

Delivering a Network for Net Zero: The Pathway to 2030

Our Plan for the RIIO-T3 Period

Webinar – Monday 27 January 2025
2.00 pm – 3.00 pm





Welcome & Housekeeping

Chris Bell

Head of Stakeholder Engagement

Agenda

1. Introduction
2. Reliable Energy
3. Clean Energy
4. Clean Power
5. Our Legacy
6. Cost to Consumers
7. Q&A
8. What's Next
9. Close



Chris Bell
Head of Stakeholder
Engagement



Aileen McLeod
Director of Business
Planning & Commercial



Kris Till
Asset Risk &
Investment Manager

Presenters



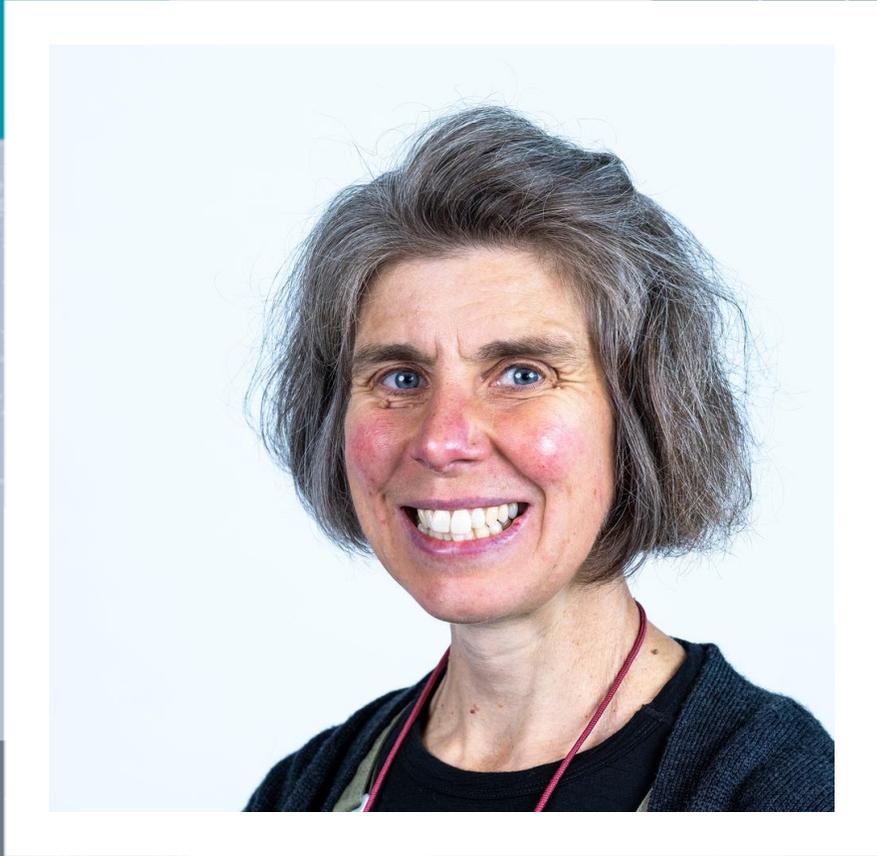
Joanne Leslie
Senior Manager -
Investment Planning



Mark Jones
Transmission Control
Support – Strategy &
Policy



Sarah Beattie-Smith
Senior Manager -
Sustainability



Aileen McLeod

Director of Business Planning & Commercial

Our 2030 Goals



Reliable Energy

Zero interruptions in electricity supply to homes and business due to our network

Our ambition is "to keep the lights on" for electricity consumers across the north of Scotland and beyond. We measure our success using the nationally agreed metric: incentivised loss of supply. Even when taking all cost-effective steps to prevent interruptions, rare events will occur.

The top priority of energy consumers and customer groups is safe, reliable and resilient electricity supplies



Clean Power

Our network will have the capability to meet **20%** of the GB demand for clean power

National clean power pathways forecast that low and zero carbon generation in the north of Scotland will contribute around one-fifth of clean power by 2030. Our goal is to deliver the necessary transmission infrastructure to make that happen.

