

# A message from our CEO

As we reflect on the past year, I am proud to share the progress we've made in advancing our sustainability goals and delivering long-term value for our communities, stakeholders and the environment. Our commitment to building a fully sustainable networks business for people and planet is stronger than ever, and this report highlights the tangible actions we've taken to drive meaningful change.

L'm pleased to report that this year we've awarded £3.7m through our Net Zero Fund to 27 community organisations, delivering measurable carbon savings and a strong social return on investment. These projects are helping to create more resilient, inclusive communities while accelerating the transition to Net Zero greenhouse gas (GHG) emissions.

We also retained our **ISO14001 certification**, reaffirming our commitment to environmental management and regulatory compliance. Internally, our Countdown to 2035 campaign, which marks the beginning of a 10-year journey towards achieving Net Zero GHG emissions by 2035, has engaged over **3,000** employees, empowering our workforce to embed sustainability into their everyday operations.

Sustainability extends beyond our operations. This year, 78% of our priority suppliers met our enhanced environmental standards, and our £5.4 billion strategic supply chain program, involving 19 preferred partners, is not only modernising our network but also creating jobs and supporting local economies.

On our network, we connected **50MW** of new low carbon generation in 2024/25, aligned with our Clean Power 2030 Action Plan. We plan to connect a further 760MW of new low carbon generation by

the end of 2025. Through innovative projects like the Truly Sustainable Circuits, we are investing in technologies that support decarbonisation and environmental protection.

We've achieved a **29**% reduction in our Business Carbon Footprint (excluding losses) compared to 2013/14, and we continue to reduce fugitive emissions and electrify our operational fleet. Our efforts to manage SF<sub>6</sub> leakage have shown notable improvements, reinforcing our commitment to responsible asset management.

We are committed to no net loss of biodiversity, with initiatives such as the Tarras Valley Peatland Restoration where we have partnered with the Langholm Initiative to deliver more than a 190 hectares of peatland restoration.

We've made significant progress in embedding circular economy principles across our operations. During 2024/25, we achieved a **98**% landfill diversion rate, and the implementation of the Qflow tool has enhanced real-time waste tracking. Our new supply chain engagement plan and circular economy strategy will further drive resource efficiency and sustainable procurement.

In December 2024 we published our RIIO-T3
Business Plan. This was a significant milestone for our transmission business and the journey to Net Zero GHG and Clean Power 2030.

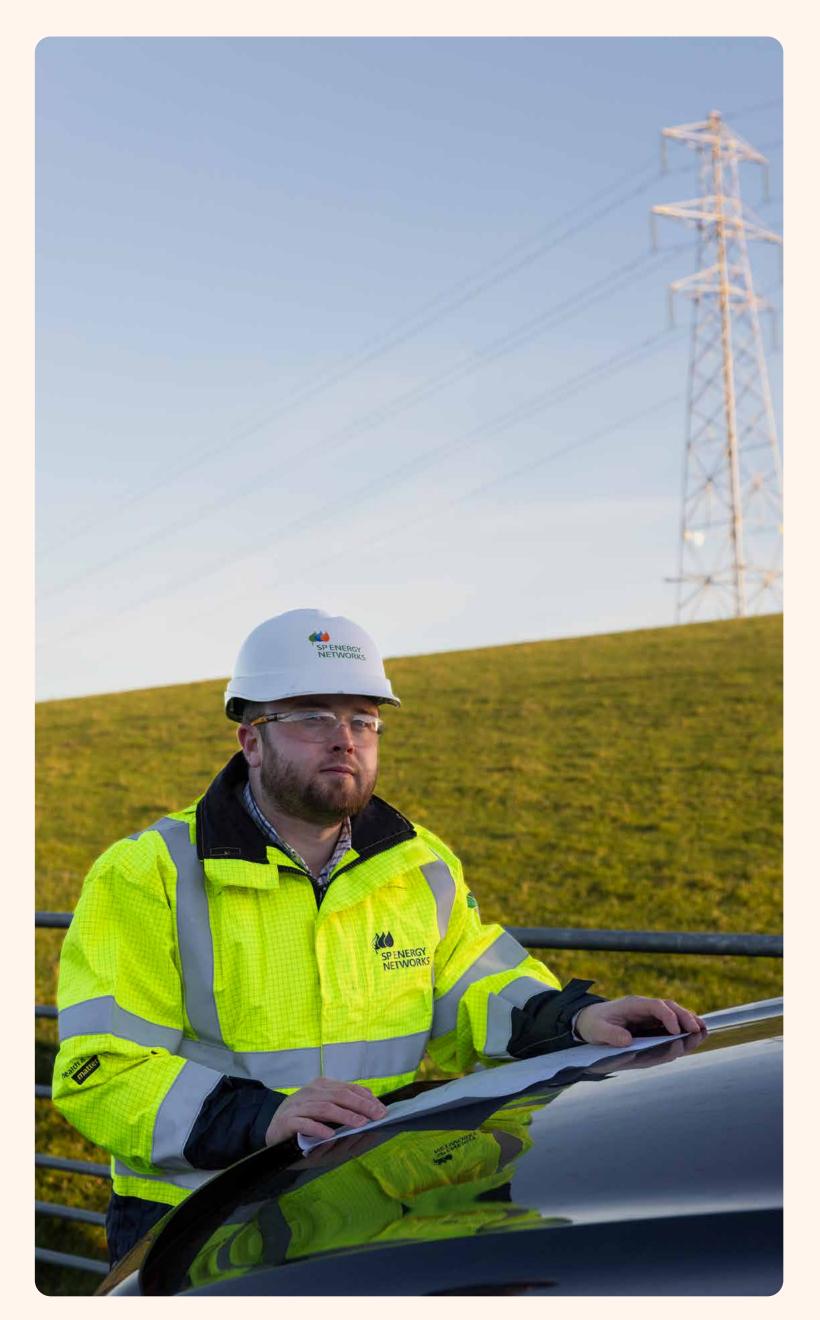
This year, our teams have made significant strides towards building a fully sustainable networks business and the achievements I've highlighted reflect our unwavering dedication to sustainability, innovation and community empowerment.

