet customer capacity needs, keep bills as low as possible, accelerate connections and avoid unnecessary investment.

Stakeholder priority
Customers support making better use of existing network capacity where this can meet growing demand and help keep the long-term cost of the transition down.

Commitment: Modernise our network and strengthen climate resilience

Target highest-risk assets. Rebuild or underground ~350km of high-risk overhead line and replace ~250km of climate-vulnerable cable. Remove 23% of network risk in SEPD and 12% in SHEPD by ED3 end.

Stakeholder priority
Customers expect us to invest proactively in ageing assets and prepare for more extreme weather so the network remains reliable as climate risks increase.

Commitment: Targeted improvements to reduce unplanned power cuts

Halve customers experiencing frequent power cuts against a March 2026 baseline while maintaining overall 99.98% network reliability by ED3 end, despite more challenging climate conditions.

Stakeholder priority
Customers see reliability as a fundamental expectation and want investment focused on those experiencing repeated power cuts, without accepting poorer overall service.

Commitment: Strengthen cyber resilience

Deliver real-time cyber resilience, detecting and containing high severity cyber threats within our defined risk tolerance by the end of ED3.

Stakeholder priority
Customers and businesses increasingly depend on electricity and digital services, and expect the network to remain secure and resilient as cyber threats grow.

Commitment: Provide earlier access for customers to connect

Use flexibility to unlock capacity faster. Offer 5GW of early access connections by ED3 end, more than double the 2.3GW we will energise in ED2.

Stakeholder priority
Customers want faster, more predictable connections and earlier access to capacity so network constraints do not hold back homes, businesses and low-carbon projects.

Commitment: Enhance data driven network management

Reduce wasted energy losses by 47.5GWh and increase hosting capacity by 1GW through enhanced network visibility and real-time control by the end of ED3.

Stakeholder priority
Customers and stakeholders want better network visibility and smarter operation to unlock capacity sooner, reduce waste and make more efficient use of existing assets.

Commitment: Reduce our environmental impact

By 2033, cut Scope 1 and 2 emissions by 55%, in line with our 1.5°C-aligned Science Based Target. Help manage Scope 3 by ensuring suppliers representing 55% of supply chain spend set their own Science Based Targets.

Stakeholder priority
Customers expect network investment to minimise environmental impacts and deliver practical benefits for nature, while remaining proportionate and affordable.

Our ED3 plan brings together four connected themes to create the network needed for the energy transition while maintaining a safe, reliable and resilient service for customers. .

Section 3.1, Investing in Growth and the Energy Transition details the investment required to create capacity for electrification, new connections and economic growth. Our Long-term Integrated Network Plan (LINP) provides a view of network needs through to 2050, allowing us to take a long-term approach to decisions about when to build new network capacity and when to use flexibility. Through our "Build and Flex" approach, we first consider whether flexibility can defer or avoid reinforcement; only when new infrastructure is needed, we design it with longer-term requirements in mind. **What we invest here will predominantly support delivery of the ELECTRIFIED outcome.**

Section 3.2, Establishing More Resilient Networks for Customers covers the investment and operating activity required to maintain reliability, manage asset condition and strengthen the network against a changing climate and evolving cyber threats.

While there are multiple investment drivers, together, Sections 3.1 and 3.2 form one integrated network investment plan addressing demand growth, new connections, asset risk and climate resilience. We consider the wider needs of each part of the network and combine interventions where economic and efficient, aiming to 'touch the network once' wherever possible. **What we invest here will predominantly support delivery of the RESILIENT outcome.**

Section 3.3, Creating Smarter Networks, sets out how better network data and forecasting, integrated operational systems, flexibility and dynamic voltage management will help us target investment and make better use of existing assets. These capabilities will enable earlier connections, release additional capacity and reduce energy losses, helping to keep long-term costs down for customers. **What we invest here will contribute to all three outcomes: ELECTRIFIED, RESILIENT AND AFFORDABLE.**

Section 3.4, Ensuring a Responsible and Sustainable Business, sets out how we will reduce emissions, replace assets that pose pollution risks, reuse materials and restore habitats, efficiently embedding environmental improvements into network investment and operation. It also explains how tailored investment in island networks, assessed alongside flexibility and local generation, will strengthen security of supply and support local decarbonisation and economic growth, while reducing reliance on diesel generation and protecting affordability.

3.1 ENABLING GROWTH AND THE ENERGY TRANSITION

Creating the capacity customers need, so it is available when and where they need it

Our plan recognises the shift towards an increasingly electrified economy. During ED3, transport will continue to electrify, heating will move away from gas, and industry will reduce its reliance on fossil fuels. Our networks must anticipate the capacity these changes require and provide homes, businesses and industry with faster, more efficient and more predictable access to our network, enabling the uptake of low-carbon technologies (LCTs) and supporting the pace of the energy transition.

Major network investment takes time to plan and deliver, as does developing the workforce and supply chain capability to support it. Our ED3 programme must therefore meet evidenced demand needs while preparing for the capacity customers will require in ED4 and beyond, retaining the ability to adapt as demand evolves. Acting now will help ensure capacity is available when and where customers need it, reducing the risk of constraining growth or leaving a larger, more costly programme that is harder to deliver in future price controls (see figure 3.1.1, on page 22, for an overview of our whole-system planning process).

Our ED3 programme takes a more forward-looking and adaptable approach across our primary and secondary networks. Through **Build and Flex**, we will combine targeted reinforcement with flexibility and other measures that make better use of existing network capacity. We will adapt this combination as the timing, location and scale of demand become clearer, so that we can provide the capacity customers need, when and where they need it, in the most efficient way. Refer to our ED3 LRE Annex for more detail.

Delivering Customer Value

Electrification, new connections and economic development are driving a larger, more complex ED3 programme. During ED2, we strengthened forecasting, network visibility, place-based planning and flexibility to identify needs earlier and target investment precisely.

Our ED3 plan is aligned to latest Government policy, and balances timely capacity with protecting customers from premature investment. We prioritise well-evidenced needs and assess reinforcement, flexibility and wider network solutions to deliver safe, reliable capacity at the lowest whole-life cost.

Our Build and Flex approach means we reinforce where enduring capacity is needed and uses flexibility to avoid or defer investment, accelerate connections and manage uncertainty. Flexibility and uncertainty mechanisms (UMs) preserve adaptability, while ongoing reassessment ensures solutions and timing reflect emerging evidence.

This disciplined approach makes every pound work harder, reducing the risks of premature investment and delayed reinforcement.

OUR COMMITMENTS TO CUSTOMERS

We will be ready for growing demand, and we will scale flexibility to optimise our network by:

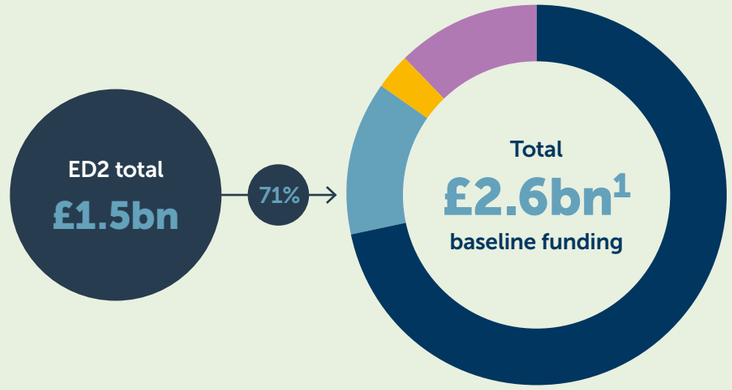
- Releasing over **5,000MVA on our primary network** by 2033 – a 24% increase to meet ED3 capacity requirements and providing strategic headroom through to 2050. This will support more than 2,900MVA of new demand, **and facilitate 300,000 heat pumps** and more than **two million electric vehicles** (joint lead commitment)
- Delivering **~40,000 LCT enabled homes** through a fourfold increase in LV looped upgrades compared to ED2, targeting the areas of greatest need (joint lead commitment)
- Utilising **13.4GW of flexibility**, providing capacity at lowest possible cost and to avoid delay
- Delivering **seven Regional Energy Strategic Plans (RESP) strategic energy needs**, identified by the National Energy System Operator's (NESO) transitional RESP (as amended by Ofgem)

SHAPED BY STAKEHOLDER INSIGHT

Stakeholders emphasised the need to invest ahead of demand, but to balance new network build with flexibility so capacity is delivered at the right time and at best value for customers. This directly shaped our load and flexibility commitments: expanding capacity to meet future needs while scaling flexibility to make better use of existing assets, accelerate connections and avoid unnecessary reinforcement.



OUR ED3 LOAD INVESTMENT



Primary Network	Additional 132kV and EHV capacity	£1.8bn
Secondary Network	HV circuits and transformers upgraded	£328m
NTCC	Capacity at transmission–distribution interfaces	£77m
Connections	Covering connection driven investment	£306m

1. £1.1bn of this is pre-approved ED2/3 cross over funding, as set out in Section 1. The £2.6bn also includes fault level reinforcement.

We will invest £2.6bn through ED3 to ready our network for the rapid growth in electricity demand, creating the capacity needed for new homes, businesses, transport and heat electrification while supporting economic growth.

Our expenditure is increasing by 71% compared to ED2. This is because delivery volumes are higher, as the network must accommodate materially greater electricity demand and a higher volume of connections.

3.1 ENABLING GROWTH AND THE ENERGY TRANSITION

Turning network needs and connection demand into targeted investment

Load-related expenditure (LRE) creates or releases capacity where existing capacity may no longer meet forecast demand or generation. It includes network reinforcement alongside flexible and smart solutions.

Our whole-system planning approach combines national and regional forecasts with local evidence to identify where, when and how much additional capacity may be needed.

We coordinate with the Transmission Owners (TOs) and other system partners so dependencies are understood and investment across the wider electricity system can be sequenced efficiently.

We translate this evidence into proportionate interventions, considering capacity alongside asset condition, reliability, climate resilience and environmental performance to avoid isolated interventions and deliver greater whole-life value.

Our Act, Prepare and Retain Options framework determines when to commit, while Build and Flex determines the right response where intervention is needed. (See Section 2, page 15, for more detail on Act, Prepare and Retain).

The role of innovation:

Creating capacity ahead of demand is only part of the challenge. We also need to transform how quickly customers can access that capacity as new needs emerge. The Energy Network Innovation Taskforce (ENIT) has set a sector challenge for major new strategic industrial sites to be energised and operational within six months by 2033. Our ED3 Innovation Strategy is aligned to this ambition and we are already developing and testing the solutions needed to help achieve it, including better forecasting and network visibility, new approaches to capacity allocation and more flexible ways for customers to connect. By developing these capabilities through ED3, we can make better use of existing and new network capacity and help strategic customers connect faster as demand materialises.

Figure 3.1.1: Our Whole-System Planning Process

1 Establish the future need

We assess a range of input drivers and network intelligence to identify credible demands on our networks

Transitional Regional Energy System Plan (tRESP)
Regional energy system planning with aligned LCT forecasts and strategic energy needs, to show where future network capacity will be required.

Distribution Future Energy Scenarios (DFES)
DFES provides local evidence that helps refine forecasts and determine when investment should proceed.

Connections	All	<0.5MVA	>0.5MVA	>1MVA	>10MVA
SHEPD	6152	5722	274	143	13
SEPD	31041	29295	1146	543	57

Our contracted and forecast connections pipeline feed into our decision-making process. Managing this large portfolio of investment drivers is one of the critical tasks in ED3.

2 Forecast demand and generation

Combine smart meter data, monitoring and improved network models supporting probabilistic forecasting and power-flow modelling across multiple credible futures. Our demand baseline is grounded in the tRESP Holistic Transition pathway but we consider LCT sensitivities and alignment with customer uptake.

3 Identify network needs and constraints

Determine where, when and how much capacity is required. Assess thermal, voltage, losses and resilience needs, extending into LV planning to spot constraints earlier.

4 Coordinate and reconcile

Test needs with local authorities, communities and developers. Coordinate with NESO, TOs and neighbouring networks at the transmission-distribution boundary. Reconcile and document differences.

5 Assess solutions: Build and Flex

Distribution System Operation (DSO) Strategic Network Planning

DSO provides the independent decision framework for choosing between "Build" and "Flex". It uses models of our network constraints and connection requirements to compare the whole-life value of building new capacity against using flexibility or operational solutions to manage the constraint.

Build
Targeted reinforcement based on certainty, deliverability and affordability providing capacity where and when needed.

Flex
Using flexibility, we can create capacity for connections without committing prematurely to expensive infrastructure.

6 Translate decisions into plans

Strategic Development Plans (SDPs)
Our Strategic Development Plans provide the long-term, place-based view of how our network needs to evolve to support electrification, connections and net zero. They bring everything together and consider needs collectively rather than scheme by scheme.

7 Continuously refresh evidence

Update forecasts, assumptions and SDPs as customer needs, technology uptake, monitoring data, connections and policy evolve. Feed new evidence back into planning.

3.1 ENABLING GROWTH AND THE ENERGY TRANSITION

Demand growth has multiple drivers which differ across our regions

Growing electricity demand is not the result of a single driver, but the cumulative effect of electrification, economic growth and new development.

Homes, businesses and major sectors are switching away from fossil fuels, while new electricity-intensive demand, including data centres, is also emerging. NESO's Future Energy Scenarios (FES) point to further growth as heat and transport electrify and clean-power infrastructure expands.

The UK government's ambition to deliver 1.5 million homes in England during this Parliament, alongside the Scottish government's own target of 110,000 homes by 2032, will create additional need for electricity connections and network capacity. Although the pace and location of delivery remain uncertain, housing forms a part of the contracted connection component of peak demand.

New businesses, data centres, industrial electrification and development will create larger and more concentrated requirements, while electric vehicles and heat pumps increase the electricity needs of existing homes and premises. At the same time, renewable generation and battery storage require networks to accommodate more connections and increasingly two-way power flows.

All of the above can be observed directly in our demand forecast and are consistent with the NESO assumptions on low-carbon technology growth.

We are already seeing these drivers increase connection and capacity requirements across both our south of England (SEPD) and north of Scotland (SHEPD) networks, but their impact differs by place due to differences in factors like customer base and network density.

In SEPD, rapid electric vehicle uptake and large commercial and data centre connections are creating broad and concentrated demand growth. In SHEPD, electrification across a more dispersed network, alongside significant local industrial needs, creates a different pattern of capacity requirements with more local hotspots.

Figure 3.1.2: Drivers of electricity demand growth

CONNECTIONS FORECAST IN ED3
1,347 MW SEPD + 258 MW SHEPD
Part of wider connections pipeline of 6,215MW

ELECTRIC VEHICLES IN ED3
>2 million electric vehicles
NESO forecast, from 622,186 in 2025/26

DOMESTIC HEAT ELECTRIFICATION IN ED3
~300,000 heat pumps
NESO forecast, from 53,381 in 2025/26

HOUSING AND DOMESTIC GROWTH BY 2050
831 MW SEPD + 111 MW SHEPD

OVERALL CAPACITY GROWTH
>5,000 MVA capacity
24% capacity increase across SEPD and SHEPD by end of ED3

INDUSTRIAL ELECTRIFICATION IN ED3
7 Strategic Energy Needs
Phase interventions using customer and strategic evidence

DATA AND AI CENTRES PIPELINE BY 2050[1]
~2700MW potential connections[2]
Equivalent to around one-third of SEPD's current peak demand.

HYDROGEN ELECTROLYSIS TO 2050
321 MW SEPD + 368 MW SHEPD
Forecast demand by 2050

PORTS AND MARITIME ELECTRIFICATION TO 2050
~1–5 MVA per port
Ferry electrification, plus up to 8 MW island shore power

By 2033, we forecast more than 2,900 MVA of additional peak demand across our licence areas, based on our assessment of existing demand, the tRESP pathway and our contracted connections pipeline

1. Data centre connections accepted are subject to transmission capacity.
2. This is the pipeline currently extending to 2040.

3.1 ENABLING GROWTH AND THE ENERGY TRANSITION

Preparing for peak demand to double by 2050

All credible energy forecasts point to substantial growth in electricity demand, but the pace, scale and location remain uncertain. We expect peak demand to broadly double in SEPD and increase around 2.5 times in SHEPD by 2050. This means we need to prepare for sustained demand growth across multiple price controls, while avoiding committing customers' money prematurely where future need remains uncertain.

In line with Ofgem guidance, we use NESO's Holistic Transition tRESP pathway as our central planning case, providing a consistent national and regional basis from which to assess future network needs. Our DFES build on national FES and regional tRESP assumptions to reflect the characteristics of our licence areas and provide a long-term view of future demand, generation and storage requirements through to 2050.

We update our forecasts annually as new evidence emerges. This allows us to prepare for sustained demand growth while adapting the timing, scale and nature of our response as future needs become clearer. The headroom available on our existing networks also differs by region and area, meaning the pace and nature of intervention will vary across SEPD and SHEPD and within each region.

THE MESSAGE WE HEARD FROM STAKEHOLDERS

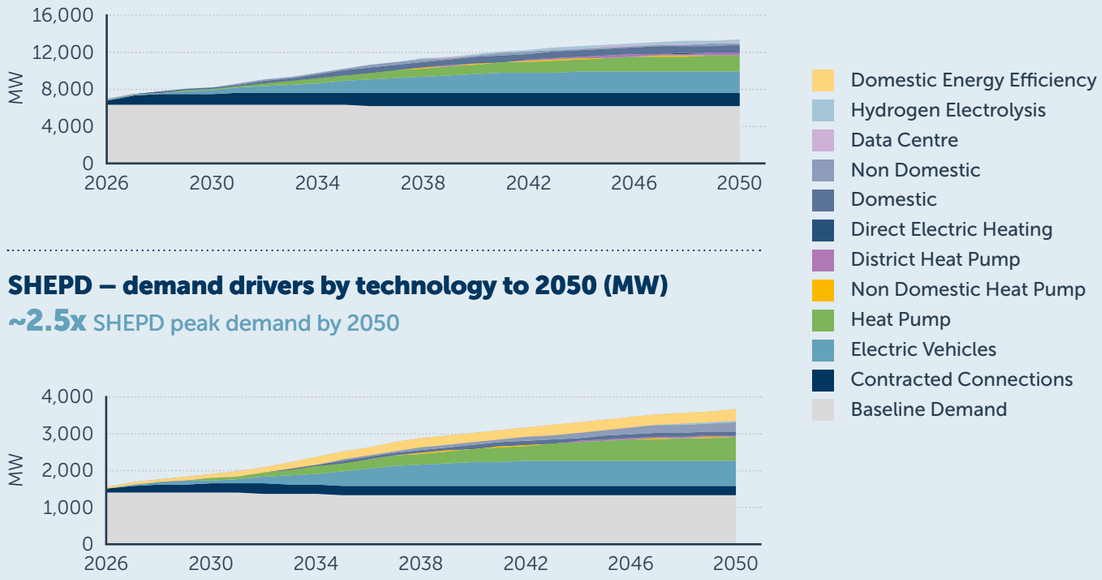
Act now because the direction of change is clear, but invest in a targeted, flexible and adaptable way that balances network readiness with affordability and value for money.

The scale of the need

Figure 3.1.3: SEPD and SHEPD demand projections by technologies to 2050

SEPD – demand drivers by technology to 2050 (MW)

~2x SEPD peak demand by 2050



SHEPD – demand drivers by technology to 2050 (MW)

~2.5x SHEPD peak demand by 2050

Table 3.1.1: Stakeholder insight on future network demand

Stakeholder finding	Supporting evidence	Implication for our strategy
Network readiness is the highest priority	84% of stakeholders ranked "Be ready for growing demand" as their highest ED3 priority.	Invest now to ensure network capacity does not constrain electrification, connections or economic growth.
The direction of demand growth is already clear	Local authorities, developers and major customers identify increasing demand from housing, economic development, industrial decarbonisation and the electrification of heat and transport.	Plan against a credible long-term increase in demand, even though the precise scale and timing remain uncertain.
Delayed investment creates material risks	Stakeholders recognise that acting too late could result in constrained growth, delayed connections and slower electrification.	Bring forward investment where demand is credible and delivery lead times are long.
Investment must remain proportionate and affordable	Stakeholders support network readiness but not investment at any cost. They expect expenditure to be evidence-led, efficiently timed and targeted.	Demonstrate a clear need for investment and protect customers from premature or unnecessary expenditure.
Flexibility should complement reinforcement	Scaling flexibility was ranked among stakeholders' top three ED3 commitments.	Use flexibility to make better use of existing capacity, manage uncertainty and defer reinforcement where appropriate.
The strategy must adapt as evidence develops	Stakeholders recognise that the timing and location of future demand cannot be predicted precisely.	Combine targeted anticipatory investment with monitoring, agile funding and regular reassessment of need.

3.1 ENABLING GROWTH AND THE ENERGY TRANSITION

Delivering place based Strategic Development Plans (SDPs)

Regional forecasts show the scale and direction of change, but cannot tell us precisely what will happen, where or when. We therefore combine DFES and tRESP assumptions with Local Area Energy Plans (LAEPs) in England, Local Heat and Energy Efficiency Strategies (LHESS) in Scotland, local development plans, connection activity, emerging customer needs and direct intelligence from local authorities, developers, communities and commercial customers to understand the specific drivers of change in each area.

Our SDPs turn this evidence into a long-term, place-based view of how the network may need to develop. Rather than considering individual constraints in isolation, they allow us to understand how needs interact across an area and where coordinating interventions can deliver better whole-life value.

This local evidence is critical because electrification will not happen uniformly. Housing growth, industrial development, electric vehicles, heat decarbonisation, renewable generation and community energy will emerge at different rates and in different combinations. At the same time our urban, rural, island and remote networks have very different characteristics. Better local evidence gives us greater confidence in the scale, location, timing and certainty of need, helping us identify where intervention may be required while avoiding premature investment where the evidence is less certain.

Different regions, different challenges

Applying this place-based approach produces very different investment requirements across our two licence areas.

In SEPD, rapid electrification and concentrated commercial demand are increasingly translating into network constraints. Electric vehicle uptake is already disproportionately high, while the data centre connection pipeline alone is equivalent to around a third of current peak demand.

This pressure is increasingly visible in network capacity: under the Holistic Transition scenario, **the number of Bulk Supply Points (BSPs) exceeding firm capacity is projected to grow from two in 2026 to around 31 by 2035**. The priority is therefore to invest ahead of demand, combining strategic reinforcement with flexibility and smarter network operation so that capacity is available when customers need it, rather than allowing constraints to become a brake on connections and economic growth.

Around 21% of GB's registered EVs are in SEPD, compared with around 17–18% of GB households.

This is a strong indicator that electrification is already running ahead of national averages across the southern network.

SEPD now has around 569,000 EVs, compared with 320,000 in Q3 2023. That is approximately 78% growth in two years.

The data centre connection pipeline is equivalent to around one-third of SEPD's current peak demand.

SEPD has approximately 2.0GW of data-centre capacity connected or holding accepted offers, compared with winter peak demand of around 6.1GW. This makes the scale of emerging demand very tangible.

In SHEPD, the challenge is different. Electrification is taking place across a more geographically dispersed network, where existing network constraints can become acute as demand grows. Nine primary substations already exceed their firm capacity, rising to an estimated 76 by 2035 without intervention under the Holistic Transition scenario.

SHEPD serves around 800,000 customers across almost 50,000km of network.

Although it serves only around 20% of SSEN Distribution's customers, it operates nearly 39% of the combined network length. That means SHEPD has approximately 2.5 times more network per customer than SEPD.

These differences demonstrate why a uniform response would be inappropriate. Place-based evidence allows us to plan the network to meet local needs.

Our long-term planning allows us to translate these different needs into investment decisions. Our LINP provides the integrated view of how the network needs to evolve to 2050, while our SDPs combine national and regional pathways with local plans and customer intelligence to identify where, when and with what certainty network needs are emerging. These needs then feed into our Distribution Network Operator Assessment (DNOA) of build, flexibility and other options, ensuring the solutions we take forward reflect the latest evidence and deliver best value for customers.

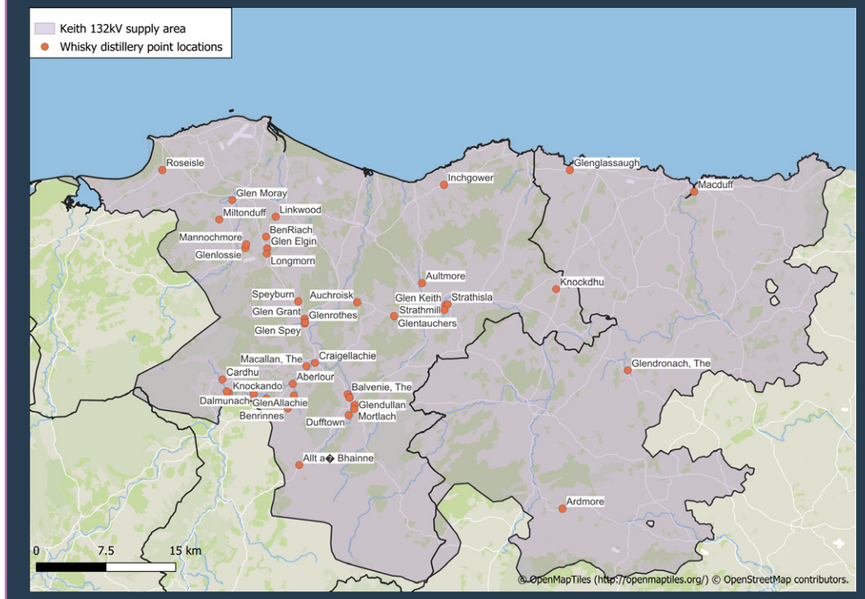
Decarbonisation of Speyside's distilleries

The Scottish distillery industry requires significant energy for its operations and is increasingly considering electrification as part of its transition to net zero. Through engagement with industrial users and strategic planning, we have identified more than 55 distilleries in Speyside and estimate that their decarbonisation could add up to 90 MVA of demand in the Keith supply area.

This local intelligence is informing the Keith SDP and helping us understand where and when additional network capacity may be required. By engaging early and incorporating emerging industrial needs into our long-term planning, we can prepare the network to support decarbonisation while avoiding investment before there is sufficient evidence of need.

This work also demonstrates how innovation can help customers decarbonise. By working with industry on innovation projects like RIDES and FARM to understand potential pathways to electrification, we can translate new solutions into better evidence of future network needs and ultimately into investment decisions.

Figure 3.1.4: Keith 132kV supply area and whisky distillery locations.



3.1 ENABLING GROWTH AND THE ENERGY TRANSITION

Our Build and Flex approach is deferring £195m of capital expenditure

We are going above and beyond how flexibility has traditionally been used. We are backing flexibility to reduce investment requirements and customer bills in ED3. We are proposing an enhanced flexibility approach by investing £18.9m, supported by an agile funding pot. See Section 3.3 for how greater use of flexibility is enabled by our DSO.

Once a network need is established, reinforcement is not automatically the answer. Our Build and Flex approach determines the most efficient response. We reinforce where enduring capacity is required or where flexibility cannot meet the need safely, reliably and economically. Where flexibility is viable, we use it to make better use of existing capacity, unlock capacity sooner, manage uncertainty and avoid or defer investment until it is needed. This allows us to trigger some investment decisions later as evidence strengthens, while supporting faster connections and protecting customers from unnecessary cost.

In ED3, we will be more ambitious in our use of flexibility. We have used all six flexibility use cases described below to establish the maximum flexibility position we expect to achieve, supported by investment to scale our DSO capabilities and deepen flexibility markets. This is reflected in the SSE Enhanced Approach shown in figure 3.1.5 and reduces the upfront capital requirement of our plan.

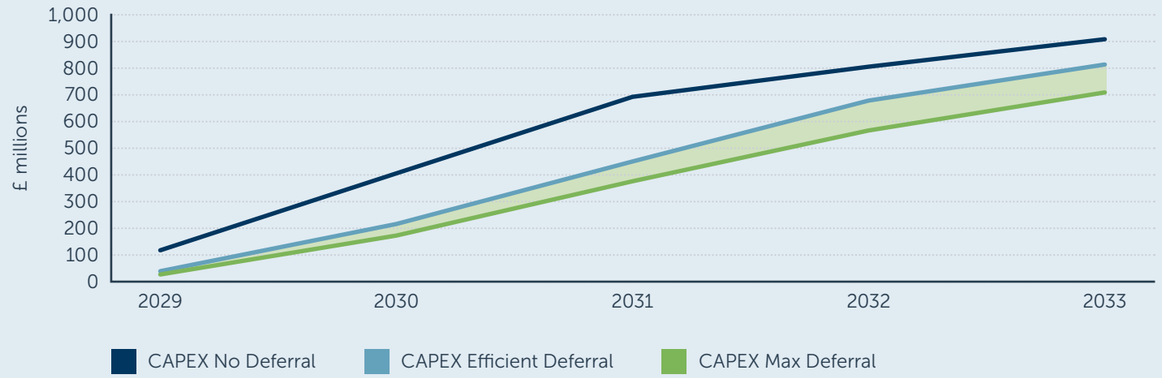
Greater reliance on flexibility does, however, mean taking more delivery risk, as the required volumes may not always materialise where and when they are needed. We are therefore deliberately taking a calculated risk on flexibility while retaining a credible route to build network capacity if required. This is a trade-off we make on behalf of customers to defer capital expenditure in our networks, which helps with affordability constraints.

To manage this risk, we are proposing a pre-approved agile funding mechanism. This would allow us to build capacity if forecast flexibility does not materialise, or respond to significant new requirements that emerge during ED3, such as large, rapidly emerging loads. This regulatory support allows us to be more ambitious in our use of flexibility while protecting network performance and customers in all scenarios.

Planning flexibility	Connections and operational flexibility
1 Alternative to reinforcement Economically viable flexibility replaces costlier build, avoiding or deferring investment and reducing whole-life cost.	**4 Accelerating connections** Temporary capacity connects customers before enduring reinforcement is complete, avoiding network delays to electrification and growth, and reducing the risk of curtailment.
2 Managing uncertainty Flexibility covers credible demand with uncertain timing or scale, avoiding early investment and stranded assets while retaining options.	**5 Planned outage support** Flexibility manages network needs during planned and unplanned outages and works, reducing disruption and improving operational flexibility while enabling programme delivery.
3 Supporting deliverability Flexibility bridges justified reinforcement that cannot all be delivered at once. It manages supply chain, resource and outage constraints, focusing delivery where build is essential.	**6 Whole-system coordination: coordinates network usage using operational signals and flexible assets.** Flexible resources support the network during operational constraints and resilience events, improving resilience alongside traditional network solutions.

Build and Flex funding pathways

Figure 3.1.5: Build Capex reduction potential as flexibility increases



This shows the flexibility impact on our capex delivery profile, and the role of the agile funding pot to bridge the gap between the traditional flexibility approach (capex efficient deferral) and our SSE Enhanced Approach (capex max deferral line). In our ED3 plan, we have identified £195m of capex that can be deferred, due to our Build and Flex approach. This is over 10% of the proposed primary investment.

ED3 ambition:
13.4GW
Utilise 13.4GW of flexibility, more than six times ED2 level

Our Agile approach:
£195m
Saves customers £195m in ED3

Proposed agile funding: commit later, respond faster

Benefits.
Better value for money
We use efficient flexibility and avoid paying for capacity ahead of need with protection against flexibility delivery risk. It allows us to respond faster to changing needs with less reliance on slower administrative reopeners.

Risk Mitigations.
In-built protection against unjustified spend
Funding is only used where flexibility fails or new evidenced needs become apparent. We will need to be able to evidence local market failure before we use the fund.

Opportunities.
Adapt during ED3
It is multi-purpose and allows us to accommodate new connections, demand growth and additional flexibility opportunities.

Early use of flexibility could defer reinforcement into ED4 or ED5, or avoid the need for reinforcement altogether.

Proposed controls.
Keep a credible route to build
Capped pot and evidence of need and efficiency required.

Clear funding boundaries and adjustments for non-intervention changes.

End-of-period efficiency assessment.

3.1 ENABLING GROWTH AND THE ENERGY TRANSITION

Delivering capacity at scale through targeted reinforcement and flexibility

Where reinforcement is the most efficient response, we invest to provide enduring network capacity.

Our ED3 load programme comprises 186 projects, with 102 in SEPD and 84 in SHEPD. The geographic distribution of the projects is shown in the figures for SEPD and SHEPD. These figures show the interventions per Grid Supply Point (GSP); the critical regional nodes on our distribution system where we interface with the transmission system. In SEPD, our investments tend to be triggered by hot spots of concentrated demand growth. In SHEPD, electrification across a more dispersed network leads to investments to address local needs.

Table 3.1.2: Equipment volumes delivered in our load program

Output and volumes delivered in ED3	SHEPD	SEPD	Total
EHV and 132kV Transformers (Each)	114	67	**181**
EHV and 132kV Overhead Line (km)	786	310	**1,096**
EHV and 132kV Underground Cable (km)	246	401	**647**
EHV and 132kV Subsea Cable (km)	92	0	**92**
EHV and 132kV Circuit Breakers (Each)	274	425	**699**
HV Transformers (Each)	2,372	1,393	**3,765**
HV Overhead Line (km)	190	14	**204**
HV Underground Cable (km)	94	123	**217**
HV Circuit Breakers (Each)	199	150	**349**

We only invest where we are certain and we need the capacity in ED3. We test each investment against all tRESP pathways and slower heat pump uptake, using network studies to assess needs through to 2050.

For our high-voltage (HV) networks, we are adopting a forward-looking and programmatic approach that combines targeted reinforcement with flexibility, providing capacity where it is needed while avoiding premature reinforcement. Demand forecasts and network studies identify thermal, voltage, fault-level and security constraints. Where intervention is required, we consider capacity, condition and resilience needs together, assessing reinforcement alongside flexibility and other network solutions. This enables us to coordinate work, avoid repeated interventions and deliver efficient, enduring solutions that provide greater whole-life value.

Our approach uses sensitivity testing to distinguish robust, "low-regret" investment from needs that remain dependent on uncertain demand growth. We test whether identified network constraints, and the timing and scale of the interventions required to address them, remain within the ED3 period when key assumptions are varied. A common DNO sensitivity also tests slower heat pump uptake to assess whether lower peak demand could defer specific interventions. This does not automatically change the preferred long-term solution, which we typically assess against requirements to 2050.

De-risking Delivery

Delivery of our ED3 programme requires us to mobilise in ED2 and adopt new approaches to our supply chain and workforces. We are using the final two years of ED2 to increase delivery, build capability and test our programme-based approach in live conditions, while bringing forward the design, approvals, workforce, commercial arrangements and critical plant required for ED3. See Section 4.5 for more details.

We will only receive funding for the load-related capacity we deliver. We will work with Ofgem to develop a transparent output closeout mechanism that holds us accountable for managing network capacity, rather than simply spending an allowance or delivering a fixed list of schemes. This allows the plan to flex if the underlying drivers change.

Figure 3.1.6: SHEPD load-related interventions by GSP

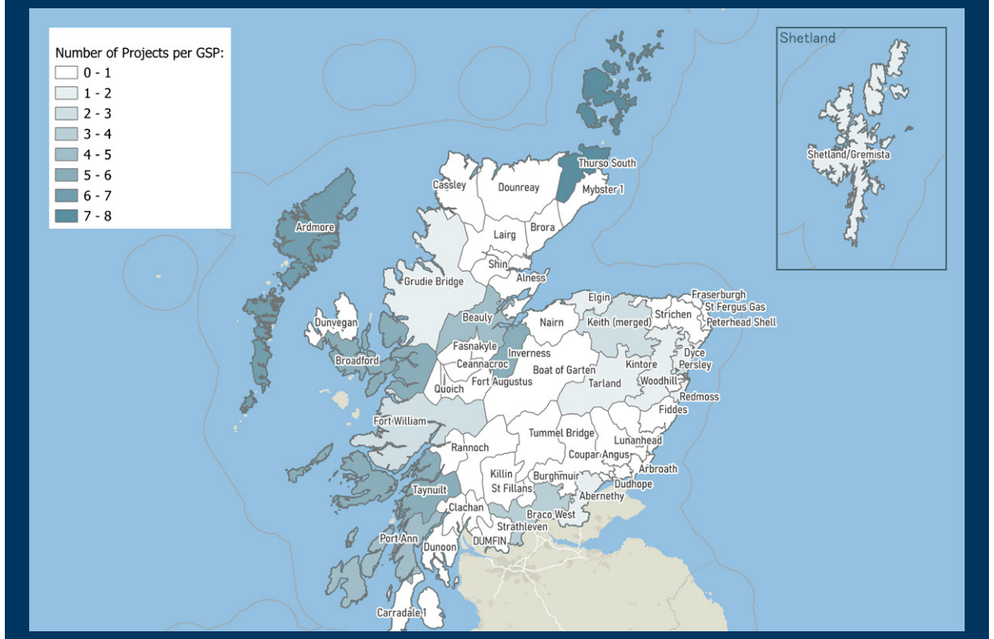
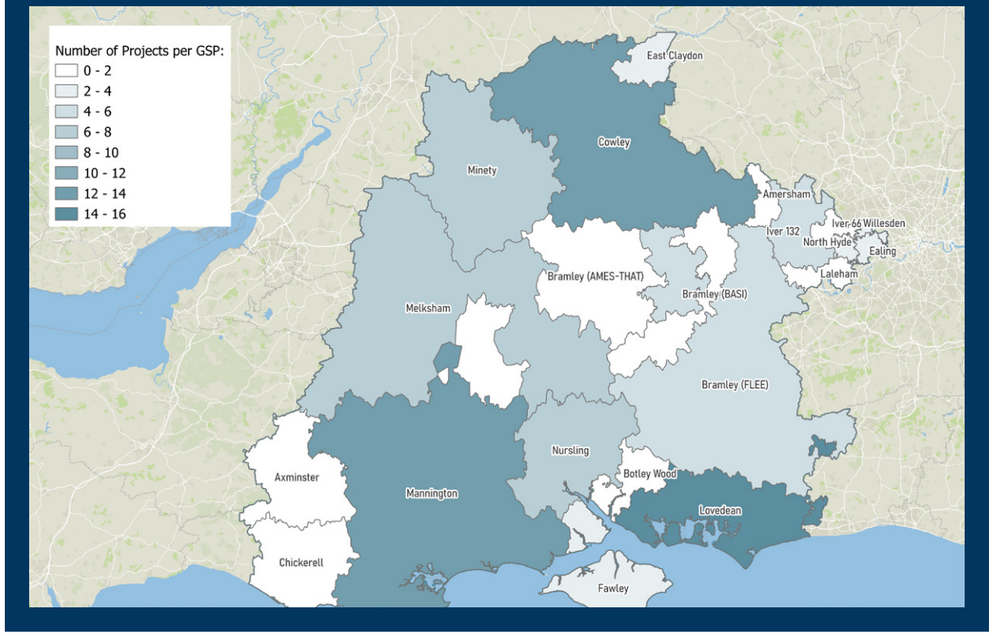


Figure 3.1.7: SEPD load-related interventions by GSP



3.1 ENABLING GROWTH AND THE ENERGY TRANSITION

Managing uncertainty in the timing, location and scale of demand

Stress testing our investments

We make sure we are progressing low-regret investments and monitoring instances where the case for investment is less certain. For each significant investment, we start with today's network demand, add known future requirements from contracted connections, and then test the resulting need against different credible electrification scenarios. These are not separate tests: each layer builds the evidence base, allowing us to assess whether an investment is needed in ED3, could be deferred, or could be avoided altogether.

This analysis is carried out for every single investment, as set out in our individual Investment Decision Packs (IDPs). The Devizes 33kV case-study on the right gives a worked example of the process set out below.

1. **Establish Baseline Demand:** Baseline demand represents the underlying electricity demand already present on our network and provides the starting point from which we assess future growth. It is grounded in observed network loading and metered consumption, supplemented at lower voltages by smart meter data, customer characteristics and network topology where half-hourly monitoring is not available. This gives us a robust, traceable view of existing demand before layering on forward-looking drivers such as electric vehicles, heat pumps, contracted connections and strategic growth. Importantly, baseline demand remains broadly stable over the forecast period, meaning the significant increase in future peak demand is predominantly driven by electrification and new economic activity rather than an extrapolation of historic demand.

2. **Add Contracted Connections:** Contracted connections provide one of our strongest indicators of future network demand, reflecting customers who have formally requested and secured capacity for new developments. We incorporate these requirements alongside our baseline demand and tRESP forecasts to provide a more current and locally evidenced view of where growth is expected. Recognising that not every contracted project will progress or use its full contracted capacity, we apply evidence-based assumptions to reflect likely utilisation and attrition, while reconciling connections against Strategic Energy Needs and other forecast inputs to avoid double counting. This ensures contracted connections strengthen our confidence in future network need without overstating demand, helping us target reinforcement where requirements are clear and retain flexibility where timing or delivery remains uncertain.

3. **Stress test the need – Low-Carbon Technology Sensitivities:** We recognise the pace of electrification could vary for some technologies. For electric vehicles the current uptake is already ahead of forecasts, supporting continued use of the central Holistic Transition pathway. But for heat pumps we have tested how different levels of uptake could affect the timing and scale of network investment. In collaboration with other DNOs, NESO and Ofgem, we have considered a range of sensitivities for the ED3 period. Our baseline is grounded in the tRESP Holistic Transition pathway but applies a lower heat pump uptake sensitivity to better align with other industry reference points, including the Warm Homes Plan. By testing our network requirements against alternative LCT uptake scenarios, we can distinguish low-regret investments that remain necessary across credible futures from those that can be deferred or managed flexibly if demand develops more slowly. This helps us to maintain readiness for electrification while protecting customers from premature investment.

Managing Portfolio Uncertainty

Where future need is well evidenced we invest directly during ED3; where uncertainty remains, for example on the pace and location of demand growth, we will make use of UMs to avoid unnecessary cost while preserving our ability to respond as demand materialises. Section 5.4 sets out in more detail how we propose to use UMs such as the agile funding pot and heat pump funding.

Devizes 33 kV reinforcement

The below case-study demonstrates the stress testing analysis we set out on the left.

The need
Demand growth across Devizes, Easterton and Bromham creates a lasting capacity need on the Norrington Bulk Supply Point (BSP)–Devizes primary substation (PSS) circuits. Devizes, the main load centre, relies predominantly on two circuits, each limited to 22.9 MVA by 400A isolators. From 2029/30, losing either circuit overloads the other across all assessed pathways, creating risks to security of supply.

Flexibility bridges the delivery gap
The permanent circuits cannot reasonably be delivered before the first constraint arises. Flexibility bridges the gap while we design and build the enduring solution. Flexibility is fully viable in 2029/30, with sufficient capacity and availability to manage the forecast thermal constraint. This case study demonstrates two key flexibility use cases: alternative to reinforcement and supporting deliverability.

Beyond 2030/31, although the required flexibility capacity is available, the longer constraint window (the number of hours of overload) means that flexibility alone is insufficient. This means we need an enduring solution in place by 2030/31.

Solution
Construct two new 33 kV overhead line circuits between Norrington BSP and Devizes PSS by 2030/31. The works comprise around 30 circuit-km of conductor, 276 poles, four new circuit breakers, and associated switchgear and busbar works. The preferred solution releases 35.4 MVA of secure capacity and supports growth and electrification through to 2050. Targeted flexibility manages the short-term constraint while we progress the lowest-cost enduring reinforcement, avoiding premature or unnecessary intervention on existing assets.

Figure 3.1.8: Devizes reinforcement scheme



3.1 ENABLING GROWTH AND THE ENERGY TRANSITION

Proactively creating capacity where growth and low-carbon demand is expected

For Low Voltage (LV) networks, we are moving from **reactive reinforcement to a proactive, place-based approach**. We will invest ahead of customers adopting electric vehicles, heat pumps and other LCTs, while coordinating interventions to minimise cost and disruption. By targeting secondary substations, LV circuits and looped services together, **we will make around 170,000 homes ready for LCTs, raise overall network readiness from 88% to 92%, and do so more efficiently with less disruption.**

Our local electricity networks will be critical to enabling customers to adopt electric vehicles, heat pumps, rooftop solar and other low-carbon technologies. The scale and pace of electrification mean that waiting for individual constraints or connection requests before upgrading the network is no longer sufficient. A reactive approach risks creating barriers for customers, driving repeated interventions in the same areas and increasing costs and disruption, and would be out of step with expectations from Government and Ofgem. We must therefore anticipate where capacity will be needed and prepare the network in a coordinated way, while ensuring investment remains proportionate to demand.

Figure 3.1.9, on the right, shows what this approach will mean for our secondary substation programme in SPED. Low-regret reinforcement based on lower heat pump assumptions are shown in blue and additional reinforcement based on unadjusted tRESP outputs are shown in yellow and purple for both ground mounter (GM) and pole mounted (PM) transformers. The substations where we propose to utilise flexibility are circled in red. The figure conveys both the scale and geographic spread of our activities – and the extent to which we will use flexibility to manage the impact of electrification to our LV networks.

Table 3.1.3: Overview of unlooping programme outcomes

What we are doing	Outcome	Why it matters
Proactively reinforcing LV networks	Increase the proportion of customers whose networks are LCT-ready from 88% to 92%	Gives customers confidence they can electrify without waiting for reactive reinforcement.
Upgrading secondary substations and LV circuits	Enable around 130,000 homes	Addresses emerging thermal and voltage constraints before they become barriers to EVs and heat pumps.
Proactively unlooping services	Enable around 40,000 homes, around four times ED2 levels	Removes a known barrier to higher electricity demand and avoids waiting for individual customer requests.
Delivering unlooping more efficiently	We expect this to be around 10% cheaper than reactive upgrades	Geographic programmes allow works to be planned and delivered more efficiently.
Targeting the areas with greatest need	4,167 secondary substations forecast to experience thermal and/or voltage constraints during ED3	Uses forecasting and network data to focus investment where electrification is most likely to create constraints.

Working with all local authorities, we are taking a coordinated approach to delivering the LV network needed for future growth. We are aligning our investment with housing, transport, energy efficiency and wider utility programmes, and grouping transformer, LV circuit and service works geographically. This approach will enable around **170,000 homes**, while reducing repeat visits and disruption and delivering **targeted savings of 10% on LV activities compared with a reactive approach.**

This is the first stage of a multi-price control programme that will continue to around 2050. ED3 is a period of capability development: we'll take learnings from our ED2 pilots to grow internal resource, skills and our supply chain, reaching full delivery capacity by mid-ED3 and sustaining it through the 2030s to avoid future bottlenecks. Refer to our ED3 Delivery Strategy for more detail. As an example, figure 3.1.10 shows how our unlooping delivery will scale through ED3 and sustain significant activity beyond, through ED4 to ED6.