The UK Government has set targets for zero carbon electricity, and new renewable generators and flexibility providers expect timely connection

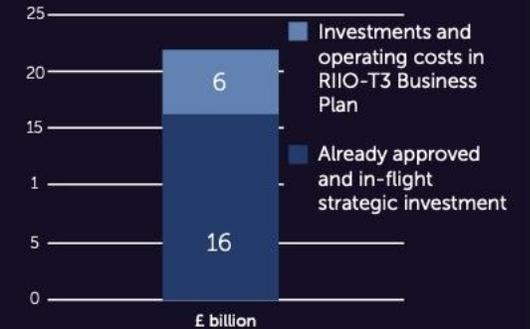


Our Legacy

Drive investment in the energy transition that delivers **transformative lasting benefits** for local communities, our economy and nature

A just energy transition will be inclusive and equitable with people's needs at the centre. Based on an objective materiality assessment, we have set specific targets for the Pathway to 2030.

Communities, investors and other stakeholders expect us to act in a just and sustainable way; this is supported by Government and Ofgem



Clear and evidence-based case for total expenditure of **over £22 billion** during the RIIO-T3 period

This cost will be paid through electricity bills spread out over the next four decades.

Our Plan identifies the potential for an additional £9 billion of expenditure, which could bring the total expenditure over the RIIO-T3 period to over £31 billion.

Our modelling shows that overall energy costs for the average consumer could fall by over a third during the energy transition



Kris Till

Asset Risk & Investment Manager

Reliable Energy

Building resilience reduces vulnerability

As we grow the north of Scotland transmission system on the Pathway to 2030, we will also need to invest in the resilience of our network to ensure it is resistant to threats.

Our RIIO-T3 Plan has three drivers:

Manage

Strengthen

Modernise



The track record of the reliability and resilience of the north of Scotland transmission system is exceptional

99.998518%
Reliability of supply in
2023/24

95.82%
System availability in
2023/24

0.17%
SF6 gas leakage in
2023/24

>90%
Resilient to
falling trees today



Our 2030 Goal

Zero interruptions in electricity supply to homes and businesses due to our network



This goal is aligned with Ofgem's strategic objective of achieving **Safe, Secure & Resilient Supplies**.

Strengthening our Network: Investing for Redundancy, Resistance and Response & Recovery



Ensuring we are resilient to all threats



Redundancy involves having in place back-up systems for operational continuity during disruptions.

