ED3: SHAPING A SUSTAINABLE FUTURE

Scottish & Southern
Electricity Networks

AGENDA

ED3: Shaping a Sustainable Future	
Welcome	11:00- 11:05
Building On Our ED2 Foundations	11:05 – 11:15
Decarbonising Together	11:15 – 11:25
Long Term Network Climate Resilience	11:25 – 11:45
Q&A	11:45 – 12:00

BUILDING ON OUR ED2 FOUNDATIONS

Jess Cooper
Sustainability Analyst

Scottish & Southern Electricity Networks

KEY LESSONS SHAPING ED3

Environmental performance and network resilience are increasingly interdependent.

Early intervention reduces long-term cost, risk and future adaptation requirements.

Whole-life asset management delivers better environmental and customer outcomes.

Strong environmental capability, governance and accountability are critical to successful delivery.

Stakeholders increasingly expect measurable environmental outcomes, transparency and evidence of value.

Environmental objectives are most effectively delivered when embedded within wider asset management, network investment and operational decision-making.

Partnership-led approaches can accelerate delivery and unlock outcomes that cannot be achieved by the network operator alone.

Improved environmental data, monitoring and reporting enables better prioritisation, risk management and investment decisions.

Many environmental interventions deliver wider benefits through improved resilience, reduced operational risk and lower whole-life costs.

Environmental ambition must be supported by clear delivery plans, measurable targets and robust evidence of consumer value.

ED3 Environmental Commitments and Investments

What this means for our supply chain

Our ED3 Environmental Action Plan (EAP) sets out clear, targeted actions to decarbonise our operations, minimise local environmental impacts, build sustainable value chains and restore nature — underpinned by strong governance and transparency.

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Climate Change Mitigation

- Reduce operational emissions and fleet carbon.
- Lower-carbon distribution assets and materials.
- SF_6 reduction and alternatives.
- Improve energy efficiency at our sites and buildings.

Pollution and Nuisance Reduction

- Replace oil-filled cables and equipment.
- Improve bunding and containment.
- Manage contamination risks (PCBs, PFAS).
- Reduce air, water and noise impacts.

Responsible Resource Use

- Drive circular economy and reuse.
- Reduce waste and increase recycling.
- Sustainable sourcing and logistics.
- Embed responsible materials management.

Protect and Restore Nature

- Enhance biodiversity and habitat.
- Restore peatland, woodland and seagrass (where relevant).
- Nature-based solutions.
- Improve visual amenity around our assets.

Governance, Reporting and Skills

- Strengthen environmental reporting and transparency.
- Improve data quality and assurance.
- Grow workforce skills and capability.
- Engage and collaborate with suppliers.

Delivering environmental outcomes through:

- Lower emissions
- Resource efficiency
- Healthier nature
- Stronger communities

What this means for suppliers

- Lower-carbon products and services
- Circular economy and waste reduction
- Biodiversity and nature enhancements
- Reliable data, reporting and compliance

DECARBONISING TOGETHER

Jess Cooper
Sustainability Analyst

Scottish & Southern Electricity Networks

SUSTAINABLE SUPPLIER CODE

ED3 Commitment: *Our SSC will be mandatory for any new contracts from 1st April 2028*

- Suppliers will be asked for annual reporting against all metrics of the code
- Supplier webinars
- In person engagement days
- Sustainability awards
- Working groups for 'hotspot materials'
- Investigate sustainable alternatives

Our current percentages are a 2025 target, with a view to amending these after our annual survey that year to meet ED2 targets

GOAL	SSEN SUPPLY CHAIN REQUIREMENTS
7	**Energy**: 50% of the supply chain by spend will have a strategy and associated reporting in place to reduce energy consumption by 2025; and will have committed to their own annual reduction targets that they work towards and report on.
	Modern Slavery: All suppliers must comply with SSEN's Sustainable Supplier Code and as such demonstrate they can comply with all modern slavery requirements.
	Living Wage: All suppliers must comply with SSEN's Sustainable Supplier Code and as such demonstrate they can comply with all living wage requirements as outlined in the SSE Group Living Wage policy.
8	**Sustainable sourcing**: 56% of the supply chain by spend will have a sustainable sourcing policy and as such demonstrate they have their own practices in place to meet this.
	Responsible sourcing: All suppliers must comply with SSEN Sustainable Supplier Code and as such demonstrate they can comply with all responsible sourcing requirements.
	Social value: 80% of the supply chain by spend will have a social value policy in place and demonstrate they can comply with all requirements.
12	**Waste**: All suppliers must comply with SSEN's Sustainable Supplier Code and demonstrate that they have a waste management policy in place. 60% of the supply chain by spend will have strategies in place to achieve zero waste to landfill, undertake regular reviews and enhancement of policy, including annual reporting on progress.