Figure 3.1.9: Secondary substation interventions and flexibility in SEPD

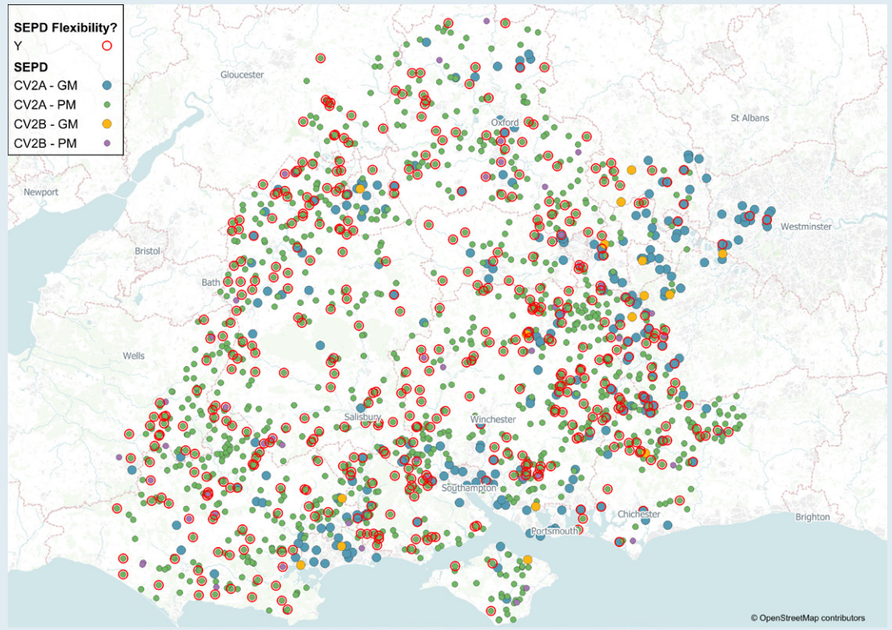
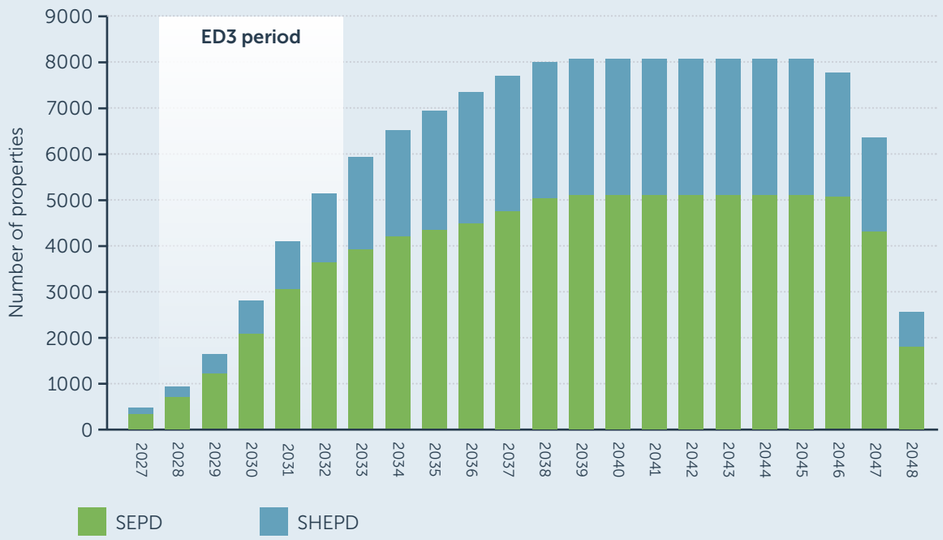


Figure 3.1.10: Projected unlooping delivery profile through to 2048



3.1 ENABLING GROWTH AND THE ENERGY TRANSITION

Enabling customers and communities to adopt low-carbon technologies

Creating capacity on our networks is only valuable if customers can access and use it. As electrification accelerates, our role goes beyond preparing the network: we will make it easier for customers and communities to understand when and where capacity is available, and to connect LCTs. The aim is simple: we want to ensure that every customer and community can benefit from the transition.

Helping customers participate

We will make our network plans and LCT information easier to access and use, so customers, local authorities, communities and installers can better understand where capacity is available, where constraints exist and where we are planning network upgrades.

We will build on tools including Local Area Energy Plans+, the Centralised Network View and our Data Portal, providing greater visibility of LV investment, future network plans, expected constraints and local LCT rollout.

For customers adopting LCTs, we will also provide clearer information on network readiness, the connections process, options and costs, backed by technical support where needed. We will also provide non-digital routes to information and support, recognising that digital tools will not work for everyone.

Coordinating local delivery

The transition will happen differently in every community. We also recognise that network readiness, better information and coordination alone may not overcome every barrier to LCT adoption. While local authorities, installers and community organisations all have an important role, we are uniquely placed to connect local ambitions and delivery plans with an understanding of where and when the network will be ready to support them. We will use that position to bring together the organisations planning and delivering local electrification, helping turn network readiness into successful LCT adoption.

This builds on a role we already perform. During ED2, we introduced specialist engagement support for local authorities, established our Local Authority Advisory Board (LAAB), and developed tools such as Local Area Energy Plans+ to support local energy planning. Local authorities have told us they want greater co-ordination and stronger consideration of Local Area Energy Plans (LAEPs) in England, Local Heat and Energy Efficiency Strategies (LHEES) in Scotland, and other local plans. Not all local authorities have LAEPs and LHEES yet – we will continue to work with those who don't to support development. We will also work with local partners to enable delivery of national programmes, including the Warm Homes Plan and associated energy efficiency and retrofit schemes. ED3 will build on these established relationships, tools and capabilities to play a stronger co-ordinating role in LCT and energy efficiency rollout.

We will work with local authorities and regional bodies on local energy, housing, transport, retrofit and economic plans; with community groups, housing associations and charities that understand local barriers; and with installers, suppliers and flexibility providers that support LCT adoption. Our approach will be practical and place-based, prioritising areas where coordination can make the greatest difference.

Testing where we can go further

Alongside our enhanced coordinator role, we want to test whether we can go further to directly help customers who might otherwise be unable to afford or access low-carbon technologies. Working with local authorities, our ED3 pilots will explore new delivery and funding models that could enable technologies such as solar panels and batteries to be installed in customers' homes, targeting the benefits of electrification towards customers and communities who might otherwise miss out.



£250,000 more each year for community-led projects

We will increase annual shareholder funding for the Powering Communities fund by 50%, from £500,000 to £750,000 per year. We will use this funding to support community-led projects that improve resilience, enable affordable access to LCTs and deliver wider environmental benefits in areas of higher vulnerability, fuel poverty or network-related impact.

ISG Challenge: Future-Proofing the Network. The ISG challenged us to provide greater clarity on what future-proofing means in practice, including how far network investment should anticipate longer-term demand and which aspects of network design could be adopted as standard. Particular questions were raised around low-voltage monitoring and three-phase connections. In response, we developed five coordinated LV workstreams, supported by ED2 delivery pilots, which will inform upgrades ahead of ED3. The challenge also prompted clearer articulation of how standardisation will support efficient delivery. Policies being developed to enable low-carbon technologies and LV network upgrades will be applied as the default approach, with variations used only where they can be justified.

Key stakeholder insights shaping our ED3 approach

58%

of customers were not aware of requirements for installing heat pumps. We'll provide simple guidance and customer journeys, alongside targeted network upgrades so homes are "LCT ready".

57%

of customers were not aware of funding support that is available for adopting LCTs. We'll provide clear advice and signpost to funding, delivered digitally and through trusted local partners.

100%

of housing developers supported the need for real time capacity data, transparent digital tools and providing accessible services and non-digital engagement channels to support older, lower-income and rural communities.

"Fairness means everyone having access to energy, support and upgrades and not being disadvantaged by where they live or how much money they have."

Your Energy, Your Future workshop participant

Customer outcomes achieved from our enhanced coordinator role:

- **More community support: Help for vulnerable and digitally excluded customers.**
- **Greater understanding: Clearer LCT information to help customers manage their energy bills.**
- **Faster adoption: Coordinated local planning and data sharing accelerate LCT rollout.**
- **Lower bills: Support to adopt LCTs and use flexibility to manage energy bills.**

Refer to our 'ED3 DNO Role in LCT and Energy Efficiency Rollout Strategy' for more detail.

3.2 MORE RESILIENT NETWORKS FOR CUSTOMERS

Responsible asset stewardship to protect customer interests

Our network underpins daily life for 3.95 million homes and businesses, and as electrification accelerates, customers depend on us more than ever. Reliable and resilient electricity is our customers' number one priority, ranked ahead of every other measure we tested.

Our ED3 priority is therefore to maintain the strong overall network reliability customers depend on, while targeting investment where asset risk, customer harm and emerging threats are greatest.

We enter ED3 with a stronger evidence base to determine which interventions will deliver most value for our customers. Through ED2, we have improved our asset data and our ability to assess and forecast future condition and risk, giving us the clearest understanding we have had of future network and customer needs. Looking beyond ED3 through our LINP, we balance customers' needs today with forecast network risk in ED4 and ED5, targeting intervention where it is needed while avoiding unnecessary cost.

Our non-load investment is structured around three strategies, which together maintain the integrity, reliability and resilience of our network:

1. **ED3 Network Asset Management Strategy (NAMS):** this data-led strategy renews end of life and harder-worked substations, overhead lines, cables and poles – all assets our customers depend on – prioritising investment on a risk basis so that the assets most likely to fail and with the biggest consequence for customers are replaced first.
2. **ED3 Reliability Strategy (alongside our Network Operating Costs Strategy):** targets investment where need is greatest, reducing short and repeat interruptions and delivering fairer outcomes for our Worst Served Customers. This is supported by the day-to-day inspection, maintenance, and targeted risk-based activities, such as tree cutting, that keep the network safe, resilient and running efficiently.
3. **ED3 Climate Resilience Strategy:** keeps today's level of network resilience under tomorrow's climate conditions, targeting evidence-led investment of around £86m in flood, storm and heat resilience at the assets and locations where it reduces the greatest risk for customers, including 318km of overhead line rebuild and ~250km of climate-vulnerable cable replacement by 2033.

Together these keep the network healthy, improve outcomes where customers are worst affected and prepare for growing threats from severe weather, climate change and cyber risk.

One optimised plan

Our resilience expenditure is heavily interlinked with the investment set out in Section 3.1, responding to growing demand. Changes made to those investments will have consequences for our investments to maintain the health of our assets, set out in this section.

OUR COMMITMENTS TO CUSTOMERS

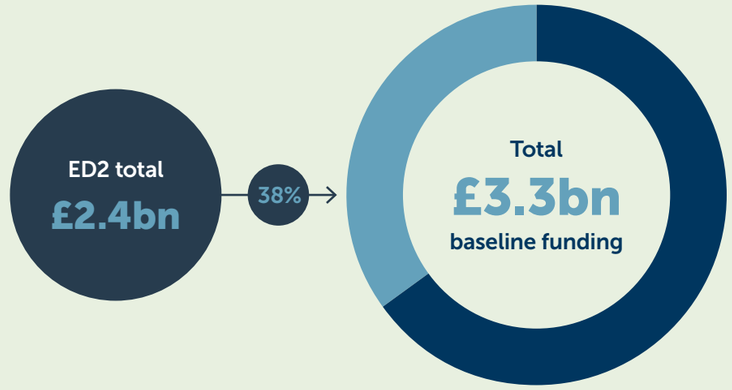
We will modernise our assets, introduce targeted improvements to reduce unplanned power cuts and strengthen climate resilience by:

- Removing **23% of network risk** in the south of England and **12%** in north of Scotland versus a do-nothing baseline (lead commitment)
- **Refurbishing 8% of renewed switchgear and transformers** in ED3, up from 3% in ED2, extending asset lives with cost and carbon efficiency
- **Adding environmental monitoring to all grid and primary substations** to inform future climate investment
- Delivering our Climate Resilience investment programme, including rebuilding or undergrounding **~350km of high-risk overhead line, and replacing ~250km cables** that are exposed to increased rainfall, ground movement and climate-related degradation
- **Halving Worst Served Customers** through targeted schemes: 13,329 customers receive a more reliable service against a March 2026 baseline
- **Restoring 98% of customers within 12 hours** after an unplanned interruption in normal conditions
- **Maintaining 99.98% network reliability** despite increasing demand and increased climate risk conditions
- **Deliver real-time cyber resilience**, detecting and containing high severity cyber threats within our defined risk tolerance by the end of ED3

SHAPED BY STAKEHOLDER INSIGHT

- Reliability is non-negotiable. Customers want us to maintain today's high service levels while focusing improvement on worst-served and vulnerable customers.
- Act before risks become failures. Stakeholders support proactive, targeted investment where asset condition and climate evidence demonstrate the need.
- Spend proportionately. Customers expect resilience investment to balance risk, long-term value and affordability.
- Get maximum value from assets. Refurbishment, reuse and life extension are supported where safety and reliability are protected.

OUR ED3 RESILIENCE EXPENDITURE



Non-load related Capex	£2,172m
Network Operating Costs (NOCs)	£1,168m

Our resilience expenditure is the investment needed to look after the network our customers already rely on every day. Across ED3, we are investing around £3.3bn to renew ageing assets, operate and maintain the network, and strengthen resilience to a changing climate.

Our Non-Load Related Capex investment is made up of Asset Replacement and Refurbishment, Resilience, Safety, Security and Environment, excluding IT&T investments, as set out in page 5.

Our resilience expenditure is increasing by 38% (rounded) compared to ED2, primarily driven by higher ED3 asset-replacement volumes, which are condition and risk led. For NOCs, ED3 involves operating and maintaining a larger asset base and an older existing network in a more challenging condition. The network size will increase over time and this drives a smaller increase in NOCs 22% compared to ED2.

Building a resilient network

A resilient network is one that is prepared for disruption, can withstand changing risks and recover quickly when events occur. We build resilience by maintaining healthy assets, reducing vulnerabilities, strengthening critical infrastructure and improving our ability to monitor, operate and restore the network, ensuring customers can continue to depend on a safe and reliable electricity supply as reliance on electricity grows.

3.2 MORE RESILIENT NETWORKS FOR CUSTOMERS

Deteriorating asset health means investment can no longer be deferred

Our network is ageing at the same time as our climate is changing with extreme conditions becoming more common, all whilst society is becoming more dependent on electricity, meaning it is getting harder to maintain network performance. Our customers and stakeholders need a safe, reliable and resilient network that is also affordable.

We need to step-up our multi-decade asset replacement programme to manage asset health: our data driven investments reduce risk, and we cannot push this investment further into the future.

Why investment is increasing: asset health is deteriorating

Our approach, set out in our ED3 Network Asset Management Strategy, is driven by a simple reality: **the risks facing our network are increasing as our asset population is ageing, on a network customers rely on more than ever**. With more of the network moving beyond its operational life and higher pressure placed on the network through changing climate and greater use of flexibility (which sweats assets harder), this creates an ever-increasing challenge for us to uphold the performance expected by our customers. **Through ED2 we strengthened our asset data and ability to assess and forecast future asset conditions, giving us the clearest understanding we have ever had of future network and customer needs.**

The charts below, built based on our condition data show that in SEPD in particular, there is a **bow wave of investment required in ED4 and ED5** (this is also the case in SHEPD for certain asset categories). **We cannot push our ED3 investment into the future; to do so would result in an undeliverable ED4/5 plan with escalating levels of network risk , which would have a negative impact on network reliability levels for customers..** This would also store up greater affordability challenges for future generations.

Figure 3.2.1: Long-term asset renewal forecasts for SEPD

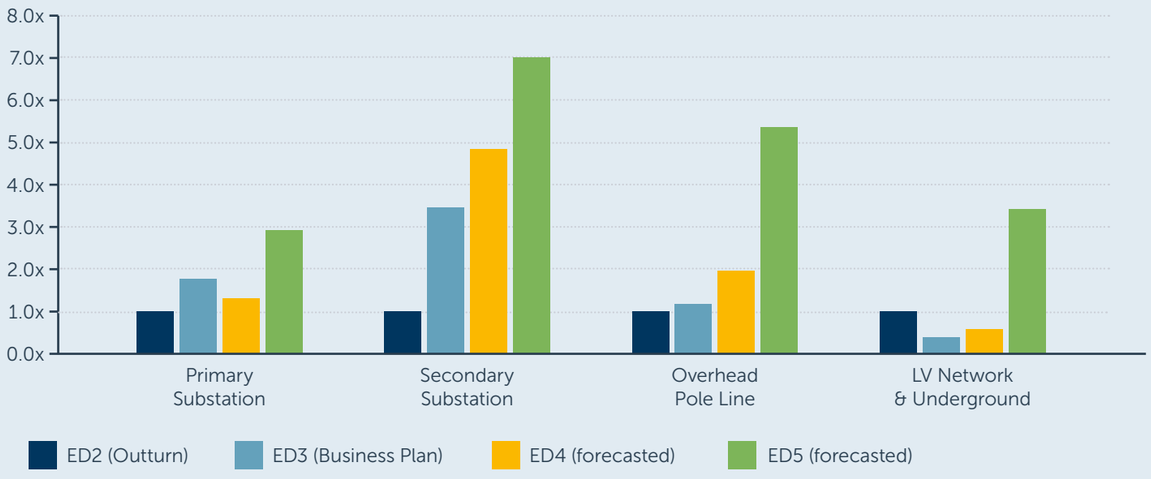
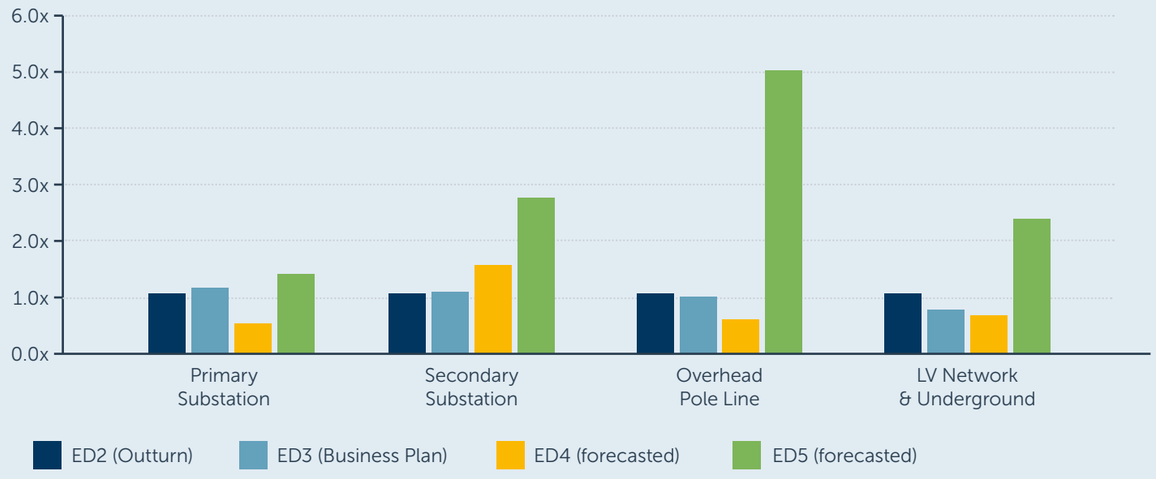


Figure 3.2.2: Long-term asset renewal forecasts for SHEPD



How we prioritise investment based on asset health and condition

- For most assets, we prioritise investment based on asset health and condition, the probability and impact of failure, and how critical the asset is to network safety and reliability (accounting for customer numbers, safety and environmental impact) – in line with the industry standard agreed with Ofgem.
- The intervention thresholds we have chosen remain consistent with our ED2 approach, so the volume of interventions required is driven by asset condition and risk, not by a change in our risk appetite.
- This follows CNAIM (Common Network Asset Indices Methodology), the modelling approach all DNOs use to calculate the health, criticality and monetised risk of certain network assets. CNAIM converts engineering information into consistent health, criticality and monetised risk score. Assets covered by the methodology are classed as Network Asset Risk Metric (NARM) assets.
- NARM investment reduces network risk by lowering the likelihood of unplanned faults and failures.

Investment drivers

Table 3.2.1: Asset investment driver and ED3 expenditure

Investment driver	What drives the need
Safety and compliance	Known hazards and statutory obligations, including operational restrictions, overhead line clearances and condition-driven civils
Asset health replacement and refurbishment	Condition, deterioration, likelihood and consequence of failure, including NARM and non-NARM assets
Operational capability and technology	Monitoring, telecoms and operational technology needed to improve visibility, control and asset management
Reliability and resilience	Maintaining network performance and reducing the likelihood and customer impact of asset failures

3.2 MORE RESILIENT NETWORKS FOR CUSTOMERS

Integrated investment to keep the network dependable and make every pound count

Our ED3 plan delivers clear benefits for customers: a safe and dependable network that keeps the lights on; better value from every pound we invest; a circular, lower-carbon approach; and a long-term approach that prioritises interventions now to avoid passing a larger, costlier risk to future bill-payers. We make every pound count by directing investment to the interventions that deliver the greatest whole-life value for customers, rather than simply replacing assets because they are old. We are adopting increased asset standardisation, modern methods of construction and innovative methods like package substations, which will enable us to deliver our significantly increased ED3 programme more efficiently.

We plan our investments together, rather than considering each need in isolation. For example, if expected demand reduces and a planned network upgrade is no longer needed, we may still need to invest in the same equipment because of its age, condition or resilience. Our integrated approach allows us to adjust the balance of investment while continuing to deliver the right outcomes for customers.

Our Network Asset Management Strategy (NAMS) comprises four strategic pillars, each with clear ED3 deliverables and investments, turning stakeholder priorities into a practical, integrated programme of targeted interventions.

Asset Standardisation and Repeatability

Building on ED2, we will standardise asset designs, specifications and delivery approaches to support ED3. Our "design once, build many" approach reduces unnecessary variation, simplifies design and procurement, improves purchasing leverage and gives suppliers a more predictable demand profile. Fewer equipment types help our workforce build deeper familiarity, strengthening training, installation, maintenance and fault response while improving productivity and safety.

Primary transformer standardisation demonstrates the benefits: a common design, ambient temperature enabled compact transformer, and a 6–8% price reduction.

In ED3 we will retain appropriate supplier diversity, alternative technologies and multiple sourcing routes, applying standardisation where it creates customer value without compromising network resilience.

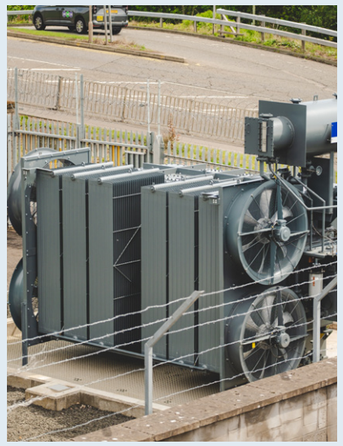


FIGURE 3.2.3: NETWORK ASSET MANAGEMENT STRATEGY PILLARS AND DELIVERABLES

1 Responsible Investing for Network Integrity and Resilience	2 Maintaining a Safe and Compliant Network	3 Upholding Reliability Performance	4 Creating a Circular Approach to Asset Management
Our approach			
Deliver a network that remains safe, reliable and resilient as demand grows and electrification accelerates. Our approach is integrated with our ED3 LRE Strategy here so load, health and climate driven investments are optimised.	Ensure our network continues to operate safely, reliably and in compliance with all regulatory and engineering requirements.	Improve reliability of supply by reducing the frequency and duration of interruptions, prioritising investment based on risk see our ED3 Reliability Strategy	Embed circular economy principles across asset management and investment decisions to maximise value from existing assets.
Our ED3 deliverables			
• 37,000+ replacements • 350km overhead line rebuilt/undergrounded • 250km cable replaced • More than doubling 6.6/11kV transformer replacement • Almost doubling 33kV transformer replacement • Increasing key pole populations by 22–40%	• Environmental monitoring added to all major substations • Single-circuit security for Scottish island communities by 2033 • Safety and Integrity Framework live by April 2029	• ~13,000 customers removed from the Worst Served Customer list • Halve number of customers experiencing frequent interruptions	• Switchgear/transformer refurbishment increased from 3% (ED2) to 8% (ED3) • ~160 primary transformers identified on the ED3 health renewal plan

3.2 MORE RESILIENT NETWORKS FOR CUSTOMERS

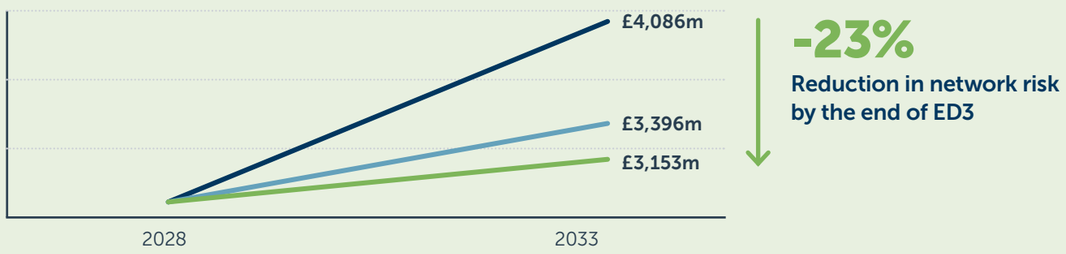
Condition-led investment to reduce risk and prevent avoidable failures

Our ED3 plan targets asset investment at the substations, overhead lines, cables and poles most likely to fail first, and with the greatest impact on customers. We will reduce network risk by 23% in SEPD and 12% in SHEPD by the end of ED3 whilst keeping costs as low as possible for customers. Alongside this, we are also investing to reduce the risk of power cuts for some customers, and keeping our sites safe for our customers and employees.

In defining our plan, we compared it against what would happen in a "do nothing" scenario to demonstrate what benefit our asset renewal plan brings in terms of risk reduction. figures 3.2.4 and 3.2.5 below show our forecast of network risk for SEPD and SHEPD to 2033 under three scenarios: a) do nothing, b) if we were to continue the level of investment at our current ED2 trajectory c) our proposed ED3 plan. In ED3 we will be managing a higher risk network, our investment strategy balances the trade-off of reliability and affordability. If we maintained our ED2 intervention rate, this would result in an undeliverable ED4/5 plan with escalating levels of network risk. The regional differences in risk reduction reflect the differences in condition data and forecast renewal volumes. The smarter network investments set out in Section 3.3 are also key enablers to be able to manage a higher risk network.

SEPD

Figure 3.2.4: SEPD network risk projections, 2028 to 2033



SHEPD

Figure 3.2.5: SHEPD network risk projections, 2028 to 2033

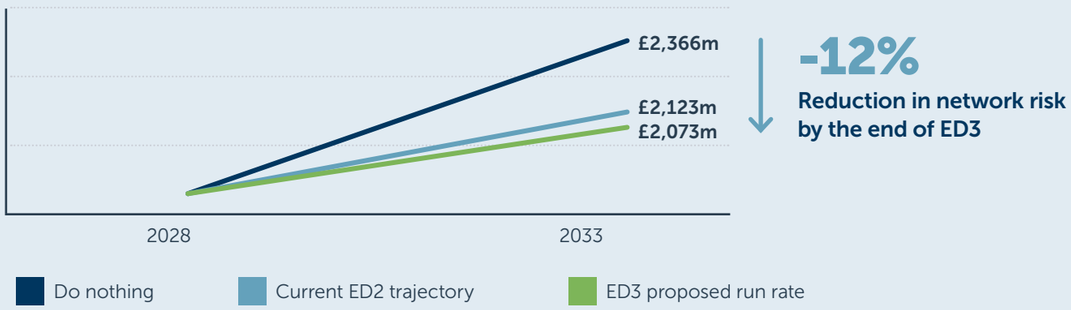
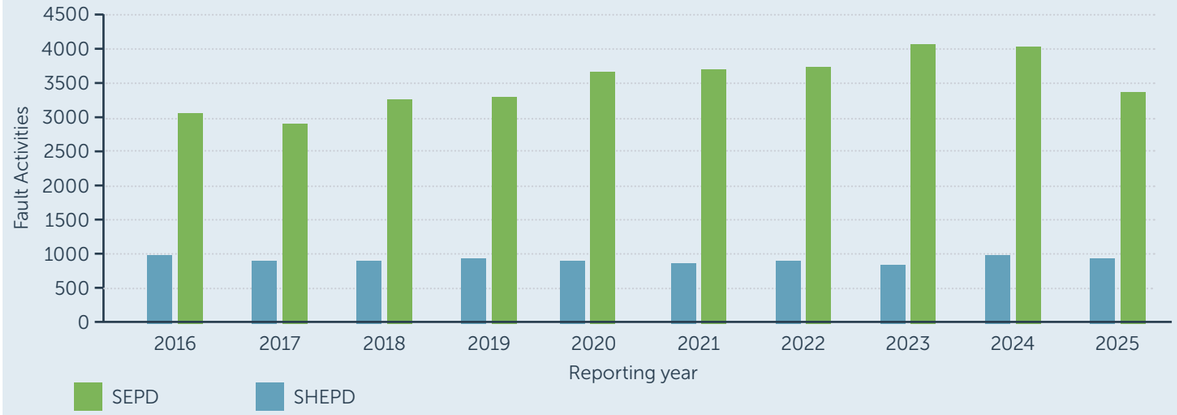


Figure 3.2.6: LV service cable faults, 2016 to 2025



LV Cable Replacement Programme

Our 42,676km LV underground cable network is the final link supplying millions of customers. Around 868km is already at end of life, with approximately 54% expected to reach end of life within 25 years.

Service cable faults remain persistently high, particularly in SEPD. Figure 3.2.6 shows a clear longer-term upward trend in SEPD, rising from around 3,100 faults in 2016 to over 4,000 in 2023 and 2024, before falling in 2025. Despite this recent reduction, the underlying trend reinforces the need for targeted intervention.

In ED3, we will use asset age, condition and fault history to target renewal where the risk of failure is greatest. Planned, targeted renewal will reduce faults and customer interruptions, avoid the higher costs and disruption of emergency repairs, and address potential safety risks before assets fail.

Where intervention is needed, we will also look ahead. Where appropriate, installing larger standard conductors will create additional capacity for electrification and reduce the likelihood that we need to excavate the same area again for future reinforcement.

3.2 MORE RESILIENT NETWORKS FOR CUSTOMERS

Maintaining strong reliability whilst targeting improvements for Worst Served Customers

Our approach is designed to maintain strong overall network reliability while targeting improvement where customers experience the worst service. Although our networks already deliver reliability above 99.98%, average performance can mask customers suffering repeated or short interruptions, particularly those with greater dependence on electricity or limited alternatives.

In ED3, we will move to a more evidence-led, harm-aware approach. We will combine network performance data, customer and vulnerability insight, stakeholder evidence and critical infrastructure dependencies to identify which customers are most affected, understand why interruptions cause disproportionate harm and map those impacts to specific parts of the network.

Improving overall reliability

Our ambition is not simply to manage reliability as our network reaches end-of-life, but to improve the service customers experience, and restore customers quickly when an unplanned interruption occurs. Customer Interruptions (CIs) measure how often customers lose their electricity supply, while Customer Minutes Lost (CMLs) measure how long customers remain without power. During ED3, we will target a 1% year-on-year improvement in CI performance across both networks and for CMLs, we will maintain our performance, with targeted action to reduce the duration and impact of interruptions for customers who lose supply. This is an ambitious aspiration. As parts of our network reach the end of their asset lives, underlying network risk is increasing, while customers are becoming more dependent on electricity (see page 33). Our ED3 investment will intervene directly on around 9% of the asset base, so improving network-wide CI and CML performance requires us to target investment where it makes the greatest difference, alongside smarter network operation, automation, improved fault detection and faster restoration. This targeted approach is part of our longer-term plan to renew the network over successive price controls, maintaining and improving reliability through ED3 while managing the growing asset risk that extends into ED4 and ED5. This target is in addition to our commitment to restore 98% of customers following an unplanned interruption in 'normal' conditions.

Table 3.2.2: Reliability metrics for SHEPD and SEPD

Measure	SHEPD	SEPD
Overall reliability	>99.98%	>99.98%
Customers experiencing ≥1 short interruption annually	22%	32%
Customers experiencing ≥2 unplanned HV interruptions annually	18%	7%
Customers experiencing ≥4 unplanned HV interruptions annually	5%	1%
Worst Served Customers, March 2026	20,617	5,080

Targeting improvement where customers are most affected

Customers typically rate our reliability as good, but this overall picture can mask the disruption experienced by those affected by repeated power cuts. We are targeting improvements where customers are most affected, tackling the causes of faults and limiting their impact when they occur.

Short interruptions lasting less than three minutes, can disrupt digital services, business processes and sensitive equipment. Some occur when network protection and automation operate to clear a fault and restore supplies quickly, avoiding a longer power cut. However, repeated short interruptions still affect customers and need to be addressed.

Repeated longer interruptions, lasting three minutes or longer, are particularly frustrating for those affected. Our targeted Worst Served Customer (WSC) schemes focus on customers who experience repeated interruptions meeting the industry's qualifying criteria. Short interruptions do not count towards this definition, but improving both forms of interruption is important to customers' experience.

Our approach combines strengthening the network to prevent faults with improving protection and automation to reduce the number of customers affected and restore supplies more quickly. We will target interventions to the underlying causes of poor reliability, rather than applying the same solution everywhere.

For example, rebuilding deteriorated overhead lines or replacing cable sections with recurring failures can reduce faults at source, helping customers who experience repeated power cuts. On particularly exposed overhead routes, targeted undergrounding can address recurring faults caused by trees, lightning or other environmental exposure. Additional protection, automation and remote control can isolate a faulty section and restore supplies to unaffected parts of the network more quickly. These measures do not necessarily prevent the original fault, but can limit how many customers experience a sustained interruption and how long they are without power. Where restoration options are limited, new network interconnections can provide alternative routes to restore supplies.

Together, these targeted measures will help reduce repeated interruptions and improve reliability for the customers most affected. By the end of ED3, we aim to improve reliability for over 13,000 Worst Served Customers.

22% of our customers in SHEPD and 32% of our customers in SEPD experience one or more short interruptions, each lasting fewer than three minutes, annually. Incidents on the low voltage (LV) network are included in short interruptions reporting, but not multiple interruptions measures, due to limitations in visibility of the LV network's connectivity and control. During ED3 we propose to further develop LV monitoring to include fault detection and location.

Figure 3.2.7: short interruptions in SHEPD and SEPD
000's

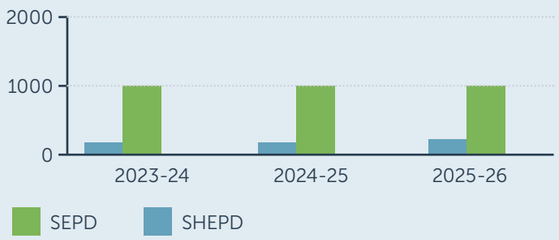
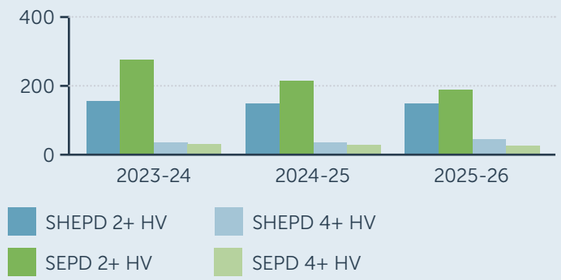


Figure 3.2.8: multiple interruptions in SHEPD and SEPD
000's



Lessons learned from ED2

Intervene earlier using better data and monitoring: stronger asset data and expanded asset monitoring will enable us to act before problems escalate, including a new early-warning trigger to act before customers reach Worst Served levels.

Plan and deliver in a more integrated way, earlier: Operations activity needs to be aligned with asset management plans, outage planning, customer commitments, deliverability and resource plans.

Strengthen early customer and stakeholder engagement: more engagement with critical-infrastructure operators and better communications can help to minimise the impact of interruptions for our customers.

3.2 MORE RESILIENT NETWORKS FOR CUSTOMERS

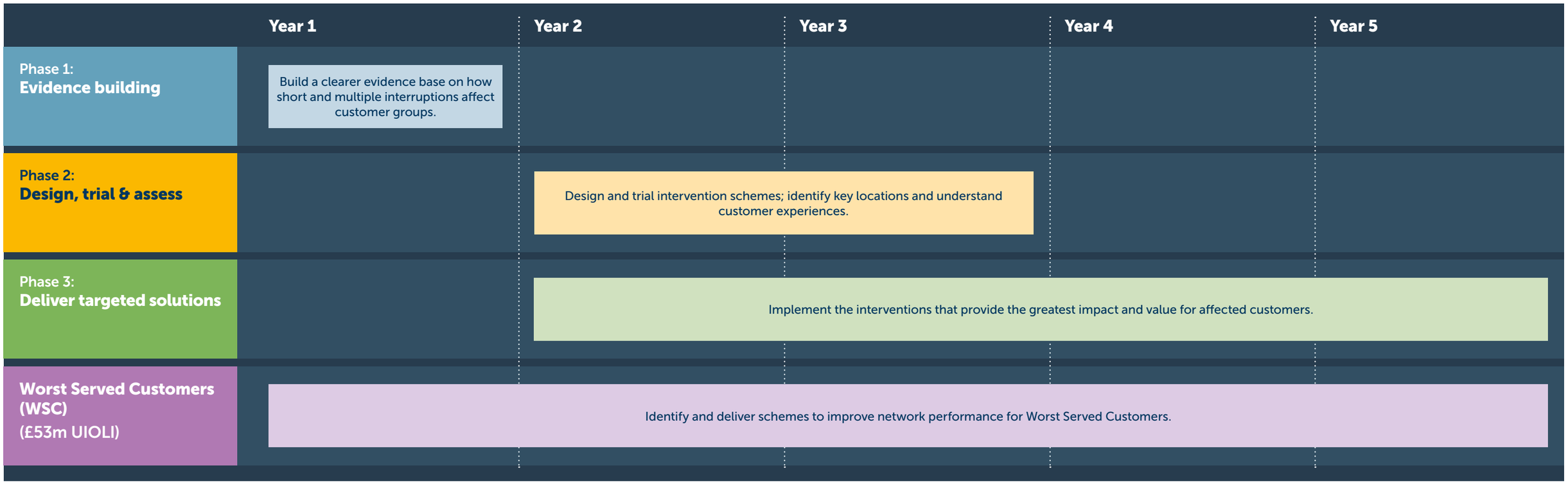
An adaptable, evidence-led approach to targeting short and multiple interruptions

To keep reliability high for everyone, we're changing how we target action for customers most affected by short and/or repeated power cuts.

We'll identify who is most affected, prioritise fairly using clear criteria, and act where most impactful for customers while considering affordability and deliverability constraints. A new early-warning trigger will flag deteriorating network performance so we can adapt our programme before a customer becomes a Worst Served Customer (WSC).

Our strategic approach for short and multiple interruptions can be broadly broken down into three phases, as shown in the timeline below. This phased delivery creates a clear pathway from understanding harm, to prioritising groups, making sensible trade-offs between infrastructure and operational responses and designing measures, to delivering targeted interventions and monitoring whether they reduce the impact on customers.

Figure 3.2.9: Our ED3 programme for addressing short and multiple interruptions, and Worst Served Customers



Prevention

Stop interruptions occurring

Protecting our network infrastructure by increasing tree cutting to prevent future damage, providing greater protection from lightning and wildlife, and replacing exposed overhead cables with covered cables.

Reduce customer exposure

Fewer customers affected

Using technology and targeted specific measures, such as splitting the circuit into smaller sections, to reduce the number of customers affected by a fault.

Reduce customer impact

Tailored customer support and faster responses to faults

As well as responding to faults faster, providing guidance and advice on preparing for and managing interruptions, batteries to power essential equipment, and more information and data to help customers manage the impact.

Enabled by additional monitoring technology across our HV and LV networks: providing better network visibility and improving our understanding of interruption location, duration, frequency, asset condition and potential fault causes.

3.2 MORE RESILIENT NETWORKS FOR CUSTOMERS

Evolving network operations through targeted intervention, automation and innovation

Maintaining reliability also depends on how effectively we inspect, operate and respond to incidents across an increasingly complex network. Our plan for Network Operating Costs (NOCs) covers much of the business-as-usual activities that keeps the network safe and reliable. This is more critical than ever when running an increasingly complex network. In ED3, we will improve our efficiency, delivering a dependable service with investment in automation.

Do the essentials right
We have a robust inspection and maintenance (I&M), defect resolution and repair plan in line with our asset management policies and industry best practice.

Targeted risk-based resilience activity
We are carrying out preventative interventions, including tree cutting in line with ENA technical standard ENATS 43-8.

Building on ED2 delivery
We are evolving our delivery model, building on experience in ED2. Network operation is a foundational activity which helps to realise the outcomes across all of our strategies.

Delivering efficiently
We are ensuring continuous improvement and use innovative operational techniques to improve efficiency and minimise costs.

Improving Our Response

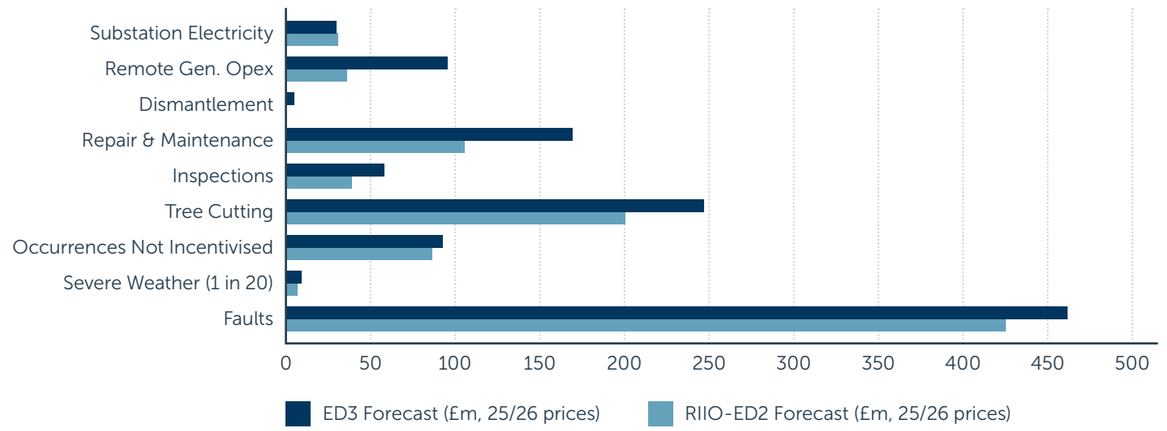
In ED3, we are tackling faults by strengthening vulnerable parts of the network, improving fault detection and restoring supplies more quickly. This includes targeted repairs and rebuilds in high-risk areas, alongside reviews of overhead line specifications and protection settings. In ED3, we are installing more LV and HV monitoring to identify faults earlier and improve restoration accuracy. Alongside this, we are improving manual response and strengthening contingency plans during planned outages to reduce disruption, and the time customers spend without power.

We are evolving our delivery model to deliver our plan

As our network grows and gets more complex, we'll need more people, particularly jointers and line workers, so we're investing in recruiting, training and retaining skilled staff. We will continue to review the balance of in-house and outsourced resources throughout ED3. The preferred delivery route will be determined by the nature of the work, the skills required, workload, customer impact, cost efficiency and the need to retain strategic operational capability. This ensures that in-house resource is focused on core, risk-critical and customer-facing activities, while external resource is used where it can provide scale, flexibility, specialist capability or efficient delivery of discrete work packages. For further detail on our workforce plan, see Section 4.5 and refer to our ED3 Delivery Strategy.



Figure 3.2.11 – Network Operating Costs forecast spend between ED2 and ED3



We are innovating in delivery

We are testing new techniques during ED3, embedding what works into business-as-usual and scaling proven approaches to improve safety, reliability, resilience and efficiency. This will help us work smarter and target activity more effectively, while continuing the essential inspection, maintenance and repair that keeps the network safe and reliable.

We are working with innovators such as Star Delta Robotics to explore how robotics can make essential maintenance safer, more efficient and less disruptive. Robotic arms like the Hi-ARRM are being developed to undertake work such as clearing branches that put overhead lines at risk and removing redundant electrical equipment while the network remains live, avoiding the need to interrupt customers' electricity supply to carry out the work. By developing innovative approaches like this we can reduce disruption, improve safety and deliver essential network maintenance more efficiently, turning innovation into tangible benefits for our customers.



3.2 MORE RESILIENT NETWORKS FOR CUSTOMERS

Maintaining today's resilience under 2080 climate conditions

Climate change is already changing the conditions our network must operate in. More frequent and severe storms, flooding and extreme heat can damage assets, disrupt supplies and make restoration harder. At the same time, growing reliance on electricity means the consequences of disruption for homes, businesses and essential services are becoming greater. Our ED3 Climate Resilience Strategy sets out how we will respond. Our ambition is to maintain at least today's level of network resilience under projected 2080 climate conditions.

Evolving our approach for ED3, towards whole-system resilience

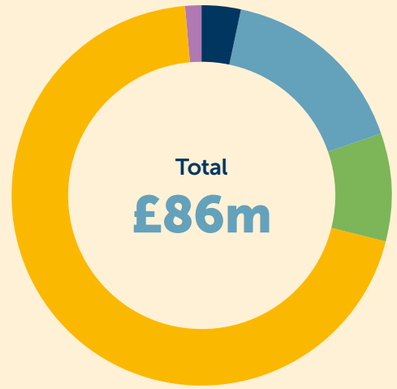
In ED2, we are building the foundations for climate resilient networks. We are assessing climate risks and vulnerabilities, delivering established measures such as flood protection and vegetation management, improving severe-weather response, developing Regional Climate Ready Plans, and building our modelling, monitoring and whole-system understanding. Our approach is standards-based and aligned with ISO 14090. Our assessment of climate risks draws on the Energy Networks Association's (ENA) 16 Adaptation Risks, the Met Office's UKCP18, RCP4.5 and RCP8.5 climate scenarios, and Ofgem's Phase A climate resilience stress-testing programme.[1]

ED3 marks a deliberate shift from a predominantly reactive approach to one that anticipates future climate risk, targets intervention where risk and consequence are greatest, and remains adaptive as evidence evolves. Storm Éowyn showed that climate resilience is a whole-system and whole-business challenge, not simply a matter of asset protection. Our network play a critical role in enabling the continuity and recovery of telecoms, transport, water and other essential services when disruption cascades across sectors – so we're taking a holistic approach to climate resilience adaptation.

Adaptation pathways will retain flexibility by allowing the timing and scale of future interventions to change as evidence develops, while enhanced monitoring, modelling and collaboration will progressively build the evidence needed for ED4 and beyond. The result will be a network that is better prepared, more resilient and able to maintain at least today's level of resilience as the climate changes, while avoiding premature or inefficient investment.

1 ENA Adaptation Risks provide the industry framework for assessing climate vulnerability. UKCP18 is the Met Office's national set of UK climate projections to 2100. RCP4.5 and RCP8.5 are alternative greenhouse-gas concentration pathways used to test resilience under different future climate conditions; they are scenarios rather than forecasts.

OUR ED3 CLIMATE RESILIENCE INVESTMENT



Improved resilience through adaptation	£3m
Preparedness, Planning and Emergency Response	£14m
Measurement and Forecasting	£8m
Improved Asset Resilience and Design Standards	£60m
Continuity, transparency and capability	£1m

Our Climate Resilience investment is a subset of the £3.3bn expenditure set out in Section 3.2. (Totex rounded to the nearest million.)

Our Climate Resilience strategy is build around five pillars:

Pillar 1: Continuity, Transparency & Capability

Key Focus
Embed climate resilience into planning and operations; build workforce capability and capacity

Headline Targets
Climate resilience competencies embedded into engineering standards, design reviews and investment planning, and internal resource funded to support climate resilience delivery

Customer Benefit
Consistent, responsible climate-risk management

Pillar 2: Effective Stress Testing, Measurement & Forecasting

Key Focus
Data-driven understanding of climate risk through modelling, stress testing and monitoring

Headline Targets
Climate Resilience Modelling Tool live; 100% critical/priority assets modelled by Year 2; hazard layers across 100% of licence area by Year 3

Customer Benefit
Improved network resilience; transparent, evidence-based modelling that informs investment

Pillar 3: Improved Resilience through Adaptation

Key Focus
Whole-system approach and adaptation pathways to keep interventions proportionate and responsive

Headline Targets
Framework established by Year 1 and pathways for top three hazards and top 10 hotspots by mid-ED3; **SSE Climate Resilience Centre of Excellence** established

Customer Benefit
Improved resilience and benefits from cross-sector knowledge sharing and pooled resources

Pillar 4: Improved Asset Resilience & Design Standards

Key Focus
Climate-informed design standards and targeted asset interventions where risk is greatest

Headline Targets
Rebuild 318km overhead line, underground 40km, and replace ~250km consac cable, and establish landslide mitigation assessments for high-risk locations on Isle of Wight

Customer Benefit
Improved resilience from flood mitigation; fewer real-world climate-driven faults

Pillar 5: Preparedness, Planning & Emergency Response

Key Focus
Stronger preparedness, emergency response and workforce/customer welfare provision

Headline Targets
5–10% cut in weather-related Customer Minutes Lost (CML); 100% PSR contact in high-risk areas; and community-level resilience plans for climate vulnerable locations

Customer Benefit
Faster restoration; reduced disruption during severe weather

3.2 MORE RESILIENT NETWORKS FOR CUSTOMERS

Tailoring our response to the distinct climate hazards across our networks

Our two licence areas face different climate hazards. Regional assessments show risks are already affecting our network, with further increases expected over time.