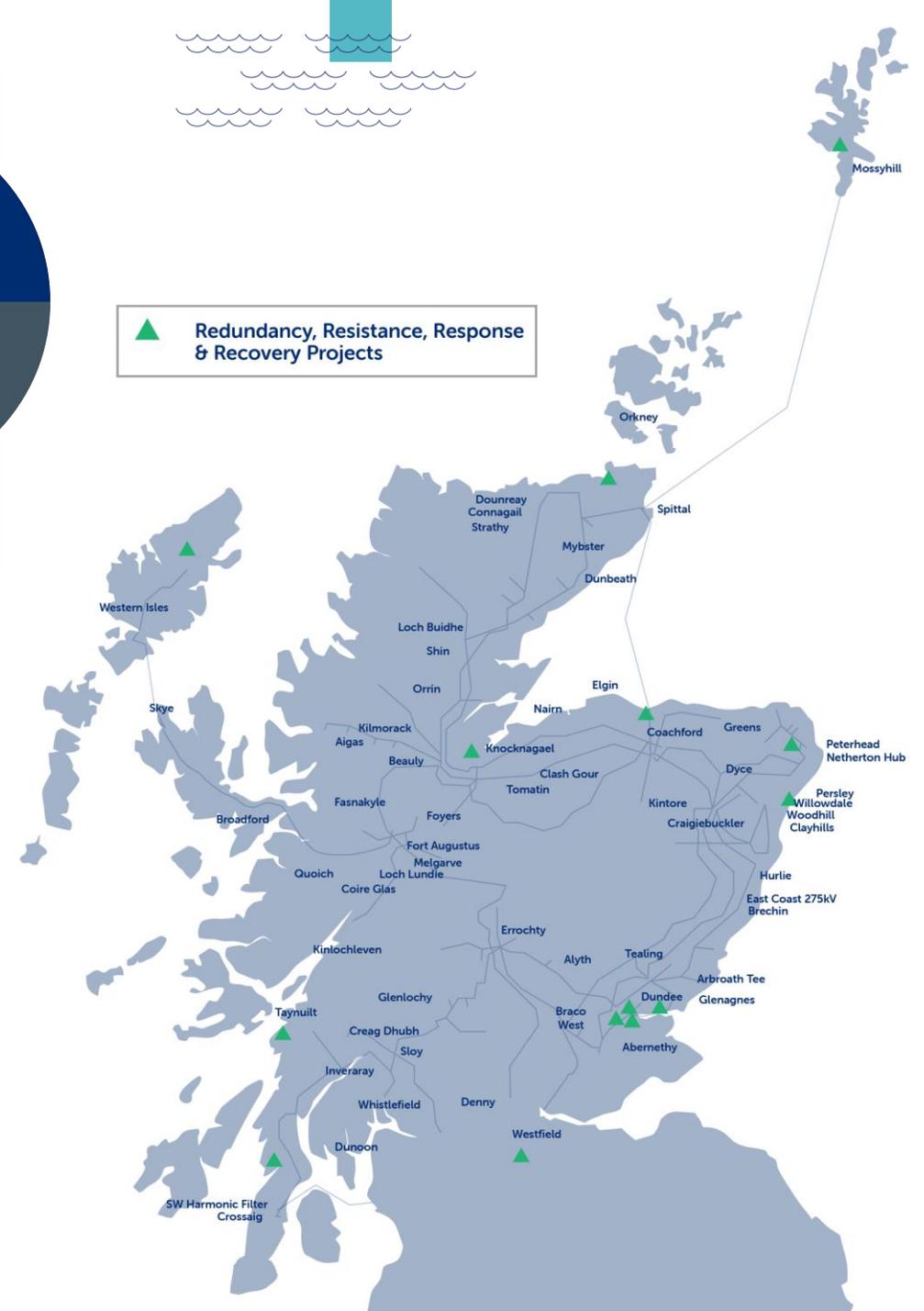


Resistance focuses on proactive protection against natural or malicious events.



Response and Recovery aims for quick and effective recovery from significant disruptions, including full or partial system shutdowns, including 'Blackout' events.

We have identified the need for 23 projects in RIIO-T3 that will bolster Redundancy, Resistance, and Response & Recovery, to ensure our network is fit for the future.