SSEN SUPPLY CHAIN REQUIREMENTS	GOAL
Water: All suppliers must comply with SSEN's Sustainable Supplier Code and demonstrate that they have a Water Reduction Policy. 60% of the supply chain by spend will have strategies in place to reduce water consumption for SSEN projects, with reporting in place to demonstrate that improvement are measured.	12
Carbon: 65% of the supply chain by spend must have their own carbon reduction policy and target in place, undertake regular reviews and enhancement of policy including annual reporting on progress, and implement the policy by measuring its carbon footprint. 60% of the supply chain by spend must have a Carbon Disclosure Project (CDP) climate change score. *35% of the supply chain by value will have committed to setting science-based targets (SBTs) by 2026 (with a target of 55% by 2033.	13
Environmental management: 80% of the supply chain by spend will have ISO 14001/EMAS in place. 80% of the supply chain by spend will have an environmental management policy in place and undertake regular review and enhancement of policy.	
Biodiversity: 50% of the supply chain by spend will have a biodiversity policy and as such demonstrate they have their own practices in place to meet this.	15

26/27 HONEYCOMB – 92 SUPPLIER RESPONSES

SUPPLY CHAIN MATURITY:

HIGH

Targets and measures are embedded. Reporting mechanisms are robust.
Value and positive outcomes can be demonstrated. Active programmes are in place.

MED

Commitment has been confirmed. Progress has been made but targets and measures are yet to be embedded. Reporting is inconsistent.

LOW

No strategic commitment has been made. Suppliers do not have the knowledge

Progress:

- ✓ Living Wage
- ✓ Modern Slavery
- ✓ Waste Reduction

Emerging Focus:

- ❖ Biodiversity
- ❖ Water

Opportunity:

- ○ SBTs
- ○ Sustainable Sourcing

EMBODIED CARBON

ED3 Commitment:

- *Ensure usage of our embodied carbon calculator that tracks the reductions achieved through the design process on new projects >£1m*
- *Use the resulting evidence to develop project – and material – specific reduction measures as data maturity improves during ED3*

'Hotspot materials'

Category	tCO2e
A1-A3	
Transformer	2,274.98
Steel	2,101.46
Cable	1,355.71
Switchgear	1,322.30
Feeder Net System	1,121.25

Category	tCO2e
A4	
Concrete	64.01
Transformer	32.52
Cable	24.51
Earthworks	15.20
Switchgear	15.08

*data used from projects within FY 25/26

ED3 Change:

- Threshold reducing from £10m to £1m projects

Opportunities for suppliers:

- Low-carbon materials
- Design optimisation
- Reuse and circularity
- Product carbon data

The opportunity for ED3 isn't just to measure embodied carbon on more projects, it's to work together to reduce it, particularly in the materials and products where we can make the biggest difference

Science Based Targets Review

Updating our baseline. Strengthening our ambition. Working together.

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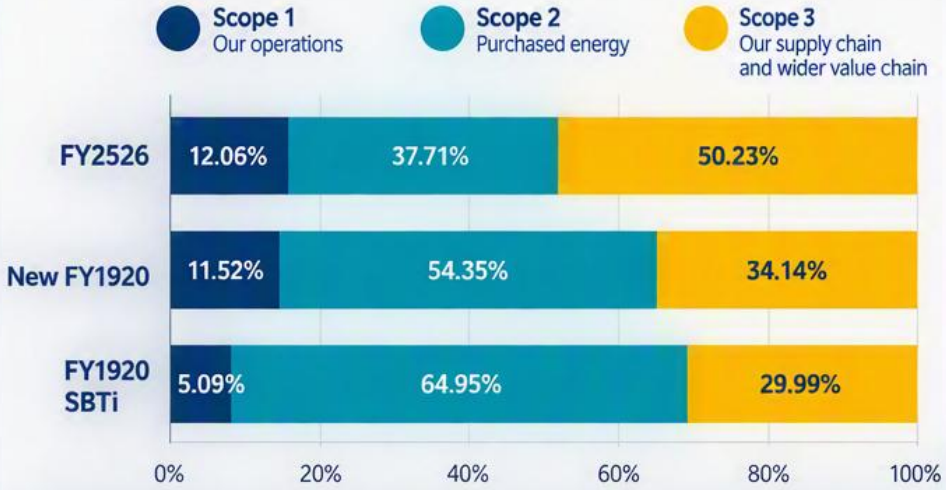
Why are we reviewing our Science Based Targets?