South of England climate risk

In southern England, flooding is the most material network-wide climate hazard, with river flooding, surface-water flooding and coastal inundation threatening substations and other critical infrastructure. Our climate hazard risk assessment rates river, pluvial and coastal flooding of substations as high-risk today and high-risk under future scenarios, making flood resilience a core priority.

Our response is to continue and broaden the established flood-resilience programme. This includes meeting ETR138[1] requirements at grid and primary substations, undertaking additional flood-risk assessments, extending assessment into other asset classes and embedded-generation sites, deploying mobile flood barriers and delivering targeted remediation at the locations where consequence and exposure are greatest.

Extreme heat is also emerging much more strongly in SEPD. A late-June 2025 event with temperatures above 36°C contributed to increased network faults, with the most severe day seeing 45 HV faults affecting around 11,000 customers.

The longer-term stress testing reinforces the distinction between north and south. For SHEPD, extreme-heat thresholds that are rarely exceeded today generally become events occurring every 5 to 10 years by 2050-2080 for underground cables, transformers and overhead lines. In SEPD, by contrast, thresholds rarely exceeded today become annual events by 2050-2080. In response to this, our climate resilience programme in SEPD is focused on building better intelligence. We plan to install environmental monitoring at major substations, allowing us to understand actual internal and external temperatures, identify thermal vulnerabilities and establish evidence-based thresholds for future cooling, reinforcement or asset-design interventions.

North of Scotland climate risk

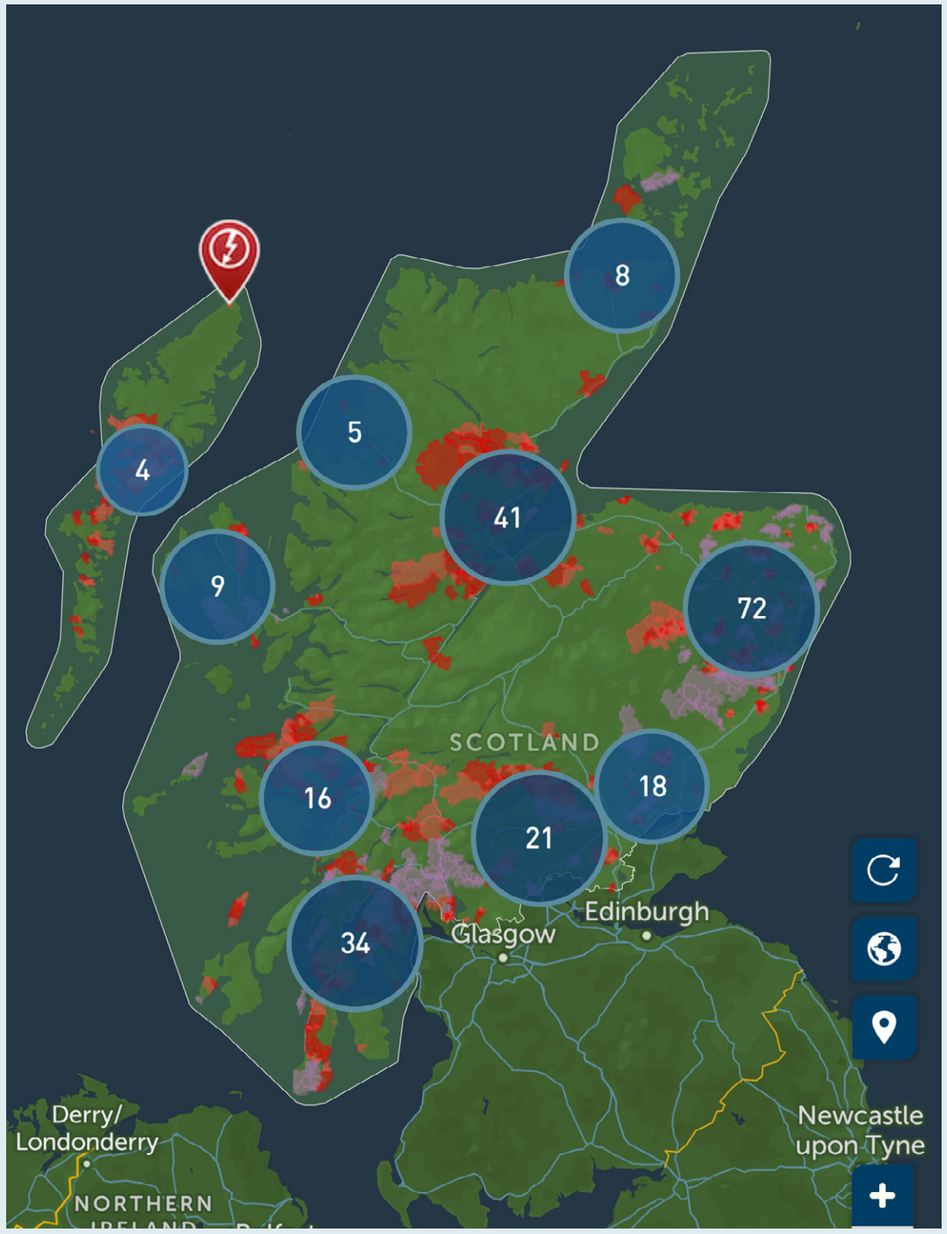
Across the north of Scotland, the most urgent climate hazard is severe wind and storms. Our overhead network is inherently exposed, and extreme wind events are not a future climate scenario. Our stress testing indicates that the wind events affecting both SHEPD and SEPD overhead lines are already occurring approximately annually. Overhead line incident probabilities increase particularly quickly above wind speeds of around 58mph, supporting targeted hardening of vulnerable overhead line corridors.

Storm Éowyn provides a powerful example of this exposure. On 24 January 2025, peak gusts reached 95mph across parts of SHEPD. Fallen trees, wind-blown debris and damage to overhead infrastructure resulted in 527 HV and 236 LV incidents, affecting 94,849 customers. Restoration was made more difficult by damaged roads, ferry cancellations, telecoms disruption and constrained access to resources such as helicopters.

That experience demonstrates the importance of approaching resilience in the north of Scotland in a holistic way. We need to manage climate hazards in the most vulnerable locations, but also ensure that we can get people, equipment and welfare support to remote communities when severe weather occurs. Our ED3 Climate Resilience Strategy therefore proposes targeted overhead line rebuilding using covered conductor and contact spacers, selective undergrounding in SHEPD, LV resilience measures, specialist storm-response equipment and greater workforce and customer welfare capability.

Our proposed climate resilience programme in SHEPD includes rebuilding 303km of overhead line, installing 400 contact spacers in high-wind-risk locations and undergrounding 39.5km of overhead line where wind exposure justifies removing the asset from the hazard altogether.

Figure 3.2.11: Storm outages shown on Power Track. Power Track gives customers real-time information during a power cut, helping them understand what is happening and stay informed as we work to restore supplies. During major storms, it provides a vital source of updates when large numbers of customers are affected.



1 Energy Networks Association Engineering Technical Report 138, Resilience to Flooding of Grid and Primary Substations.

3.2 MORE RESILIENT NETWORKS FOR CUSTOMERS

Protecting customers as cyber risks continue to evolve

Cyber risk is growing as we use more digital technology, rely on increasing volumes of operational data and work more closely with a wider range of partners across the energy system. At the same time, customers expect us to provide a reliable, safe and resilient service. Meanwhile, regulatory expectations continue to evolve in response to an increasingly complex threat landscape.

Without continued investment, we would face greater exposure to cyber attacks, data breaches, supply chain vulnerabilities and possible disruption to critical operational systems. These threats could affect our ability to restore power quickly, increase costs for customers, impact safety and ultimately undermine customer confidence.

Our ED3 Cyber Resilience Plan sets out how we will strengthen our ability to reduce and mitigate cyber threats wherever possible and, when incidents do occur, detect, respond and recover effectively. This investment will help ensure we can continue to provide secure, resilient and reliable services for customers throughout ED3 and beyond. ED3 investment will support addressing emerging requirement and maintenance of the Basic and Enhanced Profiles.

Our investment programme has been developed through a risk-led process that targets the strategic cyber risks most likely to affect the resilience of our essential service. These risks are evolving as the electricity system becomes increasingly digital, connected and automated, creating more potential points of cyber attack. At the same time, cyber threats are becoming more sophisticated, persistent and potentially more disruptive. Table 3.2.3, below, explains how cyber risks are evolving.

Our approach has to adapt to this changing risk landscape. Our ED3 strategy is evolving towards a proactive, intelligence-led and threat-driven model of cyber resilience. Through ED3 we will strengthen our ability to prevent, detect and respond to emerging cyber threats. We will improve the resilience and recoverability of critical systems, and embed cyber resilience into digital technologies, data platforms and operational capabilities. This will help ensure we continue to provide a secure, reliable and trusted service for customers. As a result, we aim to reduce both the likelihood and potential impact of cyber risks across our network and wider digital ecosystem, as indicatively shown in figure 3.2.12. Figure 3.2.13, summarises how customers will benefit from our cyber resilience activities.

Table 3.2.3: evolving cyber risks and their implications

Key risk driver	Why it matters
Cyber threats facing electricity networks are becoming more sophisticated, automated and disruptive.	Emerging threats such as AI-enabled attacks, quantum computing and geopolitical cyber activity increase the likelihood and potential impact of incidents. Organisations must continually adapt their cyber defences to remain resilient.
The transition to a smarter, more interconnected energy system is increasing reliance on digital technologies and trusted data.	Greater connectivity, automation and integration across the energy ecosystem create new cyber security dependencies and vulnerabilities. Cyber resilience is essential to support innovation while maintaining reliable network operations.
Expectations for secure and resilient electricity services continue to grow among customers, stakeholders and government.	Cyber resilience plays a critical role in maintaining confidence in the services that communities and businesses rely on. Protecting trust is as important as protecting the continuity of supply.
Regulatory and policy requirements for cyber resilience are becoming more demanding.	New legislation and evolving cyber frameworks will require higher levels of resilience, assurance and compliance. Organisations must continue to strengthen capabilities to meet these expectations.
A shortage of experienced cyber security and operational technology specialists is increasing delivery risk.	Specialist skills are needed to manage evolving threats, technologies and regulatory requirements. Attracting and retaining expertise is essential to maintaining a resilient network.

Figure 3.2.12: Cyber risk – illustrative only

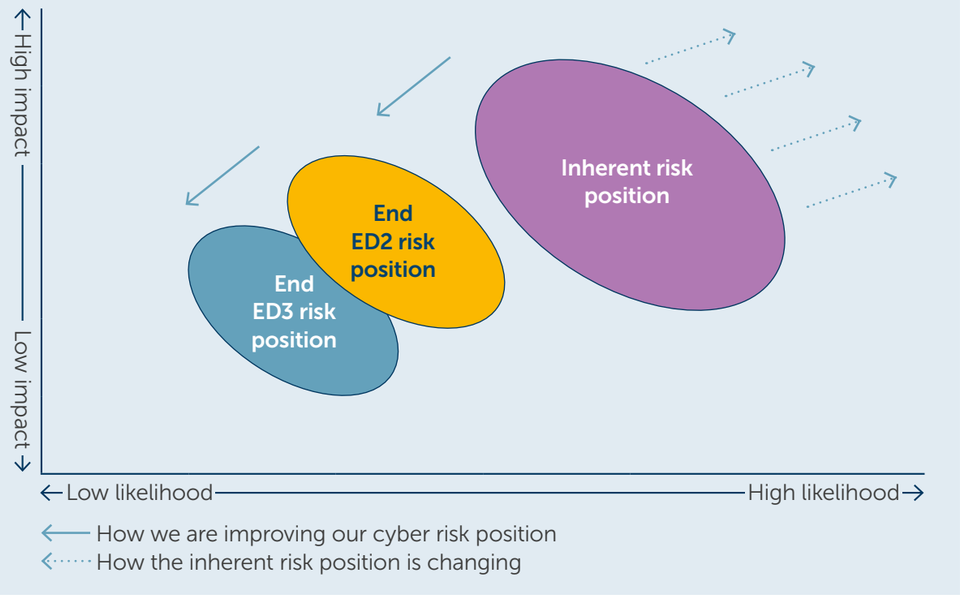
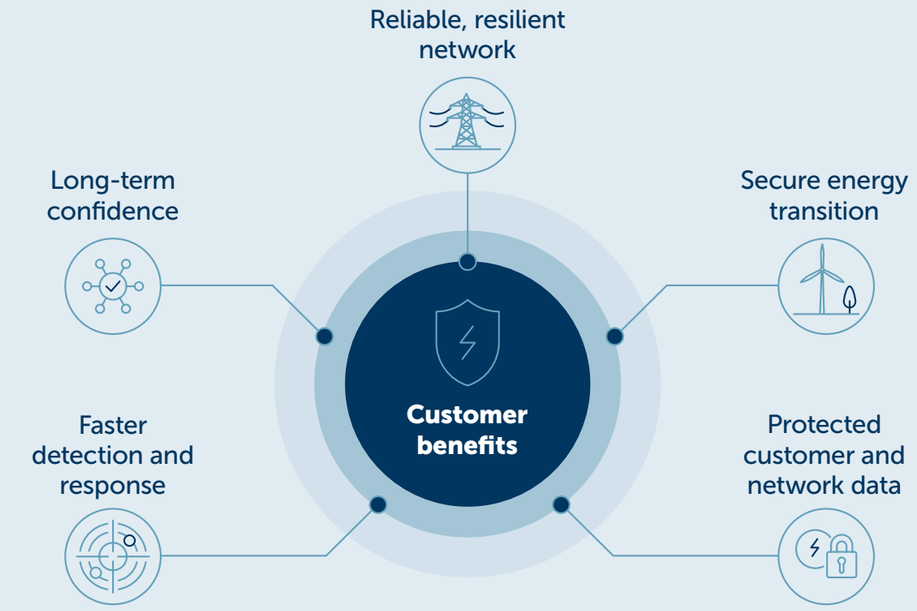


Figure 3.2.13: What our cyber plan delivers



3.3 CREATING SMARTER NETWORKS

Building on leading DSO performance to deliver a smarter, more flexible network

Our networks are becoming smarter because electrification, renewable generation, storage and changing customer behaviour are making the electricity system more complex and dynamic. Merely building more infrastructure is not an economic way to provide for quicker network access in the future. We must also make better use of existing capacity, anticipate constraints earlier and respond more effectively as network conditions change.

Our ambition as a DSO is to be the trusted coordinator of a smarter, more flexible and efficient electricity system. By integrating forward-looking planning, active network operation and flexibility, we'll make better use of existing assets, help customers connect sooner and give communities and businesses greater confidence to invest in electrification. We'll deliver a reliable, affordable transition, with transparent decisions and benefits accessible to all.

Our ED3 DSO Strategy brings together better data, forecasting, digital tools, automation and flexibility to transform how we plan and operate the network. Smart meter insights and enhanced monitoring will help identify emerging needs; continuously informed, place-based planning will guide the right mix of reinforcement and non-network solutions; and integrated operational systems will coordinate flexibility, network configuration and dynamic voltage control and loss optimisation. This moves us from monitoring performance and reacting to constraints towards actively managing the network, thereby connecting customers sooner, reducing curtailment and disruption, supporting more LCTs and lowering long-term costs while maintaining safety and reliability.

We are a leading DSO with strong foundations for ED3

During ED2, we established our DSO at the heart of how we plan, operate and develop the network. Our performance has delivered beyond stakeholder expectations, with Year 3 satisfaction and performance panel scores of 9.20 and 8.79 respectively, achieving the maximum reward for these parts of the DSO incentive.

We have published 308 datasets on our Data Portal which has 13,820+ users. We have also published 37 Strategic Development Plans covering our entire licence area. In 2025/26, we dispatched 1,335MWh of flexibility as participation in markets expanded. These capabilities give us a strong foundation for ED3. We will integrate planning, network operation and flexibility more closely, making better use of existing assets so customers can access capacity sooner and benefit from lower long-term costs.

OUR COMMITMENTS TO CUSTOMERS

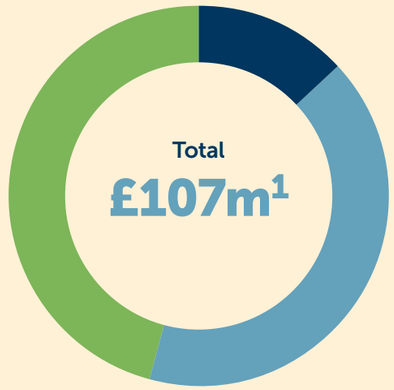
We will provide earlier access for customers to connect and enhance data driven network management by:

- More than **double the capacity of earlier connections** offered to customers by 2033, providing approximately **5GW of capacity**, up from 2.3GW in ED2 (lead commitment)
- **Reducing domestic energy consumption losses by 47.5GWh** through improved voltage optimisation by 2033 (lead commitment)
- Achieving and maintaining an independent **market confidence score of 9/10** or higher among flexibility service providers and market participants
- Achieving **95% local network visibility** with data published on our data portal
- Implementing **dynamic voltage management across 50% of our network load** which will unlock more than 1GW of LCT hosting capacity, enabling up to 300,000 electric vehicle chargers and 100,000 heat pumps, without major reinforcement
- **Reducing average data request response times from 20 days to 5 days** by 2029, by implementing AI into our Data Portal. This will help customers make faster and more informed investment decisions
- **Establishing our Local Energy Support Team** to provide tailored network, connection and flexibility advice, accessible guidance and workshops to **at least 100 communities and businesses** each year, reducing connection uncertainty through improved access to network information and options

SHAPED BY STAKEHOLDER INSIGHT

Stakeholders want smarter networks to unlock capacity sooner and at lower cost, with accessible data, simple flexibility markets and clear evidence that digital innovation delivers real customer benefits

OUR ED3 SMARTER NETWORK INVESTMENT



Strategic network planning and enhanced customer support	£14m
Digitised network operations, market facilitation, voltage management and losses	£44m
Operational flexibility	£49m

We are proposing **£107m of DSO investment in ED3** to unlock capacity sooner, make better use of our existing network and reduce long-term costs through smarter planning, operation and flexibility.

1. These investments include a subset of our Technology and Digital investments (see Section 4.3).



3.3 CREATING SMARTER NETWORKS

Our enduring DSO model

Our enduring DSO model is the long-term operating model through which we will plan, coordinate and operate an increasingly dynamic electricity system. It brings strategic network planning, network operations, flexibility, voltage management and whole-system coordination together, supported by better data, forecasting and digital capability. As introduced in Section 3.1, rather than treating reinforcement, flexibility and operational solutions separately, the model enables them to be assessed and deployed as an integrated set of choices, helping us unlock capacity earlier, make better use of existing assets and target investment where it delivers the greatest long-term value for customers.

Over ED3, this model will mature into a more digitally enabled, automated and integrated way of operating the network. Planning insights, market signals and real-time operational actions will increasingly work as one connected system, allowing us to anticipate constraints, optimise network performance and respond more dynamically as electrification grows. Importantly, the enduring model is not a fixed end-state: we will retain flexibility to adapt our capabilities as technology, markets, regulation and customer needs evolve, while maintaining the core objective of delivering earlier access to capacity, stronger network performance and lower whole-system costs for customers.

WE WILL DELIVER AN INTEGRATED SET OF CAPABILITIES ACROSS FIVE INTERCONNECTED AREAS

1. **Strategic planning identifies needs and efficient interventions.**
2. **Network operations turns plans into day-ahead and real-time action**
3. **Flexibility markets manage constraints, accelerate connections and optimise outages.**
4. **Voltage management increases hosting capacity and improves power quality.**
5. **Losses optimisation reduces costs and improves efficiency for customers.**

Our approach

- Introduce dedicated whole-system planning roles to align regional, local and national energy needs, including tRESP.
- Establish new community energy and pre-connection services providing practical, engineering-led advice.
- Deploy probabilistic planning tools and specialist forecasting capability to identify needs and options earlier.
- Integrate reinforcement, flexibility, voltage and operational solutions through annually refreshed strategic plans.

Our ED3 deliverables

- Annually refreshed Strategic Development Plans covering 100% of both licence areas.
- Planning forecast performance will improve by 15%
- More than 5GW of connections offered earlier access to capacity.
- Tailored advice for at least 100 communities and businesses each year from 2028.
- Annual assessments for nationally significant sectors.

Our approach

- Transform strategic plans into connections, outage management, curtailment reduction and daily network operations.
- Introduce new resource to coordinate greater volumes and wider flexibility use cases.
- Integrate the Flex Toolkit, Distribution Energy Resource Management System (DERMS) and control room systems to support coordinated, auditable decisions.
- Strengthen DSO, Control Room and NESO coordination through dedicated operational roles.

Our ED3 deliverables

- Day-ahead and near-real-time operation of the network.
- Improved visibility and forecasting to enable better decisions.
- Reduced constraints, interruptions and time to restore supply.
- Coordinate outages and connections to minimise customer impact

Our approach

- Scale Smart Signal[1] to provide location-specific signals and increase market-led responses to congestion.
- Publish granular operational envelopes to support automated flexibility participation.
- Establish a market incubator to develop new products for connections, outages, voltage and curtailment.
- Deliver FlexForward[2] to grow accessible, trusted and scalable flexibility markets.

Our ED3 deliverables

- Suitable flexibility products available to 85% of new demand and generation customers where appropriate.
- Accelerate at least 2.5GW years of energisation.
- Procure and dispatch flexibility to manage constraints and reduce curtailment.
- Smart Signal on up to 10% of secondary substations, targeting 5% congestion reduction.

Our approach

- Scale Voltage Management Control to optimise voltage dynamically.
- Use CVR to reduce avoidable domestic consumption while maintaining voltage standards.
- Apply the Voltage Index[3] to identify issues and target investment consistently.
- Deploy modern AVCs, on-load tap changers and Volt/VAR devices to resolve persistent local constraints.

Our ED3 deliverables

- Dynamic voltage management on 50% of network load.
- Voltage Management Control at 233 primary substations.
- Unlock more than 1GW of hosting capacity.
- Voltage Index covering 100% of primary transformers and 90% of LV feeders by 2029.

Our approach

- Embed technical losses in planning, options assessment, asset design and operational decision-making.
- Maintain lower-loss asset standards and whole-life assessment for replacement decisions.
- Improve non-technical loss detection using settlement, metering, network and analytical evidence, subject to successful validation.
- Publish annual performance against losses commitments and customer outcomes.

Our ED3 deliverables

- Reduce technical and non-technical losses.
- Target investments and operational changes that improve efficiency.
- Lower bills and carbon through reduced losses.
- Use data-led decisions to track and improve performance.

1 Our implicit flexibility service that gives customers and market participants signals to adjust LCT operation to avoid congestion.
2 Our multi-year, multi-market framework for procuring and dispatching flexibility.
3 To assess, quantify and communicate voltage performance across our LV, HV and EHV network ranging from VI1 (best) to VI5 (worst).

3.3 CREATING SMARTER NETWORKS

Using smarter network operation to deliver our DSO commitments

Earlier access to more than 5GW of connections during ED3

We will combine smarter planning, managed connection products and active network operation to offer earlier access to more than 5GW of connection capacity during ED3, without making customers wait for all reinforcement to finish. Our plan will leverage **operational flexibility to improve access and accelerate connections**, subject to a positive and proportionate customer-value assessment.

Our early access connections products will allow customers to connect sooner. Earlier access means customers trade some access on a temporary basis for an earlier connection date, with operating limits and potential access restrictions explained upfront. We are investing in new support services to ensure customers are fully informed about their connection options, so they can choose the right product for their development. Every reinforcement-delayed HV and EHV connection will be assessed for earlier-access options, and we'll make suitable products available to **85% of new demand and generation customers**.

Figure 3.3.1: Overview of our Early Access products

Early Access Products	How it enables earlier access
Limited Curtailment	Connect earlier with defined curtailment limits and a clear route to unrestricted access.
Scheduled Capacity	Connect sooner by using network capacity during agreed times when capacity is available.
Ramped Capacity	Connect earlier with capacity increasing progressively as network capability becomes available.
Community Smart Access	Enable new housing to connect sooner by combining efficient homes with local flexibility.
Technical Limits	Release earlier access by coordinating customer connections within available transmission boundary capacity.
Transmission congestion ANM	Connect sooner by dynamically managing power flows around upstream transmission constraints.
Transmission congestion SWAN	Provide earlier access by dynamically managing demand and generation during rare transmission constraints.

We will build on our Active Network Management (ANM) delivery. In ED3, we will expand ANM into 25 new zones, with enhanced operational systems coordinating access and constraints. ANM continually monitors network constraints in real time and allocates the available connection capacity to customers. This rollout will be supported by improved forecasting and network modelling that will compare reinforcement, flexibility and operational alternatives.

A new role: Connection Optioneering Specialist

We are creating a new role to provide engineering-led connection advice and help customers identify credible routes to connect sooner.

Connection Optioneering Specialists will:

- Help customers compare conventional and managed-access options, including their opportunities, constraints and trade-offs, while linking connection advice to network planning to inform decisions earlier.
- Explain available capacity, timing, costs, operating limits and curtailment, and identify flexibility or early-access products that could enable earlier connection.
- Work with developers, local authorities, businesses and generators to identify credible pathways and alternatives that accelerate connections and deliver customer value.

Delivering losses improvements

We will deliver efficient assets and enable smarter network operation to reduce losses on our network and deliver value to customers.

Figure 3.3.2: Overview of our ED3 plan for addressing losses

Delivery route	What we'll do
Build losses into investment decisions	Use the Voltage and Losses Optimisation Hierarchy to compare reinforcement, flexibility and operational options, considering losses alongside capacity, resilience, renewable integration and whole-life cost.
Install lower loss assets	Continue deploying lower-loss conductors, transformers and network designs where whole-life benefits justify the investment.
Optimise the network in operation	Use monitoring, modelling, network configuration and voltage control to reduce avoidable energy waste. Enhance up to 50 11kV feeders or circuits for targeted automation where there is a strong customer-value case.
Deliver voltage-led energy savings	Apply Conservation Voltage Reduction (CVR) and voltage optimisation within statutory limits and without compromising service. Target 47.5GWh of annual domestic energy savings by 2033.
Address non-technical losses	Resolve more than 8,000 unregistered or incorrectly settled MPAN records annually, using data-led detection, human oversight and customer protections. This improves settlement accuracy, not necessarily physical network losses.

Our Integrated Network Operation investments and wider network visibility investment are materially improving our capability to understand, measure and monitor losses across our networks. This includes both technical and non-technical losses. We are embedding loss considerations into our system planning which supports a loss optimised whole-system approach.

Conservation Voltage Reduction (CVR)

We will deliver CVR as part of our **Integrated Network Operation investment**. CVR carefully lowers supply voltage within statutory limits to reduce consumption without compromising service. The way it works is as follows:

1. **Understanding voltage headroom:** Smart meter data, monitoring and modelling identify where voltage can fall while keeping every customer, including those at feeder ends, within permitted limits.

2. **Adjusting voltage settings:** Equipment, such as transformer tap changers, makes controlled adjustments instead of leaving voltage at a fixed, conservatively high setting.

3. **Monitoring and adapting:** Controls respond to changing demand and local generation, maintain service quality and check whether consumption actually falls.

Our ED3 DSO Strategy proposes using Voltage Management Control, smart meter insights and better network visibility where analysis demonstrates measurable savings without compromising service or network performance. CVR and voltage optimisation together support our target of 47.5GWh of annual domestic energy savings by 2033.

SHAPED BY STAKEHOLDER INSIGHT

Customers and stakeholders want us to get more from the energy system we already have. They support smarter operation, flexibility and better use of renewable generation where these reduce waste, unlock capacity and avoid unnecessary investment.

3.3 CREATING SMARTER NETWORKS

Progressively delivering a smarter, more flexible network

Our ED3 DSO plan responds to a more complex network

By Year 3 of ED2, we had connected 7.8GW of distributed energy resources, 660,000 electric vehicles and 67,500 heat pumps. This growth requires smarter operation to manage changing demand, generation and voltage. As participation in flexibility increases and stakeholder needs evolve, customers need accessible markets and trusted data to make decisions. Our plan brings together system planning, active network operation and flexibility to help customers access capacity sooner, plan and invest with confidence, experience better network performance and pay less over the long-term. We will deliver these outcomes progressively through ED3, with benefits emerging at different stages as the capabilities below come into service.

Drivers for DSO change

Network complexity
Electrification, generation and storage create capacity, voltage and losses challenges. Reinforcement alone cannot deliver the pace and cost customers need.

Smarter operation
Automation improves efficiency but makes demand, generation and voltage less predictable. Static, manual approaches are insufficient.

Active customers and communities
LCTs, flexibility and local energy schemes need trusted data, clear signals and accessible markets.

Customer and stakeholder priorities
Earlier, predictable capacity access, clearer investment information, reliable network performance and long-term value for money.

ED3 outcome milestones

	From 2028	By 2029	By 2030	By 2033 / end of ED3
Access Capacity Sooner	Across ED3: >5GW offers for earlier access connections and at least 2.5GW-years of accelerated energisation. Assess all reinforcement delayed HV/EHV connections, aim for suitable products for 85% of new customers and address >20,000 looped services using data and analytics.			
Plan and Invest with Confidence	Every year: refresh Strategic Development Plans covering 100% of both licence areas and assess nationally significant sectors.	Data request response times reduce to five days (from today's 20-day target), helping customers make faster and more informed investment decisions.	Our Local Energy Support Team will offer tailored advice for at least 100 communities and businesses each year.	Planning forecast accuracy improves 17% against the ED2 average.
Experience Better Network Performance	Deploy granular operational envelopes and Smart Signal to support market-led coordination and maximise flex potential for EVs, heat pumps, batteries and other flexible technologies.	Voltage Index covers 100% of primary transformers and 90% of LV feeders.	Operational forecasting accuracy across our network of 15% MAPE (Mean Absolute percentage Error) or better with 95% local network visibility by combining LV observability, forecasting and smart metering data.	By 2033: dynamic voltage management for 50% of load at 233 primary substations. Unlock >1GW of capacity for up to 300,000 electric vehicle chargers and 100,000 heat pumps.
Pay Less Over the Long-Term	Across ED3: use existing capacity and flexibility and efficient dispatch to reduce reinforcement needs and long-term whole-system cost. Enable at least 25,000 low-income and vulnerable households to access flexibility, smart energy services or tailored energy advice.			Reduce annual domestic energy consumption losses by 47.5GWh.

3.3 CREATING SMARTER NETWORKS

Delivering future DSO capabilities depends on strong IT, OT and data foundations

Over the next five years, our networks will need to accommodate much more electrification, distributed generation, flexible demand and energy storage. We will plan and operate as an integrated system, connecting forecasting, strategic planning, flexibility, operational decision-making and sooner, make better-informed investment decisions, all of which will contribute to keeping costs down.

Our approach, set out in our ED3 DSO Strategy, defines the capabilities we need to plan and operate this increasingly complex, flexible network, including strategic network planning, integrated network operations and the use of flexibility to benefit our customers.

However, our DSO does not operate in isolation. Its ability to plan and operate an increasingly complex, flexible network depends on the foundations provided by IT, Operational Technology (OT), Data and Digitalisation and Innovation. Together, these capabilities create the visibility, trusted data, digital tools and operational control needed for DSO to make better planning and real-time decisions.

IT and OT provide the foundation, creating the connectivity, telemetry, monitoring, network visibility and control needed to understand what is happening across the physical network, supported by capabilities such as the OT Data Fabric. DSO brings these foundations together, using capabilities such as probabilistic planning, the Flex Toolkit and Enhanced System Orchestration to turn insight into action and determine where, when and how we should intervene across strategic planning, network operations and flexibility.

Delivery in ED3 will allow us to integrate AI-enabled support into our Data Portal to help users find, understand and use increasingly complex network information more easily. Combined with improved search, machine-readable data and greater network visibility, we aim to reduce average data-request response times from 20 days to five days by 2029, enabling customers to make faster and better-informed investment and connection decisions.

By 2031, smart metering and secondary-substation monitoring will contribute to 95% local-network visibility, with this visibility published through the Data Portal. The result is one smarter system. Better visibility enables better insight and better-informed decisions, allowing us to unlock capacity sooner, make greater use of flexibility and existing assets, target investment more precisely and keep long-term costs down for customers.

Figure 3.3.3: How IT and OT foundations underpin DSO capabilities.

Digital programmes supporting DSO investments	A. Core Strategic Planning	B. Integrated Network Operations	C. Operational Flexibility
Probabilistic Planning and Power Flow	●	●	●
Evolution of Flex Toolkit	●	●	●
DSO Enhanced Systems and Orchestration		●	●
Purpose of programme area:	Forecast constraints and assess investment options	Connect planning insight to operational decisions	Procure, dispatch and optimise flexibility

● Direct dependency identified

Shared data and decision foundations

Network visibility	Data sharing and interoperability	Trusted data and decision support
OT Data Fabric	Central Data Sharing Framework	Data Quality and Governance AI Enabled Decision Support

Reliable data, connectivity and control

IT / OT enabling investments

Telecoms, telemetry and Communications	Smart meter / LV monitoring, OT systems and control	Enterprise platforms, integration architecture and system interfaces
OTN Upgrade Communications Network Resilience	ADMS and Evergreen Foundations	OT Technology and Service Modernisation

ED3 IT and Telecoms Strategy

Modernises critical technology and communications infrastructure to improve resilience, network visibility and operational capability.

Data and Digitalisation Annex

Builds the trusted data, digital platforms and capabilities required to improve planning, operations and customer outcomes.

Innovation Strategy

Moves from innovation projects towards deployment at scale, embedding successful innovation into network, digital and process.

3.4 ENSURING A RESPONSIBLE AND SUSTAINABLE BUSINESS

Delivering a sustainable transition: investing now to reduce risk and future costs

As our network grows to support electrification, we will need to install more infrastructure and use greater volumes of materials, increasing the environmental impacts associated with the construction and operation of our networks. At the same time, climate change and an ageing asset base are intensifying existing risks. These challenges vary across our licence areas, from remote island and marine environments in northern Scotland to denser, highly utilised networks in southern England.

Our approach in ED3 is to address environmental risks at the point that they present the greatest risk to our network and delivers the best value for customers. Without targeted investment, Greenhouse Gas (GHG) emissions from our fleet, buildings and equipment will remain higher for longer.

Delaying the replacement of ageing SF_6 equipment and oil-filled cables beyond ED3 presents growing GHG and pollution risks through leakages, and higher operating costs through increased monitoring, top-ups and repairs. Additionally, it means the continued reliance on virgin materials, increasing waste and exposing customers to higher costs and the risk of supply chain disruption.

Investing in the ED3 period through a proactive rather than reactive approach will allow us to address these environmental and network risks early, avoiding higher remediation, compliance and replacement costs in the future, while reducing harmful emissions from our network and deliver long-term value for money for customers.

Through our ED3 Environmental Action Plan (EAP), we will reduce carbon emissions, prevent pollution, restore nature, build sustainably and responsibly where needed, and strengthen the governance needed to deliver lasting environmental improvements. Customers consistently emphasised affordability, reliability and resilience, while stakeholders called for greater action on climate change, pollution prevention, biodiversity and circular economy principles. Our approach balances these priorities by focusing investment where environmental improvements also deliver wider benefits through improved network resilience, reduced risk, lower whole-life costs and better customer outcomes.

OUR COMMITMENTS TO CUSTOMERS

We will reduce our environmental impact by:

- **Reducing our Scope 1 and 2 greenhouse gas emissions by 55%**, in line with our 1.5°C-aligned Science Based Target and help manage Scope 3 emissions by ensuring that suppliers representing 55% of our supply chain spend have set their own Science Based Targets (lead commitment)
- Reducing the risk of pollution by **removing 248km of fluid filled cables** (FFC) representing over 22% of the total FFC across our network during the course of ED3. This is part of our long-term plan for full removal by 2050.
- Implementing Nature-based Solutions (NbS) to support carbon removals and wider ecosystem services that our industry and communities rely on, by achieving the **creation or restoration of 1,294 hectares of peatland, woodland and seagrass habitats** by 2033.

SHAPED BY STAKEHOLDER INSIGHT

Our stakeholders increasingly expect environmental stewardship and nature-positive delivery to be part of responsible business as standard, alongside greater responsibility across the supply chain. Stakeholders in our Greener Horizons webinar series strongly supported our SBTi-aligned approach, recognising it as an effective way to manage climate risks and demonstrate leadership. That is why we have set a clear, independently anchored pathway for the emissions most directly within our control – Scope 1 and Scope 2. We will also extend our influence beyond our direct operations to Scope 3 emissions

OUR ED3 ENVIRONMENTAL INVESTMENT



Climate Change Mitigation	£28m
Removing legacy pollution risks	£94m
Enhance Governance, Reporting and skills	£4m
Supporting Nature	£30m
Responsible Resource Use	£3m

We are seeking £159m across both licence areas to deliver our ED3 environmental obligations and initiatives, across five key areas.

Environmental improvement will also be embedded across wider ED3 programmes, including asset management, network development, climate resilience, innovation and operational delivery. To maximise value for customers, our whole-business approach will deliver environmental benefits alongside other outputs, including improved reliability and resilience, reduced risk and lower whole-life costs.

* These investments are a subset of investments sitting across our Business Plan.



A more efficient network is also a greener network

Our new approach to voltage management set out in Section 3.3 will reduce the energy lost in transporting electricity, cutting annual domestic energy consumption losses by 47.5GWh, reducing the environmental impact of running our network.

Valuing the emission reductions enabled by our ED3 plan

We estimate that the net value of emission reductions enabled by our ED3 plan is £1.2bn – equivalent to 3.97MtCO_2e.[1]

1. MtCO_2e means million tonnes of greenhouse-gas emissions on a CO_2 equivalent. See independent report, 'The socio-economic value of SSEN Distribution's ED3 Business Plan'

3.4 ENSURING A RESPONSIBLE AND SUSTAINABLE BUSINESS

Building on progress to achieve our environmental ambition

We have delivered in ED2, we are prioritising in ED3

Building the fundamentals of delivery

During ED2 we established the foundations needed to deliver environmental improvements at greater scale. We put in place clearer governance and accountability, aligned delivery with our Science Based Targets and improved the quality of our environmental data, monitoring and reporting. We also demonstrated our ability to flexibly adapt when delivery conditions changed. For example, we accelerated the use of Hydrotreated Vegetable Oil to reduce emissions from mobile generation. Together, these measures have built the capabilities, controls and partnerships needed to deliver.

Lessons learned

In ED2, we introduced dedicated plans to reduce emissions from SF_6-containing equipment and manage fluid-filled cables, including strengthening monitoring, operational controls and asset management. The improvement achieved on SF_6 showed that targeted intervention can work. Progress on fluid-filled cables has been more difficult because of the age and condition of the asset base and the limited allowances in ED2 for preventive replacement and refurbishment. This experience directly informed a more targeted, risk-based ED3 programme focused on the assets and interventions that can deliver the greatest environmental and customer value.

Looking forward

ED3 builds on established governance, experienced delivery teams, proven partnerships and a clearer understanding of where early intervention can reduce pollution, operational risk and future costs. Our ED2 performance gives us confidence in our ability to deliver.

Establishing Strategic Priorities

We have set our EAP priorities by aligning a broad range stakeholder expectations with material environmental risks, statutory obligations and lessons from ED2.

These priorities are supported by our Double Materiality Assessment (DMA), completed in May 2026 using research, surveys, interviews and stakeholder scoring. This assessed both our impacts on the environment and society and how sustainability issues could affect our business, helping focus the plan on the most significant risks and opportunities.

We have also stress tested these priorities with our Independent Stakeholder Group (ISG) to ensure they balance environmental ambition with affordability, reliability, resilience and deliverability, targeting action where it can provide the greatest environmental and customer value.

Our five strategic priorities for environmental action



Priority 1

Climate Change Mitigation

By the end of ED3, we will reduce emissions by 55% across our operations, supported by Science Based Targets (SBTi) that provide a transparent, credible pathway to net zero.

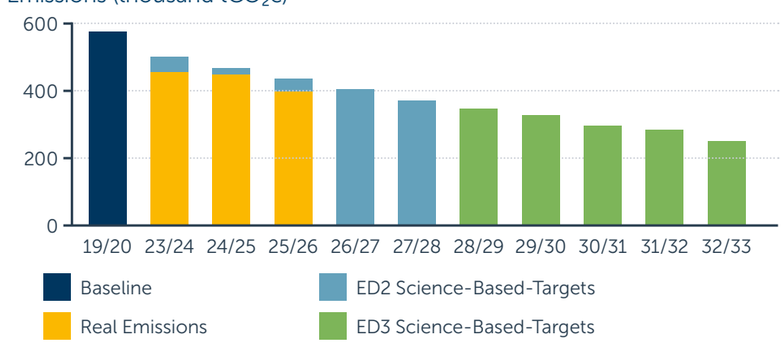
To reduce greenhouse gas emissions, we will:

- Reduce annual SF_6 emissions by 55% from a FY19/20 baseline, from 169 kg to 76 kg a year, while progressively transitioning the network away from SF_6. We will replace the highest-leaking SF_6 assets first and adopt SF_6-free alternatives where technically and commercially viable, supported by improved asset-level tracking, monitoring and lifecycle management.
- Reduce fossil-fuel use across our operations by replacing diesel-powered vehicles with lower-emission alternatives where operationally viable, expanding the use of electric and alternative-fuel vehicles, and continuing the transition to lower-carbon fuels for mobile generation. We will also assess lower-carbon solutions for temporary and embedded generation, prioritising technologies that reduce greenhouse gas emissions while maintaining network resilience and emergency response capability.
- Work with suppliers and industry partners to reduce emissions associated with the materials and infrastructure we procure.

We are outperforming our current emissions pathway and targeting a 55% reduction by 2033.

Figure 3.4.1: Emissions performance and reduction pathway

Emissions (thousand tCO_2e)





Priority 2

Reducing Pollution and Protecting Communities

Communities expect us to minimise the environmental footprint of our network and protect the places where they live and work. In our customer research, reducing our direct environmental impact was ranked as a high priority. We will reduce pollution risks associated with our assets and continue the transition away from practices that pose a risk to the environment. This will leave a safer and more resilient environmental legacy for communities.

To reduce pollution risks and protect local communities, we will:

- Reduce losses on the network targeting 47.5GWh of annual domestic energy savings by 2033. See page 42 for more detail on losses.
- Replace 85km of ageing fluid-filled cables which represent a pollution risk to communities. A further 163km is delivered through wider asset-replacement programmes, meaning 248km is removed – or 22% of our total.
- Continue identifying, testing and removing equipment that may contain Polychlorinated Biphenyls (PCBs).
- Install 112 oil containment measures and pollution prevention infrastructure at substations, depots and storage facilities.
- Assess Polyfluoroalkyl Substances (PFAS) risks across our network and develop plans to monitor, manage and reduce those risks over time.
- Replace 14,500 creosote-treated poles with alternatives in high-risk locations and establish a long-term transition away from creosote use.

Figure 3.4.2: Fluid-filled cable removal across programmes

ED3: 245km combined = 22% of total population



3.4 ENSURING A RESPONSIBLE AND SUSTAINABLE BUSINESS

Building on progress to achieve our environmental ambition



Priority 3

Using Resources Responsibly

As we invest in the network of the future, we have an opportunity to reduce waste, reuse valuable materials and strengthen sustainability across our entire value chain. 79% of stakeholders agreed that investing more today is worthwhile if it helps create a more circular economy, improving the environment for all.

To reduce waste and use resources more sustainably, we will:

- Embed circular economy principles into procurement, asset management and investment decisions.
- Increase the reuse, refurbishment and recycling of network materials and equipment, achieving a >80% recycling rate and 5% reuse where feasible by 2033.
- Eliminate avoidable waste streams and maintain our commitment to zero waste to landfill.
- Introduce more sustainable materials and construction practices, including lower-carbon alternatives.
- Apply our Sustainable Supplier Code to all new contracts and frameworks from the start of ED3, with at least 80% of suppliers by value meeting the Code by 2033.





Priority 4

Supporting Nature

The natural environment plays a vital role in supporting resilient infrastructure, healthy communities and thriving local economies. Stakeholders strongly supported the use of nature-based solutions, with 80% recognising the role they can play in improving network resilience when used appropriately and supported by evidence. We steward the natural environment because minimising the impact our infrastructure has on hosting communities is the fair and right thing to do.

To protect and enhance nature across our licence areas, we will:

- Restore 723 hectares of peatlands, create 564 hectares of native woodlands and establish 7 hectares of seagrass habitats, providing up to 65,000 tCO_2 of avoidance and removals.
- Deliver nature-based solutions that support carbon removal, flood resilience and wider ecosystem benefits.
- Improve how natural capital is measured and managed through our Natural Asset Platform.
- Enhance biodiversity through habitat management, nature-inclusive design and targeted interventions at 12 sites or more. Sites will be prioritised based on stakeholder priorities and our Natural Asset Platform.
- Expand visual amenity programmes in locations where there is a strong environmental and community case for intervention, including undergrounding up to 21.93km of overhead line, and nature-based alternatives.



Priority 5

Strengthening Governance, Reporting and Skills

Customers rightly expect clear evidence that their money is being spent effectively and that commitments are being delivered. Stakeholders consistently told us they want greater transparency from network operators and clearer accountability for environmental performance, so we aim to improve our governance and transparency.

To ensure we deliver these commitments effectively, we will:

- Strengthen environmental governance and accountability, with clear ownership, oversight and escalation of environmental performance and risks.
- Continue to improve the quality and transparency of environmental reporting, using consistent data and measures to track progress against our ED3 commitments.
- Continue to embed environmental considerations into business decision-making, ensuring environmental impacts and opportunities are considered alongside cost, risk and customer value.
- Build environmental capability across our workforce, giving colleagues the skills, tools and guidance needed to deliver our commitments in day-to-day activities.
- Strengthen assurance of our environmental performance, providing stakeholders with confidence that commitments are being delivered and outcomes can be evidenced.

Our environmental challenge is shaped by the places in which we operate.

In the north of Scotland, operating across remote, rural and island communities requires us to manage sensitive terrestrial and marine habitats, including the environmental impacts of subsea infrastructure.

In the south of England, a denser and more heavily utilised network creates greater pressure from construction, resource use and development, as well as greater exposure to legacy fluid-filled cables, SF_6 assets and community impacts such as noise. Our EAP reflects these differences, tailoring investment and interventions to local environmental risks while maintaining consistent standards and ambition across both regions.