However, our journey is far from complete. We remain committed not only to achieving our own

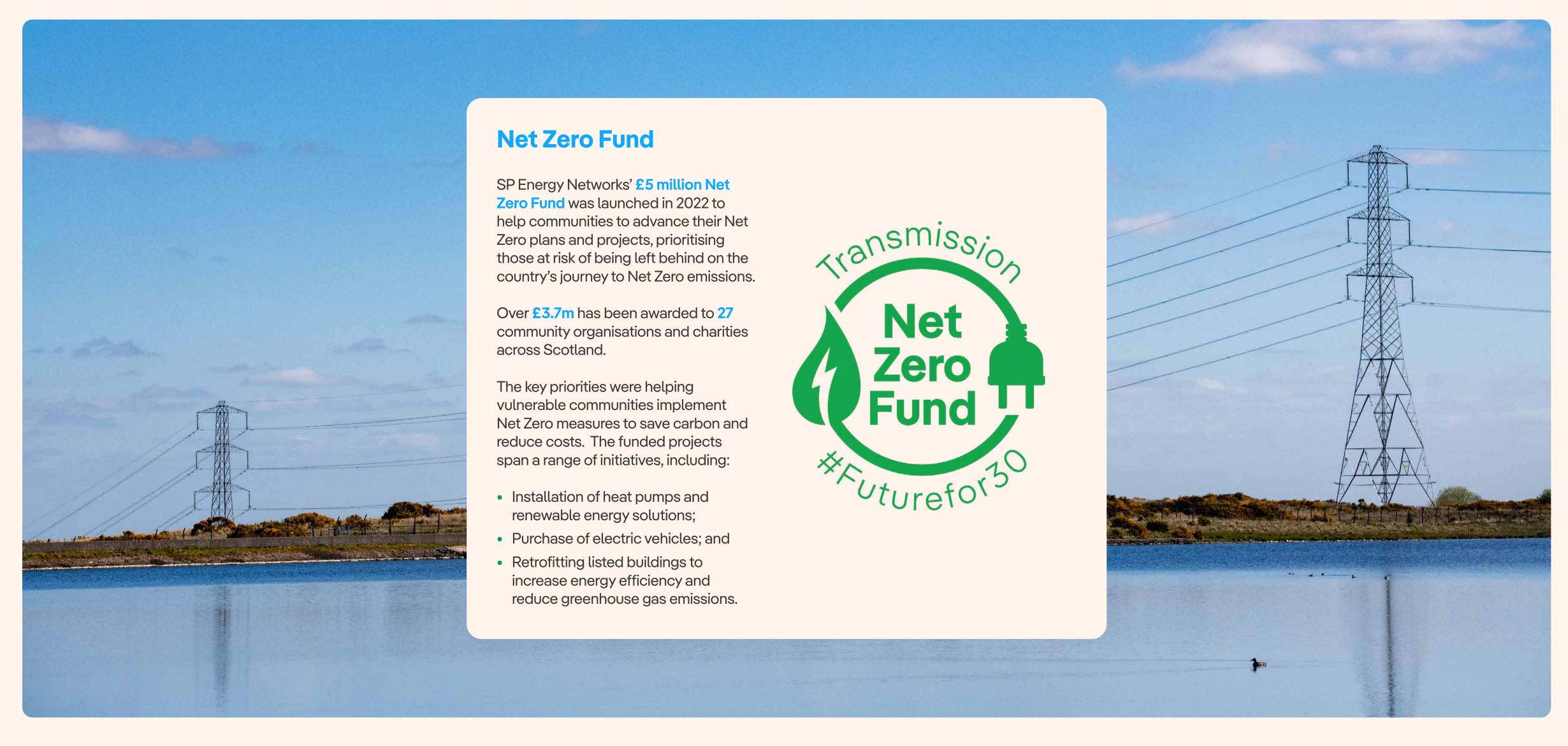
sustainability goals, but also to playing a pivotal role in delivering the Government's Clean Power 2030 mission and a cleaner, fairer and more resilient energy future for all.

