EMPOWERING COMMUNITIES, ENABLING GROWTH

Emerging Thinking for ED3

Scottish & Southern Electricity Networks

Powering our community

CONTENTS

MANAGING DIRECTOR FOREWORD

We're taking a long-term approach to deliver our part of the energy transformation in the most efficient way possible.

As we navigate a period of significant geopolitical uncertainty, economic growth in the UK has never been more vital.

In this context, the drive to decarbonise represents a major economic growth opportunity across the UK. And Distribution networks, which connect households and businesses to the wider electricity grid, have a critical role to play.

As decarbonisation accelerates, we're focused on delivering value for money for our customers and playing our part to achieve a fair and affordable transition to a clean power system. That's why we're anchoring our ED3 plan in a long-term vision: to deliver an efficient transformation for customers today and tomorrow, that will deliver economic growth and help lower bills in the future.

Electrification will also enhance our energy security, protecting households and businesses from volatile international fuel prices, reducing energy bills over time – and making UK businesses more competitive.

Creating a more resilient energy system that can rapidly support new connections is crucial to maintain a competitive environment that spurs new investment.

The readiness of our networks is vital for:

- Delivering the record levels of housebuilding needed
- Decarbonising road travel, ports, airports, and existing industries
- Securing investment from growing sectors like Artificial Intelligence

Upgrading our networks means investing in local communities across the country. We're providing well-paid, low-carbon jobs for the next generation and amplifying the benefits of our investment through our supply chain.

At a time when more business investment in the UK is needed, we'll ensure that the benefits of our investment programmes flow into the communities we're working in – for instance, by partnering with local businesses and bolstering community energy resilience.

The prize is clear – but there's a lot of work to do to ready our networks for more economic growth and net zero. Decisions made now, as we transform our energy system and move to a single dominant energy source – electricity – will have long-lasting ramifications. As we upgrade our networks, we have a unique opportunity to make sure they are resilient and fit-for-purpose for generations to come.

Work to upgrade our networks has already begun

At SSEN Distribution, our strategic direction is already set. We're taking a long-term approach so that we deliver our part of the energy transformation in the most-efficient way possible, generating maximum value to benefit our current and future customers.

We see ED3, the next five-year regulatory period starting in 2028, as a staging post on the way to 2050. It's a critical part of our 25-year plan to prepare networks for more economic growth and net zero.

Readying our networks for future demand could benefit our connecting customers by more than half a billion pounds by 2030.[1]

To this end, we've outlined three emerging priorities for the next price control:

- We'll drive **economic growth** and enrich the **communities** and **environments** we work in
- Our networks will be **agile** and **digitally enabled**, meeting local and system energy needs
- Our business and network will be resilient in the face of growing challenges, and able to **efficiently deliver our plans**

The energy system transformation will not be delivered in isolation; SSEN Distribution is part of SSE plc, a key delivery partner of the UK Government. SSE plc is committed to the mission for economic growth and the local power plan with plans to invest £20 billion in clean energy infrastructure over the next decade.

Our 'Empowering Communities, Enabling Growth' document is an invitation to engage with us. It's the start of the conversation regarding how we'll deliver the most efficient transformation of our networks for our customers over the long term, and we welcome your views to help shape our thinking.

CHRIS BURCHELL
MANAGING DIRECTOR
SSEN DISTRIBUTION

1. NERA – Review of the Regulatory Framework for Strategic Network Investment

Safety

At SSEN Distribution, safety is a core value: **our safety culture is "if it's not safe, we don't do it"**.

This culture is more vital than ever as SSEN Distribution embarks on a period of significant growth and network expansion.

We've invested £2.5 million to establish **Scotland's first immersive training centre**, revolutionising our approach to safety training. And we're partnering with stakeholders – like the National Farmers' Union – to raise awareness of overhead powerlines for those working in fields where our networks are located.

OUR EMERGING THINKING FOR ED3

Empowering Communities, Enabling Growth

Our ED3 priorities

Driving growth and enriching communities

We are driving economic growth, and enriching the communities and environments we work in

Delivering an agile and digitally-enabled network

Our networks are agile and digitally enabled, meeting customer and energy system needs

Operating a resilient business and network

Our business and network are resilient in the face of growing challenges, and we efficiently deliver our plans

Our value framework

Generating value across six capitals

- Natural
- Intellectual
- Social
- Economic / Financial
- Manufactured / Assets
- Human

Our ED3 regulatory priorities

Five regulatory priorities to create the conditions for success at ED3

Proactive investment

The regulatory framework gives us certainty to invest

Cost assessment and incentive target setting

The regulatory framework incentivises an efficient energy transition

Deliverability

The regulatory framework helps us build supply chain and workforce resilience

Climate resilience

The regulatory framework enables climate resilience

Financeability

The regulatory framework allows us to attract the capital we need

INTRODUCING SSEN DISTRIBUTION

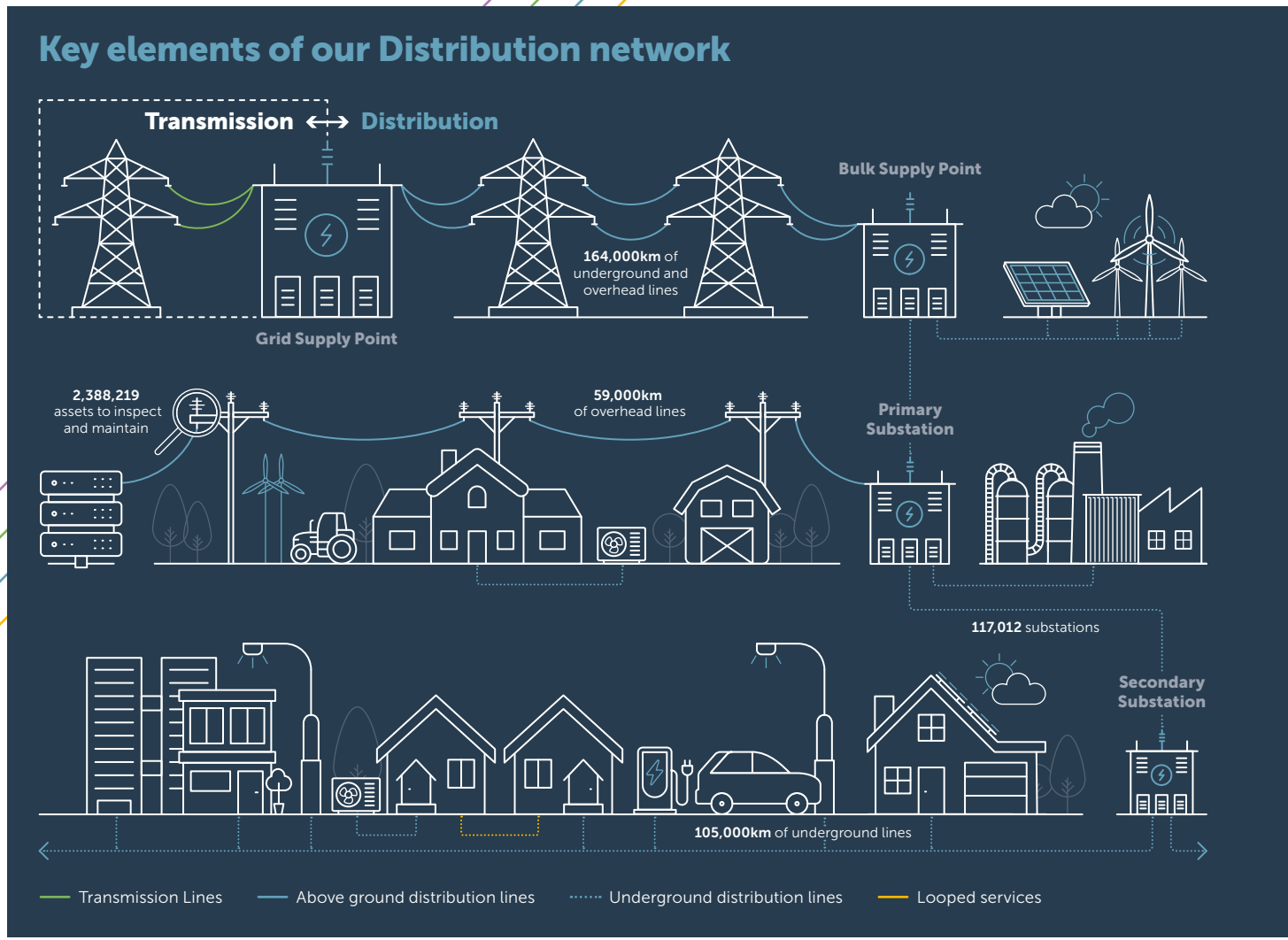
Locating Distribution in the energy system

Distribution networks are the crucial link between the high-voltage Transmission system and homes, businesses and communities. Distribution networks ensure electricity is safely and reliably delivered where it's needed.

We're responsible for delivering power to homes and businesses across the north of Scotland and central southern England.

We manage and maintain 164,000km of overhead lines and underground cables.

As the energy system evolves, modernised, flexible, and data-driven Distribution networks will be key to operating low-carbon technologies, supporting local energy planning, and enabling a net zero future.



Our licence areas

As a Distribution Network Operator (DNO), we own and operate two licence areas: Scottish Hydro Electric Power Distribution (SHEPD) in the north of Scotland – including island communities – and Southern Electric Power Distribution (SEPD) in central southern England.

We keep the lights on and deliver electricity to over 3.9 million homes and businesses across our licence areas – whilst playing a pivotal role in the Government's mission for economic growth and decarbonisation.