3.4 ENSURING A RESPONSIBLE AND SUSTAINABLE BUSINESS

Strengthening island networks for a resilient, sustainable future

Across both of our licence areas, we serve island communities, from Islay through to Shetland in Scotland and the Isle of Wight in the South. The islands are home to communities, businesses and industries with ambitious plans for decarbonisation and sustainable growth. Electrification of heat, transport and industrial processes, including whisky production, alongside new renewable and community generation, will increase the role that electricity plays in island life. Investment in island networks is therefore not only about maintaining existing supplies; it is also about creating the capacity and resilience needed to support future prosperity.

However, island networks face challenges that require a different approach from conventional mainland planning. Many communities rely on a small number of strategic subsea cables, where a fault can result in a lengthy and complex restoration. Some subsea cable faults can take several months to repair. Local diesel generation has historically provided essential backup in some locations, but much of this generation is ageing, carbon-intensive and subject to tightening environmental requirements. Each island group also has its own geography, network configuration, growth outlook and community priorities and the presence of local and community renewables means that cable faults can lead to wider community impacts.

Our plans are shaped by three principal drivers: the need to improve resilience to prolonged network outages; the need to meet anticipated growth in electricity demand and generation; and the need to transition away from reliance on non-compliant diesel generation. Meeting these needs will require more than network reinforcement alone. We will consider conventional investment alongside flexibility, storage, community and third-party generation, and other whole-system solutions to identify the most efficient and deliverable pathway for each island group.

Working with communities, local authorities, businesses and other stakeholders, we have developed long-term pathways looking ahead to 2050. During ED3, we will deliver projects that are sufficiently mature while continuing to develop, test and refine options for other islands. This enables us to make progress now, retain flexibility as future needs become clearer, and protect customers from premature or inefficient investment.

For more detail refer to our ED3 Islands Strategy.

OUR COMMITMENTS TO CUSTOMERS

We will provide secure and resilient electricity networks that meet each island community's future needs, while keeping investment fair and affordable, by:

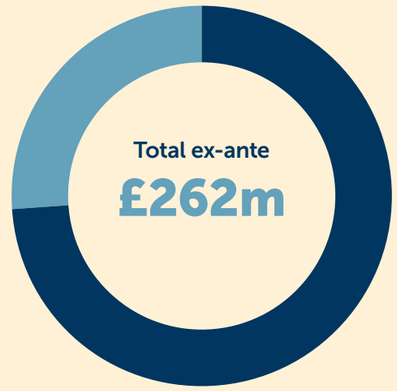
- Strengthening resilience to island communities, **reserving non-compliant embedded diesel generation for exceptional, unplanned events** in line with environmental legislation

SHAPED BY STAKEHOLDER INSIGHT

- Our island stakeholders consistently tell us that reliable and resilient electricity networks are their highest priority, particularly as communities become increasingly dependent on electricity for heat, transport and daily life. They also expect investment to be affordable, fair and based on credible evidence, enabling a transition in which costs are shared equitably, and no island community is left behind.
- At the same time, stakeholders recognise the opportunities that greater network capacity could unlock for industrial and transport decarbonisation, community generation and local economic growth. That is why we have developed transparent, long-term pathways to 2050 for each island group, shaped through continued engagement and tailored to its particular circumstances, rather than applying a one-size-fits-all solution.



OUR ED3 ISLAND INVESTMENT



Ex-ante build: Islay – Jura reinforcement	£194m
Ex-ante pre-construction and development funding	£68m

We are seeking £262m ex-ante funding (of which £194m is approved for Islay – Jura through Hebrides, Orkney, Western Isles and Shetland Uncertainty Mechanism (HOWSUM)) and a proposed Islands Reopener UM of up to a further £544m which includes ED4 development funding and cable fault contingency (see Section 5.4 for more details on our proposed Islands Reopener).

Where further assessment is required to determine the most efficient solution and establish robust cost certainty, we are seeking pre-construction and development funding only. This will allow us to fully consider and develop options, assessing network, flexibility, generation and hybrid solutions. We will then use our proposed Islands Reopener mechanism to request future construction funding once this development work is complete.

Our investment will strengthen security of supply during prolonged subsea cable outages, support transition away from non-compliant diesel generation and create capacity for decarbonisation, renewable generation and local economic growth. To protect affordability, we will tailor solutions to each island group, test network investment against credible flexibility and local-generation alternatives, and progress construction as needs and projects and mature.

3.4 ENSURING A RESPONSIBLE AND SUSTAINABLE BUSINESS

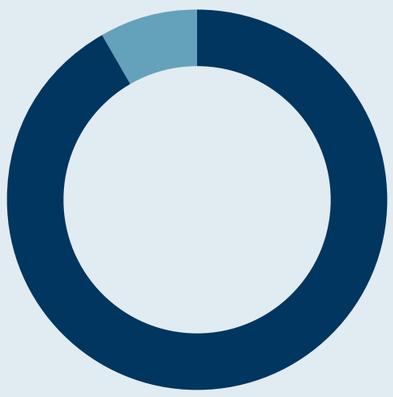
Why and how we are investing in island networks

Why our island networks need to change

Intervention across our Island communities is motivated by three related drivers:

1. **Ensuring appropriate resilience for island communities:** Island networks face distinct resilience challenges because of their geography, dependence on strategic subsea connections and the potentially lengthy restoration periods following a cable fault. These consequences will become more significant as communities increasingly rely on electricity for heat, transport and daily life. Our approach, set out in our ED3 Island Strategy, defines the resilience outcomes we aim to achieve through staged interventions. These could combine network investment with credible third-party solutions, including compliant local and community generation.
2. **Accommodating future demand and generation growth:** The electrification of heat, transport and industrial processes will increase electricity demand across our island communities. The islands and surrounding waters also have significant potential for wind, tidal and other renewable generation, alongside community-energy projects. We need to develop sufficient network capacity to support these opportunities, ensuring that network constraints do not become a barrier to decarbonisation, renewable generation or sustainable local economic growth.
3. **Managing the future role and compliance of our diesel generation fleet:** Environmental Authorisations (Scotland) Regulations (EASR), which came into force in November 2025, introduced stringent limits on nitrogen oxide (NOx) emissions. While our island Diesel Embedded Generation (DEG) fleet has derogations allowing continued operation into the next decade, by the end of 2033 we will no longer be able to use non-compliant DEG on a planned basis, which currently forms most of our fleet (see figure 3.4.3, below). We therefore need to act now to develop alternative arrangements that maintain security of supply and enable future compliance. We must therefore reduce reliance on carbon-intensive diesel generation while ensuring that dependable network, generation or whole-system alternatives are available to maintain supplies during prolonged outages.

Figure 3.4.3: Installed DEG capacity by NOx compliance status



Non-compliant	**70.9 MW**
Compliant	**6.4 MW**

DEG can make a significant contribution to our Scope 1 carbon emissions when required to operate for extended periods.

Our 1.5°C-aligned Science Based Target requires emissions to be reduced to 7,239 tCO_2e for the entire DEG fleet by FY32/33. In FY24/25, emissions from the Outer Hebrides fleet alone reached 12,595 tCO_2e.

Our delivery pathway to resilient, lower-carbon island networks

Our Islands delivery plan establishes a long-term pathway to 2050 for each island group, covering Shetland, Orkney, the Outer Hebrides, Mull–Coll–Tiree, Islay–Jura and the Isle of Wight. ED3 represents the next proportionate stage of those pathways.

The key ED3 commitment is to secure full island-group demand following the loss of one in-feeding subsea circuit, known as N-1 security, by the end of 2033, and will mean that DEG is required principally to maintain supplies during unplanned events and more severe outage conditions. The longer-term ambition for larger island groups is to maintain demand during sustained loss of two strategic circuits, or N-2, through a combination of network assets, compliant local generation and credible third-party solutions.

How delivery will be staged

Our plan uses different funding and delivery routes according to project maturity:

- Islay–Jura will move into delivery, with £194.3m of previously approved construction funding for new 66kV connections and associated resilience works.
- Other island projects will continue through development and pre-construction, supported by £68m for surveys, engineering design, consenting, optioneering, stakeholder engagement and market testing.
- Once those projects are sufficiently mature, construction funding of up to an indicative £544m would be sought through the proposed annual Islands Reopener.
- This staged approach allows work to continue without committing customers to major construction expenditure before the preferred solution, deliverability and efficient cost are sufficiently certain.

How flexibility and local generation will be used

We will deploy our Build and Flex framework before seeking construction funding through the Islands Reopener. We will compare the asset-based solution with third-party flexibility, community and local generation, energy storage compliant low-carbon generation, continued or replacement generation at existing diesel sites and hybrid solutions combining network and non-network measures.

The preferred option will be selected according to its technical capability, whole-life cost, environmental performance and deliverability. Flexibility or local generation could replace part of a conventional reinforcement, defer expenditure, complement new network assets or provide resilience while wider projects are delivered.

Local generation can complement and reduce network investment requirements by playing two related roles:

1. **Providing dependable resilience capacity** when a subsea connection is unavailable; and
2. **Making better use of island renewable resources**, while enabling decarbonisation and economic growth.

However, subsea cable faults can take several months to repair and so any non-network solution must provide sufficient capacity, duration and availability for communities.

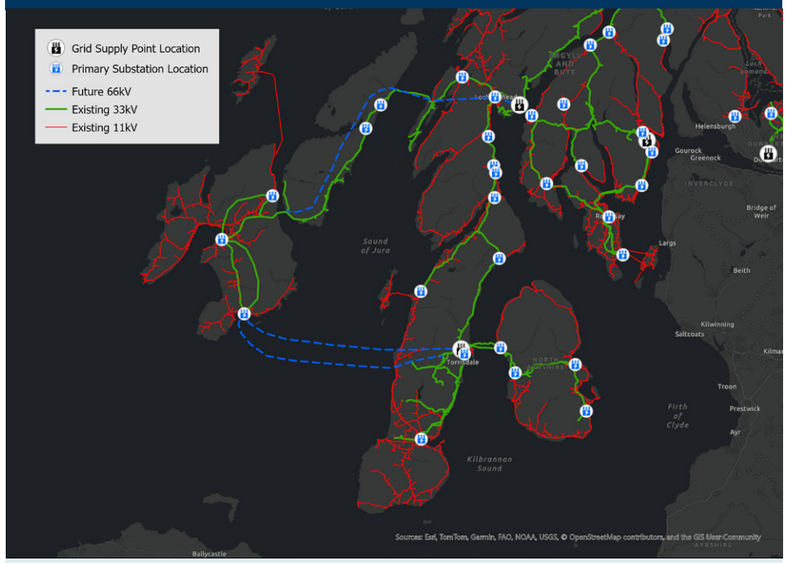
3.4 ENSURING A RESPONSIBLE AND SUSTAINABLE BUSINESS

Tailored investment for each of our island communities

Our ED3 plan provides a tailored programme of investment for each island group, combining approved reinforcement with development funding to progress future projects. With the exception of Islay-Jura, these projects remain subject to future regulatory approval through a proposed reopener. The ED3 development funding sought will allow us to progress surveys, design, consenting and market testing, refine costs and assess reinforcement alongside flexibility and local energy solutions. We will return to Ofgem for construction funding once the need, timing and most efficient solution are sufficiently certain.

Figure 3.4.4: Investment plans and outcomes by island group

Inner Hebrides: Islay–Jura
(£194m, ex-ante approved)

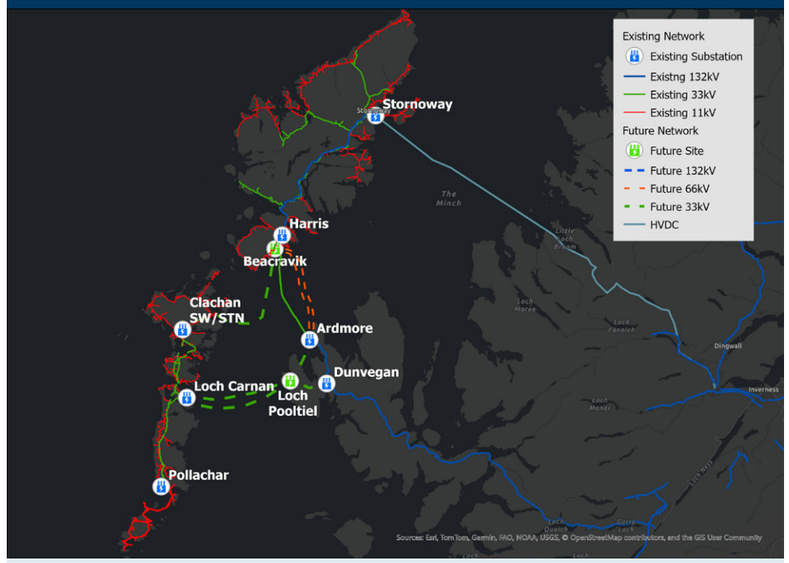


Two new 66kV circuits between Carradale and Port Ellen, a new 66kV circuit between Port Ann and Knocklearach, a new 66kV connection between Islay and Jura, and an automatic-reclosing scheme at Port Ellen.

Together, these works will provide more than 200MVA of additional cable capacity, strengthen the islands' resilience to prolonged subsea cable outages and remove reliance on Bowmore Power Station.

The additional capacity will also support new connections and rising demand, particularly the decarbonisation and potential expansion of Islay's internationally important distillery industry, while enabling wider electrification, economic growth and the islands' transition to net zero.

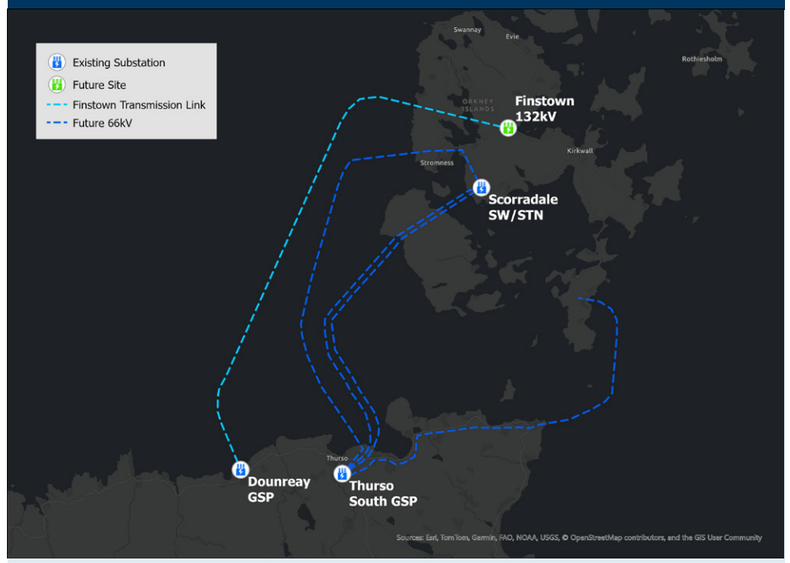
Outer Hebrides
(£20m development, £186m indicative reopener)



For the Outer Hebrides, we are planning a coordinated programme to strengthen supplies to the Uists, Lewis and Harris, including new 33kV circuits between Dunvegan, Loch Pooltiel and Loch Carnan, replacement of the Loch Carnan voltage regulator, and a new 66kV connection between Ardmore and Beacravik, supported by new transmission infrastructure. Development funding will progress the programme, including completing surveys and detailed design.

The programme will provide additional capacity for the electrification of heat, transport and maritime activity, support community energy and renewable generation, improve resilience during prolonged subsea cable outages, and reduce future reliance on diesel generation. Network, flexibility, low-carbon generation and hybrid solutions will be assessed before the final investment is confirmed.

Orkney and Orkney Northern Ring
(£15m development, £131m indicative reopener)



For Orkney, we are progressing a new 66kV connection between Thurso South and South Ronaldsay and assessing the future reinforcement of the Orkney Ring.

Coordinated with planned transmission investment at Finstown and Eday, the programme will provide capacity for growing demand, including maritime electrification, strengthen resilience, support decarbonisation and reduce reliance on diesel generation.

Further design, optioneering and market testing will determine the most efficient combination of reinforcement, flexibility and low-carbon generation before construction funding is sought.

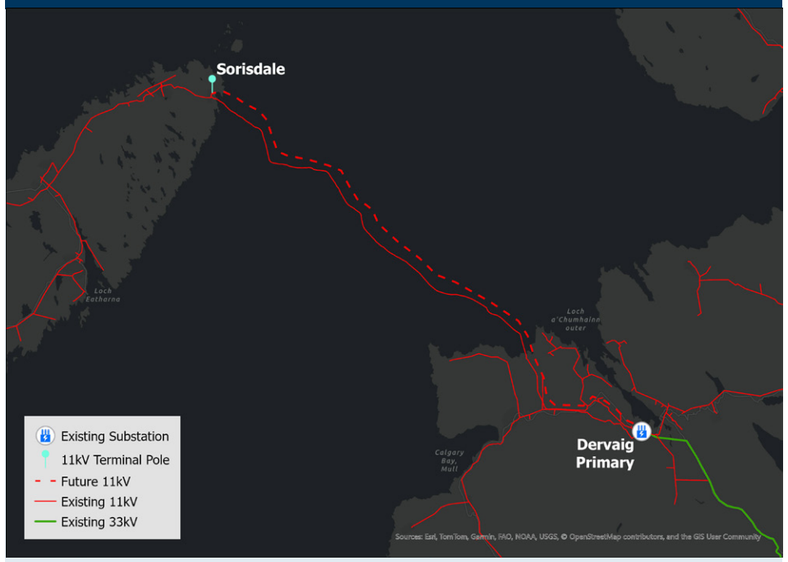
3.4 ENSURING A RESPONSIBLE AND SUSTAINABLE BUSINESS

Tailored investment for each of our island communities

Figure 3.4.4: Investment plans and outcomes by island group – continued

Inner Hebrides: Mull–Coll–Tiree

(£15m development, £80m indicative reopener)

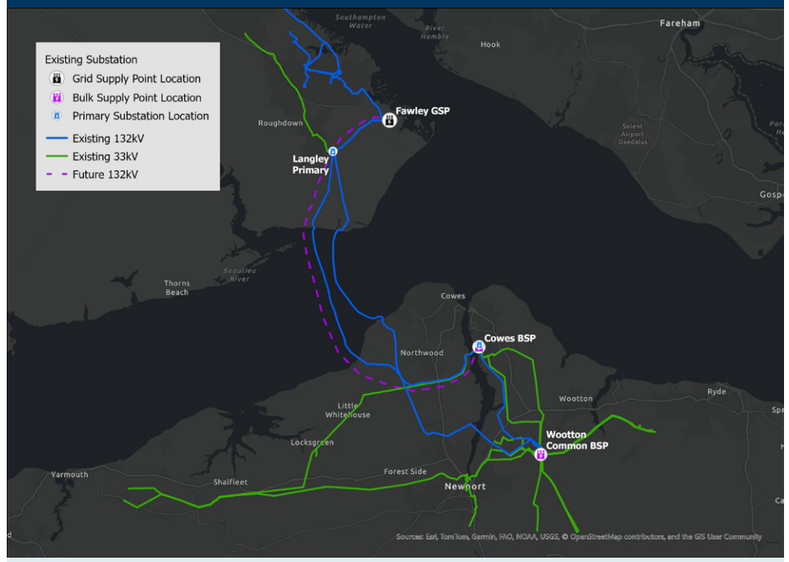


For Mull, Coll and Tiree, our development funding will progress mainland reinforcement between Taynuilt, Connel and Tullich and a second 11kV subsea connection between Mull and Coll.

The programme will address thermal and voltage constraints, provide additional capacity for forecast demand growth and strengthen the resilience of supplies to the islands. In particular, the new Mull–Coll circuit will provide N-1 security for Coll and Tiree, improve voltage performance and remove planned reliance on Tiree Power Station following an outage of the existing circuit. Flexibility, community energy and low-carbon generation will also be assessed alongside reinforcement before the final solution is confirmed.

Isle of Wight

(£15m development, £29m ED3 and £27m ED4 reopener)

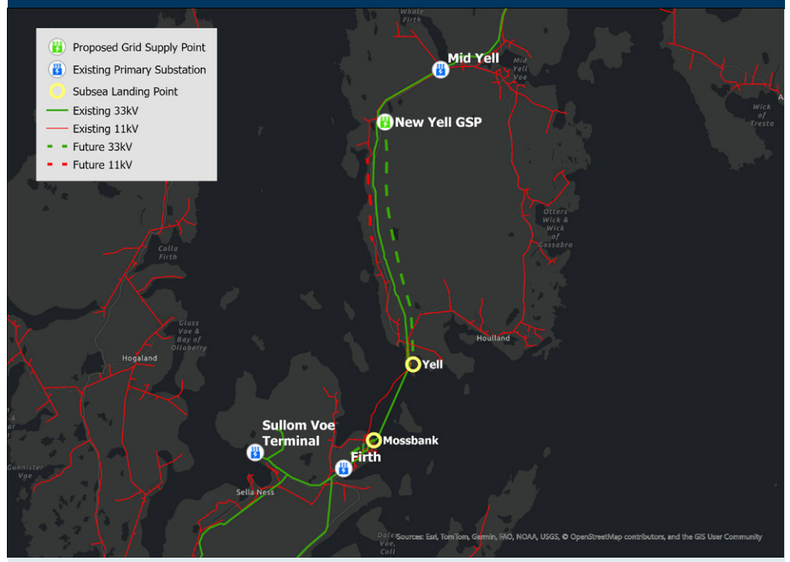


For the Isle of Wight, we are progressing a fourth 132kV circuit between Fawley and Cowes, including route surveys, consenting and detailed design to support commissioning in early ED4. If approved through a reopener, construction would take place through ED3 and ED4.

The new subsea connection will increase mainland-to-island capacity, secure forecast winter demand during prolonged two-circuit outages, improve operational resilience and enable growing electricity demand, maritime electrification and further low-carbon generation.

Shetland

(£4m development, £28m indicative reopener)



For Shetland, we are progressing a programme integrating the planned Yell Grid Supply Point into the distribution network and reinforcing the northern islands. The current pathway includes a new primary substation on Yell, new and upgraded 33kV and 11kV circuits, and voltage-support equipment at Firth and Unst, subject to further assessment of reinforcement, flexibility and low-carbon generation options.

The programme will accommodate forecast demand growth, strengthen supplies to Yell, maintain security-of-supply standards and support the decarbonisation of Shetland's economy.

Customer and stakeholder views on islands investment

There is strong stakeholder support for new and upgraded islands links in ED3. Engagement with island stakeholders, including local authorities, community groups and developers, has highlighted two consistent priorities: greater resilience, particularly where islands rely on a single subsea cable route, and increased capacity to enable industrial electrification, access to LCTs and routes to market for local renewables. National stakeholders, including the Scottish Government, Community Energy Scotland and Scottish Whisky Association, also support greater resilience and capacity. They recognise its importance in decarbonising industries such as whisky production, enabling electric ferries and supporting wider goals, including the Carbon Neutral Islands initiative.

How we will pay for this: we recognise that subsea investment by its nature is high-cost and adds to the disproportionate cost of serving the north of Scotland, given its relatively small customer base. Through our deliberative Fair Future Panel, we therefore tested customer views on both the investment and how its costs should be shared: either by north of Scotland bill payers alone or through an extension of the Hydro Benefit Replacement Scheme (HBRS), which socialises a proportion of regional network costs across GB customers. North of Scotland panellists supported greater socialisation, highlighting concerns about fairness in how costs are shared both across GB and within Scotland. Panellists in the south of England also generally considered socialisation of Islands investment the fairest approach but emphasised that clear explanation would be important to securing wider acceptance. This feedback has informed our approach to affordability and bills – see page 76 for details on HBRS.

4.0 HOW WE'LL DELIVER

IN THIS SECTION

		Relevant further reading
PART A: Delivering better outcomes for customers		
4.1 Increasing our support for customers when they need us most	53	→ ED3 Vulnerability Strategy
		→ ED3 Targeted Customer Storm Support Strategy
4.2 A better connections experience for every customer	57	→ ED3 Connections Strategy
PART B: Building the capability to deliver		
4.3 Embedding digitalisation and becoming data-driven	60	→ ED3 IT and Telecoms Strategy
		→ ED3 Data and Digitalisation Annex
4.4 Nurturing and deploying innovation	63	→ ED3 Innovation Strategy
4.5 Delivering ED3 at scale, safely and efficiently	66	→ ED3 Delivery Strategy



What we will deliver for customers and communities

Commitment: We will increase our support for customers when they need us most

We will strengthen support for vulnerable customers by tripling fuel poverty support and expanding our industry-leading battery programme to reach a further 10,000 households, extending eligibility to include those with mobility challenges who need additional support during a power cut by the end of ED3.

Stakeholder priorities
Customers strongly support prioritising those with the greatest need, including vulnerable and medically dependent customers.

Commitment: we will maximise the customer value from innovation

We will deliver £4 of customer value for every £1 invested through our innovation portfolio by the end of ED3.

Stakeholder priorities
Customers are clear that they support innovation moving beyond pilots quickly to deliver measurable customer value at scale.

Commitment: we will boost jobs and sustainable growth

We will support UK manufacturing by aiming to increase our expenditure across key categories (transformers, switchgear and cable) by 10% by April 2033 (on our ED2 baseline), increasing our UK manufacturing spend by an estimated £157 million in ED3*.

Stakeholder priorities
Customers want the energy transition to deliver visible local benefits, including jobs and skills

*subject to market availability, value for customers, delivery requirements and compliance with applicable procurement obligations.

Commitment: we will build the workforce of the future

We will support regional skills and employment by increasing earn-as-you-learn opportunities to more than 10% of our workforce by the end of ED3, while supporting every successful learner to progress into a substantive role on completion of their programme.

Stakeholder priorities
Customers expect us to have the skills and capability needed to deliver our commitments at pace.

Building on Section 3, Section 4 explains how we will turn investment into better outcomes for customers and equip our business to deliver a materially larger and more complex programme safely, efficiently and affordably.

It explains how we'll build on our record customer satisfaction performance in ED2, making customer journeys simpler and more responsive to drive further improvements in satisfaction throughout ED3.

Starting with the outcomes customers experience directly, **Section 4.1** sets out how we will better identify customers who need additional support and provide more targeted and personalised help, including before, during and after severe weather.

Section 4.2 complements the network investment set out in Section 3 by explaining how we will make connecting to our network easier, faster and more predictable, helping customers participate in electrification and enabling economic growth.

Delivering these outcomes, while planning and operating a larger and increasingly complex electricity system, requires us to strengthen the capabilities behind them.

Section 4.3 explains how better data, digitalisation, IT and operational technology will enable a smarter, more visible and controllable network, supporting better decisions and simpler customer journeys.

Although embedded throughout our plan, **Section 4.4** sets out how we will move innovation beyond pilots and deploy solutions at scale, translating new ideas into measurable customer value.

Finally, **Section 4.5** sets out how we will convert our ED3 plan into delivery at scale. Building on the foundations established in ED2, we are strengthening our workforce, supply chain, commercial model and programme capability, while mobilising early to deliver a materially larger investment programme efficiently and build enduring capability for ED4 and beyond.

Together, these measures show how we will turn our ED3 investment into better customer outcomes: serving customers better, operating smarter networks, deploying innovation faster and building the capability to deliver more for less. Our actions here will predominately, not exclusively, support our AFFORDABILITY outcome.

PART A: DELIVERING BETTER OUTCOMES FOR CUSTOMERS

4.1 INCREASING OUR SUPPORT FOR CUSTOMERS WHEN THEY NEED US MOST

A step change in targeted support for those most in need

Our ambition for ED3 is to significantly increase both the reach and impact of our support for customers in vulnerable situations. As dependence on electricity grows, alongside affordability pressures and more severe weather, we need to go further. Building on ED2, we will provide earlier, more personalised and targeted support, helping more customers build resilience and ensuring no one is left behind by the transition to a low-carbon energy future.

Vulnerability is often not straightforward, and the needs of customers differ significantly across our two licence areas. Our north of Scotland licence area includes remote, rural and island communities where customers can face higher levels of fuel poverty, greater reliance on alternative heating fuels, longer travel times to essential services and increased exposure to severe weather. Our south of England licence area has a larger overall number of customers experiencing vulnerability, but is much more urban, where housing affordability pressures and health inequalities are a greater concern. These differences mean support cannot be one-size-fits-all.

In ED2 we significantly expanded the reach and depth of our support for vulnerable customers, moving from individual interventions towards more joined-up support that addressed immediate financial pressures and longer-term resilience. In ED3 we are building on that success, responding directly to insight from customers, stakeholders and partners to set out a more proactive, targeted and partnership-led approach to supporting customers in vulnerable situations.

For customers, the outcome will be simple: vulnerable households will be better identified, better supported, more resilient during outages and better able to participate in the transition to a low-carbon energy future.

Our ISG challenged us to demonstrate that expanding the range of partnerships and initiatives in ED3 would not dilute the depth or quality of our support. In response, we strengthened our strategy to ensure universal and broadly accessible support is offered alongside more targeted interventions for customers needing the most help. The ISG's challenge resulted in a more deliberate and evidence-led approach to this balance.

OUR COMMITMENTS TO CUSTOMERS

We will increase our support for customers when they need us most by:

- Extending our industry leading battery programme by 50% to support a further 10,000 households, expanding eligibility criteria beyond life preserving medical equipment and to include homes which use medical hoists, air mattresses and stairlifts (lead commitment).
- Proactively supporting a minimum of **100 communities** to increase their resilience through the introduction of resilience hubs and plans.
- Enhancing our shareholder financed community fund, increasing funding by **50% to £750,000** per annum to support LCT accessibility initiatives, and physical environmental and resilience schemes.
- Supporting a **further 30% of households** with enhanced our Personal Resilience Plans which will be issued to **500,000 customers**. We will also **double support** to a further **10,000 Priority Service Register (PSR) customers** with power cut packs. Both targets are based on an ED2 baseline.
- Working with local authorities and partners to identify and contact all known residential park homes and sheltered accommodation in our licence areas to proactively offer access to PSR and resilience planning. We will enhance this through in-person resilience planning for a minimum of **100 communities** most at risk of power cuts.
- Tripling the provision of fuel poverty in ED3 to a minimum of **240,000 households with fuel poverty and/or access to adopt LCTs**, compared to an ED2 baseline.

SHAPED BY STAKEHOLDER INSIGHT

Our ED3 Vulnerability Strategy has been designed around what customers tell us they need most: personalised, practical support that is easy to access and reflects individual circumstances. Customer insight highlighted the need for better awareness and more tailored Priority Services, trusted human and local support, practical help before and during power cuts, and protection for customers who may be digitally excluded or medically dependent on electricity. This has directly shaped our approach: **category-specific PSR service standards, accessible multi-channel communications, enhanced Personal Resilience Plans and power cut support, expanded battery provision, and stronger partnerships to tackle fuel poverty and enable access to low-carbon technologies (LCTs).**

240,000
households supported with fuel poverty and/or LCT support

~£124m
of net social value delivered over ED3 by our fuel poverty programme, and our support for customer transitioning to LCTs

10,000+
households supported through our industry-leading battery programme

£3.75m
of shareholder funding across ED3 for community resilience and LCT accessibility

ED3 VULNERABILITY INVESTMENT

The investment required to deliver our ED3 Vulnerability Strategy is captured within our broader indirect and overheads investments.

In addition, we are increasing our shareholder-financed community fund by 50% to £750,000 a year, supporting community-led projects that strengthen resilience and improve access to LCTs, targeted at areas of greatest vulnerability and need.



4.1 INCREASING OUR SUPPORT FOR CUSTOMERS WHEN THEY NEED US MOST

Delivering practical support where it makes the biggest difference

Our ED3 Vulnerability Strategy builds on the strong foundations established in ED2, retaining and expanding the services that we know our customers value most. This includes our **industry-first personal battery programme**, which is providing a lifeline for 20,000 customers who depend on electricity for medical equipment to cope during power cuts, alongside our established local partnerships, Priority Services Register support and innovative Personal Resilience Plans.

In ED3, we will significantly increase both the scale and sophistication of our support. We will expand our battery programme to support a further 10,000 customers, including for the first time those who depend on electricity for mobility, while moving from broad categories of vulnerability towards a more targeted and personalised model. We will bring together customer, network and vulnerability data with insight from trusted partners to better understand where need is greatest and match support more deliberately to individual circumstances. This means moving away from a one-size-fits-all approach towards tailored PSR services, creating specific service standards linked to PSR needs, more targeted resilience support and focused intervention in communities experiencing fuel poverty, digital exclusion, poor access to services or greater exposure to power cuts.

We will also provide enhanced holistic support to those in fuel poverty, increasing our support three-fold to help 240,000 households. Through national and local partnerships and trusted community organisations, we will create clearer pathways from immediate crisis support through to fuel poverty advice, energy efficiency, resilience and access to LCTs. This will help customers get the right support at the right time, while strengthening the resilience of the communities in which they live.

Better support for Priority Service and medically dependent customers	Stronger support for households in fuel poverty	Helping to prevent vulnerable customers from being left behind by the low-carbon transition
Our approach is shaped by customer insight		
Stakeholders called for more tailored support during power cuts, including proactive communication, clear service standards and stronger assistance for medically dependent customers. They also highlighted digital exclusion, the challenges facing remote communities and the need for accessible services. Citizens Advice's Lights Out report and our research reinforced why this matters: customers may rely on electricity for their health, mobility or daily care.	Fuel poverty remains one of the most significant contributors to vulnerability across our regions, with 11% of households in SEPD and 28.7% in SHEPD experiencing fuel poverty, including 14% in extreme fuel poverty. Stakeholders told us that fuel poverty is becoming more complex, with many customers facing overlapping affordability, health, housing and digital exclusion challenges. They emphasised the need for integrated support that addresses immediate hardship while improving long-term resilience through energy efficiency measures, tailored advice and access to LCTs.	Access to LCTs remains unequal, with many customers facing barriers to awareness, purchase and successful use. Stakeholders told us these barriers are not solely financial. Customers also face uncertainty, low confidence, limited access to trusted advice and concerns about disruption. Rural households may face higher decarbonisation costs and fewer opportunities to access support, particularly where digital exclusion is also a factor.
How this influenced our plans for ED3		
• Introducing minimum service standards for each PSR category. • Developing tailored customer journeys for each vulnerability group. • Providing bespoke Personal Resilience Plans to over 500,000 customers. • Providing 10,000 battery back-ups for medically dependent customers, on top of 20,000 provided in ED2. • Distributing 10,000 power cut packs. • Growing the PSR to reach 90% of eligible customers by 2030 by combining data analytics, promoting the PSR at every customer touchpoint and targeting under-represented groups.	• Tripling our support to provide at least 240,000 households with fuel poverty and LCT support, a 300% increase on ED2, through an improved multi-tiered partnership programme, combining national-scale coordination with local expertise. • Providing tailored support to households, including behavioural energy efficiency advice and income maximisation support which helps them to access unclaimed benefits, grants, discounts and other support. • Supplying 10,000 energy efficiency packs, giving practical measures to lower bills and improve comfort.	We will act as an LCT Enabler, introducing support for 40,000 households adopting LCTs through an Access-Purchase-Use support model, designed to provide end-to-end support for customers adopting LCTs. This will provide: • LCT funding guidance and access to grants. • LCT installation advice. • Post-installation support to help customers maximise savings. • Increase the Powering Communities fund by 50% to £750,000 a year, providing £3.75 million of shareholder funding across ED3 to support LCT accessibility initiatives, and physical environmental and resilience schemes.
What customers will see		
Customers will experience a more personalised, accessible and responsive service, with support tailored to their specific needs and circumstances. Clearer service standards for each PSR category, improved communications and enhanced resilience support will help customers prepare for power interruptions, manage their impacts more effectively and access the right assistance at the right time.	More customers will benefit from early intervention and practical support that helps them to manage energy costs, improve the efficiency of their homes and access wider sources of financial and energy-related assistance. By providing targeted advice, energy efficiency measures and referral pathways to specialist support, we aim to reduce the risk of households falling into fuel poverty or financial crisis, while helping them build greater resilience for the future.	A more inclusive transition where customers in vulnerable scenarios are supported to participate in, and benefit from, adoption of LCTs. This will help more customers reduce their energy costs, improve energy efficiency and avoid being left behind as the energy system evolves.

4.1 INCREASING OUR SUPPORT FOR CUSTOMERS WHEN THEY NEED US MOST

Working in partnership to deliver targeted, innovative and joined-up support

Delivering more personalised support at this scale requires us to work differently. We cannot deliver this ambition alone. Our ED3 partnership model combines the scale and consistency of licence-wide support with the local knowledge and trusted relationships needed to reach customers who might otherwise be missed.

Scaling our support

During ED2, we broadened both the reach and depth of our support for customers in vulnerable situations. Following a review in the second year of ED2, we expanded successful services and moved away from isolated interventions towards a more joined-up customer journey.

In order to scale our service provision we developed local partnerships, giving customers access to support through organisations with trusted community relationships.

This work created the foundation for our more ambitious ED3 offer, which will connect customers to a range of services including crisis assistance, benefits checks, income maximisation, tariff reviews, practical energy efficiency measures and support to participate in the low-carbon transition.

The case study describing the support provided to Mrs D, illustrates just how impactful this assistance can be to those in need.

How innovation projects are helping vulnerable customers

As we set out in Section 4.4, our ED2 innovation portfolio has benefited customers who need most support. We used innovation projects to help us identify customers and communities in vulnerable circumstances, and target support where it will make the greatest difference. In ED3, we will embed the capabilities developed through several projects into our day-to-day operations:

- **VERIFY** uses data and advanced analytics to understand differences between communities, and support fairer, more targeted investment.
- **Vulnerability Visualisation Tool** maps vulnerability to identify where local partnerships and targeted support could deliver the greatest benefit.
- **Equal LCT** identifies where coordinated energy-efficiency and low-carbon technology interventions could reduce bills and support network outcomes.

Combining these capabilities with PSR information, network risk data and socioeconomic insight will help us identify unmet need, prioritise interventions and demonstrate the benefits delivered for customers.

Customer story: going the extra mile for those who need support

Mrs D contacted one of our partners for support, initially requesting help with damp and mould in her home. After speaking with an energy advisor, it was identified more support could be provided. Over a period of seven months, our partner spoke with Mrs D multiple times, providing support with water schemes, benefits and mental health support, as Mrs D had recently lost her partner.

During the conversations, her water bill was reduced with an estimated saving of £432 per year and as a result of benefits checks, she now receives Attendance Allowance (£5,741 per annum), Pension Credit (equivalent to £5,052 annually) and Severe Disability (£4,311 per annum) payments. This increased her annual income by over £15,000.

This demonstrates the value of moving beyond single-issue interventions. Customers who initially present with one need can face multiple overlapping vulnerabilities or issues, and our ED3 partnership model is designed to identify and address those needs through a single, joined-up journey

Working in partnership

For ED3, we are improving the way we provide support to customers in response to challenge from our ISG and stakeholder feedback. Our ISG challenged us to define more clearly the outcomes for customers in vulnerable circumstances that our partnerships would deliver, whilst other stakeholders asked us to provide clearer information, stronger links to funding and more joined-up support. In response, we will introduce a **three-tier partnership model** that combines consistent support across our licence areas with targeted delivery through trusted local organisations:

- **An overarching DNO-level partner** providing scalable fuel poverty, energy efficiency and low-carbon transition support across both licence areas, with a clear referral route from SSEN.
- **Local partnerships** providing targeted support in communities where customer mapping identifies higher levels of vulnerability, fuel poverty, poor access to services or barriers to the low-carbon transition.
- **Community energy organisations and local collaborators** using their trusted relationships and local knowledge to engage customers, promote the PSR and connect households with appropriate support.

Together, these partnerships will create a clearer pathway from immediate crisis assistance through to fuel poverty advice, energy efficiency measures and low-carbon transition support. This approach will help us reach more customers while providing more intensive, tailored support where needs are complex. Customers will benefit from earlier access to trusted advice, simpler referral routes and support that improves affordability, home comfort, resilience and confidence in the low-carbon transition.

Our partnership model for ED3:

Overarching Partnership – consistency, common standards and specialist capability	To provide support to all customers across SSENs two licence areas. Includes a referral pathway from SSEN. Support will include Fuel Poverty Support, Energy Efficiency and LCT Advice.
Local Level Partnerships - targeted provision	Based on customer mapping, focusing on areas showing the highest levels of fuel poverty or at risk of being left behind in the transition to net zero. The number of partners will vary year on year, depending on need.
Collaborators – trusted access	Informal partnerships to provide a referral pathway into overarching or Local Level Partnerships. Will also include PSR promotion and education relating to energy efficiency.

ISG scrutiny strengthened our approach to partnerships by challenging us to better define the outcomes that partnerships will deliver for customers in vulnerable situations. It also prompted us to demonstrate how the proposed approach builds on learning from ED1 and ED2. In response, we strengthen the connection between partnership design, delivery arrangements and customer outcomes. We now more clearly define our role as a leader, partner and influencer, and provide greater detail on practical collaboration with partners. Our support is shaped by evidence of different vulnerabilities across our licence areas.

4.1 INCREASING OUR SUPPORT FOR CUSTOMERS WHEN THEY NEED US MOST

Supporting customers before, during and after severe weather

Our ambition is to move beyond responding effectively to severe weather, to building customer and community resilience before it happens.

Storms are becoming more frequent and disruptive. Since Storm Arwen in November 2021, which caused severe disruption across the UK including in our licence areas, we have continually strengthened our response arrangements, working with resilience groups to improve preparedness, training more colleagues to provide door-to-door support and expanding the welfare assistance available to customers.

In ED3, we will go further, moving beyond a traditional storm response towards a more proactive and personalised approach that builds resilience before severe weather strikes, targets support where it is needed most during disruption, and learns from every major event.

Different regions, different challenges: Our two licence areas are different, and so are the challenges severe weather can create. For example, remote rural and island communities in the north of Scotland can face longer restoration times, disrupted transport and more limited access to welfare support while customers in the south of England can face different risks, including extreme heat and flash flooding, with lower levels of community resilience. Our response therefore cannot be one-size-fits-all. We will use data and local insight to understand where need is greatest and tailor our support accordingly.

Our ED3 Targeted Customer Storm Support Strategy will better prepare customers and communities, provide faster and more tailored support during power interruptions, and strengthen recovery afterwards through five initiatives.

BEFORE STORM

Enhanced Resilience Plans – we'll prepare PSR customers for prolonged outages

Customers and stakeholders told us that Resilience Plans help people to feel more prepared and less anxious about power interruptions during storms. Stakeholders also highlighted the importance of helping customers understand what support is available and how to prepare for prolonged outages.

We will enhance existing **Resilience Plans with storm-specific guidance** covering what customers should do before, during and after a storm. We will deliver these enhanced plans to customers in the areas most likely to be affected by severe weather, with medically dependent customers prioritised.

Customer impact: Customers will be better prepared for prolonged outages, understand what support is available and how to access help.

Strengthening community resilience – we'll support at least 100 resilience hubs

Stakeholders highlighted the challenges faced by rural, remote and island communities during severe weather and emphasised the value of trusted local support networks.

To address this, we will work with local resilience groups and communities to establish and enhance at least **100 resilience hubs** across our licence areas. These hubs will support local preparedness, resilience planning, training and emergency response, particularly in communities most at risk from severe weather.

Customer impact: More communities will have local, tested arrangements to provide welfare support, communications and practical assistance during power interruptions.

Customer Vulnerability Storm Index (CVSI) – we'll target help where it is needed most, with welfare mobilisation in 1 hour

Partners told us that support should be targeted towards the customers and communities that need it most. Stakeholders also stressed the importance of providing home visits, prioritising vulnerable customers and improving coordination between organisations.

We will develop a **Customer Vulnerability Storm Index** (CVSI), as an intelligence layer underpinning our storm strategy, combining network, customer, socio-economic and vulnerability information to identify which communities are likely to require support during severe weather. The tool will help determine where resources such as welfare facilities, home visits, battery packs, generators and additional support teams should be deployed.

Customer impact: Welfare mobilisation times will be reduced to one hour, from up to eight hours. Customers will receive faster access to assistance during major storm events.

DURING STORM

Storm Service Standards – we'll work with others to standardise storm support where possible, and prioritise those most in need

Stakeholders called for more tailored support and clearer assistance expectations for vulnerable customers, including those who are medically dependent on electricity.

By 2030, we will introduce Storm Service Standards setting out the support customers can expect during severe weather, including arrangements for Priority Service customers, faster escalation, welfare visits for the most critical customers and help for those facing communication barriers.

We will also provide smart UPS devices to at least 1,300 medically dependent customers without battery back-up. This will keep essential communication devices powered and connected.

Customer impact: Customers will receive clearer, more consistent and accessible storm support, with vulnerable and medically dependent customers prioritised when they need it most.

AFTER STORM

Continual improvement – we'll engage with customers and communities to continually improve our service

A key lesson from our ED2 experience is the importance of listening to customers and using real-world feedback to improve services. **Continuous improvement** is a recurring theme in our strategy and reflects stakeholder expectations that storm support should evolve over time.

We will engage with customers and communities following storms and host at least ten in-person engagement events each year to understand what worked well, identify gaps in support and share plans for future improvements. We will also review and improve our Welfare Framework based on customer feedback and lessons learned.

Customer impact: Customer experience will directly shape future services, helping us continuously improve the support we provide.

Customer and community learning feeds back into preparation

4.2 A BETTER CONNECTIONS EXPERIENCE FOR EVERY CUSTOMER

Making connections easier, faster and more transparent

Connections are critical to electrification and economic growth, but creating network capacity is only part of our role. Through our ED3 Connections Strategy we will make that capacity easier for customers to access through faster, simpler and more predictable connections. This will help customers invest with confidence, bring new demand onto the network and, over time, help spread network costs across more users.

Our ED3 promise is simple: whether connecting a home, business or major development, customers should have greater clarity on their options, costs and timescales, a simpler journey and greater confidence that we will deliver when we say we will.

Electrification is expected to accelerate through ED3, driven by growing adoption of electric vehicles, batteries, solar, heat pumps, and wider Government policy. Our challenge is to accommodate this growth while giving customers the speed, certainty and quality of service they expect.

Table 4.2.1: ED3 Forecast Connections – tRESP forecasts indicate a rapid increase in commercial connections at LV and HV

SEPD	SHEPD
200% increase	300% increase

We entered ED2 knowing our connections service needed to become more digital and scalable. We have invested in integrated systems, automation and simpler processes which has created strong foundations and supported improving customer satisfaction.

In ED3, we will build on those foundations delivering a step change in performance informed by what customers have told us. Better network data and pre-application support, greater automation, clearer service standards and improved visibility of project progress will make connections simpler, faster and more transparent.

Delivering this successful connections experience draws on a number of other strategies across our business plan:

ED3 Load Related Expenditure Annex: We are investing £2.6bn to ready the network for future demand and prepare for more LCTs.

ED3 Delivery Strategy: We are building the workforce skills we need to deliver more connections (particularly at LV) in ED3 and beyond.

ED3 DSO Strategy: The roll out of new innovative access products to support earlier connection to the network.

ED3 IT and Telecommunications Strategy: This is a key enabler of many areas of our business plan providing secure platforms for delivery.

OUR COMMITMENTS TO CUSTOMERS

We will be ready for growing demand and ensure customers can connect quickly and easily by:

- **Achieving 90% compliance against new and enhanced service standards** for large and major connections customers by 2030
- Offering more than **double the capacity of early connections** to customers by 2030 providing approximately **5GW of capacity**, up from 2.3GW in ED2 (lead commitment) – see Section 3.3 for details.

Our ED3 Connections Strategy details all our outputs.

SHAPED BY STAKEHOLDER INSIGHT

We undertook extensive engagement to develop our strategy, especially in SEPD where our customer satisfaction scores need most work. Customers consistently told us they want better visibility of network information and data before applying, with simpler digital application journeys, more reliable and transparent connection offers, and greater confidence in project delivery through clearer dates and progress updates.