- SBTi review window opens **October 2026.**
- **New emissions sources** included in our inventory.
- **Updated baseline** required to reflect improved data and methods.
- **Align with latest science** and sector guidance.

BCF on FY19/20, FY19/20 Recalculated and FY25/26



Scopes	FY1920 SBTi	New FY1920	FY2526
Scope 1	42,556	115,715	118,989
Scope 2	546,040	546,040	371,992
Scope 3	252,145	342,971	495,455
Total	**840,741**	**1,004,727**	**986,436**

Emissions in tonnes of CO2e

Key message

Scope 3 now represents approximately

50%

of total emissions

Making supplier collaboration and emissions transparency more important than ever.

What this means

- **Larger share of emissions in Scope 3**
  Drives the need for supply chain action.
- **Greater focus on data**
  Higher quality, more consistent emissions data from suppliers.
- **Support our targets**
  Decarbonise products, materials and services.

How you can help

- **Measure**
  Understand and report your emissions.
- **Set targets**
  Consider Science Based Targets.
- **Provide data**
  Share accurate carbon data.
- **Reduce**
  Deliver lower-carbon products and services.
- **Collaborate**
  Work with us to deliver net zero.

A cleaner, greener, more resilient network

DELIVERING OUR SCIENCE-BASED TARGETS AMBITION

Our Direction

- ✓ Net Zero Ambition
- ✓ Maintain strong decarbonisation trajectory
- ✓ Continued annual reduction

Supply Chain Expectations

- ✓ Supplier emissions visibility
- ✓ Scienced-based targets
- ✓ Carbon reduction plans
- ✓ Sustainability reporting

Future Standards

- ✓ Net SBTi Corporate Standard
- ✓ Emerging power sector guidance
- ✓ Requirements likely to evolve through ED3

Supplier Actions: measure emissions, establish reduction plans and consider Science Based Targets if you have not already done so

BUILDING THE SUPPLY CHAIN FOR ED3

- ✓ 400+ suppliers engaged
- ✓ 1,000+ individuals reached
- ✓ 67% SSC adoption

Our ED3 Focus:

- ✓ Shared sustainability goals
- ✓ Improved data
- ✓ ‘Hotspot’ materials collaboration
- ✓ Carbon reduction
- ✓ Biodiversity delivery

LONG TERM NETWORK CLIMATE RESILIENCE

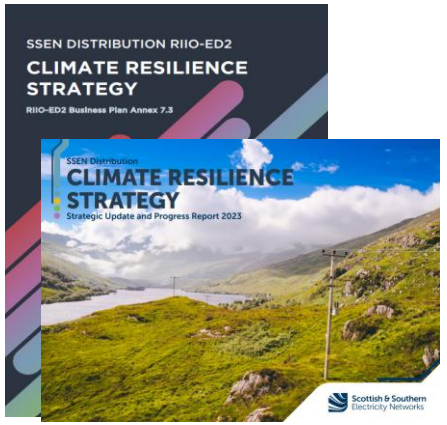
Craig Thom
Sustainability Compliance Delivery Manager

Scottish & Southern Electricity Networks

SSEN Distribution RIIO-ED2 Climate Resilience Strategy

Climate Resilience Strategy

- Published in 2021, updated 2023.
- Top-down system wide view of our assessment of climate risks.
- Identified the critical points of our network and specific vulnerabilities to climate change.
- Strategic update reports published annually on website.



Climate Risk Assessment

- 15 direct risks collectively agreed between all DNO's via the Electricity Networks Association (ENA)
- 2021 strategy utilised a 2020 baseline and a 2050 scenario based on climate projections from UKCP18 RCP 8.5 assumptions.
- ARP 4 - Risk assessment has been extended to consider a future climate scenario of 4°C rise by 2100 using UKCP18 RCP 8.5 projections across our 15 direct adaptation risks to establish grounds for future risk mitigation.