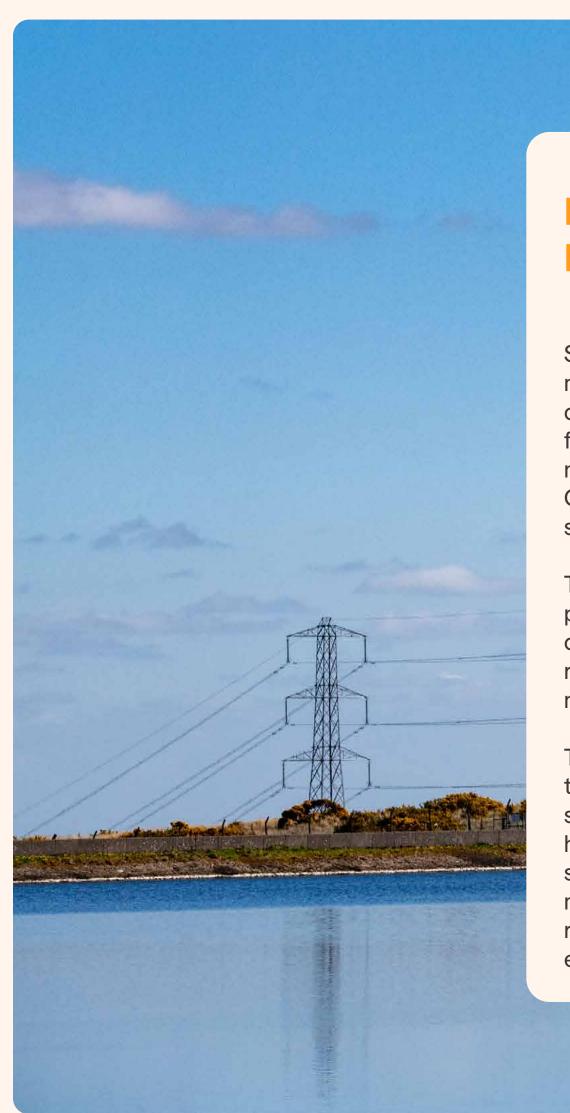
Nicola Connelly CEO, SP Energy Networks











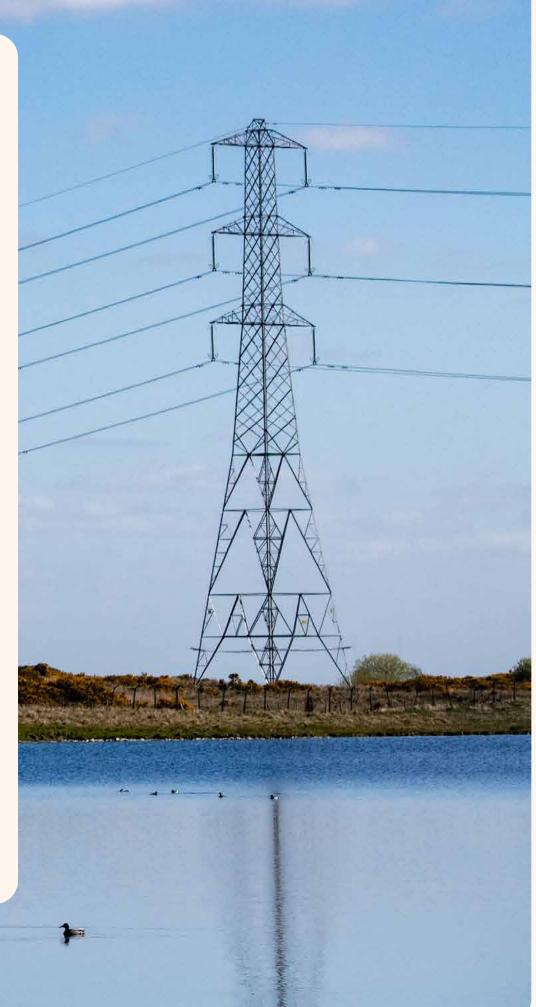
# Last of SP Energy Networks' 132kv Oil Circuit Breakers removed from the transmission network