What our strategy means for larger connections

Our ED3 Connections Strategy recognises the need for greater certainty throughout larger projects. It sets out new, challenging customer journey milestones, with a target of meeting them in 90% of cases.

- Better access to network information, indicative costs and expert advice will help customers make informed choices before applying to connect. Clearer information on project risks upfront will reduce rework and improve certainty before detailed design.
- A clear energisation window, with an ambitious start date and a realistic backstop date, will give customers greater certainty while supporting earlier connections. For longer projects, proactive, regular updates on progress and risks will help customers plan throughout delivery.
- We will use customer feedback and performance data to continually improve our connections service and report progress transparently.

ED3 CONNECTIONS JOURNEY INVESTMENT

£10m

We are investing £10m to make the connections process easier, faster and more transparent. This will give customers better information on their options, likely costs and timescales before they apply, automate more of the application and quoting process, and improve online tracking so customers can see how their connection is progressing.

This is part of our digital and technology investment related investment as set out in Section 4.3.

This investment builds on significant investment in ED2.



4.2 A BETTER CONNECTIONS EXPERIENCE FOR EVERY CUSTOMER

A clear strategy to accommodate more connections while improving service

Connection demand will increase significantly through ED3. Simply scaling today's approach will not be enough.

Delivering our promise to make connections easier and more transparent will become more challenging as electrification and economic growth drive a significant increase in connection demand. Today, we issue more than 40,000 quotations each year across our two licence areas, and tRESP forecasts indicate that we need to plan for an increase of over 50% in LV connections through ED3.

At the same time, the connections landscape is changing. Led by Government, Ofgem and NESO, Connections Reform is changing the rules so that viable projects that are ready to go can connect sooner, rather than waiting behind projects that may never progress. In addition, Government is considering changes to the treatment of demand, including data centres, and Ofgem is developing a tighter regulatory framework for connections and customer service.

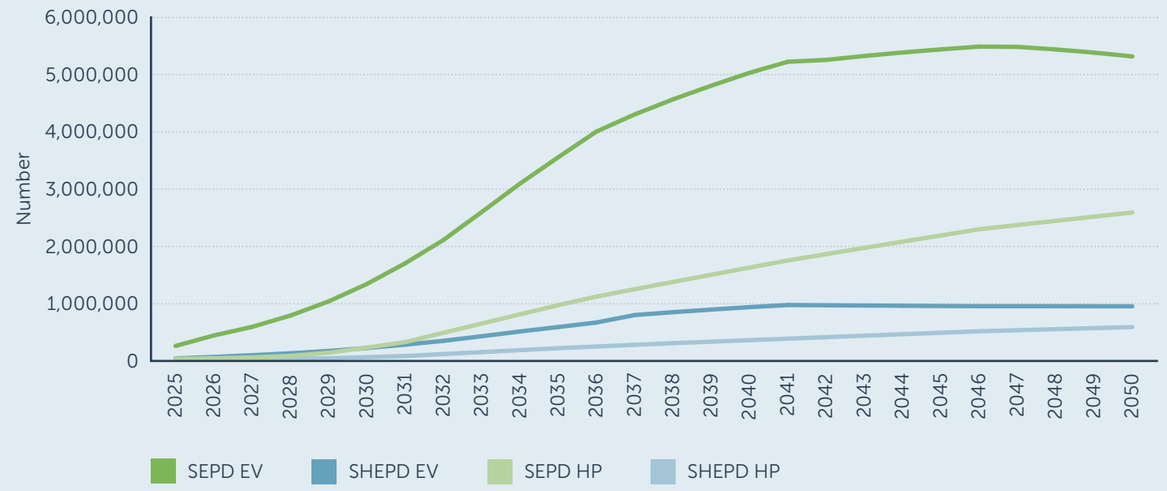
Our challenge is to accommodate significantly more connections while improving the speed, certainty and quality of service customers experience.

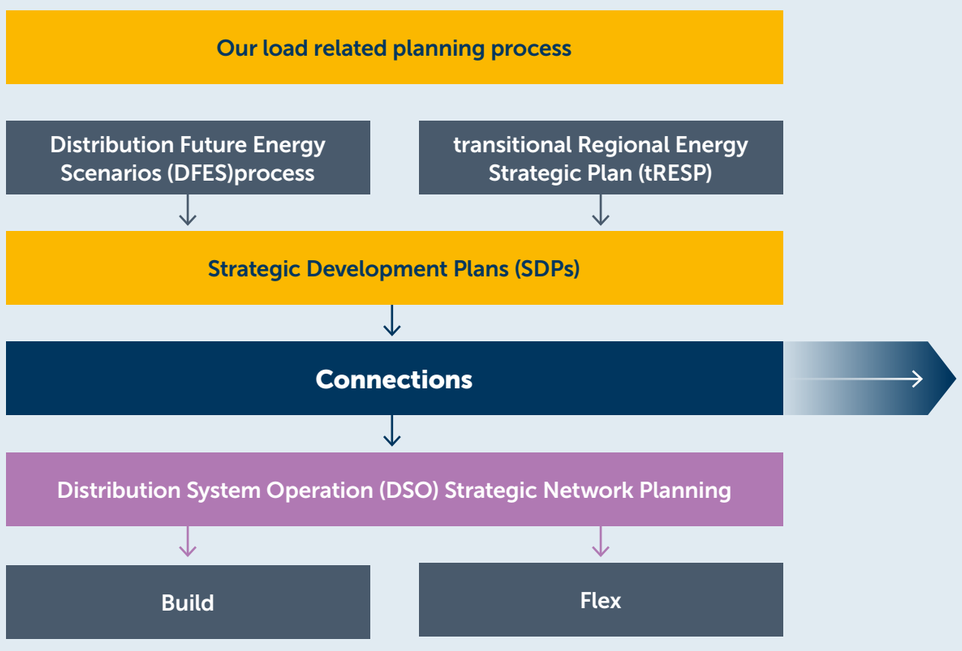
We have a clear strategy to do this.

Our ED3 load investment (see Section 3.1) will create and optimise the network capacity customers need, while our ED3 Connections Strategy will transform how customers access that capacity. By combining better forecasting and local planning, earlier visibility of network capacity, flexible and innovative connection options and a more efficient end-to-end process, we will accommodate growth while delivering a better customer experience.

The diagrams below show how our ED3 Connections Strategy works alongside our load planning process and Strategic Development Plans to turn anticipated demand into network capacity and, ultimately, customer connections.

Figure 4.2.1: number of forecast EV and heat pump connection requests from 2025 – 2050





A future-ready connections service that combines digital efficiency with an outstanding customer experience, making it easier, faster and more predictable for customers to connect to our network

Informed by Stakeholder Priorities

Easier to connect through better access to data, tools and experts with simple and consistent customer journeys and tailored support	**More predictable** through greater transparency, proactive communication and improved accuracy with visibility of prices, progress and delivery timescales	**Faster connections** through automation and system integration, earlier access to network capacity through flexibility and more efficient end-to-end delivery

ED3 Connections Strategy Pillars – What we will Deliver

Improve access to network data, tools and expert support, enabling customers to make better-informed decisions before applying.	Deliver integrated digital customer journeys that simplify the connections process and increase automation.	Provide transparent standards of service, milestones and communications so customers understand what to expect throughout their project.
Improve the quality, accuracy and transparency of connection offers, including earlier visibility of risks and constraints.	Increase confidence in connection dates through proactive project management, transparent queue management and energisation windows.	Expand the use of flexibility and innovative connection solutions to provide earlier and more efficient access to the network.

4.2 A BETTER CONNECTIONS EXPERIENCE FOR EVERY CUSTOMER

Delivering a step change in service

Our ED3 Connections Strategy will transform the end-to-end connections journey, building on the digital, system and customer-service foundations established in ED2. Through targeted engagement our customers told us that they would all like a connections service that is more transparent, predictable and accountable.

Our **smaller connection customers** told us they want a simple and fast journey, with greater automation, quicker approvals and fewer barriers to the uptake of LCTs. Our **larger connections customers** want better upfront visibility of network capacity and constraints, stronger pre-application support, clearer ownership and communication throughout delivery, and greater confidence in the accuracy of offers, costs and connection dates.

As figure 4.2.2 illustrates, our approach enhances the customer journey from pre-application, through quotation, to delivery. It combines deeper digitalisation, better data and expert support with, innovative access arrangements and stronger delivery capability. This is supported through an investment of £10m to improve customer outcomes through enhanced pre-application capabilities and greater automation of the connections journey. This will deliver a more transparent, predictable and digitally enabled service. At the pre-application stage customers will be able to make more informed decisions to make better applications. Connection offers will be giving customers better information, more accurate offers and greater confidence in when they will connect.

Figure 4.2.2: How we're improving things for customers across the three stages of connecting to our networks

	Pre-application	Quote	Delivery
Smaller connections[1] (incl. LCTs)	**Digitalisation of process to enable scalability** Increase scope of 'self-serve' application which will allow customers to get a quote by inputting details onto our self serve portal		**Readying the network in advance** Reinforcing / flex products to connect LCTs including proactive unlooping programme targeted at areas of high LCT uptake
	Standardised customer journeys Integrated customer journey from the ENA's Connect Direct platform into our self-serve application to produce a quote / 'OK to connect' outcome		**Efficient delivery** Greater in housing of delivery to provide flexibility and drive customer service
Large / Major connections[1]	**Enhanced data provision** Tailored network information on loadings, constraints to allow informed customers to model different connection locations	**Improved quote quality** Improved quality of quotes for applications made – including clear risk assessment on quote and early access to feasibility studies to provide greater certainty	**Leverage early access products** Early access products to connect customers pending reinforcement
	Greater access to experts Bespoke surgeries with system planners to screen out unviable projects pre-application		**Transparent and streamlined processes** • Tracked standardised milestones and project updates communicated via customer portal • Transparent queue management with rapid reallocation of capacity • Workforce / supply chain

Outcomes

- **Customer satisfaction scores will increase.**
- **Faster application processing, reduced customer effort, more efficient delivery, fewer delays and quicker access to the network for homes, businesses and LCTs.**
- **Customers will experience a more transparent and predictable connections journey, receive more accurate and reliable offers and have greater confidence that projects will be delivered as planned.**
- **Customers will be able to connect sooner to our network.**

1 Smaller connections are typically single households and small housing developments. Larger and major connections generally require bespoke engineering solutions, project management and delivery arrangements.

PART B: BUILDING THE CAPACITY TO DELIVER

4.3 EMBEDDING DIGITALISATION AND BECOMING DATA-DRIVEN

Using technology and data to deliver smarter, more reliable and affordable networks

Customers expect us to connect them quickly, keep supplies reliable and deliver these services efficiently, so that the transition to a cleaner energy system remains affordable. Our ED3 technology and digital investment helps us meet that responsibility. It will give customers clearer and faster connection journeys, help us make better use of existing network capacity and enable us to identify and respond to faults more quickly. By bringing together network, customer and vulnerability information, it will also help us provide faster and more targeted support to customers in vulnerable circumstances during power cuts.

These outcomes depend on connecting our data, systems and operational capabilities across the business. Our IT and Telecoms Strategy provides the secure and resilient technology foundations, while our Digitalisation Strategy and Action Plan sets out how we will use data, digital tools and responsible AI to improve the way we plan, operate and maintain the network. Together, they turn technology investment into practical benefits for customers and the wider energy system.

Our IT and Telecoms Strategy is a key enabler of many areas of our business plan, enabling functions to work together, not as separate systems, but as a connected capability. Our DSO capabilities are fundamentally underpinned by IT and Telecoms investment that runs throughout the smart network capability, we are creating (see figure 3.3.3 on page 44). IT and Telecoms also enables many other areas of our business, including Connections, Vulnerability, Network Asset Management and Reliability.

Our ED3 ambition

To create a modern, intelligent electricity network that uses high-quality data, digital tools and responsible AI to deliver a more reliable, resilient, faster, safer and efficient service.

Our ED3 technology and digital plans have two closely connected components. Operational technology (OT) and telecommunications provide the resilient communications, hosting and control systems needed to monitor, manage and restore the physical network safely and reliably. Data and digitalisation provide the trusted data, digital services and decision-support capabilities that help us plan the network, manage assets, serve customers and coordinate activity across the business.

What customers get from our IT and Telecoms investment:

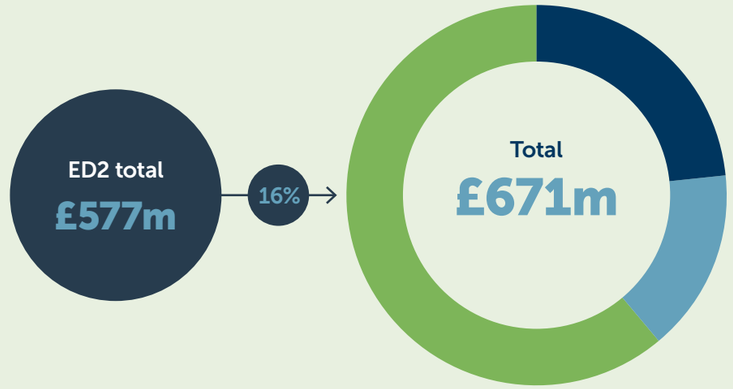
1. Faster access to network capacity, including around 5GW of earlier connection capacity by 2033, up from 2.3GW in ED2
2. A simpler, more transparent connections journey, with clearer decisions and 90% of applications processed through automated workflows
3. A more reliable and resilient network and faster fault detection and recovery, supported by greater visibility, control and asset intelligence
4. Better-targeted maintenance and investment, expected to remove 23% of network risk in SEPD and 12% in SHEPD
5. Faster, more targeted support for vulnerable customers, reaching 90% of customers in vulnerable circumstances
6. Reduce home-visit prioritisation times from 12 hours to three hours during power cuts
7. Welfare hubs mobilised more quickly during major incidents, reducing mobilisation time from up to three hours to one hour
8. Reduced operational and cyber security risk, through the replacement of ageing and obsolete technology

SHAPED BY STAKEHOLDER INSIGHT

Stakeholders want faster connections, reliable services and a simpler customer experience, supported by better visibility and decision-making. Our integrated ED3 portfolio brings together technology, data, digitalisation, AI and cyber security to deliver customer value, address ageing systems and create adaptable foundations for evolving network needs.

This section sets out how, together, they will enable an intelligent, data driven network for customers. It first sets out how we will become a more data-driven business, before explaining how we will protect and modernise the critical infrastructure on which these capabilities and the safe operation of the network depend.

OUR IT AND TELECOMS INVESTMENT



Operational Technology and Telecoms	£158m
Non-Operational Investment Costs	£104m
IT Business Support Costs	£409m

Our investment will create a more visible, controllable and intelligent network, enabling faster connections, more reliable services, improved restoration and better support for customers in vulnerable situations. To protect affordability, we will prioritise investment according to operational need and service criticality, address ageing and obsolete technology, and use common, adaptable platforms rather than short-term or isolated solutions. This will provide secure, resilient and supportable technology foundations for ED3 and beyond.

The key increase is in our BSC IT&T costs, which are 27% higher than in ED2. Our BSC IT&T costs cover the cloud and data centre platforms that host approximately 340 applications directly supporting our business, as well as our share of enterprise services such as Finance, HR, Legal and Procurement applications.

4.3 EMBEDDING DIGITALISATION AND BECOMING DATA-DRIVEN

Delivering smarter, data-driven networks

Our ED3 IT and Telecoms strategy provides the technology, data and digital capabilities that underpin our digitalisation ambitions. It complements our Digitalisation Strategy and Action Plan (DSAP), which sets out how we will translate those ambitions into practical actions and track progress over time. Together, they provide the strategic direction, investment and delivery framework needed to embed digitalisation across our business and deliver benefits for customers and the wider energy system.

Digitalisation is a business and network enabler used across our entire business. ED2 established significant digital capabilities across customer services, planning, flexibility, network visibility, data management and open data. The challenge entering ED3 is not creating digital capability from scratch. It is connecting, governing and scaling those capabilities so they can be used consistently across planning, customer service, flexibility, network operations and asset management.

By the end of ED3, we intend to use these capabilities to support faster electrification, make better use of available network capacity, improve resilience and restoration, target investment more effectively, and provide clearer, more predictable customer journeys.

Our ED3 technology and digital objectives:

- **Trusted data for whole-system coordination**
  Build a governed, reusable data ecosystem with clear ownership, common standards, identifiers and lineage. This enables reliable planning, visibility and data sharing across the organisation and wider energy system.
- **Intelligent decisions, faster**
  Use forecasting, optimisation, automation and responsible AI to improve planning and operational decisions, reduce delays and costs, and make better use of network capacity. AI-supported decisions will retain governance, monitoring, auditability and human accountability for material decisions.
- **Frictionless customer journeys**
  Create joined-up digital services that give customers clearer information, self-service options and earlier visibility of connection choices, costs and progress. The aim is simpler, faster and more transparent access to the network, while retaining appropriate support for customers in vulnerable circumstances.
- **A visible and controllable network**
  Strengthen real-time network insight, remote monitoring, operational forecasting and control. This supports improved hosting capacity, voltage management, fault response and restoration, while enabling a more flexible electricity system.
- **Secure and resilient services**
  Modernise critical operational technology, telecommunications and hosting, manage obsolescence and maintain robust cyber security, recovery and service-continuity arrangements. This provides the dependable foundation needed for growing digital and operational reliance.

Figure 4.3.1: summary of digital and data improvements from ED2 to ED3

STRATEGIC INVESTMENT THEME	ED2 FOUNDATION	FUTURE STATE ENABLED BY OUR INVESTMENTS
ENABLE BUILD AND FLEX Unlock capacity sooner	• Planning tools and network models • Forecasting capabilities • Initial flex Toolkit	• **Modern planning, forecasting and flexibility processes.** • Common reinforcement, flexibility and operational governance across network tools. • Shared visibility of flexibility requirements, schedules, delivery and network impacts.
CONNECT & SERVE Easier, clearer access	• Customer portals and digital services • Vulnerability datasets and weather feeds	• **More consistent digital journeys from enquiry through to energisation** • Earlier visibility of capacity constraints, costs, and timescales. • Joined-up vulnerability, fault, outage and restoration information.
MANAGE ASSETS & WORK Target risk and improve performance	• Asset systems and condition information • Field devices and work-management tools	• **Complete and trusted asset information across the lifecycle** • Risk-based maintenance and investment decisions • Connected field information and governed digital engineering content.
OPERATE AN INTELLIGENT NETWORK See more, use more, restore faster	• Network monitoring and ANM[1] • Operational data sources • Early DERMS[2] integration	• **Connected operational view of network, flexibility and distributed resources** • Improved voltage visibility, forecasting and operational coordination • Better integration between DERMS, flexibility, outage-planning and operational systems.
MANAGE & EXPLOIT DATA, AI & AUTOMATION Coordinate and decide with confidence	• Data platforms and governance • Analytics and early AI use cases	• **Trusted, reusable data with clear ownership and governance** • Reusable data sharing and integration services • AI-enabled decision support with monitoring and human oversight

1 Active Network Management (ANM).
2 Distributed Energy Resource Management System (DERMs).

4.3 EMBEDDING DIGITALISATION AND BECOMING DATA-DRIVEN

Protecting critical infrastructure and enabling smarter networks

Creating a modern, intelligent electricity network depends on secure, resilient and modern technology foundations. Our operational technology (OT) and telecommunications and core systems are increasingly critical to network operation, but parts of the estate now need to be modernised. Our ED3 investment therefore serves two purposes: reducing the resilience and obsolescence risks associated with ageing technology, and creating the foundations for a smarter, more automated and data-driven network.

Our electricity network is critical national infrastructure. As the network becomes smarter, more digital and more interconnected, its safe and reliable operation increasingly depends on the technology behind it. Keeping these systems secure, resilient and up to date is therefore essential to maintaining continuity of supply for customers. Our OT and telecommunications provide the critical links between substations, control rooms and the systems we use to monitor, control and restore the network. As we make greater use of automation, real-time data and active network management, our reliance on these systems will grow.

Parts of this estate now need to be modernised. Our network control, protection and automation systems depend on communications networks, operational applications and the infrastructure that supports them. This estate has developed over many years, leaving a mixture of technologies of different ages and levels of support. Our proposed investment ensures that we can modernise the OT hosting estate to ensure critical operational applications continue to run on resilient, supportable infrastructure that can meet evolving operational and data demands. Unsupported or obsolete technology increases the risk of failures affecting multiple operational services, while fragmented infrastructure is harder and more costly to support and recover. Ageing communications can also create capacity constraints and single points of failure, limiting the visibility and remote control we increasingly need to operate the network. Delaying investment would therefore increase operational, resilience and cyber risk and could constrain the smarter network capabilities we need in ED3 and beyond.

We are taking a targeted approach. Investment will be prioritised according to service criticality, operational need, resilience and whole-life value, with the strongest case at the sites and services where investment will reduce risk, improve visibility and control or support customer reliability. Fibre will be used where its performance, resilience and cost are justified, alongside other communications technologies where they offer better value. Our four linked investments will also be coordinated so that communications, hosting and network-control systems work together rather than being renewed in isolation.

Together, this strikes the right balance between affordability and resilience: addressing the technology risks that matter most while creating secure, supportable foundations for better network visibility, automation and restoration. It will protect the critical services customers rely on today without investing ahead of need, while ensuring our network can become smarter as electricity demand and operational complexity grow.

Table 4.3.1: Overview of OT investments

Investment	What we are investing in	Why it is needed
Operational communications network rollout	Continuing fibre rollout and upgrading connectivity at selected sites where operational need and whole-life value justify it.	To bring reliable network information into our systems and enable remote monitoring, control, automation and future DSO services.
Communications network resilience	Renewing ageing radio, telephony, microwave and other communications; addressing justified single points of failure and synchronisation needs.	To reduce the risk of losing critical communications and keep protection, control and field operations dependable, including during incidents.
OT technology and service modernisation	Renewing data centre computing, storage and networks, introducing resilient private-cloud hosting and appropriate testing environments.	To modernise the OT hosting estate to ensure critical operational applications continue to run on resilient, supportable infrastructure that can meet evolving operational and data demands.
ADMS and evergreen foundation	Renewing the network management and control system used by our control room, with more manageable updates, network simulation, controlled read-only access and improved configuration tools.	Key components approach the end of vendor support during ED3. Renewal maintains supportability while improving the information and tools used to operate and restore the network.

Figure 4.3.2: Artist's impression of our new SEPD control room currently under construction



4.4 NURTURING AND DEPLOYING INNOVATION

Proven in ED2. Scaling for ED3

We enter ED3 as an established innovation leader, with a proven track record of turning new ideas into better outcomes for customers and the wider energy system. During ED2 we deployed more innovation into business-as-usual than in any previous price control, built one of the largest Strategic Innovation Fund (SIF) portfolios in GB electricity distribution and worked with more than 200 innovation partners. Innovation is at the heart of what we do and has already shaped how we plan, operate and invest in our network, while helping shape wider industry approaches. We will accelerate the delivery of benefits in ED3.

Our leadership is delivering significant value. Innovation benefits take time to mature, with our ED1 and ED2 portfolio expected to enable more than £400m of benefits by the end of ED3 as successful solutions are adopted and scaled. Building on that track record, we are targeting £4 of benefits for every £1 invested in innovation in ED3. Achieving this will require us to identify, embed and scale the innovations that deliver the greatest value for customers.

Around 30 innovations have already been deployed into BAU, demonstrating our ability to move beyond trials and embed successful solutions at scale.

Even so, ED3 demands that we go further. Rapid electrification, increasing climate risk, workforce and supply chain constraints and accelerating advances in digitalisation, AI and automation mean we need new approaches to deliver the network customers need. Innovation will therefore be integral to how we increase capacity, accelerate connections, improve resilience and deliver the network more efficiently and affordably.

A particular challenge will be delivery, so we'll spend 30% of our £150m ED3 portfolio on innovative construction methods, materials and automation to transform network delivery and meet growing demand.

Driving change through the Energy Networks Innovation Taskforce

Our ED3 innovation priorities align with Ofgem's five sector Innovation Challenges. We are helping shape that agenda, chairing the Innovation Delivery Group for accelerating industrial and commercial connections, supporting economic growth and decarbonisation.

Our ED3 Innovation Ambition

To turn proven leadership into innovation at scale. We will deploy successful innovations faster, complete the innovation journeys already underway and develop the next generation of solutions to emerging network challenges.

OUR COMMITMENTS TO CUSTOMERS

Innovation that delivers measurable value:

- We will deliver **£4 of customer value for every £1 invested** through our innovation portfolio by the end of ED3 (lead commitment)

SHAPED BY STAKEHOLDER INSIGHT

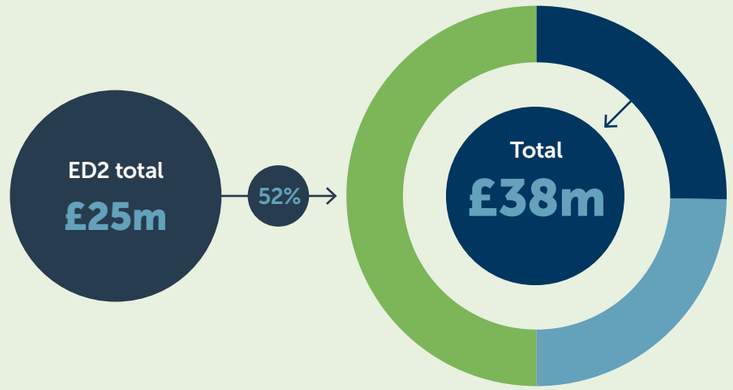
Customers expect innovation to move beyond pilots and deliver tangible, measurable benefits at scale, such as lower costs, faster connections and improved reliability and resilience. Innovation is most credible when proven solutions are embedded into business-as-usual, with clear evidence of customer value.

We will deliver our largest and most ambitious innovation portfolio to date, investing up to £150m across NIA, SIF and business-as-usual innovation, with a strong pipeline of projects that will continue to evolve throughout ED3.

ED2 gives us the foundations, we'll deliver a step-change in ED3 as we scale innovative solutions, to deliver long-term impact.

ED2 FOUNDATION	ED3 STEP CHANGE	LONG-TERM IMPACT
Proved and deployed successful innovations	Accelerate adoption and scale deployment	More than £750m of benefits
Built governance and delivery capability	Strengthen benefits and deployment pathways	£5 returned for every £1 invested
Developed NIA and SIF portfolios	Maintain a balanced £152.5m portfolio	Lasting operational capability
Expanded business ownership	Embed innovation across the organisation	Benefits through ED4 and beyond

ED3 INNOVATION TOTAL EXPENDITURE



- Network Innovation Allowance (NIA) — Develop and test solutions and prepare projects for SIF or deployment into BAU. **£38m**
- Strategic Innovation Fund (SIF) — Demonstrate large-scale, collaborative, transformation solutions projects with whole-system value. **£37m**
- Business-as-usual (BAU) innovation — Deploy and scale proven solutions into everyday operations and build enduring capability. **up to £75m**

£38m of NIA funds are in our baseline plan as a subset of "Other" costs set out in Section 1. Both SIF and BAU are outside the baseline plan, but together with NIA form an innovation portfolio of ~£150m.

Delivering the networks we need through a new approach to innovation

"The solution is not simply to build out the network. It also lies in making better use of what we already have, removing unnecessary barriers, and finding smarter ways of meeting growing demand"



Monisha Gower | Networks Director and ENIT Working Group Chair, SSEN

4.4 NURTURING AND DEPLOYING INNOVATION

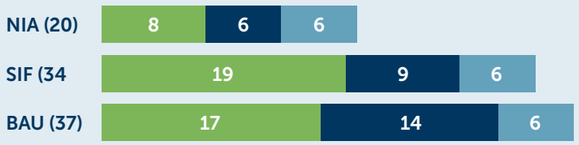
Building on ED2 success to deploy innovation faster

Our innovation leadership is already changing how networks plan for the energy transition. During ED2, we pioneered new approaches that move network planning beyond traditional forecasting, bringing together network insight, local ambitions and data to identify where and when investment will be needed. These capabilities are now informing our ED3 planning and creating wider value across the sector.

ED2 innovation leadership at a glance

91
Innovation projects

44 Complete **29 In delivery** **18 In preparation**



~£400m
benefits expected from ED1 and ED2 innovation by end of ED3

~30
innovations deployed into BaU during ED2

£80m+
ED2 innovation portfolio across NIA, SIF and BaU

ED2 marked a step-change in our innovation capability. We deployed more innovation into business-as-usual than in any previous price control, embedding new approaches across network planning, operations, customer service and business transformation



Strategic Development Plans (SDPs): pioneering anticipatory network planning in business-as-usual

Innovation isn't confined to our innovation team. We expect teams across SSEN Distribution to find better ways of working and turn good ideas into practical improvements. Our SDPs are an excellent example. Developed by our DSO, they pioneered a more transparent, long-term approach to planning the distribution network. By looking beyond immediate connection requests towards future regional needs, the plans provide a clearer view of how demand, generation and decarbonisation could reshape the network and where strategic investment may be required.

The approach has helped established us at the forefront of strategic network planning, creating a stronger evidence base for anticipatory investment and giving us greater confidence as the industry rolls out Long-Term Integrated Network Plan as a new tool for network planning.

Local Authority Energy Plans (LAEP+): turning local growth ambitions into actionable network insight

LAEP+ demonstrates how sustained innovation can move from an idea to an enduring capability with real-world impact. Initially developed with NIA funding, this is now integrated into business-as-usual. Developed through our whole-system planning innovation programme, the platform helps local authorities translate their net zero ambitions into evidence-based local energy plans, while giving SSEN Distribution better insight into where electrification and network investment will be needed.

The capability is already being used by 62 local authorities, helping communities plan for decarbonisation and enabling better coordination between local ambitions and network investment. In ED3 we will build on this success, evolving LAEP+ into an integrated, RESP-aligned planning capability supporting forecasting and future investment decisions.

Together, our SDPs and LAEP+ demonstrate how we used innovation to anticipate future needs, give communities a stronger voice in network planning and turn better insight into better investment decisions.

We combined business-as-usual and funded innovation to give an accelerated impact to our investment.

In ED3, we will build on these foundations to make network planning increasingly anticipatory, place-based and data-driven, supporting faster connections, economic growth and a more coordinated energy transition.

From innovation project to industry-shaping capability

4.4 NURTURING AND DEPLOYING INNOVATION

A prioritised, deployment-led innovation portfolio for ED3

Our ambition for ED3 is to move from delivering innovation projects to deploying innovation at scale, increasing the value created for customers, communities and the network through faster adoption and measurable benefits.

Our six strategic innovation themes for ED3

Delivering this ambition requires a change in the scale, pace and impact of innovation deployment across our network. Innovation is increasingly part of our business-as-usual culture, already embedded within the business strategies for ED3, and a key contributor to the effective and efficient delivery of all aspects of our business plan. Developed from stakeholder feedback, learning from ED1 and ED2, our Drivers for Change assessment, horizon scanning, business needs and the SIF Innovation Challenges, the themes connect innovation directly to the challenges facing our network and customers.

Our six strategic innovation themes provide the direction for innovation throughout ED3 and align with our strategic commitments, focusing activity on the areas with the greatest potential to improve affordability, reliability, resilience and environmental and societal value. They are deliberately not fixed technology commitments, allowing the portfolio to evolve as new technologies, needs and opportunities emerge.

Smart Machines & Automated Systems

Digital Backbone & System Visibility

Network Intelligence & Optimisation

Resilient communities and energy security

Adaptive Networks & Climate Intelligence

Advanced Construction & Infrastructure Delivery

Predict4Resilience: using predictive analytics to act before severe weather hits

The challenge: Severe weather is becoming an increasing risk to network resilience. Traditional forecasting can tell us where extreme weather may occur, but not precisely enough how it could affect our network. Better prediction of likely network impacts would allow us to prepare and target resources more effectively before disruption occurs.

The innovation: Predict4Resilience uses advanced data science and statistical modelling to predict how severe weather could affect the electricity network, providing better insight into where faults and disruption are most likely to occur.

How we will apply it: We fast followed this innovation from SPEN testing before their programme was finished. We will embed the capability into our Network Control Centres, enabling teams to translate weather forecasts into likely network impacts and proactively mobilise people and resources ahead of severe-weather events.

Expected outcomes: better predications, mobilise smarter, reduce disruption.

Our approach: partners, projects and outcomes

We will turn these six strategic innovation themes into value through a simple approach built around the right partners, the right projects and the right outcomes. We will broaden our innovation ecosystem, select opportunities based on customer value, strategic alignment and deployment potential, and build a clear route to implementation and benefits realisation into every project from the outset.

Right partners

Bring the strongest expertise and ideas
Build on 200+ ED2 partners and diversify our ecosystem. Publish clear priorities, simplify participation for small and medium-sized enterprises (SMEs) and innovators, and launch Network Appreciation Days to solve future network challenges and accelerate deployment.

Right projects

Address clear customer and network challenges
Focus investment on opportunities with the greatest customer and stakeholder value, using our six strategic innovation themes to target the outcomes that matter most.

Right outcomes

Deploy solutions and realise measurable benefits
Give every project a deployment pathway, accountable business sponsor and success measures. Report realised benefits annually to accelerate adoption, scale solutions and deliver value sooner.

OUR ED3 INNOVATION OUTPUTS AND METRICS

- **Network Appreciation Days**
  By 1 April 2029, and annually thereafter, host at least one open Network Appreciation Day with innovators, SMEs, academics and other organisations, and publish a summary report within 30 working days.
- **Timely feedback on proposals**
  From April 2028, give initial feedback on all innovation funding proposals within 10 working days, and summarise volumes, outcomes and themes in our Annual Focus Report.
- **Deployment and Implementation Pathways**
  From April 2028, publish a pathway for all relevant ED3 projects at least 12 months before completion, giving early visibility of the route to BaU.
- **Spend-to-benefit ratio**
  Target a spend-to-benefit ratio of approximately 1:4 by the end of ED3, improving on ED2 (~1:4).
- **Annual deployment and benefits update**
  From April 2028, publish an annual update on the deployment of projects developed before and during ED3, including the benefits realised.

Aligned with ENIT Challenge four: moving towards near-zero interruptions.Predict4Resilience demonstrates how our innovation portfolio is responding directly to the sector's priority challenges, using predictive intelligence to move from reacting to severe weather towards anticipating risk and acting earlier.

4.5 DELIVERING ED3 AT SCALE, SAFELY AND EFFICIENTLY

Building on stronger delivery foundations to deliver more for less

In ED3, we will deliver a larger programme without a proportionate increase in the cost of running our business. Simply scaling today's delivery model will not be enough. We have therefore used ED2 deliberately to strengthen our delivery foundations, building the people, partnerships, systems and capability needed to deliver more safely and efficiently in ED3.

We used ED2 deliberately to strengthen our delivery foundations. We have grown critical in-house capability where network knowledge, operational control and resilience matter most, while developing a contracting model that gives strategic partners greater visibility and certainty to invest in people, skills and capacity. In ED2 capex delivery has increased by ~ 20% year-on-year and capex delivery overall is ~80% higher than FY24 levels.

In ED3, we will build on those foundations through integrated regional teams, longer-term partnerships and specialist frameworks, matching the delivery route to the scale, complexity and risk of the work. This is how we will turn a larger capital programme into a more productive delivery model, rather than a proportionately larger overhead base. Standardising designs, packaging work into programmes, improving planning and using digitalisation and automation will allow us to increase delivery while making better use of both our own people and our supply chain.

Productivity initiatives are already delivering improvements, demonstrating the opportunity to convert the capability built during ED2 into greater efficiency during ED3. The result is a deliberate trade-off across price controls: investing in capability ahead of need during ED2 so that we can deliver greater volumes more efficiently, through ED3 and beyond.

Across the following pages, we explain how we will:

- scale our delivery model, combining critical in-house capability with regional delivery partners and specialist frameworks
- build the workforce and skills we need, with long-term pipelines for critical operational and technical roles
- secure supply chain capacity, using earlier commitment, longer-term partnerships and greater standardisation
- manage delivery safely and efficiently, supported by strong governance, programme controls, digital tools and clear performance measures
- mobilise early and assure delivery, so the people, projects, plant and commercial arrangements required for ED3 are ready when they are needed.

Together, these measures give us confidence that we can increase delivery through ED3 while building enduring capability for ED4 and beyond.

OUR COMMITMENTS TO CUSTOMERS

We will boost jobs and sustainable growth, and build the workforce of tomorrow by:

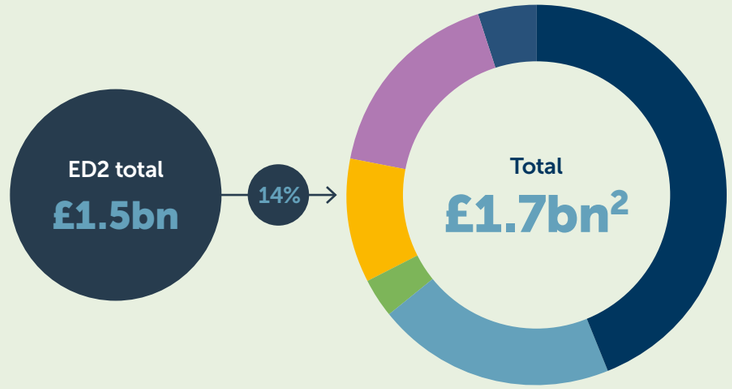
- Supporting UK Manufacturing by aiming to **increase our expenditure across key categories (transformers, switchgear and cable) by 10%** by April 2033 (on our ED2 baseline), increasing our UK manufacturing spend by an estimated £157 million in ED3[1] (lead commitment)
- Ensuring **more than 10% of our workforce in earn-as-you-learn opportunities** by the end of ED3, with 100% of learners who successfully complete their programme progressing into a substantive role on completion of training (lead commitment)
- Building on our ED2 workforce growth, we will optimise training delivery by **shifting 10% of current in-person training to blended and innovative learning**, increasing training capacity and accelerating time to competence while maintaining safety, quality and technical standards
- Increasing the diversity of our workforce to reach **at least 40% female representation in senior leadership, 10% minority ethnic representation in our overall workforce, and 8% representation for both disability and LGBTQ+ employees**

1. subject to market availability, value for customers, delivery requirements and compliance with applicable procurement obligations.

SHAPED BY STAKEHOLDER INSIGHT

Stakeholders told us that delivering ED3 at scale will depend on tackling workforce and supply chain constraints, with earlier engagement, longer-term visibility and stronger skills pipelines needed to give partners confidence to invest. We have translated this directly into commitments to strengthen UK manufacturing and build a larger, more diverse workforce, underpinned by long-term partnerships, training and clearer delivery pipelines.

ED3 INDIRECTS AND OVERHEADS



Core CAI	£735m
Core Business Support Costs	£338m
Wayleaves (CAI)	£55m
Operational Training (CAI)	£177m
Vehicles and Transport (CAI)	£283m
Property (BSC)	£82m

Our overheads are increasing by 14% (rounded) from ED levels. This is linked to the growth, scale and complexity of the frontline activity delivery programme. The costs reflect growth in our workforce requirements and include programmatic efficiencies, and as a result our overhead increase less than expected given our delivery volumes.

Our indirects and overheads include costs not directly linked to physical work on the network, but required to manage our network, such as engineering and design, call centre and customer services, human resources and training.

2. Consistent with page 21, £0.1bn is pre-approved ED2/3 cross over funding as set out on page 5. Core CAI and BSC are c. £1.1 bn. Presentation of IT and Telecoms costs is consistent with page 5.

4.5 DELIVERING ED3 AT SCALE, SAFELY AND EFFICIENTLY

Building long-term capability to deliver at scale in ED3 and beyond

Delivering more for less requires a different delivery model. Our ED3 approach moves from short-term, project-by-project delivery towards longer-term, programme-based delivery, giving our own teams and the supply chain better visibility of what is coming and allowing capacity to be built ahead of need.

Our ED3 Delivery Strategy is our credible plan for building workforce and supply chain capacity ahead of need, mobilising our ED3 programme early, and strengthening the governance, controls and assurance that will keep delivery safe, efficient and on track. It gives us confidence that we can deliver a materially larger programme in ED3 while improving productivity, managing risk and maximising long-term value for customers.

A new model enabled by ED2 foundations

Our new model is enabled by our sector **leading SDPs** which provide long-term visibility of electricity system needs by Grid Supply Point, enabling us to anticipate where and when investment will be required to secure network reliability and support future customer needs. Our ED3 DSO Strategy sets out how we do this including how we are implementing Build and Flex.

We have also invested in our internal capabilities in ED2. We have already modernised our systems, processes and data in ED2, strengthening the foundations for delivery. Our ongoing ED3 mobilisation programme builds on this investment by further strengthening technical decision-making, governance and our internal programme capability. Together, these capabilities support a more strategic delivery model, with deeper partnerships, earlier supplier commitments, and more efficient delivery. For instance, our indirect and overhead costs are increasing by 14% which remains well below the increase of 55% in our workload across load, asset replacement and refurbishment, which reflects the capability and efficiencies established through ED2.

We also carried out extensive market analysis and supplier engagement which identified pressures from growing global demand, constrained manufacturing capacity, long lead times, workforce shortages, commodity volatility and concentration of supply in critical asset categories. We are responding to that in our ED3 plan.

Work has already begun

Our new model is already being mobilised, but not all future capacity is secured. All remaining ED2 construction works – 67 projects – are contracted for delivery, protecting continuity while new arrangements are developed. Further procurement, supplier commitments and workforce development remain essential to turn the longer-term pipeline into deliverable capacity.

Benefits of our of new delivery model:

Our commercial model moves us from short-term, project-by-project contracting to longer-term strategic partnerships and programme-based delivery. The model combines strategic partnerships with competitive procurement, allocating risk to the party best able to manage it and linking commercial incentives to programme outcomes.

We will deliver more efficiently in ED3 by:

- **Providing a longer-term pipeline:** We share our current requirements alongside indicative pipeline demand, giving suppliers visibility of future volumes so they can invest in manufacturing, recruitment and training. Phasing work across price controls helps avoid peaks and boom-and-bust cycles.
- **Committing to capacity earlier:** We are reserving factory slots and procuring long-lead equipment ahead of need. Manufacturing slots for grid and primary transformers are secured, with the remainder planned to be secured by December 2027.
- **Packaging work into repeatable programmes:** In support of place based delivery we are selecting regional delivery partners for complex works and specialist frameworks for high-volume activity. This provides continuity of work and helps partners retain and grow their subcontractor capacity.
- **Increasing output through standardisation:** Apply "design once, build many", rationalise specifications and freeze designs earlier. This reduces production complexity, late changes and rework, allowing manufacturers and contractors to deliver more efficiently.
- **Broadening and strengthening the supplier base:** Qualify additional suppliers, use dual sourcing and map critical subcontractor dependencies. Support opportunities for UK manufacturing and skilled employment while retaining competitive global supply routes to protect affordability and resilience.
- **Ensuring growth is commercially sustainable:** Use multi-price-control frameworks, balanced risk allocation, transparent change arrangements and outcome-based incentives, giving partners confidence to build lasting capability rather than mobilise temporarily for individual contracts.

Indicative timeline



4.5 DELIVERING ED3 AT SCALE, SAFELY AND EFFICIENTLY

Investing in people to deliver during ED3 and build lasting capability

Delivering our ED3 investment programme requires us to build the right skills and capacity ahead of need, rather than recruit reactively as workloads increase. Our Ten-Year Workforce Plan translates our investment programme into clear workforce requirements, underpinning our ambition to build a larger, more skilled, diverse and productive workforce. We will grow critical in-house capability, use strategic partners to provide scalable capacity and invest in digital, data and AI skills, creating the capability to deliver ED3 and an enduring skills base for ED4 and beyond.

Our Ten-Year Workforce Plan

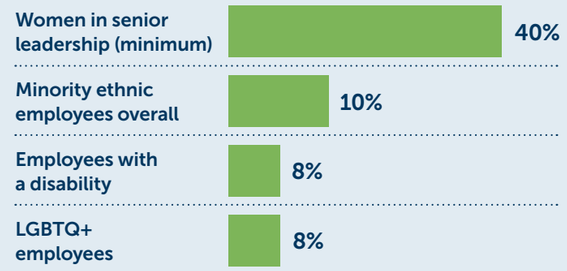
We will scale safely, building authorised capability in line with delivery need rather than pursuing headcount growth alone. Our Ten-Year Workforce Plan translates investment requirements into workforce demand, combining top-down resilience modelling with bottom-up resource planning. It gives confidence in delivery while creating local jobs, skills and lasting industry capability. We have identified a requirement for 1,555 additional full time equivalent (FTE) across 13 critical frontline roles from now until the end of ED3. Six roles – Jointer Mate, Jointer, Linesperson/ Craftsperson, Gang resources, Rapid Response Officers and Protection Engineers – account for ~89% of the gap. Most of our total requirement is in our south of England licence area (75% – 1,169 FTE) with fewer needed in our north of Scotland licence area (25% – 386 FTE).

We enter ED3 with a strong track record

During ED2 we have grown our workforce by almost 1,000 FTE since April 2021 to around 4,800 people, increased learning and development from 7.2 to 9.2 days per employee, and built a pipeline of 306 apprentices, trainees and adult learners. We have reduced some craft development pathways from around four years to 18 months, recruited successfully from transferable-skills sectors, and delivered 20 to 30% productivity improvements through new ways of working. At the heart of this is our Perform Programme, winner of the British Quality Foundation's 2025 Excellence in CI Culture: Infrastructure Award, which embeds structured performance management, front-line coaching and continuous improvement across our operational teams. Perform is not a classroom-based improvement course. It is a 12-week, coach-supported change to how managers run their teams. In practice, managers introduce one operational discipline each week, apply it to live work with their team, review whether it is working, and then embed it into business-as-usual. The intent is to create repeatable management habits rather than one-off improvement projects. Overall, our ED3 workforce ambition is an acceleration of capability we are already building, rather than starting from scratch.

A broader talent pool and greater workforce resilience

Building the workforce we need means broadening the talent available to us. By 2033, we are targeting 40% women in senior leadership, 10% minority ethnic representation and 8% representation for both disability and LGBTQ+ employees. These are stretching ambitions: the energy and utilities sector currently reports 34% women in leadership and around 4% disability representation.



18 months

Faster routes to competence

We are already accelerating development in critical roles so people become safely authorised and productive sooner, increasing the skilled capacity available for ED3

≥10%

Earn-as-you-learn ambition

Ensures a sustained workforce pipeline into ED3 and ED4, alongside accelerated development.

Skilled, diverse and adaptable

Together, faster development and sustained investment in our talent pipeline will build a workforce with the technical depth, broader skills and adaptability to deliver ED3 safely and efficiently, while creating the capability we will need for ED4 and beyond

Earn as you learn: building our future workforce

We are creating a sustainable pipeline of skilled people by enabling employees to earn while developing the technical competence and experience needed for critical network roles. Today, 306 apprentices, trainees and adult learners are progressing through structured development programmes, while redesigned pathways have reduced time to competence in some craft roles from around four years to 18 months, without compromising safety, quality or technical standards. Building on this ED2 track record, during ED3 we will maintain at least 10% of our workforce in earn-as-you-learn opportunities, compared with 7% in ED2 and a 5% industry benchmark, and support 100% of learners who successfully complete their programmes into substantive roles. This strengthens our pipeline of scarce skills, opens accessible routes into long-term careers and builds the enduring workforce capability required for ED3, ED4 and beyond.