Electricity demand is growing

We're already working to get more people and projects connected to our networks – and this will accelerate as demand for electricity grows.

North of Scotland

- By 2030, there could be up to 41,000 new homes built alongside 5.7 million square metres of non-domestic floorspace.
- By 2030, there could be an eight-fold increase in the number of Electric Vehicles and over a quadrupling in domestic heat-pumps, with uptake driven by a higher-than-average number of off-gas houses.[1]

Central southern England

- By 2030, there could be up to 193,000 homes built alongside 4.7 million square metres of non-domestic floorspace.
- By 2030, there could be up to 1.2 million Electric Vehicles with demand from data centres growing by 200% to 2.4 GW.[2]

1. SSEN Distribution Future Energy Scenarios – North of Scotland
2. SSEN Distribution Future Energy Scenario – Central and Southern England

North of Scotland (SHEPD)

1,079,319 individual assets

780,000
customers

204,475
Priority Services Register customers

Our Scottish licence area covers 25% of the UK landmass but is the most sparsely populated Distribution region. It includes 59 island communities – working in these remote locations can present unique challenges.

Central southern England (SEPD)

1,439,371 individual assets

3.1 million
customers

821,921
Priority Services Register customers

Our southern licence area includes areas of designated high economic growth potential – like the Oxford-Cambridge and M4 growth corridors, and West London.

ACHIEVING A JUST ENERGY TRANSITION

Balancing short-term effects on bills with long-term opportunities

We live in the areas we serve, which means we have a deep understanding of the challenges they face.

That's why we feel so strongly about the long-term benefits the transition to a clean power energy system offers. An electrified energy system will offer the lowest-cost, most resilient and most sustainable way to meet our future energy needs.

We're committed to helping our customers and communities tackle a rising cost of living and the impacts of climate change. We want to work with you, our stakeholders, to ensure our business plan for ED3 is focused on achieving an affordable and just energy transition.

On average, Distribution network costs are roughly five-to-ten per cent of average domestic electricity bills today.[5]

Why we must decarbonise

Drive economic growth

The green economy is powering economic activity in the UK, achieving a 10.1% growth in value supported since 2023. 22,800 net zero businesses provide 273,000 jobs and a further 951,000 through the supply chain.[1]

Enhance security of supply

Transitioning to a clean power system using UK-produced renewable energy will break our reliance on volatile international energy markets, shielding consumers and businesses from price fluctuations.[2]

Lower whole-system bills

Clean energy will bring down energy bills in the long term as reliance on gas and petrol reduces, helping UK businesses to be more competitive and alleviating fuel poverty. Analysis by our SSEN Transmission company shows consumers' energy costs could reduce by 30% by 2050.[3]

How we must decarbonise

Ensure intergenerational fairness

We have an intergenerational obligation to pass on a clean power energy system that is fit for purpose, reliable, resilient and secure. Spreading the cost of the transition equitably across current and future energy bill payers is the only way to deliver a fair energy transition.

Take a long-term, optimised approach

By anchoring our plans in a long-term vision, we can unlock economies of scale and efficiencies in our delivery, achieving the most efficient cost over time whilst maximising growth opportunities through jobs and our supply chain. We're also ensuring our plans are scalable and able to adjust to the actual pace of decarbonisation – whilst accelerating 'high confidence, low regret' works.

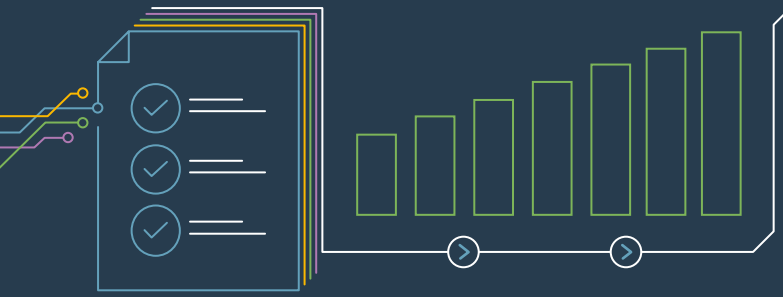
Unlock opportunities for all

We're already working to create opportunities for all to benefit from the transition, for instance, by ensuring that vulnerability is factored into our network planning.[4] We'll build on our existing consumer vulnerability strategy to enhance the support for customers in vulnerable situations.

1. CBI – Growth and Innovation in the UK's net zero economy
2. DESNZ – Clean Power 2030 Action Plan
3. SSEN Transmission – Delivering a Network for Net Zero – distributional differences between consumers will influence potential savings
4. SSEN Distribution – Vulnerability Future Energy Scenarios
5. NIC: Electricity Distribution Networks – Creating Capacity for the Future.

THE GOVERNMENT AND POLICY CONTEXT

Inserting Distribution into the policy conversation



We're highlighting some of the major changes to the policy landscape that are being made in pursuit of the UK and Scottish Government's, missions for economic growth and decarbonisation.

Whilst the future path to growth and net zero is emerging, it's clear Distribution has a central role to play and must be considered as policy evolves. Decisions made now will shape our energy system for generations to come.

> ***"While the revolution in electricity generation and transmission is a notable part of the public discourse on energy, the future of our distribution networks rarely is. We need to change that."***[1]
>
> John Armitt | NIC Chair

JULY 2024

'Rapid decarbonisation of the GB electricity system' by the National Engineering Policy Centre (NEPC)

Highlights the scale of the supply chain and skills challenge to electrify. For Distribution, these challenges are fundamentally different than in Generation and Transmission, because our portfolio is tens of thousands of smaller projects.

NOVEMBER / DECEMBER 2024

NESO and DESNZ Clean Power 2030 Reports

NESO's report highlights the significant renewable generation growth required to meet targets – including a substantial increase in embedded Generation connected to the Distribution. DESNZ's CP2030 action plan highlights the need to accelerate energy infrastructure delivery – although, for Distribution, this focus needs to extend to reform of local planning rules.

DECEMBER 2024

English Devolution White Paper

Devolution in England is handing more power to local authorities to plan investments in projects like upgrading ports and building new gigafactories. For Distribution, this will mean Local Energy Action Plans – and our support of them – will be even more important.

FEBRUARY 2025

National Infrastructure Commission (NIC) review of Distribution

Calls for a step change in investment; the current 'just in time' approach is no longer suitable for a period of high demand growth. Load investment will need to double to between £37 billion and £50 billion over the next five to ten years.

MARCH 2025

Government's Planning and Infrastructure Bill

This reforms the planning system to accelerate housebuilding and infrastructure. It recognises the need for increased investment in Distribution networks and streamlines the consent process for overhead lines, helping to accelerate our delivery.

APRIL 2025

Ofgem Decision on Connection Reform

This enables a new connection process and reforms the existing queue, prioritising 'ready' and 'needed' projects.

Upcoming policy developments

SPRING 2025

UK Government Industrial Strategy

This will set out a pathway for economic growth by prioritising high potential sectors. New Local Growth Plans and growth clusters will be an important input to our network planning process.

JUNE 2025

UK Government's 10-year infrastructure strategy

This will detail the Government's approach to critical infrastructure, with energy infrastructure a core priority.

2025

UK and Scottish Government Heat and Hydrogen Policy

Both Governments will make key decisions on the future role of hydrogen and heat networks, with implications for Distribution.

2025

DESNZ Review of Electricity Market Arrangements (REMA)

DESNZ will decide on the future structure of electricity markets in the UK with wide reaching implications, including for Distribution. This could introduce significant investor uncertainty at a time of crucial growth.