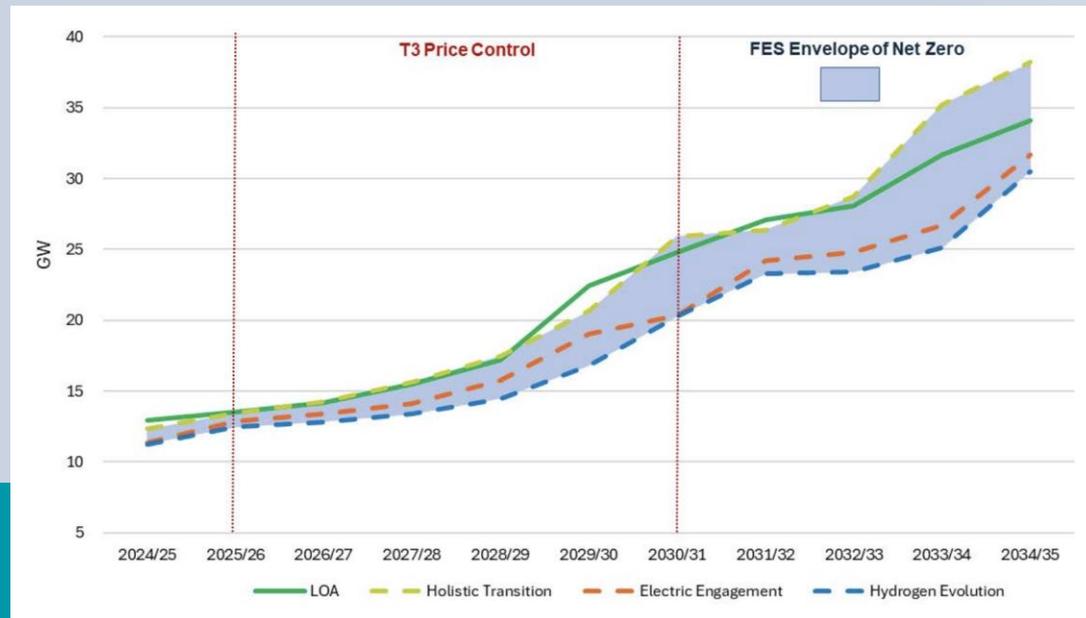
Joanne Leslie

Senior Manager – Investment Planning

Clean Power 2030

Strategic Investment

FES 2024 Future Pathways for North of Scotland



- The Pathway to 2030 requires the amount of renewable generation in the North of Scotland to more than double.



Our 2030 goal:
Our Network will
have the
capability to meet
20% of the GB
demand for Clean
Power

Strategic Investment

- Major grid infrastructure, or 'motorways', that transport electricity over long distances across GB and beyond.
- Eight strategic investments are part of Pathway to 2030.
- Combination of subsea cable links, onshore overhead lines and substations
- Approved under Ofgem's Accelerated Strategic Transmission Investment (ASTI) frameworks.

Clean Power 2030

Regional Investment

Regional Networks

- Regional investment in the transmission system are the 'A roads' that wire up individual users
- Customer Connections major influence in System Planning of Regional Investments

Already underway:

- Three large Regional Investments in Argyll, Orkney and Skye.
- RIIO-T2 Regional Investments

RIIO-T3 Plan

- Ten new Regional Investments enabling the connections of up to **2.2GW** of new generation capacity.



Our ten new regional investments (in purple) that we are seeking regulatory approval for in our RIIO-T3 Business Plan and three large regional investments already approved (in orange)

Existing Network

LOTI INVESTMENTS

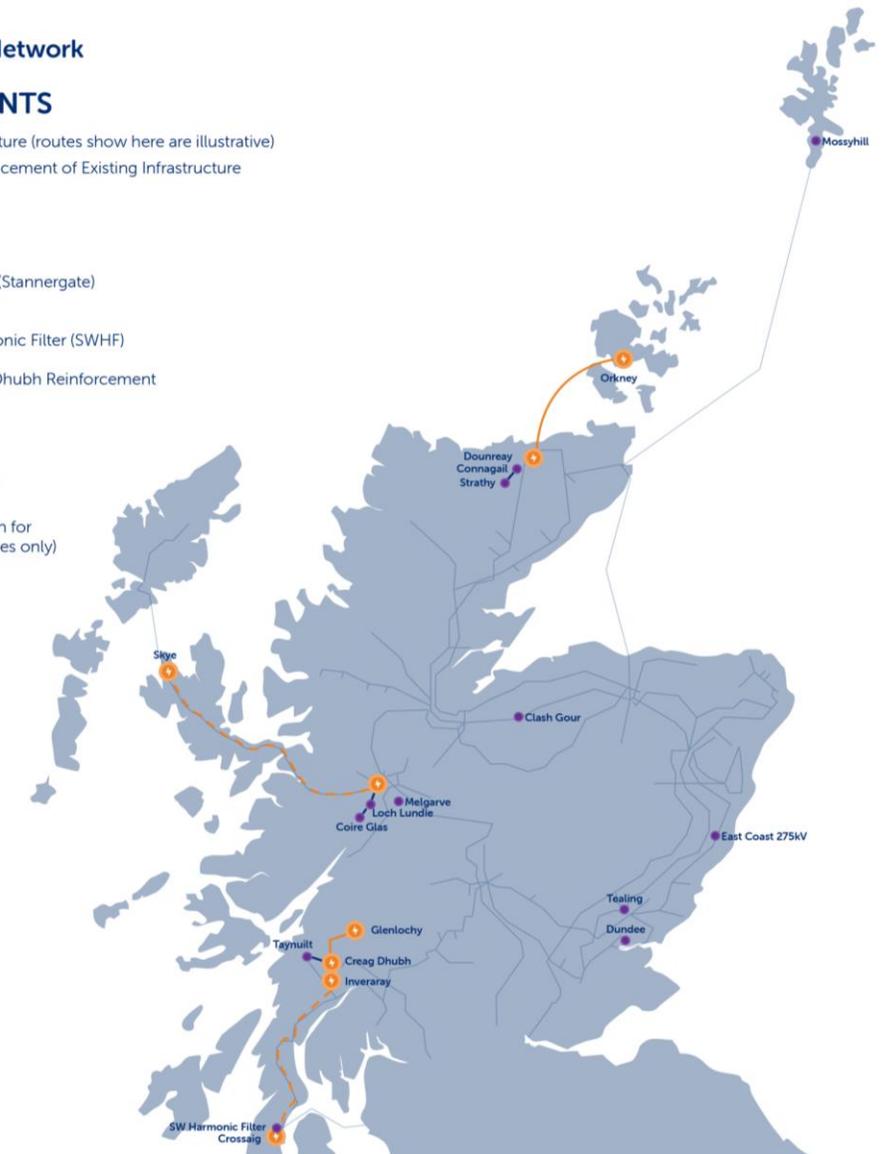
- New Infrastructure (routes show here are illustrative)
- Upgrade/Replacement of Existing Infrastructure