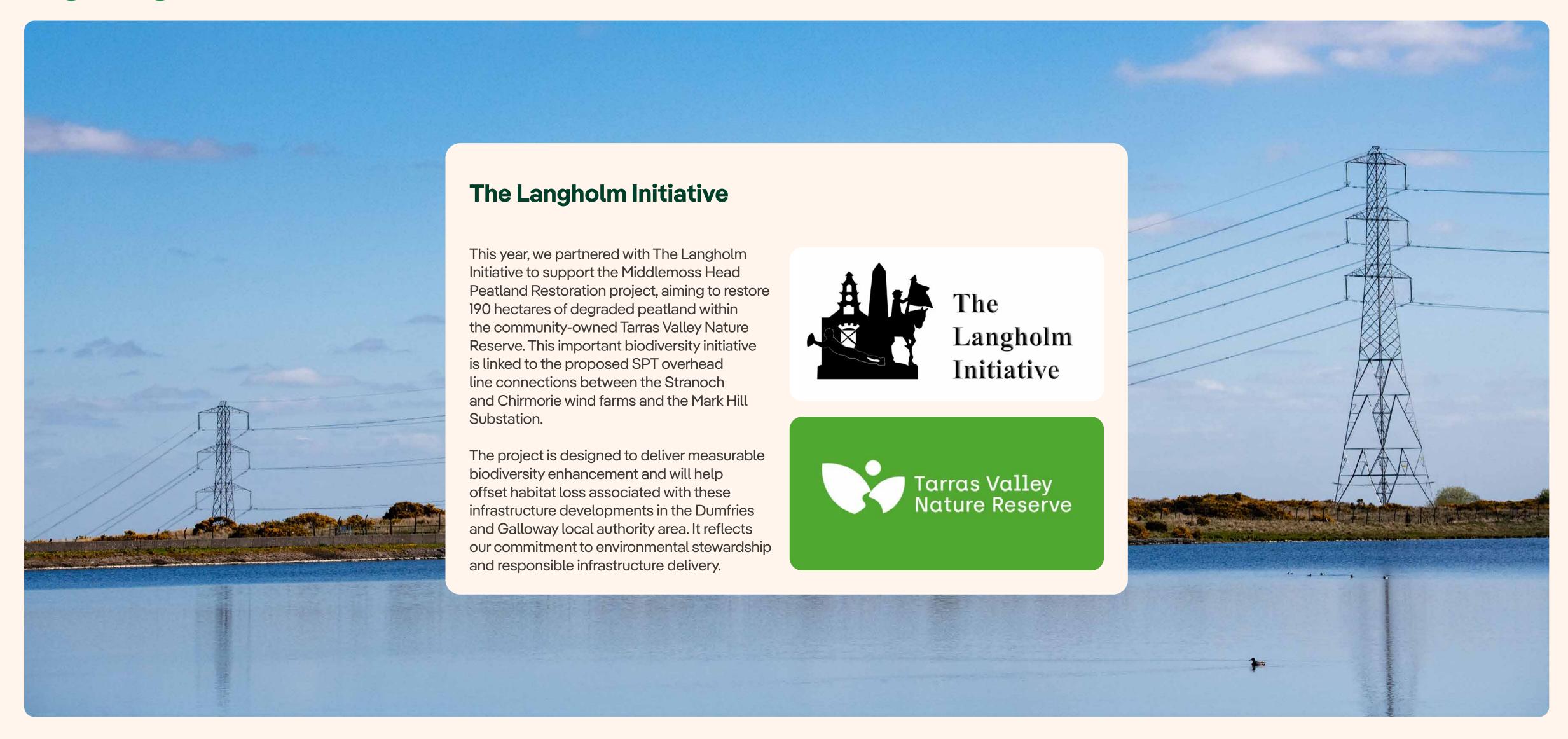
SP Energy Networks marked a significant milestone in Galashiels with the decommissioning and removal of the last oil-filled circuit breaker (OCB) from its transmission network. The first units had been installed in Currie in 1953, with installations at Galashiels starting in 1974.

The final OCB, had been in service since 1975, providing a remarkable 50 years of service. The decommissioning was part of a comprehensive replacement program aimed at modernising the network and enhancing its reliability and safety.

The removal of the last OCB from the transmission network marks the end of a significant chapter in SP Energy Networks' history but also paves the way for a more sustainable and greener future. The transition to modern circuit breakers enhances the network's reliability, reduces environmental pollution and ensures the safety of those working at our sites.