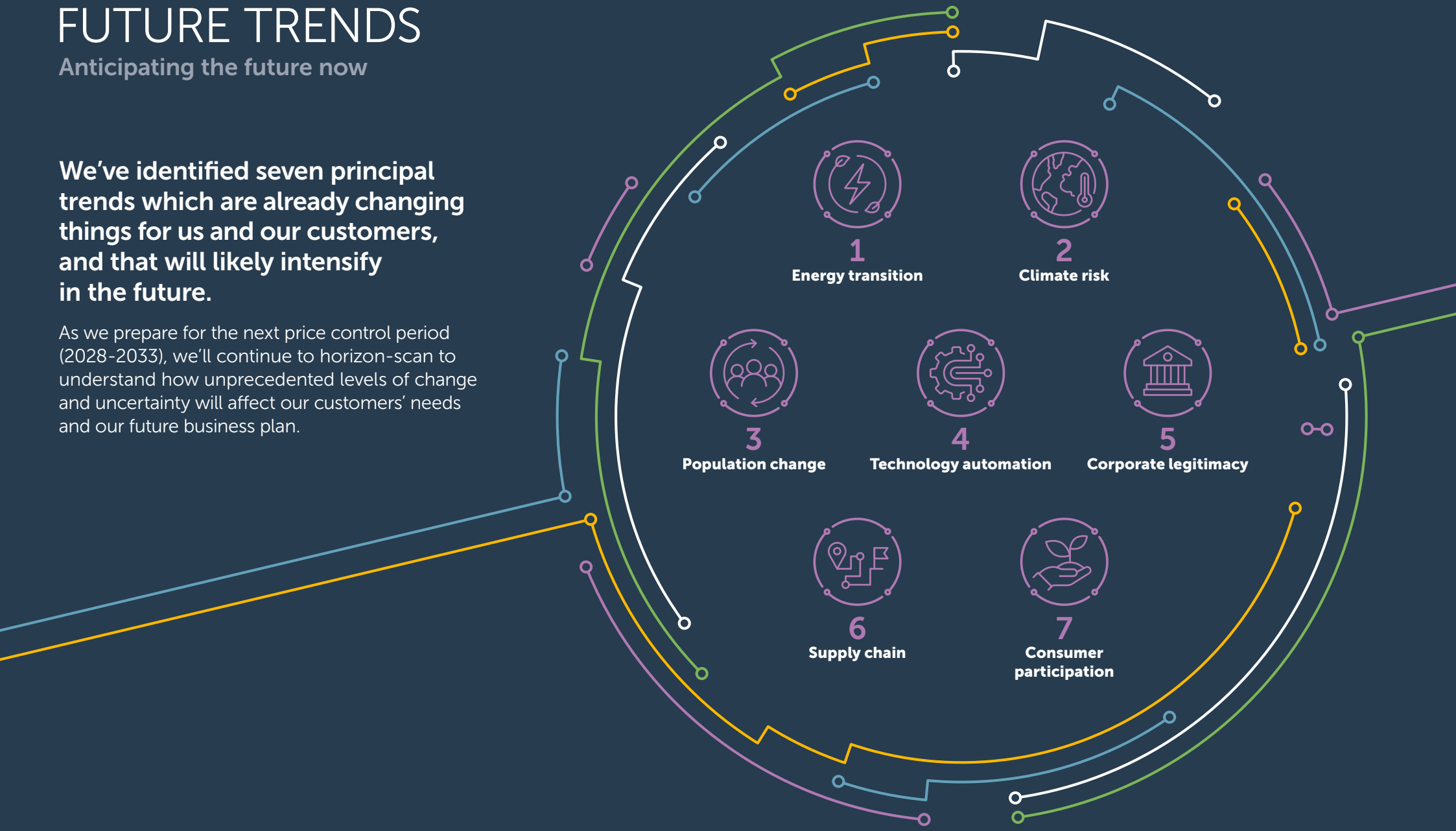
1. National Infrastructure Commission: Electricity Distribution Networks – Creating Capacity for the Future

FUTURE TRENDS

Anticipating the future now

We've identified seven principal trends which are already changing things for us and our customers, and that will likely intensify in the future.

As we prepare for the next price control period (2028-2033), we'll continue to horizon-scan to understand how unprecedented levels of change and uncertainty will affect our customers' needs and our future business plan.



Trend 1:

Greater Government direction of the energy transition

Summary

The UK Government is taking a more hands-on approach to planning the energy system. This includes the drive for a Clean Power System by 2030 (CP2030), creating a new National Energy System Operator and GB Energy – and taking a more centralised coordination through the Strategic Spatial Energy Plan (SSEP) and the Centralised Strategic Network Plan (CSNP). At the same time, there's a recognition that the energy transition will be delivered at the local level, through Regional Energy Strategic Plans (RESP), with a clear role for our local communities to play.

What this means for our customers

Even before CP2030, we were experiencing increased demand; in 2022/23, the number of accepted generation connection offers increased by 74%.[1] More centralised planning will mean more direction regarding the timing and location of network upgrades which should make it easier to strategically plan network upgrades and anticipate future demand, smoothing the connection process for customers.

Clean Power means that by 2030, Great Britain will generate enough clean power to meet our total annual electricity demand, backed up by unabated gas supply to be used only when essential.[2]

Trend 2:

Increased climate risk

Summary

The risk of climate change and extreme weather impacting our network is increasing – and we are already seeing this materialising. Effects include rising temperatures, flooding, storms, and increased winds – which can disrupt our supply to customers or degrade asset efficiency (e.g., underground cables).

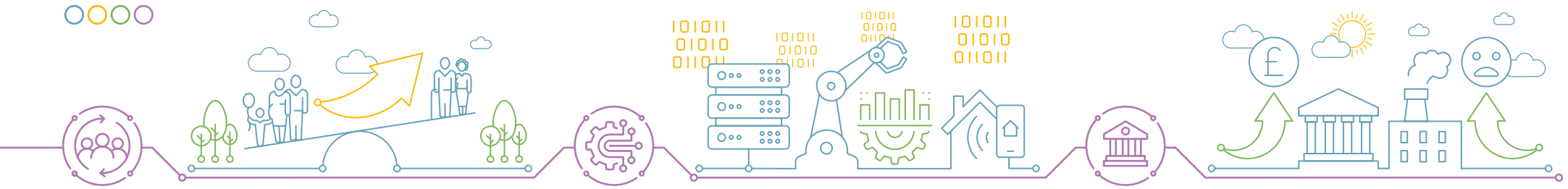
What this means for our customers

More frequent instances of extreme weather will expose our customers to heightened risk of power outage – and pose difficult, sector-wide questions about what the right level of resilience is. This trend also coincides with a growing nationwide dependency on electricity – and can be particularly disruptive to customers in vulnerable situations.

Between 2014-2023, the number of 'hot days' (28°C) have more than doubled, and 'very hot days' (30°C) have more than trebled, compared to 1961-1990.[3]

In the UK, a storm is named when it has the potential to cause disruption or damage which could result in an amber or red warning. There were 12 named storms in the 2023/24 season, which is the largest number of named storms in the UK since storm naming was introduced in 2015.[4]

1. SSEN Distribution – Load Related Expenditure Uncertainty Mechanism January 2025
2. Clean Power 2030: Action Plan: A new era of clean electricity
3. Met Office. Climate Change is Happening. April 2025
4. UK storm season 2023/24 – Met Office



Trend 3:

Population change

Summary

The UK has an ageing population, driven by a declining birth rate and growing life expectancy. An ageing population means changing customer expectations, accelerates the loss of older skilled employees from the workforce, and a shift in values as a younger demographic enters the workplace. Other population trends include persistently high levels of youth unemployment since the COVID-19 pandemic,[5] and more people with complex medical needs as life expectancy increases.[6]

What this means for our customers

An ageing workforce will exacerbate the skills gap facing the energy and utility sectors, and we will need to take steps to bolster workforce resilience if we are to deliver network upgrades. When it comes to vulnerability, we will remain responsive to the needs of our customers especially as numbers – and complexity of needs – increases.

The latest census estimated people aged 65 and over will number around 20.4 million by 2066, making up 26% of the population. The birth rate in England is the lowest since the records began in 1938.[7]

Trend 4:

Technological automation

Summary

The age of big data is revolutionising how we do things, offering potentially huge improvements and efficiencies by automating processes. These changes have implications for the way we work and the skills we need. Technology is also transforming customer expectations with interoperability, transparency, real-time data and enhanced digital capability becoming the business-as-usual standard.

What this means for our customers

Emerging technologies present new opportunities to better identify, support, and serve customers. Technological innovations will drive efficiency and increase productivity – but also require new skills and data capabilities. Cyber safety and risk mitigation will remain central to our approach. Artificial Intelligence (AI) is also an energy-intensive sector and growing fast, driving new sources of demand (data centres) which need to be strategically planned for.

If AI is fully embraced – it could boost productivity by as much as 1.5 percentage points a year. If fully realised, these gains could be worth up to an average £47 billion to the UK each year over a decade.[8]

Trend 5:

Legitimacy, affordability and social licence

Summary

We are in a period of high geopolitical and macro-economic uncertainty. Businesses and policymakers are active participants in the ongoing public conversation about how to achieve an affordable, just transition to a clean power system, and realise the economic benefits this'll bring. As a utility company, we're rightly viewed as custodians of our assets and the environment we operate in – responsible conservation of both, plus stakeholder engagement and buy-in, is essential for maintaining legitimacy.

What this means for our customers

As a responsible business, we'll continue to cultivate our 'social licence' to operate. Central to this is a strong safety culture, continuing to deliver excellent value for money for customers, and ensuring our network is ready for new connections. This includes major connections that have regional significance. In addition, we aim to make a positive impact in the communities we serve, recognising that society is rightly placing an ever-higher premium on operating in an environmentally responsible way.

The DESNZ public attitudes tracker is a nationally representative annual survey of adults (aged 16+) in the UK. In Spring 2024, 80% of people said they were very or fairly concerned about climate change, with 37% very concerned.[9]

5. ONS – Youth Unemployment
6. Open Access Government – 'Long Lives and Bigger Challenges: UK Healthcare Trends for 2025'
7. ONS – Births in England and Wales
8. DSIT – AI Opportunities Action Plan 2025
9. DESNZ – Public Attitudes Tracker: Net Zero and climate change

Trend 6:

Growing supply chain challenges

Summary

Amid global macro-economic uncertainty and increasing trade protectionism, supply chains, including ours, are experiencing significant disruption. Rising trade tensions are the latest in a string of macro-economic events, including the COVID-19 pandemic and Russia's invasion of Ukraine, which have intensified supply chain pressures. In addition, increasing domestic and international demand for equipment and materials has led to fluctuating costs and growing lead times.

What this means for our customers

These challenges are putting pressure on our own supply chains and could delay the completion of necessary network upgrades. Smarter collaboration and partnerships will be our focus as we navigate growing pressures.

Distribution supply chains are already experiencing longer lead times – especially for transformers – of up to 15 months for 33kV equipment and up to two years for 132kV equipment. Suppliers cite lack of long-term demand certainty as one of the reasons for growing lead times.[10]

Trend 7:

Increasing consumer participation in the energy transition

Summary

More people are becoming active participants in the energy transition through the adoption of Low Carbon Technologies (LCTs), participation in flexibility markets, and even involvement in local community energy schemes. At the same time, not everyone currently has the same ability to access or benefit from these opportunities. This is because the green technology that can reduce energy bills, whilst much more accessible than it once was, often remains relatively costly. This trend highlights the importance of ensuring a just transition, recognising and addressing these disparities so that the benefits of a clean power system are spread equitably across society.