LOAD

- Coire Glas
- Dundee Strategy (Stannergate)
- Melgarve Cluster
- Mosseyhill
- Southwest Harmonic Filter (SWHF)
- Strathy Cluster
- Taynuilt - Creag Dhubh Reinforcement
- Tealing Solar
- Tealing-Arbroath
- East Coast 275kV

NEW OHL BUILD

(Routes are shown for illustrative purposes only)



Clean Power 2030

Industry Reforms



Clean Power 2030

Focused on Regional Investment and secure system operation
Actively developing CP2030 submission Q1 2025



Connections Reform

Offers to users who are ready and align with clean power pathways



Strategic Network Planning

New approach to Regional Investment planning that is pathway aligned (Target Led)
Comprises the Strategic Energy Spatial Plan (SSEP), Centralised Strategic Network Plan (CSNP) and Regional Energy Strategic Plan (RESP)



Mark Jones

Transmission Control Support – Strategy & Policy

Our Transmission Operations Campus

Delivering a network for Net Zero

The **Clean Power** journey is changing our network over the next 10 years,

- Generation will increase to 39.1GW, from 10.6GW today.
- 135 new substations and connection points will be built, from 156 substations today.

We will continue to deliver **Reliable Energy**, across our network,

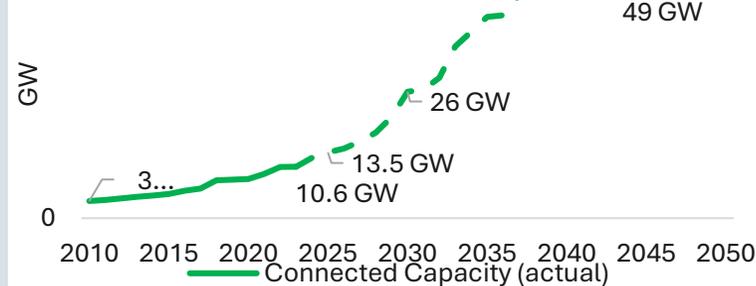
- Operating the more complex network, wind generation and HVDC links, for the system operator (NESO)
- With secure and resilient, Critical National Infrastructure to ensure reliability.