- Increasing intense rainfall
- Increasing temperatures & sunlight hours
- Decreasing summer rainfall
- Changes to storminess
- Rising sea level rise

Climate Adaptation Actions

- £21.8 million funding secured for 2023-2028 to implement flood mitigation measures at grid and primary substations.
- Developing regional climate change risk assessments and adaptation plans.
- Further investigating interdependencies and actions.

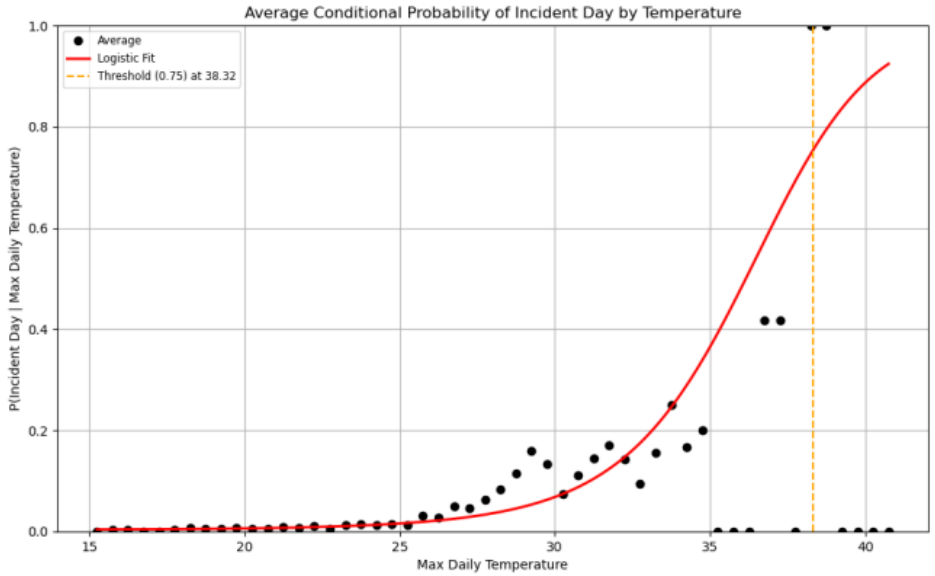
Future Improvements

- Ongoing development of regional climate change risk assessments and adaptation plans to provide bottom-up site-based assessment of climate risks and resilience actions.
- Improving the risk assessment to include organisational risks and addition of wind.
- Updating our strategy and building funding justifications for our next business plan covering 2028-2033.
- Improving our understanding of our interdependencies.

EVOLUTION FROM RIIO-ED2 TO ED3

ED3 Climate Resilience Expectations

- Anticipatory, evidence-based investment
- Enhanced climate resilience planning and stress testing
- Low-regret adaptation measures
- Adaptive pathways for uncertain futures
- Proactive climate risk management
- Early identification and mitigation of risks



BS 8631:2021

Adaptation to climate change — Using adaptation pathways for decision making — Guide

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Climate Resilience Strategy

Building a stronger, more resilient network for our customers, communities and the environment.

Our Strategic Approach

Preparing for a changing climate through adaptive, risk-based investment

- Prepare for **2°C** warming by **2050**
- Consider resilience requirements under **4°C** warming by **2100**
- Build **evidence** to support proportionate adaptation decisions
- Continuously **evolve** standards, practices and investment priorities

1 Continuity, Transparency & Capability

Key priorities

- Governance and reporting framework
- Climate resilience metrics and performance monitoring
- Specialist resource and organisational capability

Outcome

Climate resilience embedded into business-as-usual activities.

2 Effective Stress Testing, Measurement & Forecasting

Key priorities

- Climate science and stress testing
- Scenario analysis and forecasting
- Real-time environmental monitoring

Outcome

Better evidence for resilience investment and decision-making.

3 Improved Resilience Through Adaptation

Key priorities

- Climate risks embedded in planning
- Adaptation pathways and investment decisions
- Evidence-led interventions

Outcome

Proactive management of current and emerging climate risks.

4 Improved Asset Resilience & Design Standards

Key priorities

- Climate-informed asset standards
- Asset management integration
- Long-term resilience investments

Outcome

Assets designed and managed for future climate conditions.