### £5.4bn Strategic Agreements

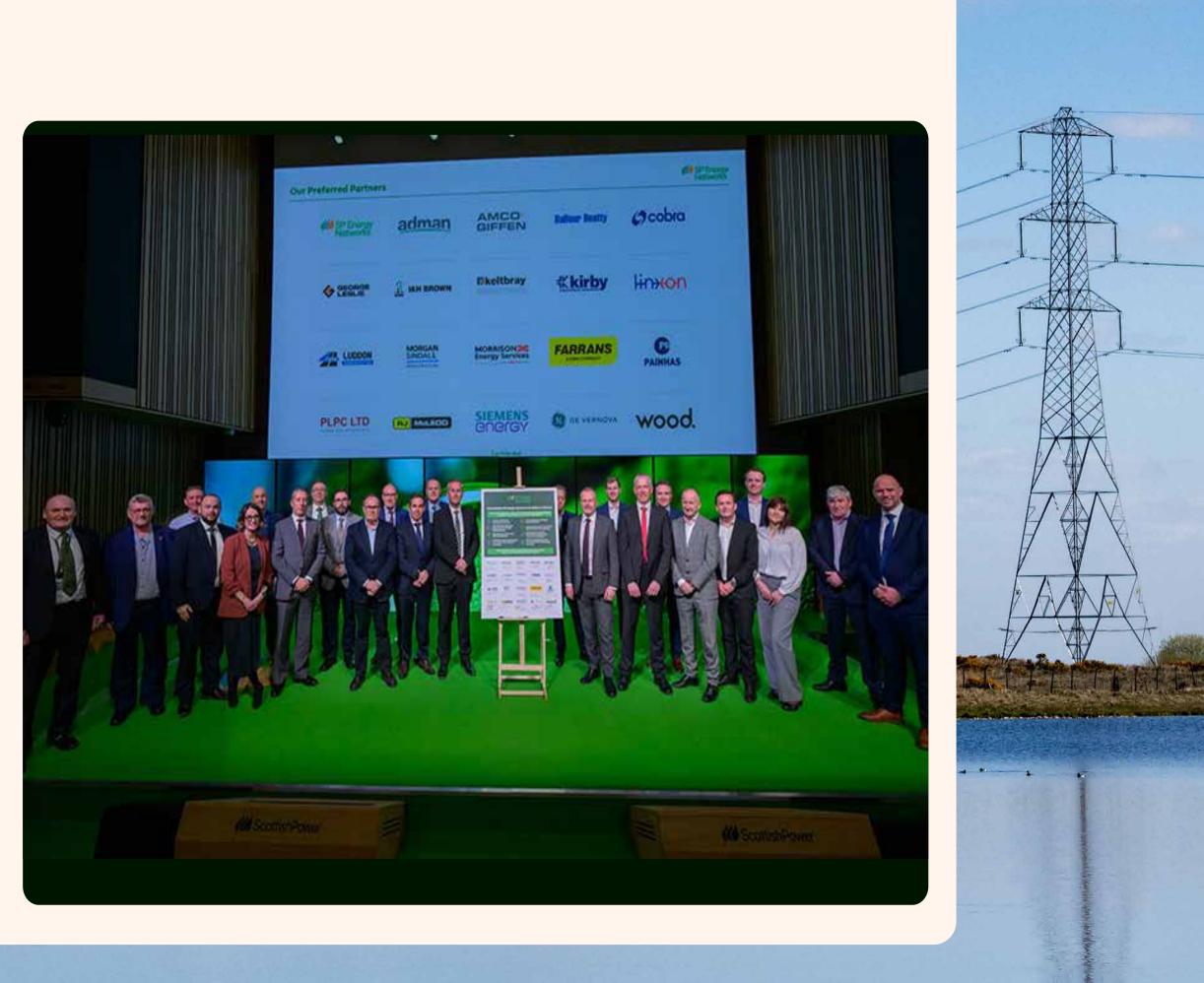
We have named 19 companies as preferred partners in our landmark £5.4 billion supply chain contract programme, marking a major step forward in accelerating investment in our electricity network.

These partners will support SP Transmission (SPT) in delivering the most significant upgrade of the GB electricity grid since its creation—essential to meeting rising demand and enabling future growth.