What this means for our customers

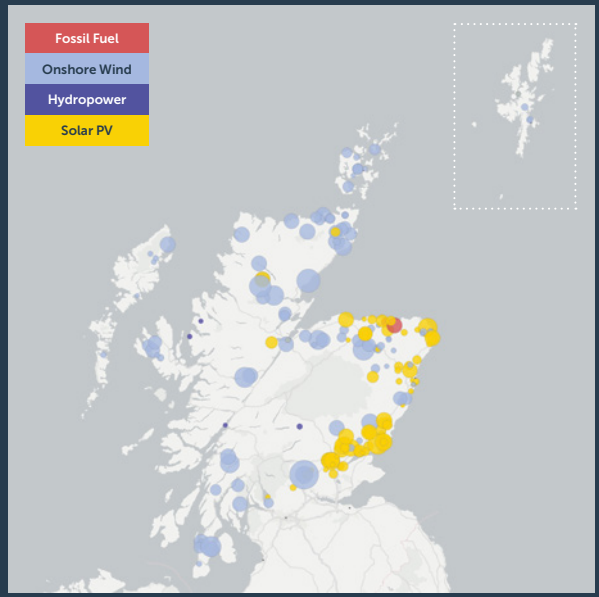
Electricity demand is increasing and means a general trend of greater dependency on our network. In this context, strategic network planning is vital, enabling stakeholders to coalesce around a common view of the future energy system – and helping us target exactly where network upgrades need to happen, and by when. Greater dependency is felt most keenly by our customers in vulnerable situations – making our enhanced service to them even more important. In addition, as the network becomes more complex with more LCTs connected, power quality and voltage management become increasingly important to customers.

10. UK Renewables Deployment Supply Chain Readiness Study

Spotlight:
Distribution Future Energy Scenarios

Our Distribution Future Energy Scenarios (DFES) forecast what our licence areas can expect for electricity generation and demand in 2030 and beyond.

Future demand in our licence areas will increase as we could see up to 41,000 new houses built in our north of Scotland licence area, and 186,000 new houses built in our southern England licence area by 2030, plus 10.5 million square metres of non-domestic floorspace developed by 2030 across both areas.



Our 2024 DFES highlights that, in our north of Scotland licence area, there is approximately 14.7 GW of generation and storage capacity in the pipeline. When it comes to onshore wind projects, this is spread across 113 sites, with 30% of these already having planning permission.

EMPOWERING COMMUNITIES, ENABLING GROWTH

Our emerging priorities for ED3

We see ED3 as a staging post on the way to 2050, a critical five-year period in our 25-year plan to ready networks for growth and net zero.

Our aim is to deliver the most efficient, fair and affordable energy transformation over the long term, ensuring sustainable growth in our communities for generations to come. To do this, we have three emerging ED3 priorities.

1 Our network drives economic growth and enriches the communities and environments we work in

- Natural
- Financial/Economic
- Social

- Customers can easily and quickly connect to our network, enabling the adoption of Low Carbon Technologies and industry decarbonisation
- We provide thousands of green jobs directly and through our supply chain
- We preserve and restore the natural environments that we both impact and depend upon

2 Our network is agile and digitally enabled, meeting diverse customer and system energy needs

- Intellectual
- Financial/Economic

- We provide a fair and trusted service to our customers, meeting their diverse and specific needs including through the use of digital tools
- Our customers participate in system-wide flexibility schemes, lowering energy bills – and we provide a smooth, personalised digital experience
- We provide valuable data insights for our customers and stakeholders, ensuring they can maximise the new opportunities a digital energy system offers

3 Our business and network are resilient in the face of growing challenges, and we efficiently deliver our plans

- Manufactured/Assets
- Human
- Financial/Economic

- Our networks are resilient and reliable for our customers, fit for purpose as we move to one dominant power source – electricity – to power the country
- Our business is resilient to growing supply chain and workforce challenges, efficiently delivering our plans and maximising value for money to our customers
- Our business is financially resilient, able to fund our plans with confidence

Taking a just, sustainable and agile approach

As a regulated monopoly with a footprint in communities across the country, we have wide-ranging obligations: to our customers, to the environment and to the communities we work in – and beyond.

Importantly, these obligations are intergenerational; our job is to strike a balance between delivering value today and protecting customers and communities tomorrow.

This approach is at the heart of how we'll ensure we support economic growth and an energy transition in a way that is affordable, just and sustainable.

We understand the importance of delivering value for money as we drive for a clean power system, and the economic dividends it'll bring. By anchoring our objectives in the long term, we're focused on delivering the most efficient energy transformation at Distribution over time – and making sure the opportunities decarbonisation represents are spread equitably across society.

The six capitals
Capturing the value we generate

We recognise that value extends beyond money. Our assets – whether they are the physical components that make up our network, or our skilled people, or the data we collect about network usage – generate value in lots of different ways.

We are exploring using a Capitals Framework approach in ED3 to help us make the best decisions for current and future generations, taking account of the different types of value we generate. This is particularly important as we enter a period of intense growth – where difficult trade-offs will need to be made, balancing the interests of our diverse stakeholders now and in the future.

The six capitals

The Capitals Framework is a well-established concept rooted in the International Financial Reporting Standards (IFRS) 'Integrated Reporting' methodology.[1]

Natural

All environmental resources including land and biodiversity. For example, we generate natural value when we deploy Nature-based Solutions that increase biodiversity.

Intellectual

Our data, innovation and partnerships. For example, we generate intellectual value by sharing network data through our data portal.

Social

Trust our stakeholders have in us and contribution to society. For example, we generate social value when we meet, or exceed, our obligations to customers in vulnerable situations.

Financial/ Economic

The pool of funds used to finance our activities and the wider economic impact of our network. For example, we generate value by enabling economic activity through quick, reliable connections.

Manufactured/Assets

Those physical network assets owned, controlled or leased by us. For example, we generate value for our customers by providing a reliable supply through responsible maintenance of our assets.

Human

Our people and their wellbeing. For example, we generate value by providing high-quality apprenticeships and new career opportunities to young people and those looking to retrain.

1. IFRS – IR Background Paper – Capitals

The Capitals Framework in action in the Hebrides and Orkney Islands

We're upgrading several subsea cables that connect the Hebrides and Orkney islands to the mainland, generating value to our customers via several Capitals simultaneously.

Natural

We'll install new cables with sensitivity to the area's rich marine ecosystems. By increasing capacity, we'll also reduce – or eliminate – the use of diesel to fuel generators on the islands, cutting our carbon footprint.

Financial/Economic

We're sizing replacement cables to meet 2050 demand requirements – ensuring the island networks can accommodate future connection requests and the economic activity they'll drive.

Manufactured/Assets

Current network configurations mean subsea cable failures could cause lengthy outages. We've designed our intervention to boost resilience by improving connectivity between island groups.

Social

We engaged with local communities to ensure our plans reflect their needs – including the potential to support more community energy schemes in the future.

ED3 EMERGING THINKING

Give us feedback on our plans for the next regulatory period: 2028-2033

Across our business, we are ready for a period of exciting, rapid transformation. But we're not planning in isolation.

Setting out our emerging thinking and initial plans for the future is the start of the conversation with our customers and stakeholders.

This is an invitation to connect with us, share your views and shape the future.

Give us feedback

Share your feedback with us here
https://bit.ly/ssened3
or simply scan the QR code

NETWORKS FOR NET ZERO

Readying our networks for net zero and a green economy

Collaborative stakeholder-led network planning is critical to ensuring we take a long-term view of need, and can deliver local economic growth throughout our licence areas.

We've revolutionised how we plan our network, especially how we manage the 'known unknowns' that persist regarding the exact location and scale of demand growth.

What we're delivering now

- **Our Strategic Development Plans (SDPs):** SDPs provide a blueprint of long-term electricity system needs from now through to 2050, giving us confidence that we are making the right investments in the right place at the right time. We are the first DNO to map out long-term future demand in this way across our entire network in 63 SDPs. Read more about SDPs here.
- **Local Energy Net Zero Accelerator:** our industry-leading 'LENZA' geospatial tool allows stakeholders – and Local Authorities – to make better decisions on where to put new energy assets by highlighting where spare capacity is located. We have 455 active accounts using LENZA currently – 92% of Local Authorities in our licence areas use our tool. Read more about LENZA here.

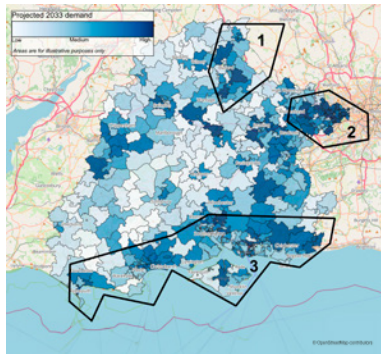
What are our stakeholders saying?

"We are delighted to be involved in using SSEN's new LENZA tool. It is already apparent this will be a real game changer for Dorset's journey to becoming a carbon-neutral county. It is an unrivalled source of data and insight."