4.5 DELIVERING ED3 AT SCALE, SAFELY AND EFFICIENTLY

Enhancing supply chain resilience and creating the conditions for capacity growth

ED3 will be delivered in an increasingly constrained infrastructure market. Our extensive supplier engagement shows that additional capacity can be created, but suppliers need sufficient visibility and certainty to invest in people, manufacturing and capability ahead of need. Waiting until every requirement is certain will be too late. We are therefore acting early, providing greater long-term visibility, committing earlier where appropriate and increasing standardisation, while retaining competition to protect affordability and resilience.

What the market told us

Our strategy is grounded in extensive engagement across the supply chain: 57 suppliers surveyed, 19 strategic supplier interviews, engagement with 18 Original Equipment Manufacturers (OEMs), designers, engineering, procurement and construction (EPC) contractors and tier one and two partners, and 27 long-lead equipment suppliers. The message was consistent: suppliers are broadly confident they can support ED3, but unlocking additional capacity requires earlier visibility, commitment and greater certainty.

Key insights from our supplier engagement include:

- 92% said early visibility of our ED3 pipeline would be highly beneficial.
- 100% rated long-term workforce visibility as important for capacity planning.
- 4.4/5 average supplier confidence in their ability to support our ED3 delivery profile.

Capacity exists, but investment requires confidence

Our engagement shows that the market can support ED3, but suppliers need confidence to invest ahead of demand. That means credible long-term visibility of our requirements, sufficient regulatory certainty over the scale and timing of investment, earlier commercial commitment and greater consistency in what we ask the market to deliver.

With major equipment capacity taken between two and five years to scale and large power transformer lead times reaching 120–160+ weeks, waiting until requirements are fully certain would be too late.

Our commitment to supporting our local supply chain

ED3 investment offers an opportunity to strengthen UK manufacturing while protecting affordability. Suppliers told us that clearer future requirements would support investment in capacity and skilled employment. We are developing a proposal to increase UK content in equipment and materials purchases.

We have established an ED2 baseline, worked with other DNOs on a common UK-content definition and progressed legal review, DESNZ engagement and economic modelling. Our ED3 ambition is a 10% relative uplift in UK content, equivalent to an additional £157m across planned volumes.

The proposal could support domestic capability and improve supply resilience. We will retain dual sourcing and access to competitive global markets rather than pursue 100% UK sourcing, balancing UK opportunities with cost, capacity and quality to protect customers and security of supply. While increasing UK content may carry a short-term cost premium, we expect this to reduce as UK supply chains scale and competition increases.

Table 4.5.1: Our domestic procurement commitment

Asset	Current UK content (%)*	ED3 aim UK content (%)
Cable	36.8%	40.5%
Switchgear	47.5%	52.3%
Transformers	47.2%	51.9%

An additional
£157m
in UK content

How this has shaped our supply chain strategy

Our supply chain strategy is therefore centred on giving suppliers sufficient long-term confidence to invest ahead of need, while retaining the competition, diversity and flexibility required to protect customers.

Creating the conditions for our supply chain to invest ahead of need include[s]:

1. **Long-term visibility**
2. **Earlier commitment**
3. **Supplier investment**
4. **Greater supply chain capacity and resilience**

1. Through our LINP, SDPs and ten-year delivery horizon, we are giving suppliers a clearer view of the volumes, timing and sequencing of our ED3 requirements and emerging needs into ED4.
2. We are turning visibility into credible demand signals through earlier procurement, multi-price-control arrangements and capacity reservation for constrained equipment, allowing suppliers to plan around real future workloads rather than individual projects.
3. Greater certainty gives manufacturers and delivery partners the confidence to invest in production capacity, people, skills and their own supply chains, while greater standardisation allows that capacity to be used more efficiently.
4. The result is more capacity available when we need it, a broader and more resilient supplier base and less exposure to long lead times, bottlenecks and global market volatility, while retaining competition to protect affordability.

We have already demonstrated that this approach works. 27% of ED3 Year 1 and Year 2 requirements across our five most critical long-lead equipment categories already secured.

Proven in ED2 – early commitment unlocks capacity

We identified early that our ED2 programme would require more than 900km of 132kV cable and worked with a framework supplier to secure manufacturing capacity ahead of need. By standardising requirements to four cable designs, we established a reservation agreement for agreed monthly volumes while retaining flexibility to adjust cable requirements closer to delivery. This has strengthened security of supply, improved factory throughput and increased cost certainty. To date, we have procured 202km of cable, demonstrating how early commitment and strategic supplier partnerships can secure capacity and strengthen resilience as we scale delivery.

4.5 DELIVERING ED3 AT SCALE, SAFELY AND EFFICIENTLY

Mobilising early and maintaining control to deliver ED3 from day one

ED3 mobilisation is already under way. We are deliberately using the final years of ED2 as a runway into ED3, ramping up investment and building the people, skills and delivery capability needed before the new price control begins. This avoids an artificial step-change between ED2 and ED3, and means we enter ED3 with delivery already in motion.

ED2 is our ED3 mobilisation runway

The step-up in the final years of ED2 is deliberate. We are increasing delivery and testing programme-based approaches in live conditions. This allows us to learn and build capability before volumes increase further, rather than creating an artificial step-change at the price-control boundary. ED3 design needs to commence now to avoid a dip in delivery in Year 1 of ED3. This is also critical to make the most efficient use of both our in-house and out-sourced capacity. Our ED2 Load Related Expenditure (LRE) Reopener enabled us to mobilise key ED3 activities such as design and consenting. In addition to LRE mobilisation activities, we are progressing design and development of priority non-load and sub-sea projects.

We will measure, control and intervene throughout delivery to protect outcomes for customers

Stronger integrated programme controls will give us early visibility of whether delivery remains on track. We will manage programmes against clear cost, schedule, output and risk baselines, using leading indicators and defined tolerances to identify emerging issues early and trigger recovery, reallocation or resequencing before they affect customer outcomes.

We enter ED3 ready

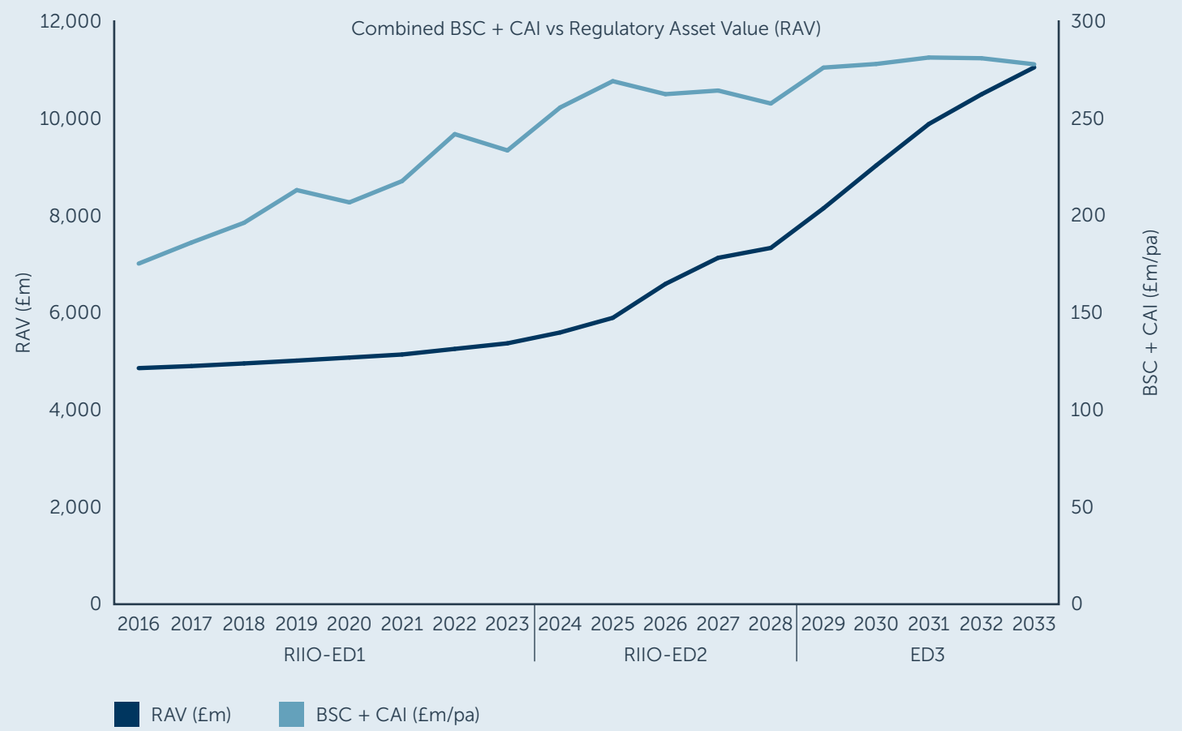
Our mobilisation programme is converting the Business Plan into an executable workbank. By the start of ED3, 342 schemes representing £1.6bn will have completed the approvals required to commence delivery, supported by early design, workforce mobilisation and secured critical plant capacity. ED3 therefore begins with delivery already in motion, not mobilisation starting on day one. In addition:

- Almost a quarter of the additional workforce required for ED3 will be in place before it begins, ramping up in period quickly to balance people costs with the profiled investment.
- Year one manufacturing capacity for grid and primary transformers is already secured.
- For our five most critical equipment categories, we have already secured 27% of Year 1 and Year 2 long-lead equipment requirements and will secure the remaining requirements by December 2027.
- We have defined nine delivery programmes covering seven SHEPD and 66 SEPD delivery projects for Year 1 and 2.

Ready to deliver from day 1.

Together, ED2 capability building, early mobilisation and a new strategic delivery model with tighter portfolio controls give us confidence that ED3 will begin with delivery already under way. By testing our model through the final years of ED2, managing every programme against approved cost, schedule, risk and output baselines, and intervening when leading indicators move outside tolerance, we will protect efficient delivery and customer value as volumes increase.

Figure 4.5.1: Delivering more with less – increasing capital spend whilst holding indirect costs broadly level



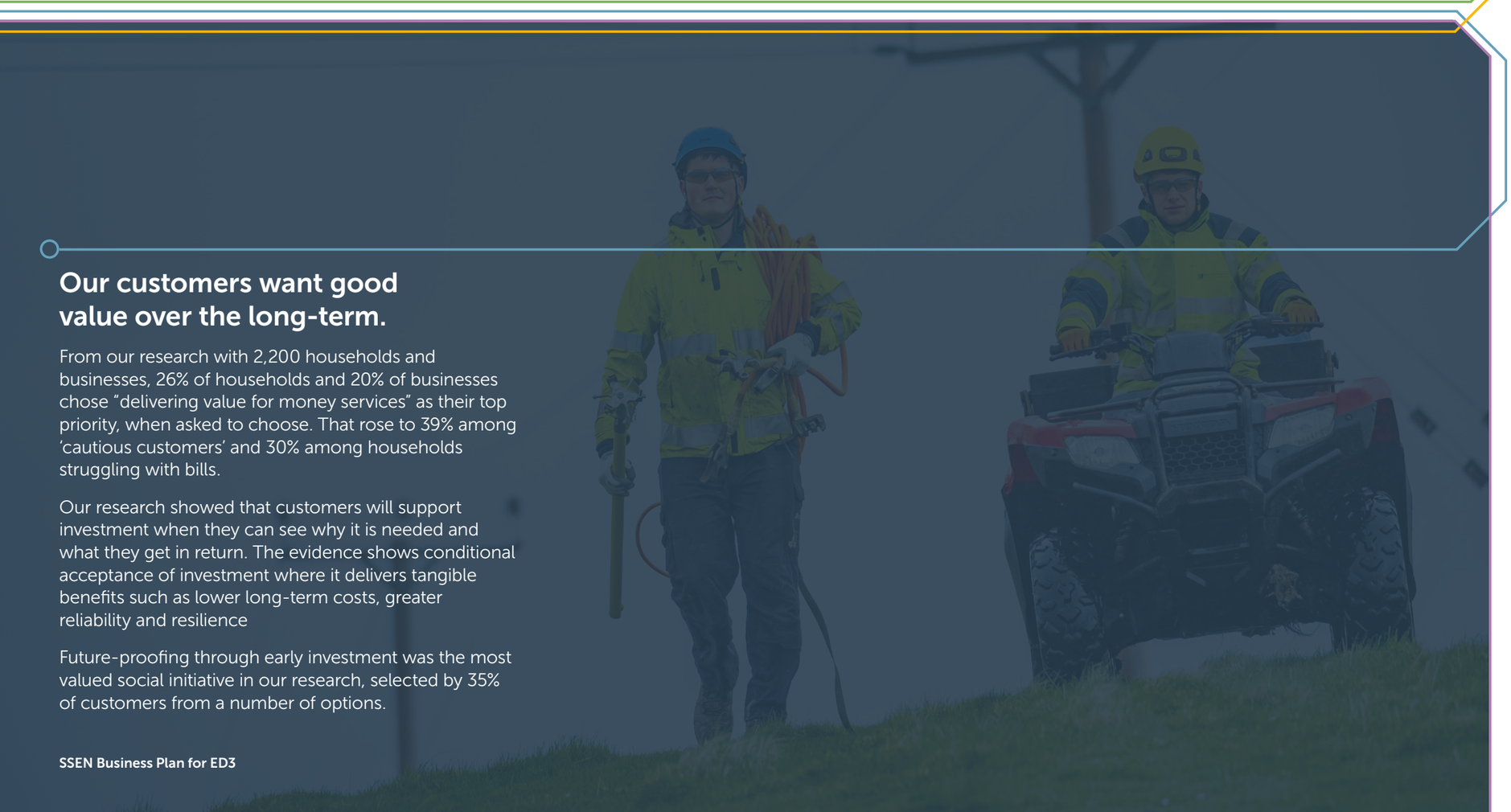
As our Regulatory Asset Value (RAV) grows, our workforce also grows, but at a slower rate. This is illustrated in figure 4.5.1. The figure above shows that our overheads (combined BSC and CAI) are only increasing by 14% in ED3 comparative to ED2, but our RAV more than doubles from the start of ED2 to the end of ED3. All numbers in figure 4.5.1 are in 25/26 real prices. The RAV excludes the impact of any uncertainty mechanism spend

That reflects the more productive delivery model we are building: combining critical in-house capability with strategic partners, standardisation, digitalisation and automation so that we can deliver a materially larger investment programme without increasing headcount proportionately.

1 CAI – Closely Associated Indirects are costs not directly linked to the physical work on the network but required to manage it, such as engineering and design and project management. BSC – Business Support Costs – are the costs to run our business such as HT, regulation, and training. They are both a strong proxy for the growth in our people overheads.

5.0 WHY OUR PLAN DRIVES VALUE

IN THIS SECTION		Relevant further reading
5.1 What our plan will cost	72	→ Cost Assessment Annex
5.2 Keeping bills affordable while enabling investment	76	
5.3 Ensuring our plan is investable and financeable	80	→ Finance Annex
5.4 What we need from the regulatory framework	86	→ Regulatory Framework Annex



Our customers want good value over the long-term.

From our research with 2,200 households and businesses, 26% of households and 20% of businesses chose "delivering value for money services" as their top priority, when asked to choose. That rose to 39% among 'cautious customers' and 30% among households struggling with bills.

Our research showed that customers will support investment when they can see why it is needed and what they get in return. The evidence shows conditional acceptance of investment where it delivers tangible benefits such as lower long-term costs, greater reliability and resilience

Future-proofing through early investment was the most valued social initiative in our research, selected by 35% of customers from a number of options.

Value runs throughout our ED3 plan. Section 2 showed how investing at the right time can enable electrification, jobs and economic growth, while Section 4 explains how we will deliver efficiently and build the enduring capability needed for the future. Section 5 brings these threads together, showing how we will maximise the value of our investment for customers and fund it fairly. It explains why our costs are efficient and represent value for money, how we will manage the impact on customer bills, and the financial and regulatory framework needed to deliver our commitments and sustain value over the long-term.

Section 5.1 sets out what our plan will cost and why those costs represent value for customers. It explains the company-specific and regional factors that shape our costs, and how engineering choices, procurement, supply chain strategy and cost management ensure investment is delivered as efficiently as possible.

Section 5.2 explains how our plan will affect customer bills. It sets out our proposals to keep distribution bills broadly flat in real terms to 2030 and looks beyond the distribution bill to how network investment and electrification can reduce customers' total energy costs over time.

Section 5.3 explains how we will finance the investment customers need efficiently and fairly. It sets out the returns and financial parameters needed to attract capital, maintain strong credit quality and share costs fairly between current and future customers.

Section 5.4 sets out the regulatory framework needed to deliver value as needs evolve through ED3. It explains how targeted uncertainty mechanisms (UMs) can release funding when needed, while protecting customers where requirements do not emerge, and how balanced incentives will reward performance and efficiency.

Together, these sections show how we will turn the wider value created by ED3 into a plan that is efficient, affordable, investable and fair for customers today and over the long-term. Our actions and asks here will predominately, not exclusively, support our AFFORDABILITY outcome.

5.1 WHAT OUR PLAN WILL COST

Our ED3 Plan builds on the increase in network investment being delivered through ED2, across asset replacement and refurbishment, and network reinforcement and growth. The Plan balances baseline funding for expenditure where need and cost are sufficiently certain with clearly defined in-period UMs where greater certainty is required. This protects customers from committing to expenditure prematurely, while ensuring necessary investment is not delayed in ways that could constrain connections, resilience or service levels.

The Plan includes a £7.4bn baseline ask for Ofgem to determine, alongside £1.3bn of crossover expenditure already accounted for in ED2. Together, this gives £8.7bn of baseline Totex, which forms the basis of customer bills and our financeability analysis. We also run the analysis with the UMs included.

Our investment in ED2 is expected to be £6.8bn, including anticipated expenditure through UMs. ED3 therefore represents a 28% increase[1] in expenditure, supported by a continued step-up in our internal capability, workforce and supply chain.

This includes continued investment in resilience, with asset replacement expenditure ~59% higher than ED2, while our investment to accommodate load growth will increase by ~70% in ED3. There is also scope for further investment as electrification requirements develop, ensuring we can respond as demand materialises while protecting customers from committing to expenditure before it is needed. Uncertainty Mechanisms

A further £1.5bn may be incurred through "in period" UMs as need and cost certainty develop, bringing total potential ED3 totex to £10.2bn. This principally reflects load-related investment expected to mature during ED3 and anticipated expenditure for SHEPD to replace subsea cables connecting the Scottish islands to the mainland.

We have proposed an adjusted load-related expenditure mechanism for ED3, alongside a targeted range of other UMs. These UMs enable requirements that are not yet sufficiently mature to be brought forward during the price control once the need, scope and efficient cost are established.

Where requirements are still emerging, engineering options remain under development or costs cannot yet be determined with sufficient confidence, we have deferred expenditure from the baseline. This provides time to complete engineering optioneering, refine the scope and design, and establish the efficient cost before investment is brought forward.

This includes expenditure associated with subsea cable replacement, where final route design, marine licensing and procurement will determine the scope and cost of the required investment. It also reflects expenditure associated with the continued use of diesel embedded generation (DEG) stations on the Scottish islands, including engagement with the Scottish Environment Protection Agency (SEPA) on environmental requirements. A number of transmission-related investments and other requirements will similarly develop during ED3 and be addressed through the relevant UMs.

Embedded efficiencies in our Plan

Our ED3 Business Plan already embeds £518m of efficiency savings, equivalent to around 6%, within our expenditure forecasts. These savings draw on more efficient delivery rates established during ED2, procurement improvements through bundling and standardising engineering works, and changes to how we deliver work through insourcing and contractor arrangements. They also reflect productivity improvements from IT investment and further changes planned through our Bridge Transformation programme to reduce indirect and business support costs.

Building on these embedded savings, we commit to ongoing efficiency (OE) improvements of 0.5% per annum, delivering a further £216m of savings for customers over ED3. This brings our total efficiency commitment to £734m, 8%.

As we have yet to agree the OE assumption with Ofgem, we have not allocated the additional £216m saving to individual cost categories at this stage. However, we remain committed to delivering these savings for customers. Full details of these efficiency savings and the assumptions underpinning them are set out in our Cost Assessment Annex.

ISG Challenge: Public Acceptance and Affordability

Challenge: Our ISG challenged us to broaden our approach to public acceptance, ensuring that affordability is considered alongside the cost and deliverability of our investment programme. In particular, the challenge reinforced the need to demonstrate that affordability is not treated as a standalone consideration but is reflected in the choices we make about what we invest in, when we invest and how efficiently we use the existing network.

Response: We have strengthened the way affordability informs our investment approach. This includes our proposal to smooth our bill impact of investment over time, maximising the use of flexibility as an alternative or complement to network reinforcement where possible, committing investment only where there is robust evidence of need and also scrutinising our costs.

Table 5.1.1: ED3 cost category totals, and by licence area	Cost (£bn)	Share of Totex	SEPD[2]	SHEPD[2]	SSEN[2]
Load : Network reinforcement and growth	£1.5bn	17%	£1.6bn	£1.0bn	£2.6bn
Non-Load: Asset replacement and refurbishment	£1.7bn	20%	£1.3bn	£0.4bn	£1.7bn
Non-Load: Resilience, safety, security and environment	£0.4bn	5%	£0.2bn	£0.2bn	£0.4bn
Network operating costs (NOCs)	£1.2bn	13%	£0.8bn	£0.4bn	£1.2bn
Technology and digital	£0.7bn	8%	£0.5bn	£0.2bn	£0.7bn
Indirects and overheads (known as Closely Associated Indirects (CAIs) and Business Support Costs (BSCs)	£1.6bn	18%	£1.1bn	£0.6bn	£1.7bn
Other	£0.3bn	4%	£0.2bn	£0.2bn	£0.4bn
Total ED3 Submission	**£7.4bn**	**85%**	**£5.7bn**	**£3.0bn**	**£8.7bn**
Pre-approved cross over totex allowances	£1.3bn	15%			
Total Baseline	**£8.7bn**	**100%**			
Potential UMs	£1.5bn	n/a			
Total Potential ED3 Spend	**£10.2bn**	**n/a**			

1 Based on ED3 baseline expenditure only.
2 These columns are inclusive of the £1.3bn crossover costs outlined on page 5.

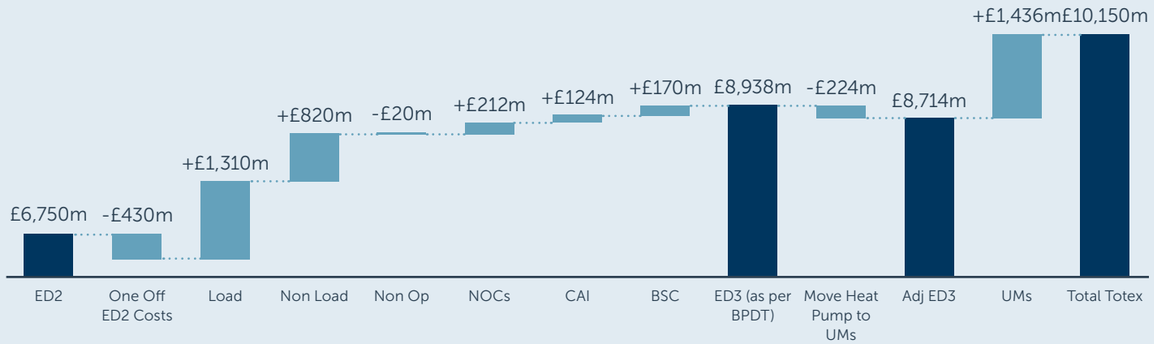
5.1 WHAT OUR PLAN WILL COST

Managing costs from ED2 to ED3

Managing costs through periods of growth

Our ED3 costs are rising across most expenditure categories, driven by an increased workload to meet required outputs and stakeholder expectations, alongside external cost pressure. However, we have rigorously challenged every disaggregated cost category to embed efficiencies across our Plan, ensuring that costs do not simply scale in line with workload.

Figure 5.1.1: Evolution of cost from ED2 to ED3[1]



- **Load related expenditure:** The increase from ED2 to ED3 is largely due to volume increases. These are higher principally because the network must accommodate materially greater electricity demand and connections. The net result is a step-up in reinforcement, connection and transmission-interface activity, including a greater volume of works and proactive upgrades to looped supplies.
- **Non-load related capex:** Again, expenditure increase is volume-related. Higher ED3 asset-replacement volumes are primarily condition- and risk-led. Asset-health modelling, and asset data show that significantly more assets are forecast to reach intervention thresholds during ED3.
- **Non-operational capex:** Higher delivery and workforce volumes create additional requirements drive spend increases for vehicles, depots, tools, machinery and equipment and for digital capabilities that support a larger, more data-enabled network operation. However, non-operational IT expenditure is lower than ED2, which included significant one-off investment in core digital foundations, product teams and transformation capabilities; whereas ED3 focuses on scaling, integrating and enhancing those existing platforms.
- **Network Operating Costs (NOCs):** The increase in expenditure is driven by volumes which are forecast to rise because ED3 involves operating and maintaining a larger asset base and an older existing network in more challenging conditions. Load and reinforcement investment in ED2 and ED3 increases the asset base requiring inspection, maintenance, repair and operational oversight.
- **Closely Associated Indirects (CAI):** Requirements increase because these activities are closely linked to the scale and complexity of the frontline programme they support. The ED3 Workforce Strategy identifies a requirement for over c1,500 additional staff, principally in engineering and electrical trades, and the underlying workload driver increases materially between and ED3. However, this has not increased as much as the capital expenditure it is there to support.
- **Business Support Costs (BSC):** A substantially larger capital and operational programme requires more financial management, regulatory activity, recruitment and workforce support, commercial and supply-chain capability, governance and assurance. Growth in the asset base creates additional insurance requirements. Transformation, digitalisation, automation and standardisation are expected to moderate the growth of the BSC cost base. Similar to CAI, this has not increased at the same rate as the capital expenditure it supports.

Cost Efficiency

We have experienced significant upward cost pressures during ED2, particularly when procuring equipment. Industry-wide costs have increased in the first three years of ED2 significantly above inflation, and above the Real Price Effects (RPEs) allowed. For ED3 increased demand places pressure on production slots, contractor capacity and workforce availability, increasing exposure to longer lead times, fewer competitive bids, higher prices and schedule disruption. We are not simply accepting this. In our plan we are securing earlier procurement, making capacity commitments, and mobilising our workforce to offset supply chain pressure but we need support from the regulatory framework to mitigate this risk, especially regarding RPEs and ongoing efficiency.

Real Price Effects (RPEs)

RPEs adjust allowances to reflect how categories of input costs change differently from general inflation. In ED2, 88% of our costs are subject to RPEs. In ED3, it is important that the RPE mechanism evolves to mitigate supply chain pressures and reflect company specific factors. In ED3 we recommend that Ofgem consider three adaptions.

In ED2 materials indices were selected without systematic empirical testing against prices paid by DNOs and largely track unprocessed or minimally processed inputs. For ED3 Ofgem should select more representative indexes for measuring movements in the costs of the manufactured assets and intermediate goods purchased by DNOs i.e. transformers. This approach would make the RPE mechanism more cost reflective.

Use DNO specific input cost weights in the ED3 RPE mechanism, derived from each DNO's efficient baseline expenditure. Ofgem's ED2 approach provided consistency through common sector weights but did not reflect material differences in companies' expenditure profiles and cost exposure. This approach allows RPEs to account for regional factors and different delivery approaches.

Allow periodic re-basing or reset for index-based mechanisms. This would correct material cumulative divergence at defined intervals and address any potential miscalibration. This would remove tracking errors and allow indexes to be re-baselined.

Ongoing Efficiency (OE)

OE is the annual percentage reduction applied to baseline costs to reflect continuous productivity improvements. Core evidence based on historical EU KLEMS[2] growth accounting and DNO cost data, supplemented by forecasts from the Office of Budget Responsibility (OBR) and the Bank of England (BoE), indicate a range of 0.0% to 0.6% per annum as plausible for the OE forecast period (from 2026/27 to 2032/33). We propose a point estimate of 0.5% per annum as a stretching but achievable assumption for ED3. We have not put this in our £8.7bn baseline as this will be adjusted based on Ofgem's decision on OE and not our view.

However, we believe 0.5% is ambitious for the sector due to the scale of our investment programme, and other network investments, which mean that cross sector delivery volumes are unprecedented for us and our supply chain. This will increase planning, procurement, mobilisation, and delivery complexity as we and our supply chain partners learn to deliver successfully in a very constrained market. This exposure to constrained specialist labour and supply-chain markets, limits near-term productivity gains, even when accounting for Artificial Intelligence and innovation gains. The 0.5% is based on a balanced cost assessment process that reflects regional, company, and plan differences and there are no duplicative similar efficiency reductions. Therefore, our OE assumption may is dependent on the cost assessment process and may need to change as the process evolves with Ofgem.

1. The reduction in other costs is due to one off costs incurred in ED2, that will not be repeated in ED3. This waterfall chart is aligned to BPDT categories.
2. An industry-level economic and productivity database that measures economic growth, inputs and technological change across the UK, the EU, the US and Japan.

5.1 WHAT OUR PLAN WILL COST

Managing cost and efficiency through delivery

Our Delivery Strategy sets out how we will secure network capacity at the best cost. Once we do, we continue to challenge and manage cost through the full investment lifecycle to ensure our investment delivers the best possible value for customers. We do this through two complementary approaches: rigorous lifecycle cost management and choosing the most efficient delivery model for different types of work.

Lifecycle Cost Management

Our overall cost management therefore adopts the following methodology.

1. Supplier selection based on whole-life value: We assess suppliers and solutions on whole-life value rather than focusing solely on the lowest initial price. Our assessment balances cost with technical capability, quality, health, safety and environmental performance, delivery resilience, innovation, sustainability, social value and contractual risk, alongside the costs and benefits associated with operation, maintenance and long-term asset performance.

2 Integrated lifecycle cost management: Building on the cost management disciplines established through ED2, we are strengthening our approach for ED3 to reflect the increased scale and pace of investment. We apply structured cost management throughout the investment lifecycle, providing greater visibility of cost and enabling earlier intervention where performance varies from plan. This is supported by:

- **Cost intelligence and benchmarking:** using historic and current cost data, market intelligence and benchmarking to strengthen our understanding of efficient costs and provide a robust basis for challenge.
- **Estimating, forecasting and cost control:** strengthening estimating and forecasting to track actual and forecast expenditure against approved budgets, identify emerging variance and understand the underlying drivers.
- **Reporting, governance and intervention:** providing consistent cost and performance information to support timely decision-making, with clear governance and accountability to ensure corrective action is taken where required.

3. People, processes and digital foundations: We are investing in the capability required to manage a significantly larger investment programme, supported by improved processes and digital tools, including Oracle Unifier, to strengthen cost control, forecasting and decision-making.

Choosing the most efficient delivery model

How we deliver work is also an important driver of efficiency. Our plan is designed to continue to optimise the use of internal resources to handle standard recurring work while also scaling for sustainable investment over ED3. The scale of our ED3 investment programme requires us to expand our workforce and build the skills and capability needed to deliver efficiently, as set out in our Delivery Strategy. Our workforce strategy is designed not simply to increase capacity, but to build enduring capability in the areas where we need it most, while creating local employment opportunities, supporting apprenticeships and developing the skills needed through ED3 and beyond. We will achieve this by balancing three things: growing critical internal capability, using strategic partners to provide specialist and scalable capacity, and increasing productivity so that workforce growth does not simply track the increase in investment. Our approach is therefore based on three principles:

- **Grow critical internal capability** in safety-critical and operationally essential roles where direct control is required to maintain safety, resilience and customer outcomes.
- **Use strategic partners and specialist expertise** to provide flexibility and scalable delivery capacity while retaining critical network knowledge and authorised capability within SSEN Distribution.
- **Increase productivity alongside workforce growth** through digitalisation, automation, improved planning and new ways of working, reducing the need for workforce numbers to increase in direct proportion to investment.

Our workforce and delivery model is informed by a structured assessment of the capability and capacity required to deliver our investment programme safely and efficiently. We combine workforce demand forecasting, scenario modelling and supply analysis, considering factors including delivery volumes, competence and authorisation lead-times, labour market conditions, retirement profiles, training capacity and supply chain capability. This allows us to identify workforce constraints early and make informed choices about where to build internal capability, where to use supply chain capacity and where productivity improvements can reduce additional resource requirements.

These choices are reflected in the mix of internal and external delivery across our cost base, including Network Operating Costs, our load and non-load investment programmes and indirect operating costs.

Our Network Operating Costs

We predominantly insource our NOCs activities, including inspection, maintenance, repair and fault and storm response. Maintaining this core internal capability gives us the workforce capacity and operational flexibility needed to respond to major weather events and manage essential business-as-usual activities safely and efficiently. This model supports both resilience and cost efficiency, with our NOCs continuing to benchmark as one of the most efficient in the sector.

Our Non-Load and Load Investment

Our load and non-load programmes require a different balance of internal and external delivery. Load investment is primarily delivered through external supply chain partners, providing the specialist expertise and scalable capacity needed as demand grows. Our non-load programme has a greater proportion of internal delivery, allowing us to utilise established network knowledge and capability alongside external plant, equipment, materials and specialist services. Our unit cost analysis, set out in the Cost Assessment Annex and supporting documentation, reflects this delivery mix and demonstrates how internal and external costs combine to form our unit costs.



Our Indirect Operating Costs

As evidenced on page 71, as our investment programme grows, we are also focused on ensuring our indirect cost base remains efficient and does not simply increase in proportion to Totex. We will continue to challenge the support and enabling costs required to deliver a significantly larger programme, using digitalisation, automation, standardised processes and improved ways of working to increase productivity and maximise the investment delivered for each pound of indirect expenditure. Where additional capability is required, we will ensure it is targeted at the areas necessary to support safe, efficient and effective delivery.

5.1 WHAT OUR PLAN WILL COST

Managing cost and efficiency through delivery

Ensuring efficient costs are assessed fairly

Having challenged our costs throughout the investment lifecycle, comparative cost assessment provides a further important test of efficiency and helps ensure customers pay no more than is necessary. For that comparison to be robust, it must distinguish genuine differences in efficiency from material cost drivers arising from network, geographic and regional characteristics that cannot be addressed through management action.

Our cost assessment evidence identifies where these underlying characteristics affect the efficient cost of delivering for customers. Consistent data and methodologies are essential to enable like-for-like comparison across networks, alongside specific adjustments where material differences cannot otherwise be captured through benchmarking. This supports stretching but evidence-led allowances, while maintaining strong incentives for us to outperform.

This is particularly important for our two networks, which operate across very different and diverse geographies. Together, SEPD and SHEPD carry electricity across almost 129,000km of overhead lines, underground and subsea cables. SEPD serves around 3.15 million customers across 79,000km, while SHEPD serves around 0.8 million customers across 49,800km, including some of the UK's most challenging rural and island communities.

These characteristics can create material differences in the efficient cost of operating, maintaining and investing in our networks. Our **Cost Assessment Annex** therefore sets out five areas that we consider should be appropriately reflected in Ofgem's cost assessment, including areas where adjustments were made in ED2 and those we believe require consideration for ED3:

- Regional factors
- Environmental factors
- Network growth
- Non-continuity of network groups
- Our island networks

The evidence supporting these factors, and their impact on the efficient costs faced by our networks, is set out in our **Cost Assessment Annex** and supporting documentation.

Regional factors: sparsity and labour costs

Our network areas have geographic and regional characteristics that differ materially from those of other DNOs and can increase the efficient cost of delivering comparable services. In particular, SHEPD serves a highly dispersed customer base across the largest land area of any GB distribution network, including remote rural and island communities. This increases requirements for workforce deployment, travel and operational infrastructure relative to more densely populated networks. Regional labour market conditions can also affect the cost of securing the skilled workforce required to operate and invest in our networks.





Environmental factors

Our network areas are exposed to climatic and environmental conditions that differ from those experienced by other DNOs and can increase the efficient cost of operating, maintaining and restoring our networks. In the north, the frequency and severity of storms can drive additional operational and network costs, including where individual storms do not meet exceptional event thresholds. In the south, periods of high heat and dryness, alongside high rainfall, can increase stresses and faults on underground cable assets.

Network growth

The nature and drivers of network growth vary between DNOs. Ofgem's Totex modelling currently captures elements of load growth through a low-carbon technologies (LCTs) variable reflecting electric vehicle and heat pump uptake in tRESP. However, this does not fully capture other material sources of prospective demand, including data centres and industrial and commercial growth, which can drive significant reinforcement requirements in our network areas. Where these wider drivers are not adequately captured by existing explanatory variables, differences in expenditure can reflect differences in underlying network need rather than relative efficiency.

Non-contiguity of network groups

SSEN Distribution is the only GB distribution network operator with two non-contiguous licence areas, creating structural costs and constraints that are not experienced in the same way by other DNOs. The absence of a shared border limits our ability to share operational resources between our networks, particularly during periods of peak demand such as major weather events. It can also limit opportunities to consolidate operational infrastructure and overheads, including the depots required to support geographically separate networks.

Our island networks

We serve more island communities, and experience the associated costs to a greater extent, than other distribution network operators from Shetland and Orkney in the north to the Isle of Wight in the south. Serving these communities creates additional requirements, including subsea cables, more complex transport and logistics involving ferries and air travel, and additional resilience arrangements, including emergency generation for some of our most remote communities. These represent necessary costs of providing a safe and resilient service to island customers that are not experienced to the same extent by other DNOs.

5.2 KEEPING BILLS AFFORDABLE WHILE ENABLING INVESTMENT

Delivering flat distribution bills to 2030

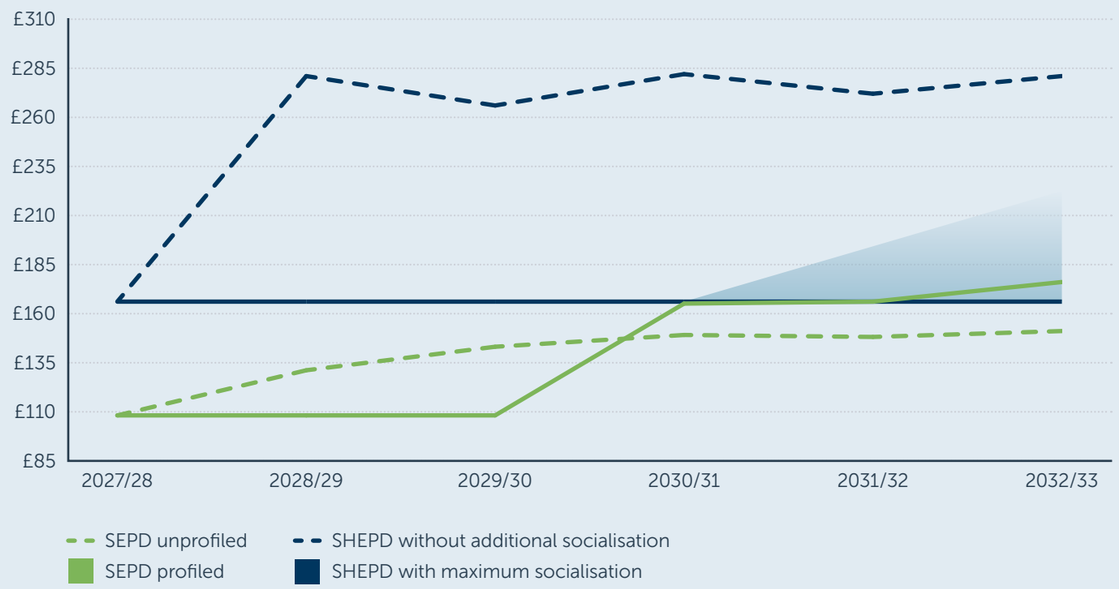
Our ED3 Plan is designed to deliver an increase in network investment while protecting customers from near-term bill increases. We propose to keep distribution charges broadly flat in real terms to 2030, smoothing the impact of investment while ensuring we do not delay the network capacity and resilience our customers will increasingly depend on.

This will require support from Ofgem and Government

Our ED3 Business Plan is designed to deliver the electricity network customers need while recognising the pressure on household finances today. Investment in distribution is essential to maintain a safe, reliable and resilient service and enable the move to electrification. The affordability challenge is therefore not a choice between investing and protecting customers, but how we deliver the investment efficiently, recover its costs fairly and manage the timing of bill impacts.

We propose to keep domestic distribution bills broadly flat in real terms[1] to 2030, relative to 2027/28 tariffs, on the consumption assumptions used in our analysis. For SEPD, this means re-profiling revenue within ED3. For SHEPD, it depends on the continuation and an increase in the level of support provided through the Hydro Benefit Replacement Scheme (HBRS). Government has not yet agreed either the future level or continuation of this support, and we will continue to engage with Government as our proposals develop. The resulting bill profile for customers in the north of Scotland will depend on the outcome of those discussions. This is set out in figure 5.2.1.

Figure 5.2.1: Distribution bill profile, £ per household per year[2]



This proposition limits avoidable near-term increases in distribution charges while ensuring necessary investment for electrification is not delayed. This provides customers with greater near-term bill stability as wider energy costs remain under pressure, while creating time for electrification to develop and for wider energy pricing and charging reform to reduce regional inequity in the cost to customers of the transition.

Methodology

We are using Ofgem's Typical Domestic Consumption Value (TDCV) of 2,500kWh, which Ofgem has reduced over time from 3,100kWh. However, it is worth noting that average domestic consumption value in each of licence areas is around 4,000kWh per household. This reflects the characteristics of our customers, including limited domestic gas use in SHEPD and higher levels of electrification in SEPD.

The choice of consumption assumption does not change the £ impact per customer of our ED3 Plan; it changes the illustrative starting and ending bill values and therefore the percentage change. The analysis in figure 5.2.1 is based on Ofgem's TDCV. Using the lower TDCV would result in a lower starting bill and make the same £ increase appear larger in percentage terms.

The Hydro Benefit Replacement Scheme (HBRS)

The HBRS addresses the structurally higher cost of distributing electricity in the north of Scotland, reflecting its geography, dispersed population and extensive network. These costs place a particular burden on customers in a region where many households rely more heavily on electricity for heating and fuel poverty remains high.

Fuel poverty remains particularly acute in the north of Scotland, especially for households without access to the gas grid, where greater reliance on electricity for heating can compound the impact of structurally higher distribution costs. Households without access to the gas grid exceeds 50% in the Highlands and reaches 70% in the Western Isles. Higher electricity consumption for heating, combined with structurally higher distribution costs, means increases in network charges can therefore have a disproportionate impact on customers in the north of Scotland.

The scheme reduces the high cost burden on SHEPD customers which is significantly higher than the UK average cost of electricity distribution. The scheme costs the UK consumer £3-4 per annum currently and would increase to an average of £10-11 per annum if applied for the full ED3 period starting at around £9 in 2028/29 increasing to around £13 by 2032/33.

We believe greater socialisation is consistent with a fair and just transition: customers should not face materially higher costs simply because they live in areas where the transition requires greater network investment. Sharing these costs more widely across GB would help customers in the north participate in and benefit from electrification without bearing a disproportionate share of the infrastructure costs required to enable it.

This additional support has not been agreed. Our proposal depends on Government agreeing both the continuation of HBRS and the level of any uplift. We will continue to engage with Government, and the resulting bill profile for customers in the north of Scotland, including beyond 2030, will depend on the outcome of those discussions.

1 This excludes inflation, changes in interest costs, pass-through costs, incentives and penalties, and UMs.
2 This is based on Ofgem's TDCV of 2,500kWh.

5.2 KEEPING BILLS AFFORDABLE WHILE ENABLING INVESTMENT

Delivering flat distribution bills to 2030

With the support of SSE Group, for SEPD we propose an NPV-neutral revenue profiling adjustment that defers a proportion of revenue from the early years of ED3 into the later years of the price control. This changes when customers pay, not the overall amount recovered. On the consumption basis used in our analysis, the annual distribution charge would remain at around £108 in real terms in the early years of ED3, flat compared to the final year of ED2, before increasing from 2030/31 as the deferred revenue is recovered. The adjustment unwinds fully within ED3, providing near-term protection without transferring costs beyond the price-control period.

SHEPD presents a different affordability challenge to SEPD

If sufficient additional HBRS support were agreed, our modelling indicates that the annual SHEPD distribution charge could be held at approximately £166 in real terms to 2030. Beyond 2030, we are not proposing or assuming that charges remain flat. The level of HBRS support, and therefore the distribution charges paid by customers in the north of Scotland for the remainder of ED3, will depend on the outcome of further discussions and decisions by government.

The "SHEPD with socialisation" profile shown in Table 5.2.1 therefore illustrates the maximum level of socialisation required to hold the modelled charge at £166 across ED3. It is not an agreed or forecast bill profile. The actual level of socialisation and resulting customer charges will depend on the level and duration of HBRS support ultimately agreed by government.

This is fundamentally different from the SEPD revenue profiling proposal. SEPD profiling changes when customers pay, whereas increasing the HBRS changes how costs are shared. Any decision needs to balance the protection provided to SHEPD customers against the allocation of those costs across customers more widely.

The mechanism would initially apply to 2030 and would therefore need to be reviewed for the remainder of ED3.

Taken together, our proposals reduce avoidable near-term increases in distribution charges without delaying the investment required in the network. This is important because the costs and benefits of the energy transition do not arise at the same time: network capacity needs to be built ahead of demand, while the benefits to customers develop progressively as technologies are adopted and the wider energy system evolves. Near-term bill protection therefore creates time for:

- **More customers to adopt LCTs**, including electric vehicles and heat pumps, which can change the overall cost of meeting their transport and heating needs.
- **The utilisation of the electricity network to increase,** allowing network costs to be spread across greater electricity consumption as electrification develops.
- **Wider energy pricing and charging arrangements to evolve**, helping ensure the costs and benefits of electrification are shared fairly as customers transition at different speeds.

Over the longer-term, affordability therefore needs to be considered across customers' total energy costs, not solely through the electricity distribution charge.

Wider energy costs are expected to fall towards 2030 and our estimates and that of other energy forecasts indicate this could be over a £400 reduction in annual energy bills by 2030.

For SEPD, when we factor in demand growth over ED3 of c5% per annum, there would be an 8% drop in the price per unit (not the standing charge) meaning the electricity distribution element of a consumers bill would only increase with demand and for those not increasing their demand their bills would fall. For SHEPD, due to the nature of the region and number of consumers, the price per unit would be relatively stable meaning those who do not increase their demand would not see an increase in the distribution element of their energy bill in real terms.

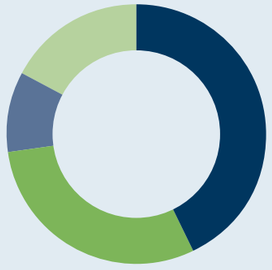
The customer bills analysis is based on our baseline totex expenditure. In the event we were to incur all the UM totex expenditure this would increase the average impact on consumer bills in real terms of £4-5 in SEPD and around £27 in SHEPD. The impact on SHEPD is driven primarily by the significant investment in subsea cables and connecting the Scottish Islands which is unique to SHEPD alongside its other unique geographical characteristics.

Table 5.2.1: make up of a Distribution Bill for SHEPD and SEPD[1]

Year	SEPD without profiling	SEPD with profiling	SHEPD without additional socialisation	SHEPD with maximum socialisation
2027/28 (last year of ED2)	£108	£108	£166	£166
2028/29	£131	£108	£281	£166
2029/30	£143	£108	£266	£166
2030/31	£149	£165	£282	>£166
2031/32	£148	£166	£272	>£166
2032/33	£151	£176	£281	>£166

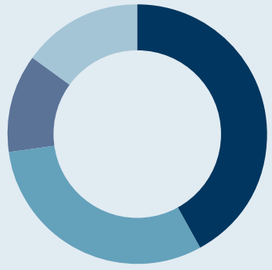
Figure 5.2.2: Most customer bill costs relate to the existing network and its operation

Figure 5.2.2 shows that consumer bills are paying for the current network and operating costs where new capital investment that drives significant increase in network capacity and continues to enhance network resilience is a smaller proportion of consumer bills over ED3. Pass-through costs are taxation related that is passed to the government through items such as business rates.