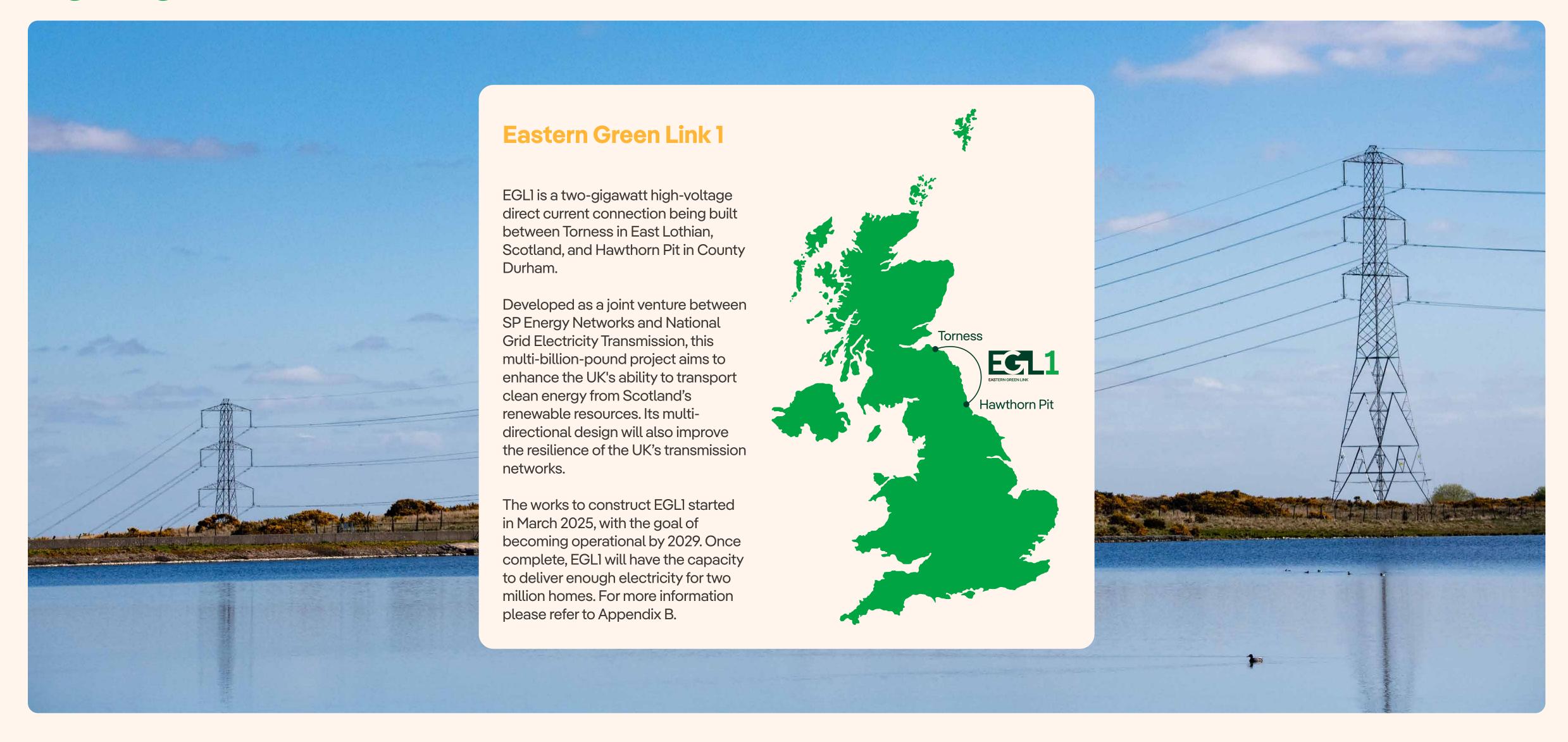
Seventeen of the 19 contractors chosen to work on the programme are headquartered in the UK and Ireland, demonstrating SP Energy Networks' commitment to developing the country's wider supply chain.

They include businesses like Keltbray Energy Limited, headquartered in Surrey, and recent winners of ScottishPower's Supplier of the Year Award, who will deliver work across both overhead lines and substations. I&H Brown, the Scottish headquartered family run civil engineering firm and RJ McLeod, the Glasgow based contractors who will help deliver new and upgraded substations.

The agreements support SP Energy Networks' Delivery Charter, which focuses on creating green jobs, developing talent, benefiting local communities, and promoting a safe and sustainable working environment.







# Purpose of this Report

This SP Transmission (SPT) Annual Environmental Report for regulatory year 2024-25 (1st April 2024 to 31st March 2025) published on 30th September 2025, provides an overview of our performance against key metrics and our ongoing progress to deliver our RIIO-T2 Environmental Action Plan commitments. It sets out our key activities to progress these commitments and gives examples of how we are supporting the societal transition to a low carbon economy whilst seeking to minimise our impacts on the environment.