Councillor Nick Ireland | Leader of Dorset Council

Opportunities to go further in ED3

- **A scalable transition:** we'll update Strategic Development Plans annually as energy projections change, allowing customers, central and local Government to see where we expect to have most capacity across our networks in years to come. Increasingly, strategic need will be informed by Regional Energy Strategic Plans (RESP), ensuring democratic accountability and a whole-system view. We'll also increase our use of planning tools like our strategic CBA that can quantify the economic cost of networks not being ready for increased demand.
- **Accelerating necessary upgrades:** we're exploring how we can accelerate investment in those works which we know will be needed, regardless of the exact pace of decarbonisation. For instance, unlooping domestic properties ready for Low Carbon Technology adoption – and taking a programmatic approach to Low Voltage upgrades.



This map shows projected 2033 demand across our central southern England licence area, with three areas of high projected demand growth.

1. Part of the Oxford-Cambridge growth corridor
2. West London, including Heathrow, which is expanding
3. South coast ports and industrial hubs which are decarbonising

Relevant ED3 priority

1: Driving economic growth

Primary capital at play

Financial/Economic

Relevant trend(s)

1: Energy transition

7: Consumer participation

NETWORKS FOR NET ZERO

Connecting customers

The push for a Clean Power energy system by 2030 is accelerating connection requests to Distribution networks – with demand set to grow further.

A significant connection queue already exists, and we're working with the NESO and Ofgem as they implement connections reform to overhaul the connection queue process.

What we're delivering now

- **Small connections:** we've radically overhauled the way we manage small connection requests with our new Self Service Connections Portal. Using this powerful new tool, customers can draw their design directly within our network maps and receive an instant, accurate cost estimate. They can also use an auto-design function to optimise the design to be most cost-effective.
- **Large connections:** these requests come from large electricity consumers like data centres, ports and renewable energy generators. We are working hard with the rest of the industry to implement fundamental connections reform. Changes will help ensure that large generation projects which are ready connect first. Separately, we are also working with the industry and Ofgem to ensure that where generation connections at Distribution trigger Transmission works, there is a consistent approach on charging for those works across DNOs.

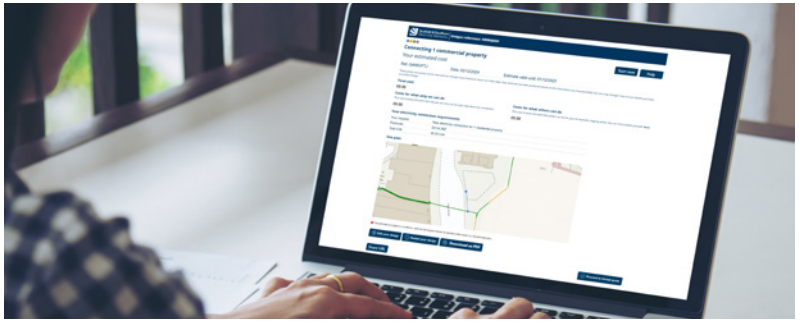
What are our stakeholders saying?

Our partners share our focus on accelerating connections:
"Our new approach is a crucial accelerator in the race to unlock congested grids and enable the development of much-needed all-electric homes."

Simon Anderson | CEO of LEMA

Opportunities to go further in ED3

- **Harnessing advanced analytics:** we're trialling advanced analytics tools like AI to improve our load forecasting, with a view to accelerating connections for customers.
- **Anticipating future demand and strategic network planning:** our Strategic Development Plans (SDPs) which map long-term future demand – and the introduction of Regional Energy Strategic Plans (RESP) – will help us better anticipate future large connection requests. We're developing new tools to help with this – for example, our 'SeaChange' tool helps port authorities predict future electrical loads.



Fast-tracking connections

We're developing innovative solutions to accelerate connections, even in constrained network areas. Together with the Local Energy Markets Alliance, we're deploying 'Community Smart Access' – an 'Access Product' tool to manage local electricity demand whilst longer-term reinforcements are completed. This helps new net zero housing developments with heat pumps, solar panels and battery storage progress without delay, contributing to UK Government and Scottish Government housing targets.

Relevant ED3 priority

1: Driving economic growth

Primary capital at play

Financial/Economic

Relevant trend(s)

1: Energy transition

7: Consumer participation

RESPONSIBLE AND SUSTAINABLE BUSINESS

Our responsibilities to our customers and communities

We keep the lights on for millions of customers who depend on us and our network daily.

As a utility company serving millions of homes and businesses across the UK, we have a duty to all our customers, especially those in vulnerable situations – which is why customer service remains a top priority.

What we're delivering now

- **Consistently excellent customer service:** we have a 24/7 contact centre and a cutting-edge, user-friendly PowerTrack app, where customers can receive help with outages and where we proactively notify people when an interruption is planned.
- **Personal Resilience Plans:** we welcome customers in vulnerable situations onto the Priority Service Register – and we're now the first DNO to extend support to tailored Personal Resilience Plans. Created in collaboration with vulnerability experts, these plans based on individual need give customers extra support on what to do before during and after a power cut. We're also partnering with Kidney Care UK to trial battery-back-ups for those with complex medical needs – scaling this up to 20,000 batteries by 2028.
- **Powering Communities to Net Zero:** the Powering Communities to Net Zero (PCNZ) fund supports communities to decarbonise their operations through the use of Low-Carbon Technologies – and also helps them become more resilient in the event of storms or emergencies. So far, we've awarded grants of over £500,000 in central southern England and £410,000 in the north of Scotland.

What are our customers saying?

"I'm 73 years old, disabled and I live on my own. I have candles and torches, but it is reassuring to know I can get professional, reliable help should I need it."

Opportunities to go further in ED3

- **Supporting those in greatest need:** vulnerability is dynamic, and our customers' needs are becoming more complex as our society changes. In this context, we'll focus resources on where need is greatest. We'll improve our tiered approach to include assessment of customers' access to existing support and equipment – to ensure those with the most urgent needs and fewest resources are prioritised.
- **Exploring new partnerships:** we're exploring how to maximise our unique vantage point in the energy system to generate even more value for our customers – for instance, by advising on where energy efficiency schemes could be most impactful.

Working towards a just transition

Vulnerability Future Energy Scenarios

Our award-winning Vulnerability Future Energy Scenarios (VFES) model uses advanced forecasting to predict the scale and location of consumer vulnerability. This is a step towards a fairer, more inclusive transition to net zero; by reinforcing the network in areas with higher-than-average vulnerability, we can enable more equitable access to Low-Carbon Technologies, helping to unlock value for everyone.

Relevant ED3 priority

1: Driving economic growth

2: Agile and digital network

Primary capital at play

Social

Relevant trend(s)

3: Population change

4: Technological automation

5: Corporate legitimacy

RESPONSIBLE AND SUSTAINABLE BUSINESS

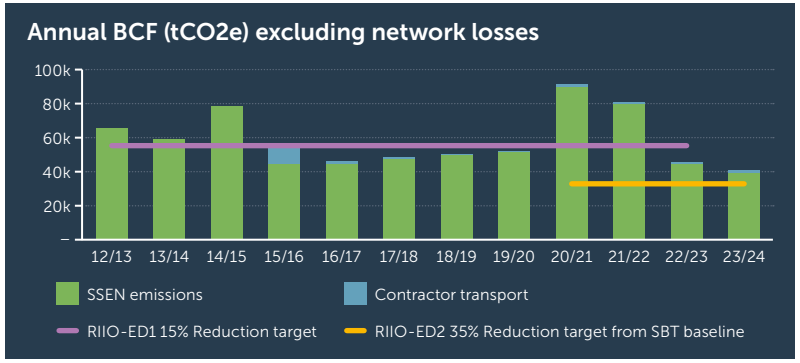
Sustainability and our environmental stewardship

As an enabler of the net zero transition, we take our environmental responsibilities seriously.

We've led by example, setting ambitious targets to tackle the twin crises of biodiversity loss and climate change. In ED3, we're determined to go even further.

What we're delivering now

- **Environmental Action Plan:** our 1.5°C Science-Based Target commits us to a 55% reduction in greenhouse gas emissions by 2033, including a 35% reduction in Scope 1 & 2 emissions by 2028. We've already reduced our Scope 1 & 2 Business Carbon Footprint by 22% from a 2019/20 baseline.[1]



- **SF_6 reduction:** Sulphur Hexafluoride (SF_6) is an extremely effective insulator used in our electrical equipment. However, it's also a very potent greenhouse gas. We have cut the amount of SF_6 leaking from our assets by 78% in SHEPD and 8% in SEPD, compared to 2019/20 levels.
- **Sustainable Supplier Code:** we ensure suppliers align with our values on sustainability. So far, 51.91% of our supply chain (by spend) has signed up.

1. SSEN Distribution – Annual Environment Report

Opportunities to go further in ED3

- **Losses:** electrical losses account for 91% of our Business Carbon Footprint as well being a significant system cost – so minimising them is a priority. In addition to optimising asset sizing as a way of managing losses, we're exploring innovative approaches – like our i-LAD project which uses novel data techniques to better target interventions.
- **Embedded diesel generation:** some of our remote communities in the north of Scotland rely on diesel generators during power interruptions. We are planning their long-term replacement in collaboration with the Regulator, local communities and Government.
- **Nature-based Solutions (NbS):** NbS provide credible opportunities to tackle a variety of network challenges. We're exploring how to deploy more NbS in ED3 – for instance, natural flood prevention measures.
- **Reducing our environmental impact:** we'll continue to lead the way by using SF_6 alternatives, recognising that taking a long-term approach to their replacement is cost efficient over time, even if more expensive in the short term – and replacing Fluid Filled Cables to prevent potential pollution.

What are our stakeholders saying?