Our Legacy will be delivered by the Operations Campus

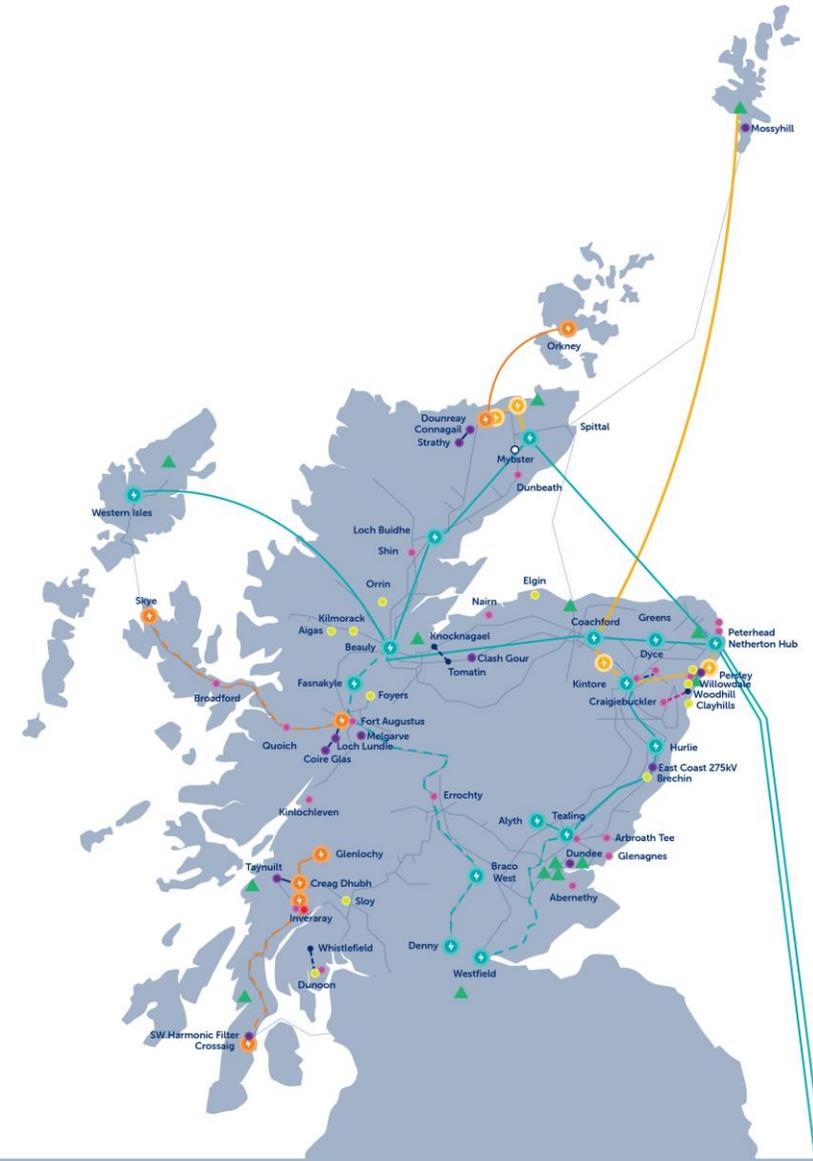
- The highest value investment in the North of Scotland, up to £200m.
- A legacy of over two hundred, new, highly skilled jobs by 2035.



Connected Generation in the North of Scotland



RIIO-T3 Investment Map



Our Transmission Operations Campus



**Reliable
Energy**



**Clean
Power**



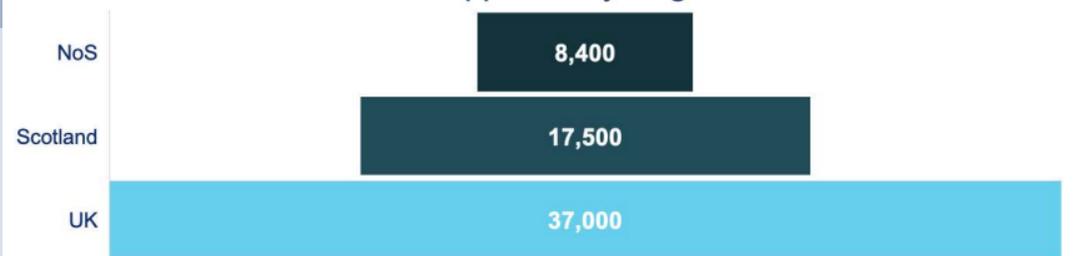
**Our
Legacy**

- Our operational teams are pivotal in delivering this transition, managing:
 - Network safety and project coordination outages, and real-time management
 - Critical Network Infrastructure Computer systems and communications
 - Protection against Cyber threats.