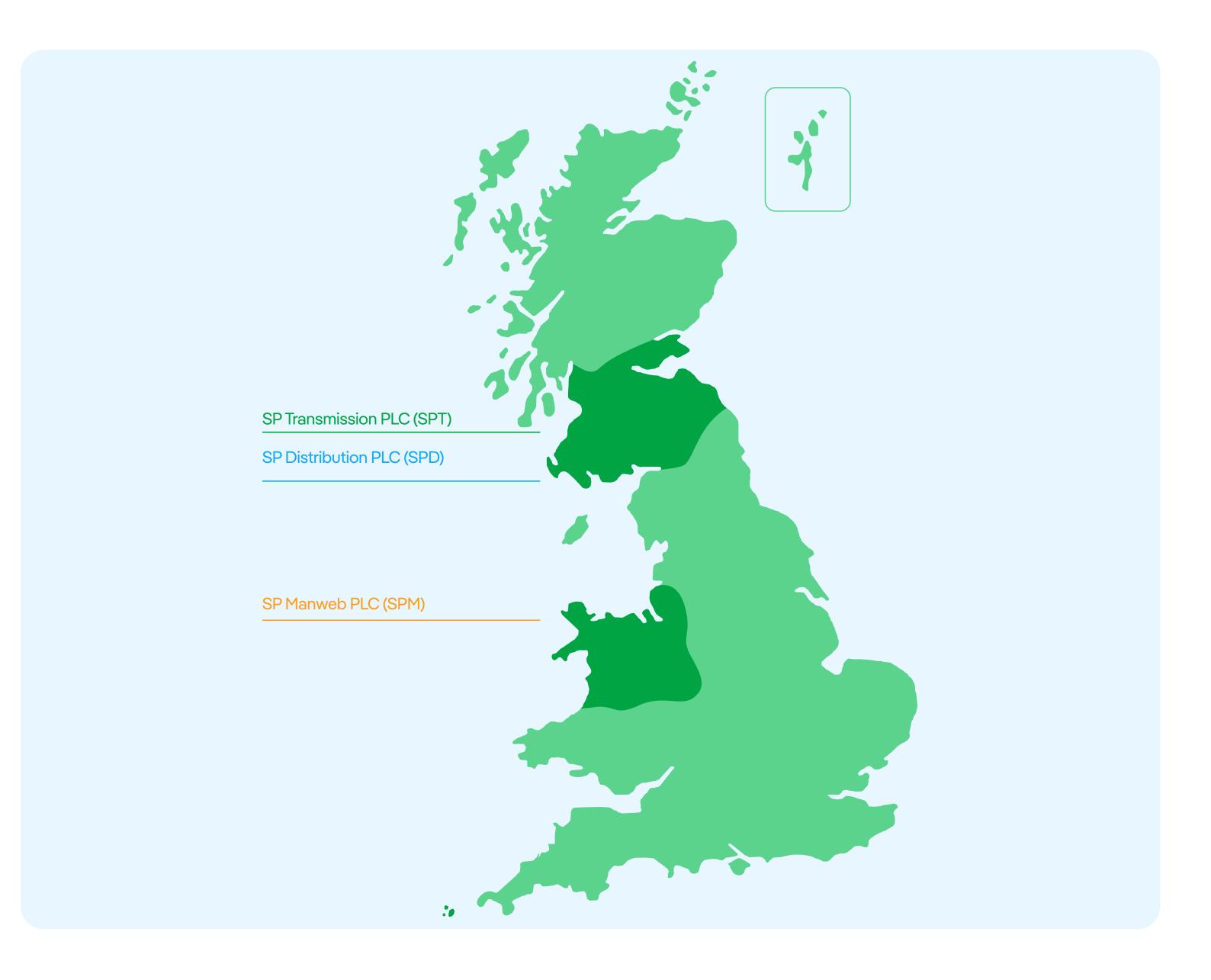
# Who we are

SP Energy Networks is responsible for the safe and reliable transmission and distribution of electricity across key regions of the UK. We operate through three regulated network businesses: SP Transmission Plc (SPT), SP Distribution Plc (SPD), and SP Manweb plc (SPM). Our transmission network plays a vital role in delivering electricity from generators to homes and businesses, working on behalf of energy suppliers. This is achieved through a network of substations, overhead lines, underground cables, and smart technologies that span Central and Southern Scotland. SP Energy Networks is a subsidiary of ScottishPower UK plc, part of the Iberdrola Group—a global leader in clean energy and one of the world's most sustainable utilities, consistently recognised in the Dow Jones Sustainability Index and the Global 100. To learn more about our work and our commitment to a smarter, greener energy future, visit:

What We Do - SP Energy Networks

3,700 km 800 km of overhead cables

of underground cables



# Sustainable Business Strategy

Our electricity network plays a critical role in enabling the transition to a Net Zero GHG future by delivering renewable energy from generators to consumers. Sustainability is embedded in SP Energy Networks' core purpose, supporting the UK's Net Zero GHG ambitions. As we expand and operate our network, we are committed to ensuring our activities are environmentally responsible, socially equitable, and economically sustainable.