Commenting on our joint seagrass planting initiative:
"This announcement is a great example of the potential for unlocking responsible private finance to support nature restoration."

Màiri McAllan | Cabinet Secretary for Net Zero and Energy
01 March 2024.

Supporting marine biodiversity in Scotland

Our £2.4m contribution to the Scottish Government's Marine Environmental Enhancement Fund is helping restore 14 hectares of seagrass meadows in Scottish waters, building coastal resilience and sequestering carbon.

Relevant ED3 priority

1: Driving economic growth and enriching the environment

Primary capital at play

Natural

Relevant trend(s)

2: Climate risk

5: Corporate legitimacy

RESPONSIBLE AND SUSTAINABLE BUSINESS

Financial resilience and value for money

The funding we receive is recovered through our customers' bills – therefore it's critical we deliver our plans efficiently and ensure value for money.

We must also be able to efficiently fund our plans in the context of an increasingly competitive investment environment – maintaining financial resilience so we can deliver for our customers.

What we're delivering now

- **Driving forward business efficiencies:** we're rewiring how our business works to deliver greater value for money for our customers. This involves upgrading the digital platforms we use to plan our work and engage with customers, simplifying our processes to maximise the productivity of our people, and ensuring every decision we make is underpinned by the best-possible data.
- **Attracting investment:** to invest in our networks, we need to be able to attract capital from around the world. With countries across Europe accelerating their own clean power transitions – and infrastructure project delivery ramping up in the UK – it's becoming more expensive to deliver our projects, and the competition for investment is intensifying.

> ***The National Infrastructure Commission:***[1]
> ***"If proactive investment is going to be delivered, then electricity distribution networks must remain attractive to investors."***

Opportunities to go further in ED3

- **Creating the conditions for success:** through the regulatory framework, Ofgem has the levers to drive the required behaviours from network operators to ready networks for economic growth and net zero – and influence our current ability to attract the investment we need. Ensuring regulatory stability is key, especially given the imminent introduction of RESP. We'll work with Ofgem to ensure the future regulatory framework retains tried-and-trusted core principles whilst key evolutions are made to reflect the growth environment Distribution is entering.
- **Maintaining our ability to make trade-offs is vital:** optimising our plan within the period is essential to delivering effectively and efficiently during a time of rapid growth. This is central to ensuring overall efficiency and achieving maximum value for money for customers.
- **Future finance:** we'll assess reliable market evidence, the macro-economic environment and future risk, and use these insights to work with Ofgem on their concepts of financeability and investability. We'll also make the argument for potential new mechanisms to enable accelerated funding spanning multiple price controls.

1. NIC – **Electricity Distribution Networks** – Creating Capacity for the Future

Relevant ED3 priority

3: Resilient business and network

Primary capital at play

Financial/Economic

Relevant trend(s)

1: Energy transition

5: Corporate legitimacy

SMARTER NETWORKS

Data and digitalisation

As the energy system decentralises, DNOs have access to a growing wealth of data that is foundational to an innovative digital ecosystem.

Responsible data-sharing drives collaboration and unlocks value for customers – and underpins our refreshed Digital Strategy. Our strategy sets out how we're responsibly integrating advanced technologies and fostering strategic partnerships to create a secure, personalised and innovative digital ecosystem that empowers our communities.

What we're delivering now

- **Open Data:** we were the first DNO to publish comprehensive half-hourly smart meter data via our Data Portal. Comprising 1.6 billion data points (and growing every day), the portal offers valuable insights into local energy usage, helping stakeholders plan low-carbon initiatives. Since launching in October 2023, it's had 12,000 visitors, 110,000 page views, and 166 data requests.
- **LENZA:** Our award-winning Local Energy Net Zero Accelerator (LENZA) tool is a geospatial planning platform that helps Local Authorities develop local area energy plans. It enables users to model energy projects and engage with stakeholders, and gives us better visibility of future network demand.

- **Technical improvements:** We're the first DNO to collaborate with Icebreaker One to implement their Trust Framework, enhancing our digital and data-sharing capabilities to support the net zero transition.

What are our stakeholders saying?

"It is crucial that networks make their data shareable and adopt the presumed open principle, and SSEN is doing some exciting work here with Icebreaker One."

Laura Sandys CBE | Chair of the Energy Digitalisation Taskforce

Opportunities to go further in ED3

- **Embed a digital-first culture:** Ensuring our decisions are underpinned by the best data available will involve strengthening our digital culture and capabilities. Being a data-driven business will ensure we stay aligned with customer expectations as they evolve – and unlock system-wide benefits.
- **A digital spine for networks:** the secure and frictionless transfer of data between parties is central to realising an agile, flexible energy system. Our work with NESO to pilot the Data Sharing Infrastructure is a step in this direction, and will provide stakeholders with the right data for better decision making. Our aim is to create interconnected sets of data, leveraging our insights to build connected communities and empower businesses to develop value-generating products for our customers.

Icebreaker One

Icebreaker One's mission is to 'make data work harder to deliver net zero'. We've partnered with them to make our data as accessible and open as possible whilst ensuring customer privacy and cyber security. This has helped define sector-wide data-sharing standards.

Relevant ED3 priority

2: Agile and digital network

Primary capital at play

Intellectual

Relevant trend(s)

4: Technology automation

7: Consumer participation

SMARTER NETWORKS

Our role in local energy and system flexibility services

Moving to a decentralised energy system has elevated the significance of the first mile of the electricity network, the Low Voltage (LV) part that connects customers to the grid.

Distribution System Operators (DSOs) play a key role at this critical interface by leveraging data, innovation and expertise to unlock local energy projects, accelerate connections and enable flexibility which could reduce customer bills.

Smart, Fair, Now

We have a responsibility to ensure that new energy services are smart – but also fair. The energy transition needs to work for everyone, not just those with the resources and knowledge to take advantage of new opportunities. Read more about our 'Smart, Fair, Now' approach.

What we're delivering now

- **Local energy projects:** these can bring significant benefits to communities with profits from locally-owned renewable generation going towards relieving fuel poverty and local decarbonisation. We're working closely with local stakeholders to identify projects with the greatest social impact.
- **Flexibility:** customers are using energy in smarter ways, responding to innovative tariffs and smart metering. These changes are reshaping local network use, and we're collaborating across the electricity system to ensure safe, reliable operation.
- **Quicker connections via 'Access Products':** to avoid connection delays because of network constraints, we offer a range of 'Access Products' to get customers connected faster. For example our Active Network Management (ANM) schemes can use options like energy storage and renewable energy sources in a more efficient manner, ensuring capacity limits are not reached.

Opportunities to go further in ED3

- **A strategy for upgrading our LV networks:** we'll expand our LV network to prepare for a significant demand increase. We're exploring a programmatic approach to this work, underpinned by a new LV Strategy, enabling faster delivery and unlocking economies of scale – and other dividends like better voltage regulation.
- **An evolving role for flexibility:** we'll continue to enable energy flexibility for our customers, allowing them to use cheaper electricity during off-peak times. We'll also play an important and growing coordination role across the energy system, enabling the wider system benefits of flexibility. This means supporting flexibility service providers, NESO and energy retailers to maintain a safe and reliable power supply for our customers.

Energise South Downs

Energise South Downs is a community energy group working with Hampshire County Council, district councils, and the charity *Possible*. Using our data and insight, they've identified sites for feasible studies that might be suitable for onshore wind projects to heat communities with higher levels of fuel poverty.

What are our stakeholders saying?

Energise South Downs:
"SSEN Distribution has provided the tools we needed to assess sites which might be suitable for renewable energy projects – the first step towards helping the growth of community owned, locally produced energy."

Relevant ED3 priority

2: Agile and digital network

Primary capital at play

Intellectual

Financial/Economic

Relevant trend(s)

4: Technology automation

7: Consumer participation

RESILIENT NETWORKS

Managing the integrity of our network

Responsible maintenance of our network, made up of millions of individual assets, is vital to delivering the reliable service our customers expect.

What we're delivering now

- **Managing a remote network:** our north of Scotland licence area covers 25% of the UK and is the most sparsely-populated Distribution region. It includes 59 island communities connected via 113 subsea cables. Keeping these areas connected presents unique challenges – particularly the most remote islands.
- **Tree cutting:** to prevent damage from tree branches touching overhead lines, we trim and remove branches within three metres of the line, using AI-enhanced LiDAR and drones to improve efficiency. Tree cutting work is increasing due to longer growing seasons from warmer weather and the ash dieback outbreak affecting UK woodlands.
- **Managing the health of 2,382,145 assets:** by understanding the risk on our network, calculated by assessing the likelihood of asset failure and the consequent impact to our customers, we can plan responsible, timely interventions. This ensures we maintain a safe and reliable supply for customers while delivering value for money. Innovations like the Smart Hammer, which measures wooden pole strength using radio frequency, will enhance our ability to inspect and accurately assess asset health.

We want to hear your views

We will be consulting with customers on how innovative asset management, like a circular approach, can contribute to delivering an even more reliable service and better value for money – both of which are top customer priorities.

Opportunities to go further in ED3

- **Embedding a circular asset management approach:** this means shifting from a traditional linear asset lifespan to one that is circular, focused on reusability and maintainability. This minimises waste, reduces supply chain pressure and demand on new materials, and enhances long-term sustainability.
- **Active management of long-term network risk:** our strategic planning processes has identified asset types – such as HV and LV switchgear and HV transformers – that will require more interventions to control risk as they age. In ED3, we'll address these trends early to prevent future delivery challenges, manage supply chain pressures and reduce the burden on future consumers. We'll align this with our load-based investments for a more efficient approach whilst maximising refurbishment and reuse to mitigate asset health risks.
- **Proactive management of our LV network:** we've a long-term plan to replace our LV cable network into 2050, ensuring our LV network supports net zero and local growth. We expect this activity to grow in ED3, bringing challenges including cost and skilled labour availability.