SEPD

Past Investment	43%
ED3 Operating Cost (Fast Money)	**30%**
Pass through	10%
ED3 Capital Investment	**17%**
Allowed revenue	100%



SHEPD

Past Investment	42%
ED3 Operating Cost (Fast Money)	**31%**
Pass through	12%
ED3 Capital Investment	**15%**
Allowed revenue	100%

1 This is based on Ofgem's TDCV of 2,500kWh

5.2 KEEPING BILLS AFFORDABLE WHILE ENABLING INVESTMENT

Delivering flat distribution bills to 2030

Looking beyond the electricity bill to total energy costs

Distribution charges are only one component of the overall cost of energy for customers. As homes and transport electrify, electricity is expected to account for a greater share of household energy consumption, while reducing reliance on gas, petrol and diesel. The long-term affordability question is therefore not simply how the electricity bill changes, but how the total cost of meeting customers' energy and transport needs evolves.

Our customer energy cost modelling brings together Ofgem price-cap components, regulatory calculations for electricity and gas transmission and distribution, wholesale energy assumptions, transport fuel costs and the NESO Future Energy Scenarios 2025 Holistic Transition Pathway. This provides a consistent framework for exploring how changes in network investment, energy consumption and fuel use could affect average household costs over time, rather than considering each bill component in isolation.

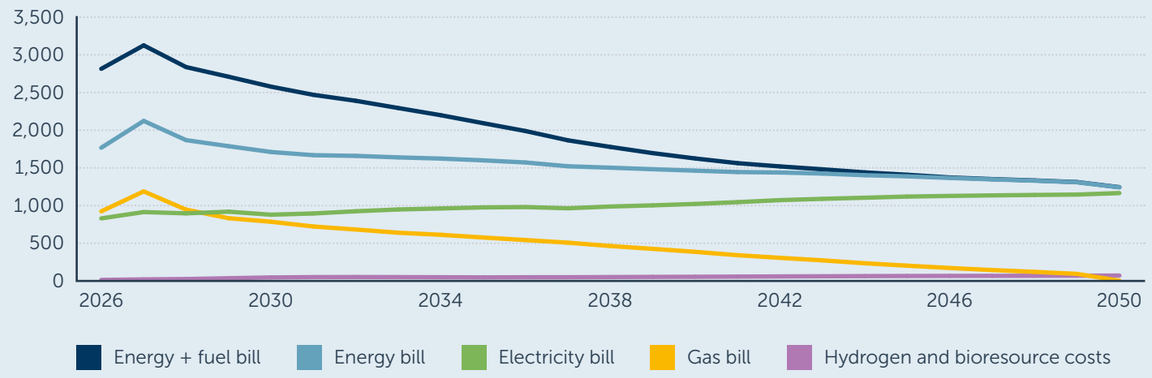
Electrification requires sustained investment in electricity networks, and that investment often needs to precede demand. Distribution is the local infrastructure through which customers connect electric vehicles, heat pumps and other LCTs, and through which distributed generation participates in the energy system. Deferring necessary investment does not remove the underlying requirement for network capacity. It risks delaying customers' ability to connect and adopt technologies that can reduce their reliance on fossil fuels and potentially lower their overall energy costs.

Our modelling indicates the potential for materially lower total energy costs

Our whole-energy modelling shows how the composition of household expenditure could change significantly as electrification progresses. Electricity represents a greater share of household energy expenditure as customers reduce their reliance on gas, petrol and diesel. While electricity expenditure and electricity network charges increase, total household energy and transport-fuel costs reduce in real terms under our central modelling assumptions.

The scale and timing of those benefits depend on the pace of electrification and future energy costs. Our modelling indicates a long-term reduction in total household energy and transport costs of more than 30% in real terms, as shown in figure 5.2.3. Some scenarios indicate greater reductions, potentially approaching 50% by 2050, but we have adopted the more prudent 30% position to reflect uncertainty and the potential for upward pressure on input costs.

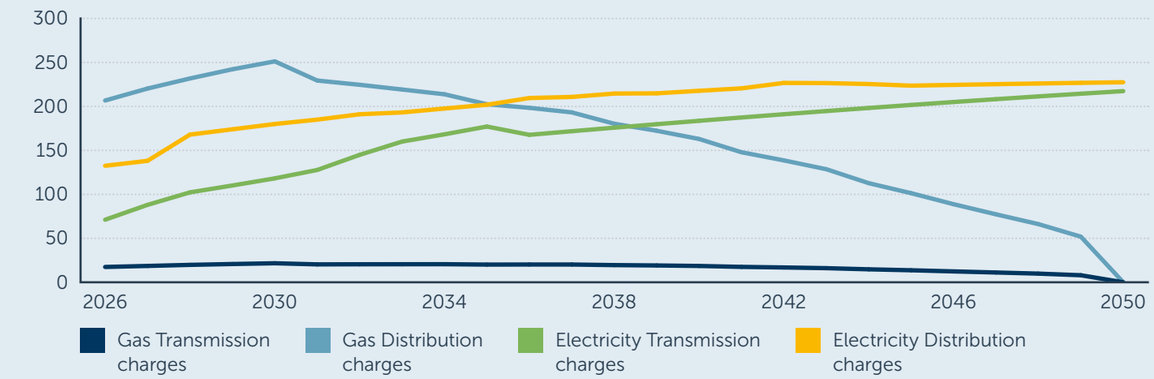
Figure 5.2.3: Total energy costs from 2024 to 2059 (real prices)[1]



Timing and allocation of network costs matter

We are clear that the transition is not cost-free. The supporting modelling set out in figure 5.2.4 shows electricity transmission and distribution charges increasing as investment grows, while gas network charges fall as gas use reduces. Electricity networks become a larger component of customer expenditure.

Figure 5.2.4: Total network costs from 2024 to 2059 (real prices)[1]



Importantly, network investment needs to precede demand. Capacity must be available before customers can connect electric vehicles, heat pumps and other technologies, while the additional electricity consumption that helps spread network costs develops progressively. As electricity demand increases, network costs can be recovered across a greater volume of electricity, reducing the cost per unit relative to a lower-demand outcome.

It is important to note that figure 5.2.3 and 5.2.4 is the average cost spread over the number of domestic consumers rather than applying to all consumers. This is where consumer archetype modelling (shown in figure 5.2.5) is valuable to understand the distributional effects stemming from adoption of LCTs.

We tested the robustness of our analysis through a range of sensitivity scenarios. Increasing individual input assumptions by 20% did not increase overall customer energy costs by more than 5% in any single scenario. Even when we combined the eight factors with the greatest impact on energy costs and applied a 20% increase to each, the overall impact was around 20%. This means that, even under this deliberately adverse sensitivity, our modelled 50% reduction in energy costs would remain at least 30%. This is against a modelled requirement for around £650bn of energy network investment to 2050 in real terms, equivalent to almost £850bn in nominal terms.

1 These are modelling assumptions, not predictions of future policy and are subject to change as input assumptions change. We continuously test input assumptions to ensure the modelling and trajectory are robust and continue to be the right path for customers.

5.2 KEEPING BILLS AFFORDABLE WHILE ENABLING INVESTMENT

A fair transition must look beyond the average

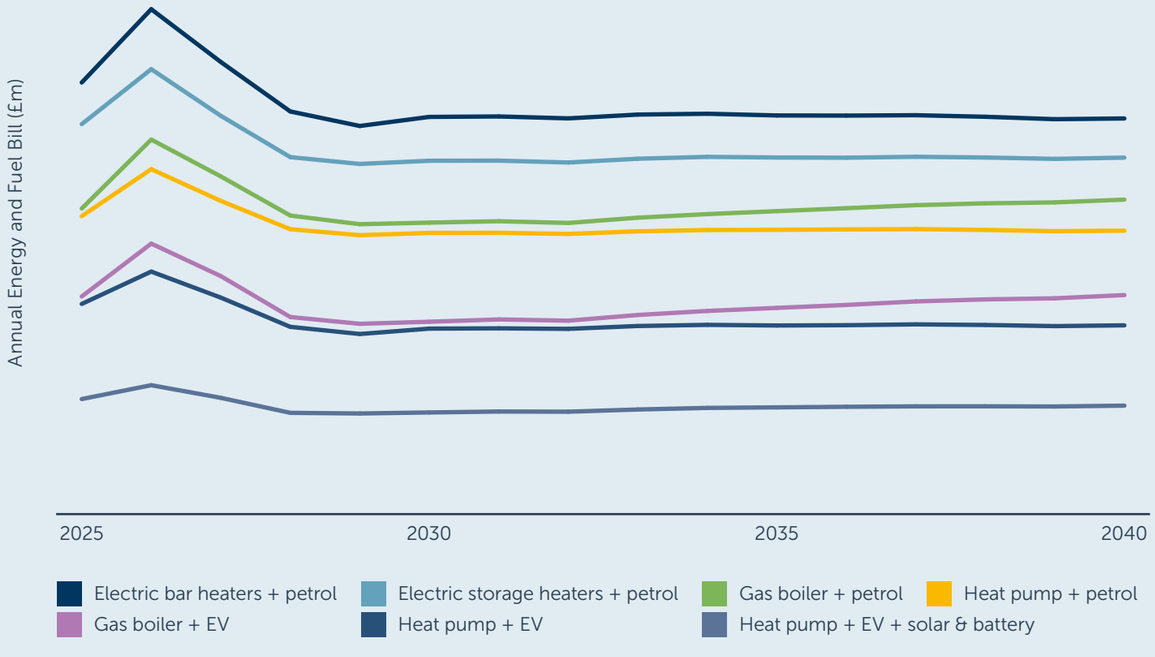
The benefits of the energy transition will not be experienced equally or at the same time by every customer. Average household outcomes therefore do not tell the whole story. Individual outcomes will depend on customers' energy needs, how they heat their homes, how they travel, and the timing and extent to which they are able to adopt LCTs.

As customers move from petrol and diesel vehicles to electric vehicles, and from fossil-fuel heating to electric heating, a greater proportion of their energy expenditure shifts into electricity. A household may therefore consume more electricity and face higher electricity charges while spending less overall across its combined energy and transport needs.

To understand these differences, we have looked beyond the average household and considered a range of customer archetypes reflecting different combinations of heating, transport and LCTs. Figure 5.2.5 shows how the overall energy cost impact varies according to a household's starting point and transition pathway.

The analysis shows why affordability cannot be judged from an average bill alone. Customers able to electrify heating and transport can realise the benefits earlier, while others may remain dependent on existing technologies for longer. Holding distribution charges broadly flat in the near term provides greater protection during this transition, but cannot by itself address these differences.

Figure 5.2.5: Forecast energy costs per different customer archetypes[1]



Creating time for energy pricing and charging reform

Our proposal for near-term protection of distribution charges creates time for Government, Ofgem and industry to consider how energy prices and network charges should evolve as electrification progresses. As electricity consumption grows, customers transition at different speeds and the gas customer base reduces, there will be important choices about how system costs are recovered and shared between customers.

This reinforces the need to consider electricity and gas costs together and to protect customers who cannot transition as quickly as others. We have not assumed a particular energy pricing reform outcome, or included an additional unquantified reform benefit within our bill illustrations. Instead, our approach provides time for evidence-led decisions on how charges are structured and how the benefits and costs of the transition are shared.

These wider reforms should complement, rather than delay, the network investment needed for electrification.

Understanding uncertainty and resilience to energy shocks

Long-term modelling is a guide to choices and potential outcomes, not a precise forecast. Results are influenced by assumptions including wholesale energy prices, technology efficiency, consumption, network investment, financing costs and future policy. We have therefore tested the sensitivity of our modelling to changes in key assumptions, including 20% increases in electricity prices, electricity consumption, the cost of capital and network capital expenditure. These sensitivities allow us to assess whether the longer-term whole-energy affordability case remains robust to material changes in individual inputs.

The modelling does not seek to predict prolonged wholesale price shocks or future energy-market reforms. However, greater electrification, alongside increasing domestic renewable generation, can reduce customers' exposure to fossil-fuel consumption and therefore change the nature of their exposure to future energy-price volatility. Our modelling of energy price shocks show that small shocks can have a detrimental effect on energy costs. We estimate that the energy price shocks since 2022 have cost the UK domestic customer [checking but c£50bn unnecessarily[2]. We treat these wider benefits as potential outcomes rather than relying on them within our near-term ED3 bill proposition.

Our ED3 proposition brings investment and affordability together: protects customers from avoidable near-term distribution bill increases, continues network investment for the network capacity needed for electrification, and creates time for customers and the wider energy system to transition. This allows necessary investment to proceed while giving the potential longer-term benefits of electrification and wider energy reform time to develop.

1 This is based on SSE's Powering Affordable Energy report and using a TDCV at that time. This analysis shows the marked diffierence per customer depending on their adoption of LCTs.

2 This is based on a high level estimate of the value of higher energy bills (excluding petrol/diesel costs) compared to a lower more "normalised" energy bill cost for consumers. When considering the impact on industry and the wider economy this value increases significantly.

5.3 ENSURING OUR PLAN IS INVESTABLE AND FINANCEABLE

The financial framework

A fair, investable and financeable settlement is essential to deliver the distribution network customers need at the lowest sustainable whole-system cost.

ED3 will require accelerating investment as transport, heat and industry electrify, local generation and storage grow, and Distribution System Operation evolves. The financial framework must enable efficient funding and delivery while protecting current and future customers from unnecessary cost.

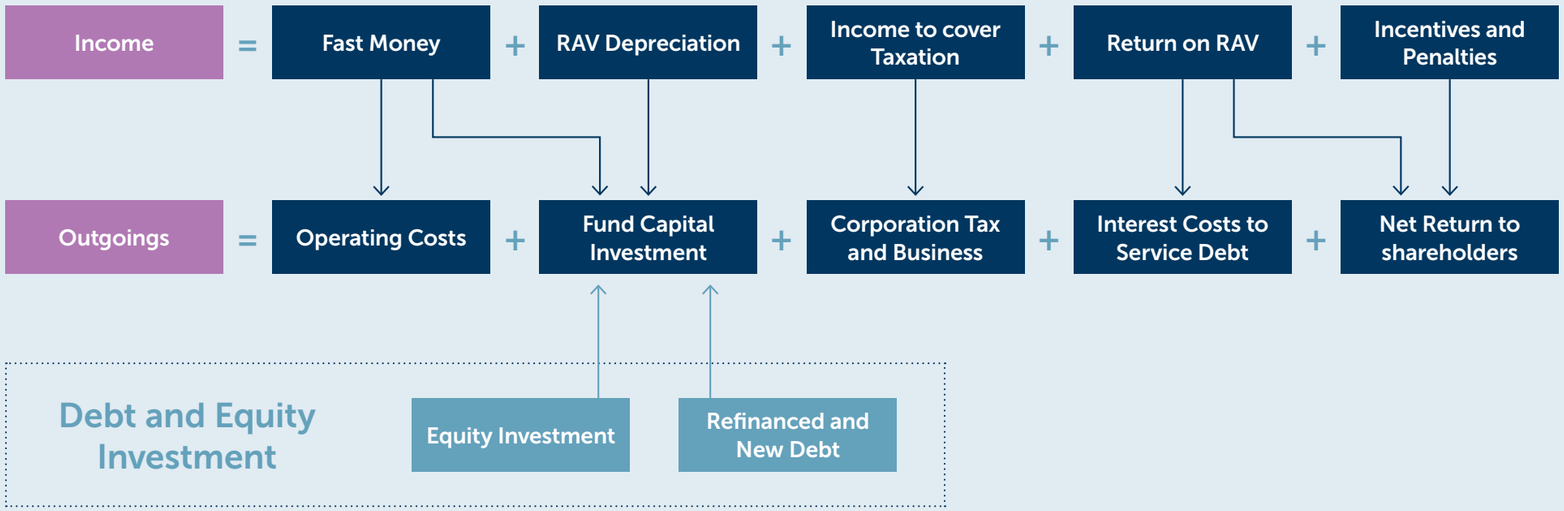
How our revenue funds investment and delivery

As a regulated monopoly, Ofgem set a Regulatory Finance Framework to calculate our annual revenue based on the financial parameters set out in each Price Control Period. Our revenue covers all key investment components and is determined by a price control formula. We collect revenue through:

- Return on RAV:[1] Used to pay interest costs and returns to shareholders on their investment in the Regulatory Asset Value (RAV).
- Fast Money: Broadly covers in-year operating costs.
- RAV Depreciation: Revenue to recover the bulk of previous investments, similar to mortgage repayments.
- Other cost allowances: Includes corporation tax and business rates, ensuring we only collect what we incur.
- Incentives/penalties: Adjust revenue for performance against operational targets

This is set out in figure 5.3.1 and covers all the key inputs and outputs within the regulatory financial framework. It is important to note that the profit earned in any given year is not the value that is earned by shareholders which is linked to the level of return on equity and any incentives/penalties earned in the period.

Figure 5.3.1: Diagram of revenue sources and uses





1 The RAV (Regulatory Asset Value) is a snapshot of the value of the existing assets, which the business has invested in and still needs to be recovered via charges to customers.

5.3 ENSURING OUR PLAN IS INVESTABLE AND FINANCEABLE

A financial framework for long-term customer value

The financial package must enable SSEN Distribution to finance and deliver an efficient ED3 plan, maintain resilient services and support a lower-cost, secure and decarbonised energy system. It should be judged not only on ED3 network charges, but on whether it enables timely investment at an efficient financing cost rather than constraining delivery and raising the long-run cost of capital.

Whilst Distribution investment may add marginally to electricity network charges over the longer term, Our proposed financial framework limits avoidable near-term distribution bill increases while wider energy costs remain under pressure, as set out in Section 5.2. As heat and transport electrify over the longer term, expenditure moves from fossil fuels into electricity and investment in electrification leads to a significant reduction in energy costs for customers while removing the volatility caused by using fossil fuels. Importantly, customers experience total household energy costs, not network charges in isolation. Investment in distribution capacity is required to make that transition possible, connect lower-carbon technologies and avoid bottlenecks. A financial framework that focuses unduly on suppressing electricity network charges risks increasing customers' total energy costs over time, contrary to what its objective should be.

The settlement should be stretching but deliverable: allowances efficiently calibrated, incentives linked to genuine value, and companies exposed to risks they can control. Poorly calibrated, asymmetric or externally driven risks should have corresponding protection; otherwise they increase required returns, weaken credit quality, delay investment or put delivery at risk. **Our proposal for a fair financial package, including our consumer bills proposal, assumes that the overall price control settlement is balanced across totex, incentives, and outputs. If the package was negatively, asymmetrically skewed then baseline returns would need to be increased to ensure our plan is financeable and investable.**

The ED3 financial framework should therefore be designed around four principles:

1. INVESTABLE
Equity returns capable of attracting capital against global alternatives

2. FINANCEABLE
Strong investment-grade credit quality is maintained across credible scenarios

3. FAIR ACROSS GENERATIONS
Current and future customers pay broadly for the services they receive

4. INCENTIVISES DELIVERY
Efficiency and service are rewarded without relying on unrealistic outperformance

The package should pass all four tests together – not repair one weakness by creating another

The investment and risk context has changed

ED3 is not a continuation of ED2. Investment scale and complexity, network responsibilities, supply-chain constraints, financial-market volatility and resilience requirements are increasing. Historic evidence remains relevant, but past parameters cannot simply be rolled forward for capital committed in ED3.

Risks extend beyond construction costs to spending ahead of demand, electrification pace, system-operation responsibilities, cyber and physical resilience, adverse weather, supply-chain availability, interest-rate and inflation volatility, and new regulatory mechanisms. Several are systematic and cannot be diversified; many are asymmetric because failure can bring penalties, disallowance or reputational harm without equivalent upside for successful mitigation. Modelling conducted by KPMG1 indicates a materially weaker ED3 risk-return balance with outcomes for the average DNO delivering 1.0% downside on the baseline regulated return.

Risks also differ by licensee. SSEN Distribution's rural, coastal and island networks face distinct climate and resilience risks, geography, customer density and mobilisation costs. A notional framework should finance an efficient company without allowing sector-wide assumptions to obscure material differences in individual networks' risks and financing needs.

Not all of these risks need be priced into the cost of equity. Good regulatory design should allocate risk to the party best able to manage it and use indexation, uncertainty mechanisms and proportionate reopeners where appropriate. However, residual systematic and asymmetric risk remains after those mitigations. The allowed return and overall financial package must reflect that residual exposure on a forward-looking basis.

Building an investable package

Investability requires allowed returns, expected cash generation and risk allocation sufficient to retain and attract equity on reasonable terms. The programme cannot be debt-financed alone – maintaining strong credit quality constrains debt capacity so material RAV growth requires additional licensee equity.

Investors compare opportunities across countries, sectors and asset classes. The established RAV model and independent regulation are strengths but they do not remove the need for a competitive risk-adjusted return. A package financeable only through very low dividends, material de-gearing or sustained incentive outperformance is not credibly investable.

Our definition of an investable ED3 package therefore includes:

1. **A coherent and predictable overall proposition**
2. **Competitive risk-adjusted returns**
3. **Appropriate risk allocation and mitigation**
4. **Credible opportunities for efficient outperformance**
5. **Timely earnings and cash generation**
6. **Sustainable distributions and realistic equity requirements**
7. **Strong credit quality and fully funded debt costs**

These components should be assessed together rather than used sequentially to repair an otherwise inadequate package.

The ED3 plan presents two modelling cases: Ofgem's working assumptions, consistent with Business Plan Financial Model requirements, and SSEN Distribution's proposed assumptions. Page 85 shows the effects on credit metrics and licensee equity requirements. We have also tested whether achievable returns can attract the required equity without unrealistic operational or incentive outperformance.

1 KPMG, ED3 Risk Analysis for a Notional DNO (November 2026), confidentially submitted to Ofgem.

5.3 ENSURING OUR PLAN IS INVESTABLE AND FINANCEABLE

Our financial parameters at a glance

The package must be assessed as a whole. Individual parameters cannot be calibrated in isolation because returns, cash flows, credit quality, licensee equity requirements and customer charges interact.

Table 5.3.1: Overview of financial parameters positions

Parameter	SSEN Distribution position for ED3 plan 30th June cut-off	Ofgem position at SSMD 31st March cut-off
Cost of equity	At 55% gearing we propose 6.1% CPIH-real or alternatively at 60% gearing this is broadly equivalent to 6.5%	5.7% CPIH-real at 55% notional gearing, 6.1% at 60% gearing
Cost of debt	Market-reflective allowance using the iBoxx A/BBB non-financials 10+ benchmark with appropriate calibration	iBoxx A/BBB non-financials 10+ benchmark with detail to be confirmed
Weighted Average Cost of Capital (WACC)	4.70% at 55% notional gearing, equivalent to 4.73% at 60% gearing	4.35%
Notional gearing	55% and 60% can work but de-gearing requires appropriate funding	Unconfirmed
Capitalisation rate	A blended ED3 rate no higher than 72%, equivalent to ED2	Capitalisation rate aligned to the natural rate
Regulatory depreciation	No more than 40 year asset lives with lower asset lives such as 35 years potentially required depending on the scale of investment.[1]	45 year asset lives

Investor returns that are fair and sufficient to attract capital

Setting the right cost of capital to protect customers and delivery

The Weighted Average Cost of Capital (WACC) is intended to compensate debt and equity investors for efficiently financing the notional company. It is a combination of the cost of equity and cost of debt, weighted in line with the notional gearing assumption.

WACC should reflect balanced market evidence and the period ahead. Setting it too low can raise financing costs, deter investors or delay investment; setting it above the efficient requirement unnecessarily increases customer costs. The objective is an accurate, robust allowance – not simply the lowest defensible number.

Cost of equity – attracting capital without overcharging customers

SSEN Distribution proposes a real cost of equity of 6.1% at 55% gearing, equivalent to 6.5% at 60% gearing. This is deliberately balanced and takes into account:

- **Global competition for the equity capital** means a competitive and investable return is required.
- **Empirical cross checks provide evidence for modest "aiming up"** when setting the return.
- **The increasing risk profile of Electricity Distribution**, reflecting the ever-greater scale and complexity associated with growing and operating the network.
- **A notional gearing assumption of 55% or 60% can be acceptable**, provided the cost of equity is calibrated consistently and any move to 55% appropriately funds the additional licensee equity requirement.

The Capital Asset Pricing Model (CAPM) remains the primary cost-of-equity framework but its unobservable parameters require judgement. Ofgem's SSMD interpretation implied midpoint estimates of approximately 5.7% at 55% gearing and 6.08% at 60%, which do not fairly reflect the market evidence. Using the same approach, Oxera[2] estimates a 5.11%–6.92% range and a 5.98% midpoint, at 55% gearing, as shown in Table 5.3.2. CAPM is a starting point with calibration and cross-checks needed to address its uncertainty.

Table 5.3.2: Cost of equity estimates

Notional gearing	Ofgem 31st March cut-off	Oxera (cross checks) 30th June cut-off	SSEN Distribution ask
55%	**~5.7% midpoint**	**5.99% midpoint** 5.12%–6.93% range	**6.1%**
60%	**6.08% midpoint** 5.10%–7.05% range	**6.38% midpoint** 5.40%–7.43% range	**6.5%**

Figure 5.3.2: Capital asset pricing model (CAPM)ß

$$\text{Cost of Equity } (k_e) = r_f + ß\,(r_m - r_f)$$

r_f – Risk-Free Rate
ß – Beta
r_m – Market Return
$(r_m - r_f)$ – Equity Risk Premium (ERP)

Having estimated cost of equity using CAPM as a starting point, we consider cross checks based on market evidence to ensure the ED3 package provides an investable return.

Cross-checks show the importance of calibrating the cost of equity

Ofgem should test its cost of equity against a broad set of empirical cross-checks. Evidence should not be excluded merely because it is imperfect when comparable limitations also apply to evidence on which Ofgem places weight.

Available evidence from cross checks indicates that the lower end of Ofgem's ED3 Cost of Equity range creates a material investability concern.

- **Debt-market evidence provides an important lower-bound rationality test** because equity is materially riskier than debt and therefore requires higher returns. Specifically, in PR24, the CMA considered a 21 basis point gap between the unlevered cost of equity and the cost of new debt as too narrow and increased the cost of equity. Ofgem's unlevered cost of equity does not have the required premium at the midpoint, and therefore fails this binding rationality test.
- **Hybrid-bond cross-checks** reinforce that conclusion by using securities that sit between senior debt and equity to test whether the allowed equity return is market-aligned. Frontier's[3] updated analysis indicates that to pass this cross check, a cost of equity around ~70 basis points above Ofgem's SSMD point estimate is required, providing further support to point higher than the midpoint within Ofgem's CAPM range.
- **Infrastructure fund returns** have increased materially since ED2. Ofgem's own latest midpoint of 8.3% real is above the top of its CAPM range while Frontier's[3] broader sample also shows a marked increase in required returns.
- **Evidence from the competitive infrastructure investment seen at Sizewell C** provides a further market-based reference for the returns needed to attract substantial new licensee equity, with Sizewell shareholders communicating returns of up to 9.6% real.

Ofgem's interpretation of Market-to-Asset Ratios should not be relied on. Inferring cost of equity from company valuations requires many assumptions about purchasers' expected cash flows. Ofgem's simplified Dividend Growth Model does not reflect investor assumptions used in actual valuations, so does not provide useful information.

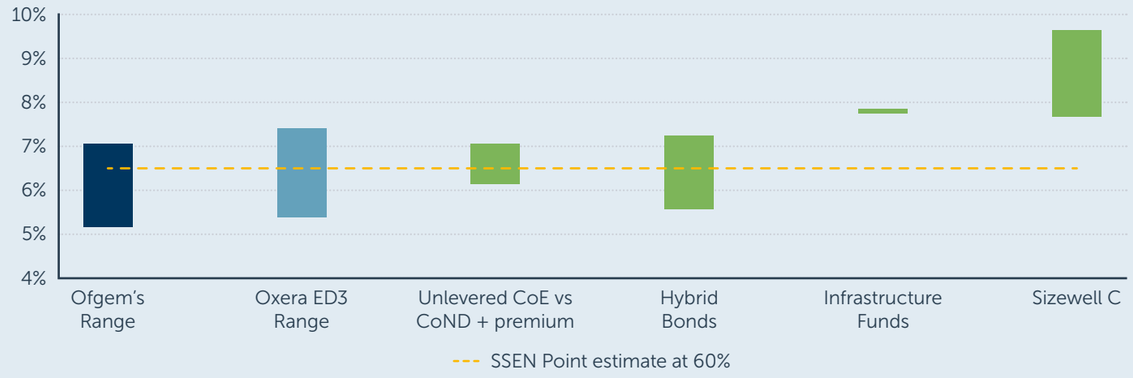
1 There are other depreciation policies that may also provide a similar impact over time and therefore would be suitable alternatives if calibrated correctly.
2 Oxera, ED3 CAPM parameters and debt-based cross-checks (November 2026), confidentially submitted to Ofgem.
3 Frontier, Updated Cross Check Evidence for ED3 (November 2026), confidentially submitted to Ofgem.

5.3 ENSURING OUR PLAN IS INVESTABLE AND FINANCEABLE

Our financial parameters at a glance

Cross-checks should be used for the purpose for which they are best suited, not mechanically averaged. Debt-market evidence tests the minimum return; infrastructure fund returns show realised investment returns; and competitive investments indicate the returns required to attract capital. Together, these cross checks support modest aiming up within the CAPM range.

Figure 5.3.3: Summary of Cross Check Evidence



Calibration of the point estimate also reflects the asymmetric risk to customers of underinvestment. A marginal increase in customer bills by "aiming up" within the CAPM-produced range can avoid the highly significant societal costs associated with delayed investment observed in other sectors.

Overall, these checks provide strong support for modest aiming-up within the CAPM-indicated range, as represented by SSEN Distribution's proposed 6.1% at 55% gearing. The proposed 6.1% return at 55% gearing provides a credible base return without assuming that investors will rely on uncertain outperformance to reach market-required returns. It should be accompanied by a meaningful opportunity for efficient companies to outperform but the base financial package must stand on its own.

Efficient debt costs in changing markets

Ofgem should set a Cost or Debt allowance that allows for full recovery of efficient financing costs. Debt will continue to finance a substantial proportion of the RAV and the allowance must cover the efficiently incurred cost of embedded and new debt across plausible market conditions. The mechanism should be transparent, responsive to market movements and calibrated to the financing profile of a growing distribution network.

SSEN Distribution supports the use of the iBoxx A/BBB non-financials 10+ benchmark, a trailing average and RAV weighting. The non-financial benchmark reflects the broad characteristics of the company's debt but is less vulnerable to distortions from a narrow utilities sample. RAV weighting better reflects the timing and scale of borrowing required by companies with different growth profiles.

The assumed share of index-linked debt should however align with the level of index linked debt used in the actual **company, removing the "inflation leverage" effect.** The inflation leverage effect acts to create regulatory cost of debt outperformance during times of high inflation, and underperformance during times of low inflation, due to misalignment between the regulatory and actual company treasury policies.

The calibration should ensure an efficiently financed company is protected from macroeconomic volatility, rather than engineer a systematic funding deficit. The comparator cohort should be limited to electricity distribution licensees, preventing it being skewed by a few larger network companies. It should remain a cross-check, with weight given to differences in company size, investment requirements and debt profiles.

Additional borrowing costs must be funded separately and in full. NERA[1] identifies carry, liquidity and revolving-credit-facility costs, transaction costs, inflation basis risk and, where relevant, an infrequent issuer premium. Ofgem should provide an additional borrowing cost allowance of 32 bps at 60% notional gearing, together with a separate 6.5 bps allowance for qualifying infrequent issuers. They are not covered by the benchmark yield. RAV growth also increases pre-financing and liquidity needs, particularly if gearing remains higher during transition.

Table 5.3.3: cost of debt overview

Component	SSEN Distribution view
Benchmark index	Retain the iBoxx A/BBB non-financials 10+ benchmark.
Trailing average	Use a trailing average to reflect the long-dated nature of network debt
RAV weighting	Apply RAV weighting so the allowance reflects the timing and scale of borrowing
Index-linked debt	Align the assumed share of index-linked debt with actual financing structures.
Calibration and comparator cohort	Calibrate against electricity distribution licensees and treat the exercise as a cross-check with safeguards and appropriate sensitivities
Additional costs	Sufficient to fund efficient additional borrowing costs separately and in full

1 NERA, Additional Cost of Borrowing and Infrequent Issuer Premia at ED3 (November 2026), confidentially submitted to Ofgem.

5.3 ENSURING OUR PLAN IS INVESTABLE AND FINANCEABLE

Fair and investable financial parameters

Cost of capital cannot be considered in isolation. The wider financial parameters must work together to support financeability, investability and fair cost recovery over time.

Changes to notional gearing must be properly funded

Ofgem should fully fund any price control degearing to reflect efficient equity funding costs. Ofgem is minded to reduce ED3 notional gearing from 60% to 55%. There is limited evidence that efficient notional or actual companies use such low gearing and a reduction in gearing is only acceptable if the price control provides investable returns that justify the licensee equity injection. Oxera's analysis[1] shows actual and forecast DNO gearing remains above 55%, even after higher-than-expected inflation. De-gearing lowers the notional cost of equity and modelled returns, makes notional financeability easier without mechanically improving actual-company metrics, and requires additional licensee equity while the sector competes globally for capital. It must therefore be funded rather than treated as a free price-control change.

The framework must provide an allowance for the efficient transaction costs of the licensee raising the equity required to fund de-gearing and RAV growth. This principle is well-established from ED2 and T3, and must be applied consistently. To facilitate de-gearing, an investable ED3 base return on equity is also necessary as without this support the notional company is assumed to receive capital that investors have no obligation to provide.

Equity issuance carries material direct and indirect costs and Ofgem has previously adopted a 5% allowance. We consider an allowance of 5% appropriate for ED3 because SSEN Distribution's proposed returns and financial framework should reduce indirect issuance costs by supporting investor confidence and an orderly equity raise. If Ofgem adopts a less investable package then a higher allowance may be required.

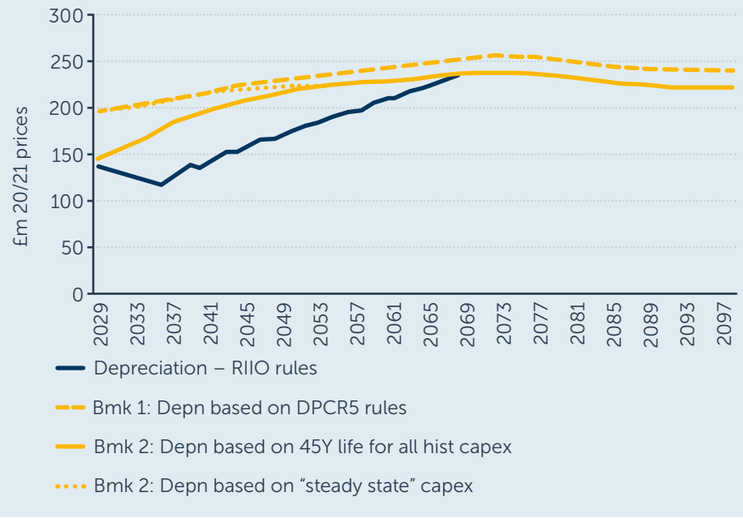
Depreciation and intergenerational fairness

Ofgem should address impending financeability issues by moving to no more than 40-year asset lives in ED3 with lower asset lives, such as 35 years, potentially required depending on the level of investment. Financeability should support a strong investment-grade rating, adequate liquidity and resilience across credible downside scenarios, not merely pass a minimum test through unsustainable dividend reductions, repeated equity injections or assumed future regulatory intervention.

The existing depreciation policy creates a structural issue. The transition from 20-year to 45-year asset lives in ED1 produces a prolonged period during which RAV accumulated using shorter asset lives has fully depreciated however RAV added under the 45-year life has not had time to accumulate.

During this period, depreciation revenue falls below a reasonable measure of economic depreciation. This depreciation gap is not simply a temporary financeability challenge. It is a policy-driven deferral that transfers costs to future customers, increases the RAV they must pay returns on and weakens cash-flow metrics.

Figure 5.3.4: The depreciation gap



Source: NERA (2025)[2]

A durable solution should address the issue at source, which also avoids sharper corrections in later price controls. Temporary changes to capitalisation rates can bring forward cash during the adjustment period but they do not remove the underlying, long-term issue. Lower notional gearing does not change depreciation or RAV growth. These measures may have a role within the package but they are not substitutes for correcting the regulatory depreciation profile.

We propose moving to no more than 40-year asset lives in ED3 with lower asset lives, such as 35 years, potentially required depending on the level of investment. Acting now alleviates impending financeability challenges and reduces the scale of any later correction, whilst retaining flexibility and predictability of future price controls. Deferring action until ED4 or ED5 risks requiring a much sharper reduction in asset lives, creating a more abrupt impact on customer charges. A small correction now is therefore more consistent with stability and intergenerational fairness than waiting for the pressure to become acute.

Furthermore, this correction is reflective of the slight reduction in actual average useful lives expected in ED3, owing to an increasing level of investment in subsea cable infrastructure which is impacted by salt corrosion. Our proposal also therefore ensures that customers pay broadly for the services attributable to them.

Whilst we are proposing a small reduction in asset lives, NERA's latest depreciation work[3] presents a number of alternative approaches which may meet the same objective. Whatever the solution, what is clear is that action will be required to support financeability in ED4 and a transitional arrangement in ED3, that is mechanical and predicable, will avoid a more substantial policy change in future.

Capitalisation rates which balance near-term cash flow with long-term fairness

The capitalisation rate determines the proportion of totex added to the RAV and the proportion recovered as fast money. It is therefore a central cashflow parameter. The appropriate rate should reflect the expenditure mix, but it should also be calibrated in the context of the investment programme, financeability, equity requirements and intergenerational effects.

The capitalisation rate policy adopted by Ofgem in ED2 remains appropriate. This would see baseline totex capitalised at its natural with uncertainty-mechanism expenditure attracting an unchanged 85%. On the current expenditure mix, this produces a blended ED3 rate of approximately 72%. The exact rate may be updated as the plan and the balance between baseline and uncertainty-mechanism expenditure develop, but the blended rate should not exceed 72% to protect the financeability and investability of the price control.

A mechanistic natural rate approach applied without regard to cash flows could threaten financeability, when investment accelerates. Equally, an artificially low rate used in response to the depreciation gap would only defer the structural issue. The capitalisation rate should therefore provide a balanced amount of fast money and operate alongside, not instead of, a durable depreciation solution.

Dividends that retain the equity needed to fund investment

Dividends help attract and retain equity while preserving cash for investment. Ofgem assume a 3% annual dividend yield for the notional company however that is significantly and consistently below empirical evidence. Comparative investments attract a dividend yield of around 5-6% and whilst a lower assumption may improve modelled financeability, it would weaken investability and increase the cost or scarcity of new equity.

1 Oxera, Reducing notional gearing in ED3 (October 2026), confidentially submitted to Ofgem.
2 NERA, 'Depreciation Policy Solutions for ED3: A report for the ENA', (October 2025), confidentially submitted to Ofgem.
3 NERA, 'ED3 Depreciation: Response to Ofgem's SSMD, (November 2026), confidentially submitted to Ofgem.

5.3 ENSURING OUR PLAN IS INVESTABLE AND FINANCEABLE

Financeability and investability — testing whether the plan can be delivered

The ultimate test is whether the financial package works in the round. Having considered the individual parameters, we assess their combined impact on financeability, investability and financial resilience under both the central case and a range of stress scenarios.

Our financeability and investability assessment considers whether the ED3 package can support the efficient delivery of our investment programme, maintain resilient services and attract the debt and equity capital required by the licensee. We have assessed the notional company under both Ofgem's assumptions and SSEN Distribution's proposed financial framework, using the Business Plan Financial Model and a range of credible sensitivities.

Maintaining a strong investment-grade credit profile is essential. Distribution networks require continuing access to debt markets on efficient terms throughout ED3. Our financeability assessment therefore targets credit quality of at least BBB+/Baa1 and considers FFO/net debt as well as adjusted interest cover. These metrics should be assessed over the full price control rather than against a minimum threshold in a single year.

ED2 has coincided with greater macroeconomic and financial instability, including higher and more volatile inflation and interest rates and disruption to capital and supply-chain markets. ED3 also expands networks' investment, responsibilities and risk. We therefore also tested both financial frameworks under stretching but credible scenarios covering investment quantum and timing, macroeconomic conditions and financial parameters.

Base case financeability is marginal under Ofgem's SSMD financial parameters with very limited headroom to accommodate downside scenarios, as shown in table 5.3.4. SSEN's parameters improve financeability, creating healthier levels of financial strength to protect companies and customers from downside scenarios.

Ofgem's financial framework also presents a significant financeability issue under very likely scenarios, whilst SSEN's framework is more robust to these uncertainties which ultimately protects customers from the societal costs associated with financial failure.



Table 5.3.4: Key Credit Metrics Stress Test Scenarios in ED3[1]

Ofgem Scenario	Ofgem SSMD Financial Framework		SSEN-D Business Plan Financial Framework	
Gearing	**55%**	**60%**	**55%**	**60%**
Base case	🟡	🔴	🟢	🟡
+2% inflation	🟡	🔴	🟢	🔴
-2% inflation	🟡	🔴	🟢	🟡
+2% interest rates	🟡	🔴	🟢	🟡
-2% interest rates	🟡	🔴	🟢	🟡
10% overspend	🟡	🔴	🟡	🔴
10% underspend	🟡	🟡	🟢	🟡
2% RoRE upside	🟢	🟡	🟢	🟢
2% RoRE downside	🔴	🔴	🔴	🔴

1 This is a highly summarised representation of the financeability modelling, based on FFO / net debt assessed against an 11% threshold. A full assessment of Credit ratings is multiple metrics, including AICR, and qualitative characteristics

The package must also be investable, not simply capable of passing a narrow financeability test. ED3 will require licensees to receive material equity support because debt capacity is constrained by the need to preserve strong credit quality. ~£3bn in new licensee equity could be required if Ofgem reduce notional gearing to 55%. The allowed return, dividend assumption, equity-issuance funding, cash-flow profile and allocation of risk must therefore provide a credible proposition for existing and new investors.

Attractive, internationally competitive equity returns are required for UK networks to attract capital in competition with comparable regulated utility and infrastructure opportunities, including in the USA. Investability must test whether the base return is competitive and whether any required outperformance is realistically achievable rather than dependent on aggressive totex or incentive assumptions.

We find that given the increased scale, complexity and asymmetric risk of ED3, internationally-competitive returns cannot credibly be achieved under Ofgem's proposed framework without relying on unrealistic levels of outperformance. Investable returns are achievable only through SSEN Distribution's proposed returns and incentives framework, which combines a market-aligned base cost of equity with a meaningful, balanced and attainable opportunity for well-performing companies to earn additional returns by delivering genuine value for customers.

Our asks of Ofgem — the package needed to deliver ED3

Our Board-approved ED3 Business Plan Financial Framework is designed to be investable, financeable and fair to customers while supporting timely delivery of energy security and net zero objectives.

A credible ED3 financial framework should: set a cost of equity of 6.1% CPIH-real at 55% gearing; retain a market-reflective cost-of-debt with efficient additional borrowing costs; provide equity issuance allowances to support de-gearing and RAV growth; set a blended capitalisation rate no higher than 72%; and move to regulatory asset lives no higher than 40-years.

Ofgem should assess the parameters as a coherent package against investability, financeability, customer value and intergenerational fairness, using current and forward-looking evidence and balanced cross-checks rather than mechanistic or backward-looking evidence.

A fair settlement protects customers by supporting efficient finance and timely investment while avoiding larger future interventions. The proposed package enables SSEN Distribution to deliver an investable and financeable ED3 plan while maintaining affordability and long-term customer value.

5.4 WHAT WE NEED FROM THE REGULATORY FRAMEWORK

Managing uncertainty

Delivering ED3 requires a regulatory framework that provides sufficient certainty to invest, flexibility to respond as needs develop, and strong incentives to deliver efficiently and improve outcomes for customers. Customers should only fund investment when the need and efficient cost are sufficiently established, while networks must be able to respond quickly as demand, technology and wider system requirements evolve.

Our proposals therefore focus on four complementary elements: UMs that enable investment as requirements become clearer; incentives that reward improvements in customer and system outcomes; a Totex Incentive Mechanism (TIM) that maintains strong cost discipline while appropriately allocating risks outside reasonable management control; and a Business Plan Incentive (BPI) that rewards proposals delivering additional value.

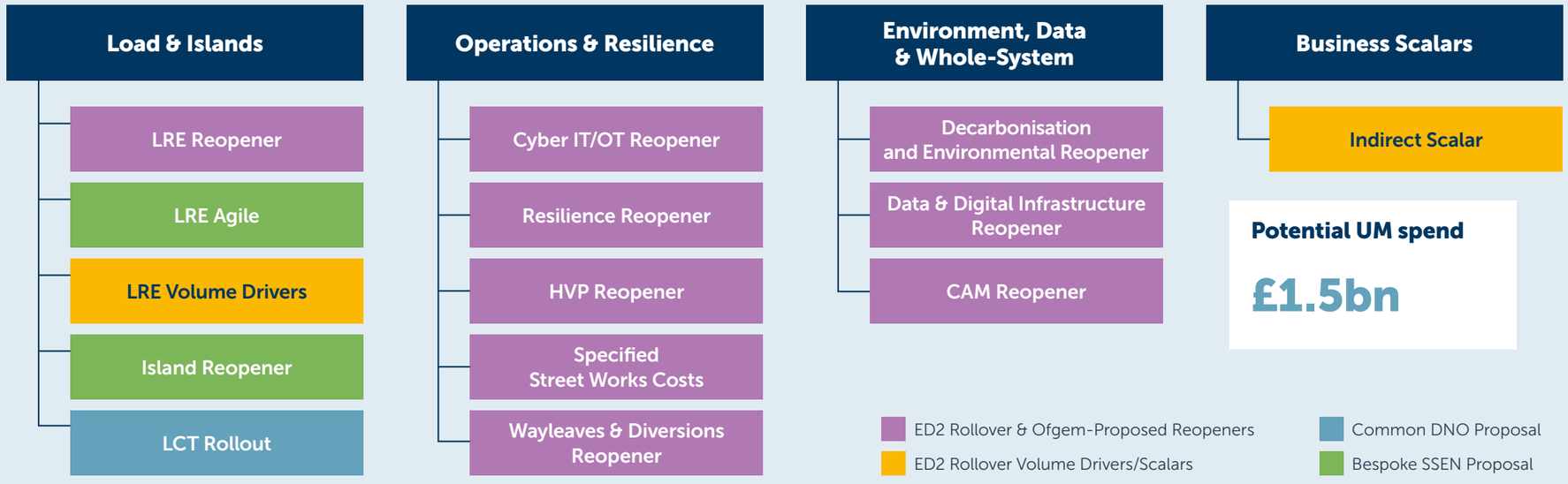
Together, these mechanisms create a framework that rewards companies for delivering better outcomes more efficiently, where customers are protected from unnecessary cost and risk, and where necessary investment is not delayed.

UMs are particularly important in ED3 because some of the most significant investment requirements cannot yet be determined with sufficient certainty to include within baseline allowances. The principal uncertainty is network load growth: while electricity demand is expected to increase, there remains uncertainty over the scale, timing and location of new load. Ofgem's ED3 Sector Specific Methodology Decision (SSMD) recognises this and proposes a more phased, evidence-led approach to load-related investment. Our island networks also present significant uncertainty, particularly where the scope and cost of major investments will become clearer as engineering design, consenting and procurement progress.