- This facility will provide the capability to:
 - Deliver the scale of the Clean Power transition to 2035, with the flexibility to expand further.
 - Ensure Reliable Energy, working with the system operator, to manage the increasing complex technical challenges of a decarbonised power system.
 - Maintain the resilience and security of our Critical Network Infrastructure workplaces.
 - Leave a legacy of significant investment up to £200m in the North of Scotland, and over two hundred new skilled jobs.



Jobs Supported by Region





Sarah Beattie-Smith

Senior Manager - Sustainability

Our Legacy

Our goal: Drive investment in the energy transition that delivers transformative lasting benefits for local communities, our economy and nature

A just energy transition...

- Sustainability Strategy
- Housing Strategy
- Community Benefit Fund
- Climate change and our impact on the planet
- Biodiversity Strategy



People

- Grow skilled workforce
- Drive inclusion & wellbeing



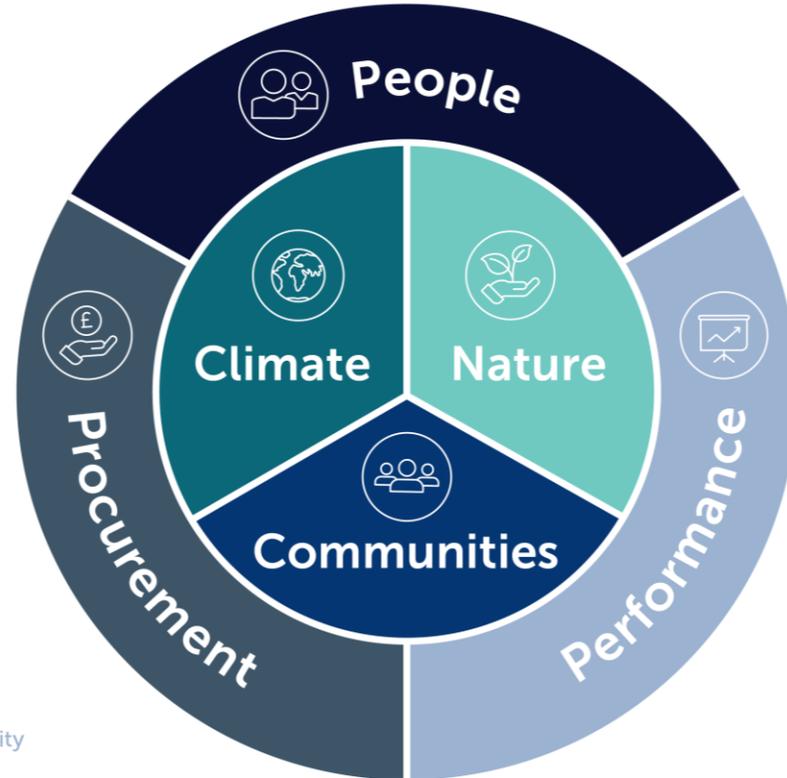
Procurement

- Partner for excellence
- Procure responsibly



Performance

- Improve data & processes
- World-leading sustainability



Climate

- Reduce emissions
- Build resilience



Nature

- Protect nature
- Restore nature



Communities

- Minimise impacts
- Share benefits



Aileen McLeod

Director of Business Planning & Commercial

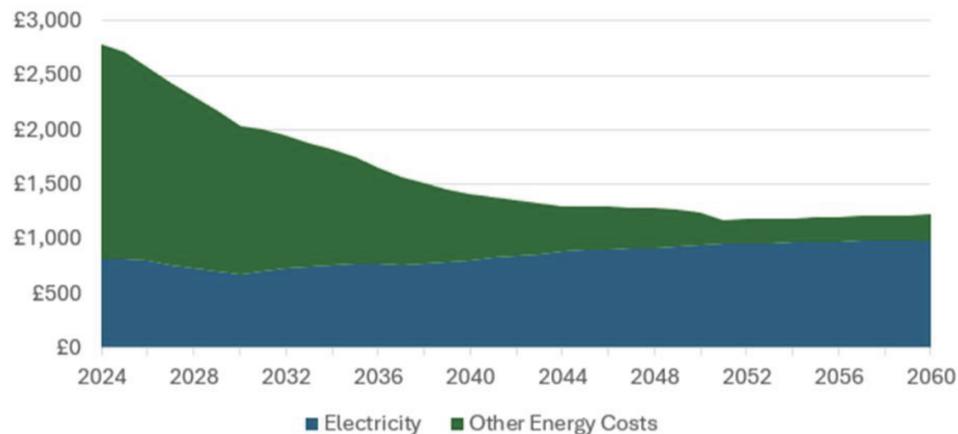
Energy Costs during the Energy Transition

Energy Costs

We have modelled the overall annual cost of energy for the average GB consumer from 2024 to 2060 (in today's prices). This shows that the overall cost of energy could fall by over a third in the long term.

In our modelling, energy costs are electricity, gas, hydrogen, bioresources and petrol/diesel (for transport).

Consumer energy costs over the period to 2060 (today's prices)



Value for money