Relevant ED3 priority

3: Resilient business and network

Primary capital at play

Manufactured/Assets

Relevant trend(s)

2: Climate risk

6: Supply chain

RESILIENT NETWORKS

Network reliability

As dependence on our network deepens, providing a reliable power supply becomes increasingly important for our customers and the wider economy.

Minimising interruptions will remain a top priority for us, especially as planned interventions increase as we upgrade the network for future demand.

What we're delivering now

- **Network monitoring:** monitoring power flows allows us to track the condition of our network and pre-empt failures, reducing the number of faults. Our Network Visibility Strategy aims for 100% near-real-time visibility by the end of ED2 through a combination of modelling and monitoring – with new HV monitoring devices installed on 200 feeders this year, and 19,000 LV monitors by 2028.
- **Worst-served customers:** we're on track to improve service for at least 75% of our worst-served customers by 2028.
- **Voltage management:** maintaining stable voltage levels is crucial to prevent equipment damage from surges or drops. We monitor voltage from our control rooms and equip our front-line teams with Smart Meter data, allowing for more targeted interventions.
- **Network automation:** we're expanding HV-level network automation and trialling pre-fault warning devices to enable proactive management and faster service restoration, getting customers back on supply more quickly.

What are our stakeholders saying?

At a roundtable on voltage management, stakeholders agreed: "more distributed technologies and renewable energy sources connecting to the power grid are driving voltage volatility [...] causing problems on a number of fronts."

Opportunities to go further in ED3

- **Boosting reliability further:** enhanced network monitoring enables better assessment of asset health and failure patterns, allowing us to time repairs more effectively and optimise investment programmes. At all voltage levels, we're expanding network automation to enhance reliability – and we're strategically planning future work so that increased necessary network interventions in ED3 cause customers minimal disruption.
- **A new approach to voltage management:** we're more actively managing voltage within safe limits – enhancing efficiency, reducing losses and providing reactive support to the system operator. In ED3, we'll scale up this capability and improve transparency for stakeholders.
- **Engineering for resilience:** we're exploring measures to build network resilience, and thereby reliability – like the use of covered conductors where possible, and undergrounding where new technologies may unlock options. We're also assessing telecommunication resilience at key sites, and in recognition that the resilience challenge extends far beyond our physical assets, we're exploring opportunities to build greater community resilience.

Storm Éowyn: rising to the challenge

Severe storms like Éowyn – the strongest in a decade – pose major reliability challenges for our network. Despite 580 HV and LV faults, we restored power to over 92,000 customers, with 86% reconnected within 24 hours and 95% within 48 hours.

Relevant ED3 priority

3: Resilient business and network

Primary capital at play

Manufactured/Assets

Relevant trend(s)

2: Climate risk

7: Consumer participation

RESILIENT NETWORKS

Climate resilience

Our networks face growing disruption from climate change. Extreme events like Storm Éowyn in January 2025, the most powerful in a decade, cause widespread outages.

Meanwhile, ongoing climate trends accelerate asset degradation. Strengthening climate resilience is crucial for ensuring a reliable network that can withstand both immediate shocks and long-term stresses; this will be a defining challenge for ED3.

What we're delivering now

- **Climate resilience leadership:** we're embedding climate resilience across our operations, supported by annual updates for transparency. Our current focus is on flooding, with £16.63 million invested in mitigation works. We conduct thorough flood risk analysis at primary substations to determine what protection is most appropriate – and report on adaptation actions to Defra and the Task Force on Climate-related Financial Disclosures.

- **Addressing regional climate risk:** we're developing regional climate risk assessments and implementing local adaptation plans, informed by local stakeholders and a bottom-up assessment of climate risks and resilience. This includes working with partners through the CS-N0W project (a Government, academia and business research programme examining climate impacts and resilience) to develop metrics to measure climate resilience-building which will shape our plans.

What are our stakeholders saying?

We share our learnings in forums like the Climate Ready Infrastructure Scotland forum which ***"works collaboratively to co-develop, co-fund and co-deliver tactical climate adaptation and resilience initiatives that advance the ability of infrastructure operators and owners in preparing for Scotland's changing climate".***

Opportunities to go further in ED3

- **Fully embed climate resilience into business-as-usual:** as we upgrade our networks for economic growth and net zero, we've a golden opportunity to also ensure they are able to withstand even greater resilience challenges, including regional climate hazards.
- **Conducting a technical standards review:** we're carrying out a comprehensive review of our engineering technical standards through the Energy Networks Association (ENA) to ensure that they take account of projected future climate change. More resilient assets could be more expensive but will deliver greater value over the long-term.
- **Driving cooperation between sectors:** climate change challenges are compounded by interdependencies between electricity Distribution and sectors like transport and telecommunications. Addressing regional needs is crucial, but standardising climate adaptation plans across sectors is essential to prevent vulnerabilities and maintain system integrity.
- **Building holistic resilience:** we'll explore how we can deliver maximum value by thinking about system resilience holistically, identifying opportunities to enhance individual and community resilience.

Flood resilience at Ballater

We undergrounded a section of overhead line serving 270 properties in Ballater, where rising water levels on the River Dee presented a risk of the network poles being washed away.

Relevant ED3 priority

3: Resilient business and network

Primary capital at play

Manufactured/Assets

Relevant trend(s)

2: Climate risk

RESILIENT NETWORKS

Delivering green jobs

Our people are at the front line of making the UK a clean energy superpower. With over 4,800 employees, our people are our greatest asset and represent the diverse communities they live in.

We're entering a period of rapid change to ready networks to support sustainable economic growth and net zero – so we're preparing the ground now and leading the way to ensure we'll have the people we need to deliver for our customers.

What we're delivering now

- **Maximising productivity:** we're enhancing our planning and scheduling to ensure the right people are in the right place at the right time. We're harnessing advanced analytics to amplify workforce impact to the benefit of our customers. Our award-winning performance improvement programme demonstrates our commitment to service excellence.[1]
- **Strategic workforce planning:** our strategic workforce planning programme includes upskilling career pathways for adults leaving 'sunset industries'. Adopting a modular learning approach for craft skills has accelerated learning and cut the time to competence from four years to 18 months.
- **Workforce renewal:** we've embedded a skills-based pay model across the workforce resulting in annual progression for more than 63% of the eligible group. This supports workforce renewal as we approach 50% of our team having five years or less service, mitigating the risk of an ageing workforce.

What are our stakeholders saying?

"I've come a long way since I started as an apprentice, and this recognition will spur me on to keep growing."

Andrew Hurdle | Power Industry Apprentice of the Year at the 2024 Energy and Utility Skills Awards

Opportunities to go further in ED3

- **Prioritising diversity and inclusion:** our people strategy has already delivered great results. Engagement scores are up to 82% and we've achieved equal pay with less than a 4% mean difference. We're proud that the steps we've already taken have resulted in a more equal gender balance – 23% of our workforce are women. We'll build on this to ensure our future workforce is representative of the communities we serve.
- **Becoming employer of choice for the next generation:** it's the next generation that'll achieve full decarbonisation. We're focused on ensuring we attract talented young people to join our ranks, including by expanding the use of social media platforms to advertise roles, which can lead to increased application rates of 130%. We've launched a successful reverse mentoring scheme, introduced improved female PPE and workwear, and partnered with Career Ready to offer paid placement opportunities to disadvantaged students.

1. Recognised by the **Management Consultancy Awards** for delivering 30% productivity improvements in some areas

Relevant ED3 priority

1: Driving economic growth

3: Resilient business and network

Primary capital at play

Human

Relevant trend(s)

1: Energy transition

2: Climate risk

3: Population change

RESILIENT NETWORKS

Growing our supply chain

Our suppliers and contractors are key partners in delivering the network upgrades needed for economic growth and net zero.

What we're delivering now

- **Strengthening strategic partnerships:** we're developing new relationships to position ourselves as the customer of choice. We've signed agreements worth over £1bn in our southern licence area, and over £450m in our north of Scotland licence area. By packaging works at the Grid Supply Point level, we can efficiently complete upgrades, connections, and asset replacements and reduce disruptions for our own customers. We're also appointing new partners to improve our 25,000km overhead line network in the south – and to install subsea cables in the north.
- **Social value and sustainability:** our commitment to doing the right thing is shared by our suppliers, which is why we've embedded social value commitments into our contracts. In 2023, we launched our largest procurement framework worth over £1bn – and three suppliers committed to delivering ~£50m of social value. Two of our contractor partners, OCU and Aueros, have already surpassed their targets, with Aueros delivering £2.39m of social value by engaging with schools, prioritising local suppliers, and volunteering with charities.

What are our stakeholders saying?