Our proposed package of UMs is designed to respond to these different sources of uncertainty in a targeted way. It combines established reopeners with more agile funding mechanisms, allowing investment to be brought forward as the need, scope and efficient cost become sufficiently established. This gives us the flexibility to respond as demand and project requirements develop, while protecting customers where expected volumes do not materialise or more efficient solutions emerge.

The objective is not simply greater funding flexibility. It is better-timed investment: providing the network capacity customers need without committing them prematurely to expenditure that is not yet sufficiently certain.

Figure 5.4.1: overview of our UMs



ISLAND REOPENER PROPOSAL

>£500m

We are the only DNO with several islands within our network areas. This brings unique challenges and cost uncertainties related to how we procure, operate and maintain secure, resilient and compliant networks. One overarching reopener would replace three island-related ED2 reopener mechanisms and allow us to develop whole-system solutions for security of supply and island electrification while managing cost.

LRE AGILE FUNDING

<£200m

We are proposing an agile in-period mechanism to support flexibility and timely load delivery before administrative reopeners are used, alongside a portfolio mechanism to manage and track outputs from the load-related investment programme. This will be a pre-approved fund to manage residual uncertainty, targeted at EHV reinforcement with any unspent funds returned to consumers.

VOLUME DRIVERS

>£100m

We will use volume drivers for load-related reinforcement of the lower-voltage distribution network, principally work at secondary substations and associated HV/LV circuits where capacity must be increased to accommodate demand growth, including electrification from EVs and heat pumps. A volume driver means we are only funded for the work done and consumers are protected from uncertainty.

UIOLI ALLOWANCES

>£150m

Our plan includes several Use It or Lose It (UIOLI) allowances to address credible needs where timing, scope or uptake remains uncertain. The two main applications are targeted support for Worst-Served Customers and proactive unlooping of secondary networks. These mechanisms allow us to adapt in period with any underspend returned to customers.

Streamlined process: The reopener process should be streamlined, with Ofgem's decision made within four months of application. This would allow sufficient consultation time and a timely decision overall.

Materiality Threshold: We propose that Ofgem sets the reopener materiality threshold at 0.25% of base revenue. Our ED3 investment programme is materially larger than in ED2, particularly because of load related investment. Maintaining the materiality threshold at the ED2 level (0.5%) would significantly increase the expenditure required to qualify for reopener funding.

A materiality threshold of 0.25% retains a proportionate filter for reopener applications without increasing DNO exposure simply because the investment programme has grown. By limiting reviews of price-control allowances to cases where the financial impact warrants regulatory intervention, this threshold would protect customers from minor cost uncertainty that does not meet that level of significance.

The Cyber, Digitalisation, Resilience, and Decarbonisation and Environmental Policy reopeners should, however, have no materiality threshold. Changes in legislation, Government policy, regulatory standards or security requirements may impose new mandatory compliance obligations on DNOs with prescribed deadlines.

5.4 WHAT WE NEED FROM THE REGULATORY FRAMEWORK

Incentivising performance

We propose a balanced, evidence-based incentive package focused on delivering genuine improvements in the outcomes that matter most to customers.

In ED3 the incentive regime needs some re-balancing to reflect the scale of investment required and growth in baseline delivery. We advocate for the following principles:

- **Baseline outputs come first:** DNOs should not earn extra rewards for activities already funded through allowances or required by licence, legislation or minimum standards.
- **Strong service incentives remain important:** ED3 should build on the ED2 framework to focus on connections, reliability, DSO, customer service and support for customers in vulnerable circumstances.
- **Rewards must offer consumer value:** Benefits from improved performance should outweigh the costs and risks of incentive payments.
- **Incentives should relate to areas within our control:** Companies should not be penalised for external factors.
- **Not every outcome needs a financial reward or penalty:** Ofgem can instead use reputational incentives, reporting requirements, obligations or price-control deliverables where appropriate.

The package must also be considered as a whole. Ofgem should assess the combined balance of risk and reward across output incentives, UMs, the TIM and financeability, rather than calibrating individual mechanisms in isolation.

Table 5.4.1: our position on ED3 incentives

Incentive name	Key principles for incentive calibration	Proposed strength (basis points of Return on Regulatory Equity)
Smaller connections	With new technology and automation, we support the new elements of this incentive. Phase in new Time to Approve (TTA) and Time to Upgrade (TTU) measures, with reputational treatment in years one to two while robust baselines are established. Base Time to Quote (TTQ), Time to Connect (TTC) and survey targets on industry-average ED2 performance and include clock stops for factors outside DNO control.	+50 / -50
Larger connections	For this redesigned incentive, Ofgem must set achievable targets using actual performance and customer readiness dates. Include provisions for external delays and ensure equivalent opportunity for reward and penalty where competition applies.	+50 / -50
Distribution System Operator (DSO)	Reward genuine customer and system outcomes, including early access, reduced curtailment and renewable utilisation. Retain the panel assessment and ensure calibration reflects the expanded scope and factors the DNOs can influence.	+135 / -60
Broad Measure of Customer Service	Retain a balanced reward-and-penalty incentive with a 9.2/10 target for each element. Remove the proactive contact cap and fixed weighting between agent-led and automated power cut surveys.	+20 / -20
Customer Vulnerability	For Priority Services Register (PSR) reach, use a penalty below 80%, an 80–85% deadband and rewards from 85–95%. Retain ED2 targets and deadbands for social value and customer satisfaction. Apply annually.	+20 / -20
Complaints	Continue the ED2 approach, which is working effectively, with a target score of 2.8.	-20
Interruptions Incentive Scheme (IIS)	Retain the ED2 target-setting methodology. Targets should be achievable, realistic and grounded in historic performance, with any required improvement reflecting the time and ability needed to deliver it. System reliability has improved radically since IIS was introduced so IIS is now about maintaining and incrementally improving performance rather than driving step change. Given this and our proposed reduction to the TIM sharing factor, a lower powered IIS is proposed.	+100 / -175
Collaborative streetworks / Dig, Fix and Go	Use a reward-only design. Base targets on each network's own average performance, reflect differences in opportunity between licence areas and provide an equal opportunity to earn reward.	+20
Environment	Do not introduce a standalone financial Output Delivery Incentive (ODI). Secure environmental performance through baseline obligations, dedicated investment, transparent reporting and delivery accountability.	Not proposed
Total incentive package	Assess the package holistically alongside the Business Plan Incentive (BPI) and TIM to maintain a proportionate balance of risk and reward and avoid disproportionate cumulative exposure.	+395 / -395

5.4 WHAT WE NEED FROM THE REGULATORY FRAMEWORK

Business Plan Incentive (BPI)

Our BPI proposals are deliberately focused on areas that go beyond baseline delivery and require new approaches, collaboration beyond our organisational boundaries and benefits that extend beyond our own network. They are not simply proposals to deliver more of activities already funded through ED3. Instead, they seek to change how the sector operates in three areas where coordinated action can create additional customer and system value: supply chain resilience and UK capability, transparent whole-network planning, and consistent support for customers during major storms.

Table 5.4.2: overview of our BPI Proposals

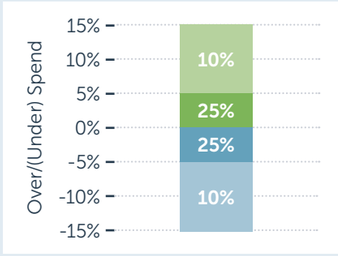
BPI Early Proposal	Our offering	Customer / system benefit	Progress update / next steps
Joint Procurement & Supporting Our Local Supply Chain	Develop a shared strategic spares and procurement model across network operators, alongside increasing the proportion of equipment and materials manufactured or materially assembled in the UK.	Improves supply chain resilience, enables more coordinated procurement and shared access to critical equipment, supports UK manufacturing and seeks wider economic and customer value.	We have established an industry-wide UK Content definition, baseline and measurement approach and progressed wider stakeholder engagement. Next, we will quantify the benefits of joint procurement and strategic spares and develop the operating model and track UK content through ED3.
SDP+ for GSPs and Investment Driver to 2050	Enhance Strategic Development Plans (SDPs) by integrating load and non-load requirements, asset health, regional/spatial plans and underlying network data, alongside greater digitisation.	Gives customers and stakeholders a more holistic, accessible view of long-term network needs and interventions through to 2050, supporting development of the Local Infrastructure Needs Plan.	We are implementing the SDP+ roadmap, integrating stakeholder insights and additional asset health data into our SDPs. Next, we will publish the updated SDPs and progress further development following finalisation of the LINP.
Enhanced Storm Support	Build on the ED2 welfare framework and introduce clear Storm Service Standards, while working with other DNOs towards greater consistency in customer support during storms.	Provides customers with clearer and more consistent expectations for welfare support, payments and accommodation before, during and after major storms.	We are engaging with other DNOs and Ofgem on the design of a standardised framework.

Totex Incentive Mechanism (TIM)

The ED3 TIM should retain a strong incentive for companies to control costs where these are reasonably within management control, while avoiding disproportionate exposure to material variances driven by factors outside that control. Building on the approach proposed for the transmission price control (T3), we propose a symmetrical stepped TIM in which the sharing factor reduces as expenditure moves further from allowed Totex.

Table 5.4.3: Proposed ED3 stepped TIM calibration

Difference between allowance and expenditure	SSEN sharing factor	Customer share
Underspend or overspend below 5% Delta	25%	75%
Underspend or overspend above 5% Delta	10%	90%



Within a 5% variance from allowed Totex, our proposed 25% sharing factor preserves a meaningful incentive to innovate, manage programmes efficiently, improve procurement and make effective portfolio trade-offs. Beyond 5%, expenditure variances are increasingly likely to reflect allowance-setting error, exceptional market movements or macroeconomic conditions rather than management performance. We therefore propose reducing the sharing factor to 10% beyond this point.

SSEN's larger, more complex ED3 programme faces supply chain constraints, specialist labour shortages, volatile commodity and equipment prices, geopolitical disruption and macroeconomic uncertainty. Real Price Effects and UMs remain the primary mechanisms for identifiable cost risks, but may not fully capture the timing, scale or mix of efficient input-cost changes. A stepped TIM adds portfolio-level protection while retaining accountability for efficient delivery.

Customers would receive 75% of savings within the first 5% and 90% beyond it. Lower exposure at larger variances also protects financeability from external shocks. This supports an affordable, investable and deliverable settlement, and maintains a meaningful efficiency incentive while reducing the risk that external shocks create disproportionate financial outcomes.

Ofgem is seeking reward companies through the BPI where they propose commitments that ultimately become common requirements on all DNOs, where we can demonstrate proposal are in direct alignment to one or more of Ofgem's Consumer Interest Framework pillars. **Our bill smoothing proposal meets these criteria**.

Our proposal for bill smoothing is aligned to Consumer Interest Framework Fairness pillar. Under this pillar Ofgem is seeking to ensure costs are allocated and recovered fairly and efficiently whilst supporting decarbonisation. Our bill smoothing proposal, supports this objective, recognising the significant impact network costs can have on the market and consumers and aligns with Ofgem's wider policy objective undertaking a Cost Allocation & Recovery Review (CARR). Our proposal allows policy decisions to be made before costs are recovered. On this basis our novel proposal should be considered for a reward under the BPI.

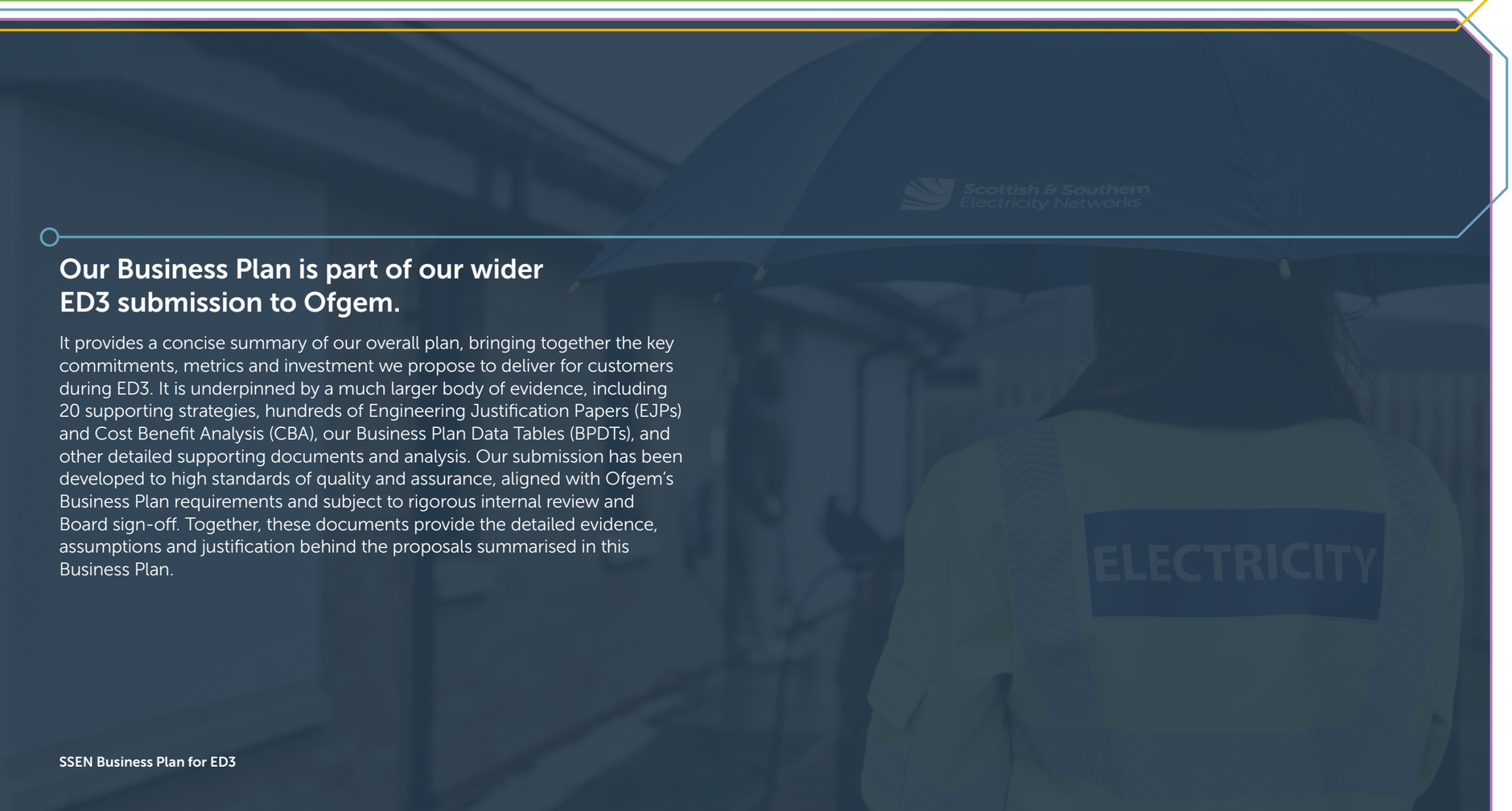
6.0 SUPPORTING INFORMATION

IN THIS SECTION

6.1 Our commitments to customers	90
6.2 Meeting Ofgem's minimum requirements	96

Relevant further reading

→ See our ED3 supporting strategies for more detail regarding how we'll deliver on our 12 commitments to customers, measuring progress through 35 defined metrics.



Our Business Plan is part of our wider ED3 submission to Ofgem.

It provides a concise summary of our overall plan, bringing together the key commitments, metrics and investment we propose to deliver for customers during ED3. It is underpinned by a much larger body of evidence, including 20 supporting strategies, hundreds of Engineering Justification Papers (EJPs) and Cost Benefit Analysis (CBA), our Business Plan Data Tables (BPDTs), and other detailed supporting documents and analysis. Our submission has been developed to high standards of quality and assurance, aligned with Ofgem's Business Plan requirements and subject to rigorous internal review and Board sign-off. Together, these documents provide the detailed evidence, assumptions and justification behind the proposals summarised in this Business Plan.

Section 6 provides supporting information for our Business Plan. It brings together the measures we propose to use to track delivery and confirms how our submission meets Ofgem's requirements.

Section 6.1 sets out the full 35 metrics against our 12 commitments to customers. It explains the measures we propose to track throughout ED3, providing a clear basis for monitoring progress against our commitments.

Tracking and reporting our performance. We will track performance against our commitments throughout ED3, with clear ownership for every metric and regular review through our governance processes. Performance will be supported by evidence, with any areas falling behind plan clearly identified alongside the actions and timescales needed to get delivery back on track. This will give our customers, stakeholders and Ofgem a clear and consistent view of how we are delivering against the commitments in our Business Plan.

Setting ambitious but deliverable targets. We have made our ED3 metrics as stretching as possible, while ensuring they remain credible and deliverable. Targets have been developed by considering our current and expected performance, stakeholder priorities, the outcomes customers value and what can realistically be delivered through our ED3 programme. This balance is important: our commitments should drive meaningful improvement and hold us to account, while remaining firmly grounded in the outcomes we can deliver for customers.

Section 6.2 confirms that we have met all of Ofgem's minimum requirements in its Business Plan Guidance (BPG). It signposts how our wider submission addresses each requirement.

Together these provide a clear reference for tracking delivery and demonstrating that our submission meets Ofgem's requirements.

6.1 OUR COMMITMENTS TO CUSTOMERS
Delivering in ED3

Our ambitious, stretching commitments represent our ambition to deliver maximum value for our customers. Read more about how we'll deliver these commitments, and other outputs, in our supporting strategy documents.

Customer acceptance of our Business Plan increased when they learnt about our commitments

Independent acceptability testing was carried out with 1,106 domestic, business and digitally disengaged customers across our two licence areas. Customers were shown a summary of our ED3 Business Plan, an overview of its likely impact on bills (without our bill smoothing proposal) and more detailed information on a selection of our commitments, allowing us to test both overall acceptance and how views changed as customers became more informed. The results showed broad support for our plan: 73% found it acceptable and 76% affordable after seeing further detail on our commitments. Acceptability increased by 10 percentage points overall, alongside improvements in affordability and value for money scores.

Table 6.1.1: 35 metrics to track progress against our 12 ED3 commitments

	Commitment	Metric	Explaining our ambition
Investing for Growth and the Energy Transition	**Be ready for growing demand**	We will deliver approximately 40,000 LCT enabled homes through a fourfold increase in LV looped upgrades compared to ED2, targeting the areas of greatest need (lead commitment)	• This commitment marks an ambitious, deliverable first stage of our programme to 2048. ED2 pilots will establish delivery processes and capacity across our teams and supply chain, unlooping around 3,000 homes by the end of ED2. Delivery will then rise to 10,000 homes across ED3 years 1–2 and 10,000 annually in years 3–5. • A lower target would underuse this capability. A higher target would exceed the evidenced ramp-up, though pilot learning may enable acceleration.
		We will release over 5,000MVA on our primary network by 2033 - a 24% increase to meet ED3 capacity requirements and providing strategic headroom through to 2050. This will support more than 2,976MVA of new demand, facilitating 300,000 heat pumps and more than two million electric vehicles (lead commitment)	• Releasing over 5,000MVA by 2033 will increase primary network capacity by 24%, meeting ED3 requirements and providing headroom on reinforced assets to 2050. We based our assessment of network constraints on the tRESP Holistic Transition Pathway, adjusted using sensitivities agreed by all DNOs. • Our optioneering then assessed conventional reinforcement and flexibility to meet the growth in that pathway and our connections pipeline, producing the proposed capacity release.
		Achieve 90% compliance against new and enhanced service standards for large and major connections customers by 2030	• We co-developed these standards with stakeholders to address customer feedback and improve their experience, moving from transactional delivery to proactive project partnership. No other DNO currently offers this suite of enhanced standards with a commitment to report performance. • The 90% target matches the compliance threshold for existing Guaranteed Standards of Performance, applying the same accountability to a higher level of service. • Delivering by 2030 requires changes to systems, workflows, staff training and framework contracts, including those supporting the 12-week viability service and programme plan.
		We will deliver 7 RESP strategic energy needs, identified by NESO's transitional tRESP (as amended by Ofgem)	• Our target of seven strategic energy needs (SENs) is grounded in the NESO's agreed strategic planning process. Delivering fewer than seven SENs would fail to address an independently identified strategic need; delivering more would risk premature investment. • The target follows extensive engagement with stakeholders, including following NESO's 2025 Strategic Energy Needs (SENs) Request for Information, and is informed by pre-existing work and relationships with stakeholders. • We are working closely with NESO and the other DNOs to further develop the SEN methodology which we have followed rigorously to determine the final number of needs that have informed our ED3 investments.
	Scale flexibility to optimise our network	Utilising 13.4GW of flexibility, providing capacity at lowest possible cost and to avoid delay. (lead commitment)	• Our flexibility ambition reflects its growing role in releasing network capacity and managing operational constraints. The proposed 13.4GW represents an increase of more than six times the services expected to be used during ED2 and has been tested for deliverability and demonstrable benefit. This target is underpinned by detailed CBA. A higher flexibility target risks the use of flexibility beyond positive net benefit. A lower target would miss potential opportunities. • For Planning Flexibility use cases, the requirement is established through individual LRE investment EJPs and further enhanced by our Agile Build & Flex approach to ensure load-related expenditure is efficient, and to manage uncertainty and deliverability. For Operational Flexibility use cases, the requirement is tested through the Operational Flexibility CBA to confirm a positive net benefit from accelerating connections, reducing curtailment, improving outage management and increasing whole-system coordination. Our operational approach maximises our use of flexibility within forecast market liquidity and our future ED3 capabilities, wherever there is a positive operational CBA.

* all commitments subject to our ED3 plan funded

6.1 OUR COMMITMENTS TO CUSTOMERS
Delivering in ED3

Table 6.1.1: 35 metrics to track progress against our 12 ED3 commitments

	Commitment	Metric	Explaining our ambition
More resilient networks for customers	**Modernise our network and assets, and strengthen climate resilient**	We will manage network risk through responsible asset stewardship, removing 23% of network risk in our south of England licence area and 12% in our North of Scotland licence area compared to a 'do-nothing baseline' (lead commitment)	• These targets are the product of our risk modelling methodology that identifies asset targets needing refurbishment or replacement during ED3. Our network assets are assessed on likelihood of failure together with impacts of failure, and this drives the renewal needs, and consequently our total risk reduction target. In ED3, our network needs more renewal than ever before, driven by ageing equipment but also supported by our deeper understanding of asset health. Achieving these targets contributes toward upholding the safety, compliance, and the reliability and resilience of our network – high-priority outcomes for our stakeholders. • Achieving an even higher risk reduction would further support performance outcomes but would place a greater cost burden on customers in ED3 at a time when we are managing affordability constraints. A less ambitious target for risk reduction would require us to operate assets for longer and in worse condition than our asset policy requires, leading to poorer reliability and resilience outcomes.
		Deliver our Climate Resilience investment programme by 2033, including rebuilding or undergrounding ~350km of high-risk overhead line, and replacing ~250km cables that are exposed to increased rainfall, ground movement and climate-related degradation.	• Customer and stakeholder engagement demonstrated strong support for proactive resilience investment, with customers consistently prioritising reliability and resilience outcomes, and recognising the need for anticipatory action to address climate risks. • The proposed targets represent an appropriate balance between customer benefits because of enhanced resilience, deliverability and affordability. Investment has been targeted at the highest-risk locations first. We expect lessons learned from earlier interventions to inform future delivery while reducing the need for larger, more costly reactive investment in ED4.
		We will increase the proportion of switchgear and transformers that are renewed by refurbishment, rather than full replacement, to 8% in ED3, up from 3% in ED2. By maximising asset operating lives, we strengthen our circular asset management, improving sustainability through cost and carbon efficiency while operating a reliable network.	• Circular economy approaches are well supported by stakeholders, and maximising asset lives is a key aspect in delivering value in this way. 8% reflects the assessed population of assets that can have their lives extended through refurbishment safely, more than double our ED2 performance. We will achieve this by maximising methods that are proven to be cost-effective, technically credible, and deliver the long-term performance outcomes we expect. • A lower proportion of refurbishment would miss proven opportunities to reduce the cost and carbon burden associated with replacement. A higher target would extend refurbishment to assets where condition, risk or performance requirements mean replacement remains the appropriate intervention.
		Addition of environmental monitoring to all grid and primary substations to monitor climate conditions and determine future climate resilience investments.	• This monitoring will help combat higher average temperatures, particularly in SEPD. Consumer and stakeholder engagement demonstrated strong support for proactive resilience investment, with customers consistently prioritising reliability and resilience outcomes and recognising the need for anticipatory action to address climate risks. • A lower level of investment would not provide sufficient coverage to monitor all our major sites, or to establish a representative evidence base for ED4 decision-making. Monitoring our far more numerous secondary substations would require an exponentially higher installation volume and associated costs; with these sites having less equipment the cost-benefit and deliverability do not justify higher investment.
		By the end of 2033, we will strengthen resilience to island communities, reserving non-compliant embedded diesel generation for exceptional, unplanned events in line with environmental legislation.	• Our island networks have unique resilience needs, relying on a combination of subsea connections and on-island generation. Much of the existing embedded diesel generation will no longer meet legislative emissions requirements for planned operation from 2034. We have therefore set the end of 2033 as the point by which we will have strengthened island resilience through a mix of network and non-network solutions, allowing non-compliant diesel generation to be reserved for exceptional, unplanned events. This meets our environmental obligations while maintaining security of supply, accommodating growing demand from electrification and avoiding unnecessary costs for customers.

6.1 OUR COMMITMENTS TO CUSTOMERS
Delivering in ED3

Table 6.1.1: 35 metrics to track progress against our 12 ED3 commitments

	Commitment	Metric	Explaining our ambition
More resilient networks for customers	**Introduce targeted improvements to reduce unplanned power cuts**	Deliver targeted 'Worst Served Customer' schemes to reduce the number of customers experiencing the most interruptions. This will halve the number of customers in this category, with 13,329 customers receiving a more reliable service based on a March 2026 baseline (lead commitment)	• This target addresses customers whose reliability is materially worse than the network average, suffering 12 or more higher voltage interruptions over three years. Because these customers represent a small proportion of the overall customer base, improvements make little difference to average reliability but make a substantial difference to their experience, with interruptions typically reduced by more than half. Our programme will maximise benefits for a doubling in investment compared to ED2, with schemes prioritised for customers who repeatedly qualify as WSC over successive years or are on the Priority Services Register. • A smaller programme would leave more persistent poor service unresolved; a larger programme would generate diminishing benefits at increasingly disproportionate costs and be more likely to exceed our delivery capacity.
		Maintain our current high levels of reliability despite worsening conditions, with the network at 99.98% reliability (lead commitment)	• Maintaining current reliability is stretching given higher load, network growth, construction activity and worsening weather exposure during ED3. A lower target would accept reliability deterioration which our stakeholder engagement for ED3 shows customers won't accept, while further decimal-point gains could cost disproportionately more than targeted WSC improvements.
		Ensure that 98% of customers are restored within 12 hours following an unplanned interruption in 'normal' conditions	• 98% is a demanding universal standard while recognising that a small number of complex or safety-critical faults cannot responsibly be restored within 12 hours. Setting a lower target would tolerate avoidable prolonged interruptions. 100% could incentivise unsafe restoration or disregard faults requiring specialist equipment, access or extensive repair.
	Strengthen cyber resilience	We will deliver real-time cyber resilience, detecting and containing high severity cyber threats within our defined risk tolerance by the end of ED3 (lead commitment)	• This metric is anchored in defined cyber-risk tolerance and assured real-time controls, rather than an arbitrary incident count. A lower ambition could lead to critical threats not being detected and contained within appropriate timescales. Zero incidents or instantaneous containment would not be a credible commitment in an evolving threat environment.

6.1 OUR COMMITMENTS TO CUSTOMERS
Delivering in ED3

Table 6.1.1: 35 metrics to track progress against our 12 ED3 commitments

	Commitment	Metric	Explaining our ambition
Smarter Networks	**We will provide earlier access for customers to connect**	More than double the capacity of earlier connections offered to customers by 2033, providing approximately 5GW of capacity, up from 2.3GW in ED2 (lead commitment).	• 5GW represents the opportunity supported by forecast constraints, customer demand and scalable Early Access (flexible/non-firm/temporarily restricted) arrangements, and is more than double the level we anticipate energising in ED2. A lower target would leave viable customers waiting unnecessarily for reinforcement. A higher target would exceed currently identified suitable capacity or rely on operational controls and customer acceptance not yet evidenced at scale.
		Achieve and maintain an independent market confidence score of 9/10 or higher among flexibility service providers and market participants.	• 9/10 establishes a deliberately high and voluntary threshold for assessing the confidence of a market which is dependent on provider trust and participation. Under Ofgem's equivalent scoring arrangements for ED2 DSO incentives, a score above 7.9 attracts a financial reward. An NPS-style score at 9 or above is considered excellent.
	We will enhance data driven network management	Reduce domestic energy consumption losses by 47.5GWh through improved voltage optimisation by 2033 (lead commitment).	• 47.5GWh is the modelled saving that would be delivered by thorough completion of our ED3 voltage optimisation plan. Voltage and loss optimisation requires a balance between differing technical priorities alongside economic trade-offs. The application of conservation voltage reduction to achieve this target represents the widest application of voltage reduction we can make during ED3 whilst still ensuring safe and efficient network operation. A lower target would leave proven customer-energy and carbon savings unrealised; a higher target would risk operating the network beyond acceptable limits.
		We will implement dynamic voltage management across 50% of our network load which will unlock more than 1GW of Low-Carbon Technology (LCT) hosting capacity, enabling up to 300,000 Electric Vehicle (EV) chargers and 100,000 heat pumps, without major reinforcement.	• 50% reflects the network load for which monitoring, controllability and customer benefit can be established during ED3. A lower target would leave low-cost LCT hosting capacity unused. A higher target would extend deployment into areas without sufficient need, visibility or controllability, reducing value for money.
		We will achieve 95% local network visibility with data published on our data portal.	• 95% provides decision-grade coverage while recognising complete visibility is neither technically necessary nor economic at every low-use location. A lower target would retain material planning and operational blind spots. Closing the final 5% could create disproportionate sensing, communications and data-maintenance costs. This will be achieved by combining the national smart metering programme with additional low voltage monitoring where coverage is not sufficient.
	We will maximise the customer value from innovation	We will deliver £4 of customer value for every £1 invested through our innovation portfolio by the end of ED3 (lead commitment)	• A 4:1 portfolio hurdle requires substantial customer benefit while preserving scope for higher-risk, enabling innovation. It is stretching within ED3 because innovation benefits take time to mature, deploy and scale, while putting us on a credible trajectory towards our longer-term 5:1 ambition.
		Reduce average data request response times from 20 days to 5 days by 2029, by implementing AI into our Data Portal. This will help customers make faster and more informed investment decisions	• Five days remove 75% of current response time while preserving expert validation and information-governance checks. A less ambitious target would not materially accelerate customers' investment decisions. Same-day universal service would be unsafe for complex requests requiring engineering/data-specialist review. SSEN has pioneered a Service Level Agreement approach in ED2, even though there is no prescribed standard.
		Establish our Local Energy Support Team to provide tailored network, connection and flexibility advice, accessible guidance and workshops to at least 100 communities and businesses each year, reducing connection uncertainty through improved access to network information and options	• 100 annually is a meaningful, repeatable service level that preserves tailored advice rather than generic engagement. The target was set using existing LENZA/LAEP engagement as a practical baseline for the level of support we could credibly scale, translating this into at least 100 communities and businesses annually, and responding to specific stakeholder feedback requesting insight and advice. It was deliberately framed around organisations and communities rather than individual customers, and encompasses tailored advice, accessible guidance and workshops. A lower target would limit reach and learning across the licence areas. A greater volume without more people would dilute support quality or target organisations without developed need.

* all commitments subject to our ED3 plan funded

6.1 OUR COMMITMENTS TO CUSTOMERS
Delivering in ED3

Table 6.1.1: 35 metrics to track progress against our 12 ED3 commitments

	Commitment	Metric	Explaining our ambition
Responsible and Sustainable Business	**Increase our support for customers when they need us most**	Extend our industry leading battery programme by 50% to support a further 10,000 households, expanding eligibility criteria beyond life preserving medical equipment and to include homes which use medical hoists and medical beds.	• Customers, stakeholders and statutory bodies (Citizens Advice) have responded very positively to our ED2 battery programme and supported its continuation in ED3. 10,000 reflects the identified need among medically dependent customers affected by power cuts, balancing targeted resilience support with affordability.
		We will enhance our shareholder financed community fund, increasing funding by 50% to £750,000 per annum to support LCT accessibility initiatives, and physical environmental and resilience schemes.	• A 50% increase materially expands support to meet greater ED3 community needs, while remaining proportionate to evidenced demand and avoiding any impact on customer bills. Lower could constrain worthwhile schemes. Higher is not justified without evidence of additional fundable demand and incremental impact.
		Support a further 30% more households with enhanced our Personal Resilience Plans which will be issued to 500,000 customers by 2033. We will also double support to a further 10,000 PSR customers with power cut packs. Both targets are based on an ED2 baseline.	• This PRP target reflects our experience in outperforming our ED2 target (we have achieved ~500,000 plans in ED2 Y3 against an ED2 target of 374,000) while recognising that the population for whom a PRP is valuable is finite. In setting this target we have remained realistic about the number of households we expect to reasonably recruit into the programme during ED3. The targets scale proven support - 30% more plans and twice as many packs compared to ED2 - while focusing physical support on those with greatest need. Lower targets would leave known resilience gaps; higher volumes should depend on evidence of benefit and must not turn personalised plans into a volume exercise.
		We will work with Local Authorities and partners to identify and contact all known residential park homes and sheltered accommodation in our licences areas to proactively offer access to PSR and resilience planning. We will enhance this through in-person resilience planning for a minimum of 100 communities most at risk of power cuts.	• Universal contact ensures no identifiable higher-risk accommodation is excluded • The 100-community threshold target has been developed based on our experience with and understanding of existing resilience activities across communities we serve in our SEPD and SHEPD regions. We've overlayed an assessment of the degree of self-sufficiency of existing resilience groups with an assessment of local authority readiness and willingness for cooperation on community resilience. This data, complemented by our experience in ED2 and historic storm performance, has led us to determine a minimum intervention threshold for ED3 of 100 communities.
		Providing a minimum of 240,000 households with fuel poverty and/or access to adopt LCTs by 2033, thereby tripling our fuel poverty support in ED3, compared to an ED2 baseline	• Our ED3 ambition was set in response to evidence of significant and geographically concentrated fuel poverty, increasing complexity of customer need, and direct stakeholder feedback to drive ambition in this area. Our 240,000-household target is enabled by a broader end-to-end support offer and a new partnership model designed to combine scalable DNO-wide provision with targeted local delivery. • 240,000 triples ED2 delivery and reflects the scale that partners and delivery channels can credibly reach while maintaining evidenced outcomes. Lower would not respond adequately to affordability and transition needs. Higher risks prioritising contact volumes over meaningful attributable benefit.
		We will proactively support a minimum of 100 communities to increase their resilience by 2033 through the introduction of resilience hubs and plans	• Supporting at least 100 communities replaces application-led funding with proactive, data-led support, prioritising rural, island and previously unsupported communities through tailored plans, hubs, training, equipment and exercises. Selection balances interruption risk, vulnerability and readiness; a smaller programme would limit reach, while a larger one risks delivery without suitable partners, premises or sustainable operating models.
	Boost jobs and sustainable growth	We will support UK Manufacturing by aiming to increase our expenditure across key categories (transformers, switchgear and cable) by 10% by April 2033 (on our ED2 baseline), increasing our UK manufacturing spend by an estimated £157 million in ED3	• A 10% relative uplift represents a stretching but deliverable ambition for ED3, grounded in forecast demand and realistic UK manufacturing capability across transformers, switchgear and cable. It provides a meaningful opportunity to strengthen domestic capability, economic value and supply-chain resilience, while maintaining the balance with affordability, competition, regulations and deliverability. Increasing beyond this could introduce cost and capacity constraints where suitable UK supply is limited, while a lower ambition risks underplaying the opportunity to stimulate UK manufacturing. This is subject to market availability, value for customers, delivery requirements and compliance with applicable procurement obligations. (lead commitment)

6.1 OUR COMMITMENTS TO CUSTOMERS
Delivering in ED3

Table 6.1.1: 35 metrics to track progress against our 12 ED3 commitments

	Commitment	Metric	Explaining our ambition
Responsible and Sustainable Business	**Build the workforce of the future**	More than 10% of our workforce in earn-as-you-learn opportunities by the end of ED3. 100% of learners who successfully complete their programme progress into a substantive role on completion of training (lead commitment)	• 10% provides the workforce pipeline needed to support ED3 growth and increased insourcing. It is deliberately stretching, at twice the 5% Club benchmark, but achievable through our planned workforce ramp-up. Going lower would not build sufficient capability; going higher risks exceeding our capacity to train, supervise and place learners effectively.
		Building on our ED2 workforce growth, we will optimise training delivery by shifting 10% of current in-person training to blended and innovative learning, increasing training capacity and accelerating time to competence while maintaining safety, quality and technical standards. (lead commitment)	• 10% is a controlled first-stage transformation focused on learning that can change format without compromising competence or safety. Lower would not release meaningful training capacity. Higher could shift practical or safety-critical content before effectiveness has been demonstrated.
		Increase the diversity of our workforce to reach at least 40% female representation in senior leadership, 10% minority ethnic representation in our overall workforce, and 8% representation for both disability and LGBTQ+ employees by April 2033	• These targets represent material but credible improvements from our current baselines and align with wider SSE commitments. They are deliberately stretching while remaining achievable given labour-market and progression pipelines, with our 10% minority ethnic target exceeding both the 5% DNO technical workforce and 7.5% wider energy-sector benchmarks.
	Reduce our environmental impact	Reduce our Scope 1 and 2 greenhouse gas emissions by 55%, in line with our 1.5°C-aligned Science Based Target, and help manage Scope 3 emissions by ensuring that suppliers representing 55% of our supply-chain spend have set their own Science Based Targets (lead commitment)	• Our 55% reduction target is anchored in our established Science Based Target and the level of emissions reduction required to maintain a 1.5°C-aligned pathway and is a regulatory requirement. We are revalidating our SBTs this year but do not expect the reduction targets to materially change. Within that, our ambition to reduce SF_6 emissions by 55% from the 2019/20 baseline aligns with our wider carbon-reduction ambition and is supported by a targeted delivery approach. Replacing high-leaking assets, alongside improved leak detection and gas management, focuses intervention on a relatively small number of assets responsible for a disproportionate share of emissions. A lower ambition would accept slower progress against that pathway; a higher commitment would need evidence of further deliverable reductions without relying on SF_6-free alternatives whose availability remains constrained.
		Reduce the risk of pollution by removing 248km of fluid filled cables (FFC) representing over 22% of the total FFC across our network during the course of ED3. This is part of our long-term plan for full removal by 2050.	• Our ED3 FFC target has been set through a risk-based assessment of asset condition, environmental consequence, deliverability and customer value. The programme targets the highest-priority FFC population and represents the level of intervention we consider justified and deliverable during ED3. A lower target would retain avoidable network and environmental risk, while a materially higher target would move beyond the currently evidenced priority and deliverable programme, with additional cost and delivery requirements not supported by an equivalent incremental risk benefit. Importantly, this level of investment also maintains the required pace of intervention to keep us on track with our longer-term strategy to remove FFC from the network by 2050.
		Implement Nature-based Solutions (NbS) to support carbon removals and wider ecosystem services that our industry and communities rely on, by achieving the creation or restoration of 1,294 hectares of peatland, woodland and seagrass habitats by 2033.	• The 1,294-hectare target primarily reflects one quarter of our expected residual emissions to meet net zero by 2045, expressed as the areas of peatland restoration and woodland creation required to achieve this in accordance with the UK woodland and peatland carbon codes. Proposing to target one quarter of residual emissions follows Ofgem's ED2 allowance determination and justifications. The seven-hectare seagrass component of the target is based on stakeholder information indicating the scale of projects available and achievable during ED3, having funded a substantial volume of planting during ED2. A lower target would leave identified carbon and ecosystem benefits unrealised.

* all commitments subject to our ED3 plan funded

6.2 MEETING OFGEM'S MINIMUM REQUIREMENTS

Signposting across our plan

Our wider submission meets the minimum requirements in Ofgem's Business Plan Guidance. The table below summarises how we address each requirement. See our full submission for supporting detail.

ED3 Minimum Requirement	Commentary
Business plan format, coherence and clarity	We have prepared our Business Plan in line with Ofgem's requirements for submission format, accessibility, coherence and clarity.
Costs	We have provided the required information on our ED3 costs, including cost drivers, options considered, justification of costs and evidence of efficiency and value for money.
Business Plan Data Tables (BPDTs)	We have completed and submitted the required Business Plan Data Tables in line with Ofgem's BPDT guidance.
Independent Stakeholder Group (ISG) Statement	We have included in our submission a statement signed by our ISG Chair, Sharon Darcy, in line with Ofgem's minimum requirements.
Engineering	We have provided the required Engineering Justification Papers and, where required, Cost Benefit Analyses in line with Ofgem's guidance.
tRESP assurance submission	We have completed and submitted the tRESP assurance template, together with the required supporting information, in line with Ofgem's minimum requirements.
Load Related Expenditure (LRE) annex	We have submitted an LRE Annex in line with Ofgem's minimum requirements.
Long-term Integrated Network Plan (LINP)	We have submitted a LINP in line with Ofgem's minimum requirements.
Connections strategy	We have submitted a Connections Strategy in line with Ofgem's minimum requirements.
Environmental Action Plan (EAP)	We have submitted an EAP in line with Ofgem's minimum requirements.
Vulnerability strategy	We have submitted a Vulnerability Strategy in line with Ofgem's minimum requirements.
Data and digitalisation	We have provided the required Data and Digitalisation information and templates in line with Ofgem's minimum requirements.
Innovation strategy	We have submitted an Innovation Strategy in line with Ofgem's minimum requirements.
DSO Strategy	We have submitted a DSO Strategy in line with Ofgem's minimum requirements.
Network Asset Management Strategy	We have submitted a Network Asset Management Strategy in line with Ofgem's minimum requirements.
Climate resilience strategy	We have submitted a Climate Resilience Strategy in line with Ofgem's minimum requirements.
Cyber Resilience business plan	We have submitted a Cyber Business Plan in line with Ofgem's minimum requirements.
Delivery strategy	We have submitted a Delivery Strategy in line with Ofgem's minimum requirements.
Targeted Storm Support Strategy	We have submitted a Targeted Storm Support Strategy in line with Ofgem's minimum requirements.
Reliability Strategy	We have submitted a Reliability Strategy in line with Ofgem's minimum requirements.

6.2 MEETING OFGEM'S MINIMUM REQUIREMENTS

Estimating plan value and acceptability testing

The socio-economic value of our plan

We commissioned Baringa to independently assess the socio-economic value of our ED3 plan (2028–2033), developing and applying a framework to quantify its impacts. The assessment asks: "What value does the proposed increase in distribution expenditure deliver for customers, the energy system, the environment and the wider economy, and how much of that value is additional to what a lower-investment pathway would achieve?"

The framework applies the appraisal principles of HM Treasury's Green Book, including additionality, opportunity cost, whole-economy and distributional impacts, long-term affordability rather than lowest upfront cost, and monetisation only where robust evidence exists. It is designed to be complementary to, and consistent with, the GB-wide network investment benefits case being developed by the Energy Networks Association (ENA), and the ENA Sector Growth Plan. This allows the findings to contribute to, and draw support from, the wider evidence base.

Table 6.2.1 summarises selected estimates of the value our plan delivers. Gross values represent the total estimated value associated with delivery of the plan, while net values represent the additional value relative to an ED2 counterfactual. The ED2 counterfactual uses a projected outturn of £6.8bn, including inflation and actual and projected uncertainty mechanism (UM) expenditure. ED3 values are based on our £8.7bn baseline plan and exclude potential future UM expenditure which remains uncertain and subject to Ofgem decisions.

Table 6.2.1: summary of socio-economic value generated by our ED3 Business Plan. See the independent report for full details:

Cost category	Gross	Net
Customer value of efficiently timed investment in ED3 (£m)	2,515	1,750
Customer savings over ED3 from LCT adoption (£m)	2,170	508
Percentage spent on UK goods and services (%)	84	84
Jobs supported per year across GB	20,066	4,414
Gross Value Added (GVA) supported by ED3 supply chain (£m)	7,209	1,547
GVA associated with demand growth (£m)	71,530	10,210
Value of emissions reductions enabled by the ED3 Plan (£ and MtCO2e)	5,623	1,208 3.97 MtCO2

Plan acceptability testing

We commissioned CreateClarity to independently conduct acceptability testing to understand whether customers supported our overall ED3 Business Plan once they had been given clear information about what we propose to deliver and the likely impact on their electricity bills. The research tested whether customers considered the plan acceptable and affordable, and identified any areas that required further refinement or explanation.

The research was conducted between 12 and 25 October 2026, through a survey of 1,106 customers across our two licence areas. The sample included 900 domestic customers, 104 non-domestic customers and 102 digitally disengaged domestic customers. Most customers participated online, while digitally disengaged customers were interviewed face to face to ensure their views were represented. Customers were first shown an overview of our ED3 Business Plan and its likely impact on bills (without our bill smoothing proposal), tailored to their licence area. They were asked for their initial views before receiving more detailed information on three randomly selected commitment areas. The same questions were then repeated, allowing us to assess both overall support for the plan and how customers' views changed as they became more informed about what we would deliver.

Acceptability testing highlights:

- 73% of the total sample found the plan to be acceptable
- 76% of the total sample found the plan to be affordable
- We also tested acceptability with our Fair Future Panel, a much more informed group of customers. 90% of panellists found the plan to be acceptable, 100% of the panel found the plan to be affordable

See ED3 Business Plan Acceptability Testing Report for more details.

Basis of Assurance and Material Assumptions

The Business Plan has been subject to comprehensive governance and assurance processes. The conclusions reached through those processes reflect the regulatory framework, information and assumptions available at the date of submission.

The development and assurance of the Business Plan has taken place against a changing ED3 regulatory backdrop. This has included changes during the business planning process to the planning basis, timetable and Business Plan Guidance, resulting in a compressed timetable for Business Plan development. Consequently, some elements of the Business Plan, including aspects of the capital programme, EJPs and CBAs, have been reconsidered or reworked.

In addition, certain material elements of the ED3 regulatory framework remain subject to further development or determination, including aspects of incentive design, calibration and power; the licence and Price Control Deliverable framework; and the interaction between regulatory mechanisms, including incentives, the Totex Sharing Factor and the Returns Adjustment Mechanism. The treatment of BPI Early Proposals, including the basis on which proposals will ultimately qualify for reward, remains to be determined. As such, the Business Plan has been prepared on the basis of our current understanding of the BPI framework and we may need to respond to further clarification or development of that framework as the price control process progresses.

The Plan therefore necessarily incorporates reasonable assumptions and management judgement based on the information available at the date of submission.

This also includes assumptions regarding the extent to which principles-based regulatory or licence requirements may be introduced or developed during ED3. While principles-based requirements can provide flexibility, their application may also create uncertainty as to the nature, scope and cost of the activities required to demonstrate compliance.

The Business Plan should therefore be considered as a coherent and interdependent package developed based on those assumptions. Changes to those assumptions, or to the ED3 regulatory framework through subsequent stages of the price control process, may affect the cost, timing, scope or deliverability of elements of the Plan. Any such changes will need to be considered as the ED3 settlement is finalised.

Unless otherwise stated, headline financial values are presented before ongoing efficiency and real price effects.

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