5 Preparedness, Planning & Emergency Response

Key priorities

- Emergency preparedness
- Response and restoration capability
- Severe weather readiness

Outcome

Faster recovery and reduced customer disruption during extreme weather.

Delivering a more climate resilient network

- Improved service reliability
- Reduced climate-related risk
- Better informed investment decisions
- Enhanced customer outcomes
- Long-term network resilience

How suppliers support delivery

- Resilient products and designs
- Climate risk and environmental monitoring solutions
- Engineering innovation
- Emergency response capability
- Collaborative delivery of adaptation measures

PROPOSED ED3 CLIMATE DRIVEN INVESTMENTS

Strengthening climate resilience across our distribution network.

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1 Flood Mitigation

Description:
ETR138 compliance at grid & primary substations.
Expand our flood resilience activities to incorporate additional network assets and purchase flood defence equipment.

Climate hazard:
Fluvial (river) and pluvial (surface water) flooding

2 Vegetation Management

Description:
Develop understanding of climate change impacts on vegetation management through growth & resilience modelling and condition monitoring.

Climate hazard:
Vegetation growth, pests and disease

3 Overhead Line (OHL) Storm Resilience

Description:
Rebuild sections of OHL in exposed areas to incorporate BLL, BLX and contact spacers and underground exposed sections of OHL in our SHEPD licence area.

Climate hazard:
High-impact wind events

4 Monitoring & Technology

Description:
Addition of environmental monitoring to all major substations to monitor climate conditions and determine future climate resilience investments.

Climate hazard:
Rising temperatures

5 SEPD - Isle of Wight Landslip Mitigation

Description:
Undertake landslide mitigation assessment at 3 high risk locations and undertake initial remedial works.

Climate hazard:
Increased rainfall leading to landslips causing asset failure and deterioration

6 Restoration Times

Description:
Improve switching capability and access to specialist equipment to assist our operations teams to access faults to improve restoration times.

Climate hazard:
High impact storm events threatening substations, overhead and underground infrastructure.

7 Welfare Provision

Description:
Enhanced welfare provision for workforce responding to severe weather events.

Climate hazard:
High impact storm events causing widespread outages and disruption

8 Climate Modelling

Description:
Investigate and implement climate modelling options that will assist with network control and future network configuration and investment.

Climate hazard:
High impact storm events causing widespread outages and disruption

9 Interdependencies Fund

Description:
Fund to enable co-funding of activities directly related to improving storm resilience with interdependent infrastructure operators.

Climate hazard:
High impact storm events causing cascading impacts across critical infrastructure.

10 Resource

Description:
Develop internal capability to support the delivery of our climate resilience work.

Climate hazard:
High impact storm events causing widespread outages and disruption

Creating a more resilient network

through prevention, adaptation, response and recovery.

Supplier opportunities

- Flood resilience solutions
- Asset monitoring technologies
- Vegetation and environmental services
- Resilient network design
- Climate analytics and innovation
- Emergency response capability

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ED3 Multi-Driver Investments

Embedding climate resilience into business-as-usual investment decisions.

1 Vegetation Management

Description

- Vegetation management to ensure compliance with ENATS 43-8 and ETR132.
- Management of pests and diseases including Ash Dieback.

Climate hazard

- Overhead lines affected by interference from vegetation due to increased windstorms, prolonged growing season and spread of pests and diseases.

2 Overhead Line (OHL) Storm Resilience

Description

- Rebuild sections of OHL in exposed areas to incorporate BLL, BLX.

Climate hazard

- High impact wind events causing overhead line failures and widespread outages.

3 Consac Cables

Description

- Accelerated asset replacement of consac cables in clay soil areas.

Climate hazard

- Increased rainfall in clay soil areas leading to ground saturation causing fault issues.

4 Customer Welfare

Description

- Enhanced storm support covering welfare provisions, reimbursement and resilience hubs.

Climate hazard

- High impact storm events causing widespreed outages and disruption.

Delivering benefits

- Improved network reliability
- Greater resilience to severe weather
- Reduced outage risk
- Improved customer support
- Long-term value for customers

Supplier opportunities

- Vegetation and environmental services
- Resilient overhead line solutions
- Cable replacement and innovation
- Customer resilience support
- Storm response and recovery services

Working together for a **resilient, sustainable** and **nature positive** network.

THANK YOU

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