By being intentional in how we deliver the electricity transmission infrastructure needed for the energy transition, we can ensure value for money for current and future generations



Our legacy

The economic, social and environmental benefits of our investment



Doing things differently

Through our innovation digital and modernisation programmes



Strategic supply chain engagement

Harnessing global markets with a proactive, adaptive strategy to drive competitive advantage



Accelerating net zero

Clean power production is cheaper and less volatile than oil and gas

Our Business Plan commitment is:

to realise long term consumer value through targeted innovation, strategic supply chain partnerships and accelerating the transition to clean power.



Chris Bell

Head of Stakeholder Engagement

Questions & Answers

What's next



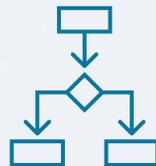
December '24

- RIIO-T3 submission to Ofgem



January - March '25

- Call for evidence (closes 10 February)
- Clean Power Plan Resubmission



June '25

- Ofgem publishes draft determinations



December '25

- Ofgem publishes final determinations



April '26 - March '31

- RIIO-T3 price control



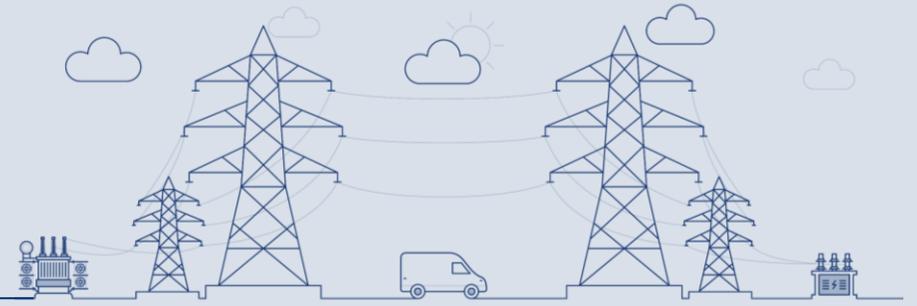
Further Information

- Ofgem's [Call for Evidence](#) consultation on electricity transmission business plans for RIIO-3 closes on 10 February 2025
 - Responses to RIIO3@ofgem.gov.uk setting out your feedback as requested in the Call for Evidence [document](#)
- Slides (with these links) will be circulated, the video of webinar will be uploaded to our website
- Get in touch: Transmission.Stakeholder.Engagement@sse.com



Thank
you for
joining us
today





Our RIIO-T3 Business Plan - SSEN Transmission

Network
Asset
Management

Climate
Resilience

Innovation

IT & Telecoms

Network
Growth

Supply Chain
Resilience

Sustainability

Workforce
Resilience

Housing
Strategy

Community
Benefit Fund

Thank you

Contact us:

Transmission.Stakeholder.Engagement@sse.com