When it comes to our shared commitment to delivering social value; ***"we made a bold commitment to spread goodwill far beyond our depot walls. I am thrilled to see that we have not only met but exceeded our social value targets by a significant margin."***

Etienne Robinson-Sivyer |
Customer Sustainability and Social Value Manager for Aueros

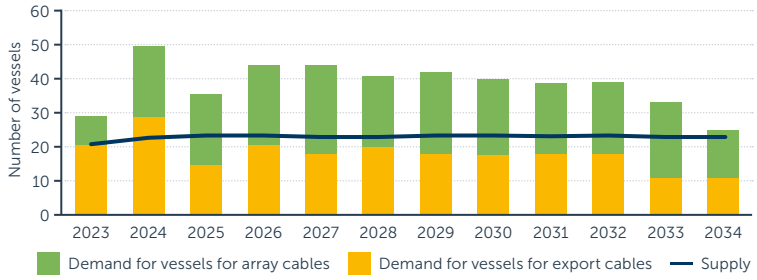
Opportunities to go further in ED3

- **Enhancing supply chain resilience by building long-term confidence:** by planning long-term, we're building confidence in our supply chain, enabling them to invest in skills and additional capacity. We're evolving how we strategically procure key assets, engaging our supply chain early and reserving capacity to ensure we can deliver. This also involves enhancing strategic relationships with suppliers of all tiers. We'll continue to drive collaboration, innovation and efficiency whilst maintaining competitive tension and driving value for money.
- **Build on our Grid Supply Point approach:** our Grid Supply Points act as common denominators to concentrate work banks across our regions. As supply chains become more constrained, we'll build on this proactive and structured approach to ensure deliverability.

Supply pressure: subsea cables

We're the only DNO to operate a considerable number of subsea cables, connecting the Scottish islands in the north and the Isle of Wight in the south. Analysis from Baringa highlights the extent to which global demand outstrips the supply of cable-laying vessels, with capacity remaining constant and below demand until at least 2034.[1]

Cable lay vessels



1. UK Renewables Deployment Supply Chain Readiness

Relevant ED3 priority

1: Driving economic growth

3: Resilient business and network

Primary capital at play

Manufactured/Assets

Relevant trend(s)

6: Supply chain

ED3 REGULATORY PRIORITIES

Creating the conditions for success

As we enter a period of high growth, the regulatory framework needs to evolve, retaining core principles but geared to drive the significant behavioural change – and delivery – that's needed.

We've identified five priority areas where evolution is needed to ensure the policy and regulatory framework enables DNOs to deliver for their customers. These align to recommendations made by the **National Infrastructure Commission (NIC)** in their **'Review of Distribution Networks – Creating Capacity for the Future'**.

Proactive investment

Strategic network planning is key to unlocking proactive investment – which, in turn, enables us to design a long-term plan that is optimised across activities, whilst retaining the flexibility to respond to changes in period.

NIC Recommendations 3 – 6 on Strategic Planning and de-risking investment: ***"The current 'just in time' approach to investment also does not do enough to ensure the efficient transition to net zero over time and across subsequent price controls [...] – a step change is now required".***

Next steps:

- Regional Energy Strategic Plans (RESPs) will be key to providing long-term pictures of future demand. RESPs must build on our current approach to strategic network planning by utilising our Strategic Development Plans (SDPs). We are keen to work closely with National Energy System Operator (NESO), utilising our existing stakeholder relationships, to develop a high-quality transitional RESP as soon as possible, so we can integrate its work seamlessly into our plans.
- The UK's planning and consenting process relating to electricity networks, set up by the Electricity Act 1989, is no longer fit for purpose and impedes rapid upgrades. It will be one of the most important areas of reform to unlock greater investment at scale and pace – and is the NIC's seventh recommendation.

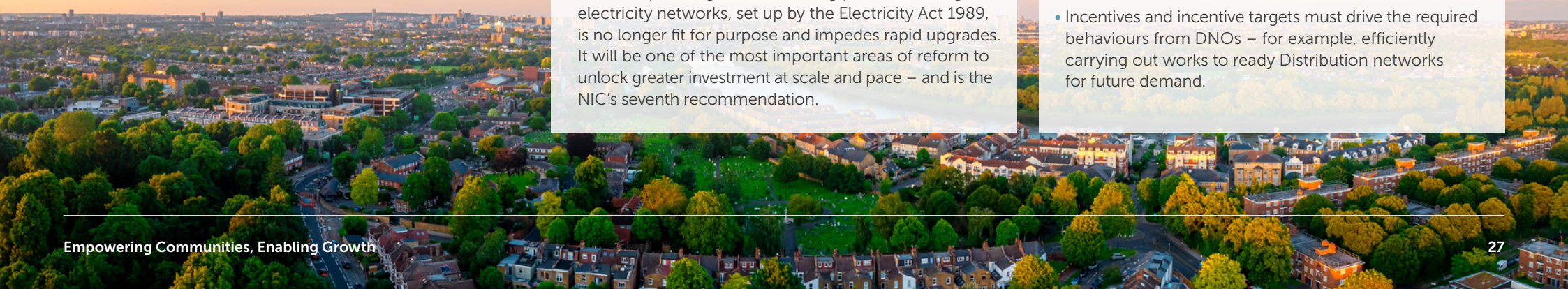
Cost assessment and incentive-setting methodologies

With a new emphasis from Government on economic growth and decarbonisation, the regulatory framework needs to be calibrated to incentivise decisions that deliver the most efficient energy transition for current and future generations of customers, allowing for the wide variety of ways Distribution networks generate value for customers, consumers and wider society.

NIC Recommendation 7 on recalibrating the framework on a rebalanced set of objectives focused on long term requirements: ***"an approach focused on minimising network costs will not work. It risks consumers missing out on wider social and economic benefits – like meeting decarbonisation targets and enabling economic growth."***

Next steps:

- The ED3 regulatory framework must include cost methodologies that are equipped to account for the era of macro-economic uncertainty we are in, recognising that historic costs are an increasingly unreliable predictor of current and future costs.
- Incentives and incentive targets must drive the required behaviours from DNOs – for example, efficiently carrying out works to ready Distribution networks for future demand.



Climate resilience

Incentivising resilience-building is crucial as we embark on an unprecedented phase of network upgrades. This is especially important given the heightened climate risk our networks are exposed to.

NIC Recommendation 2 on Security of Supply: ***"in a changing climate, the network must be designed for the conditions it will face in 2050 and beyond."***

Next steps:

- We need an agreed standard of climate resilience. Work is ongoing between Ofgem and DNOs on how to best measure levels of climate resilience, so we can better plan how to make our networks more robust in the future.
- We need adequate and certain funding so we can plan and deliver cost-effective resilience measures. DNO baseline allowances should fully account for higher asset specifications to reflect current and future risks. This may mean accepting higher unit costs in the short-term to ensure long-term network reliability – ultimately justified by achieving lower full-life cost through avoided costs of replacing damaged assets.

Deliverability: supply chain and workforce resilience

Growing workforce and supply chain pressures require a different approach at ED3. We're ready to work with the Government, Ofgem, and the industry to ensure we have the assets and workforce we need to deliver future plans.

NIC Recommendation 14 on a new net zero skills and workforce strategy: ***"Supply chains and workforce capacity need to be more actively managed to speed up project delivery. There are increasing pressures from inflation, stronger global competition and longer lead-times."***

Next steps:

- We need greater long-term certainty: credible baseline allowances for the ED3 period would build confidence in the supply chain to increase capacity.
- Ofgem should consider how its cost assessment, Real Price Effects and Ongoing Efficiency, truly reflects the cost of delivering on the ground – and explore the introduction of a dedicated mechanism, for example to help manage procurement of those assets with longest lead times. We also need policy clarity on SF_6 – and a framework that supports the development of alternatives.

Financeability

Electricity Distribution networks must continue to attract investment at a time where competition for capital is high. Critical to this is maintaining stability in the financial framework – while recognising the increasing macro-economic challenges we face, and the requirements and risks associated with a significant step-change in the scale of infrastructure investment needed.

NIC Recommendation: ***"Access to finance is always vital for asset-heavy industries, and the capital expenditure needs for distribution are increasing. Ofgem has a duty to ensure licence holders can finance their activities."***

Next steps:

- We'll work closely with Ofgem so that robust and reliable market evidence is the basis for key financial components of the ED3 regulatory framework – mindful of the delivery risks that the huge ramp-up of investment entails.
- We'll work closely with Ofgem to guarantee the investability of networks. This will entail helping them assess the overall package of measures to ensure the regulatory framework as a whole enables DNOs to attract the investment required to support the substantial ramp-up of activity expected over ED3 and longer term, in the context of increased competition for investment in the wider sector.

ENGAGE WITH US ON OUR FUTURE PLANS

How we'll create our ED3 Business Plan with you

We engage with our customers and stakeholders in a continual dialogue to ensure your views and priorities shape our future plans, as well as our current work.

As we begin designing our ED3 Business Plan, alongside our ongoing engagement programme, ED3-specific insights will be gathered through a four-stage programme to ensure our plan reflects the needs of our customers and delivers value.

The publication of ***Emerging Communities, Enabling Growth*** marks the beginning of phase 1.

PHASE 1

Scoping and Discovery

May 2025 – August 2025

Early stakeholder and consumer research on proposed, high-level Business Plan priorities.

PHASE 2

Deliberative engagement

August 2025 – March 2026

In-depth, deliberative engagement to understand customer and stakeholder insights on detailed proposals and key issues in our draft Business Plan.

PHASE 3

Refinement

March 2026 – June 2026

Focused and targeted engagement to make final refinements to draft Business Plan prior to acceptance testing.

PHASE 4

Testing and Acceptance

June 2026 – September 2026

Final stages of engagement to test the acceptability of our Business Plan prior to final submission.

Give us feedback

We'd love to hear your views on the plans we've put forward here, and the initial priorities we've set – contact us at ED3@sse.com or scan the QR code

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