Our Sustainable Business Strategy was developed through years of close collaboration with our stakeholders and is regularly updated in response to internal and external policy developments. This ensures that our business can successfully manage the transition to a low carbon energy system over short, medium and long-term timelines.

### **Our Sustainability Priorities**

We have a clear picture of our sustainability impacts through:

- stakeholder engagement
- the environmental management system
- delivery of actions to date.

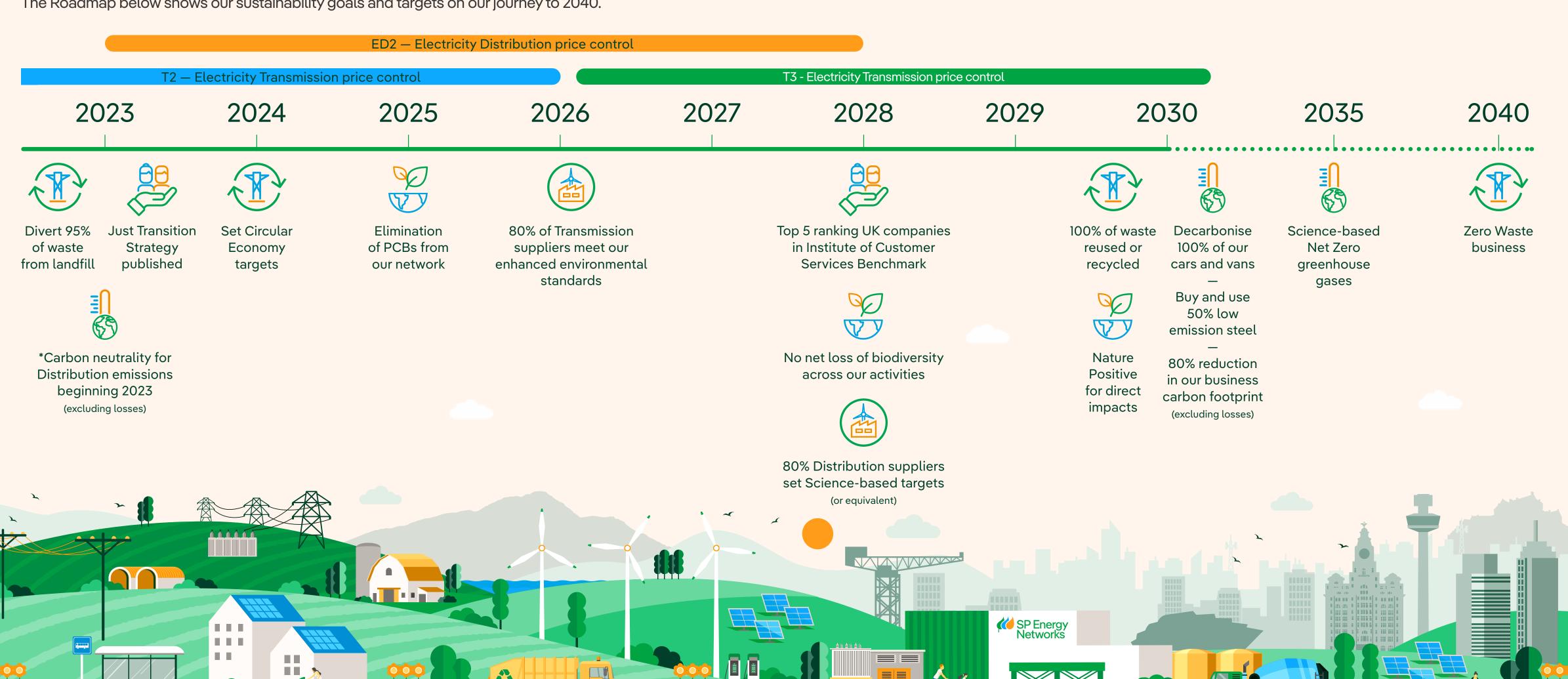
From these impacts we have created five priority areas for action, identified by the icons in this graphic.



Click <u>here</u> to access all SP Energy Networks Sustainability Reports and Publications webpage

### Our Roadmap to a Sustainable Network

The Roadmap below shows our sustainability goals and targets on our journey to 2040.

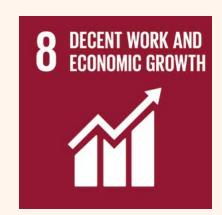


#### **UN Sustainable Development Goals**

As part of the global Iberdrola group, we align to the United Nations Sustainable Development Goals (SDGs) and actively use the SDGs to guide the development of our business plans and strategies.

As an electricity network operator, our core reason for being focusses on enabling the connection of clean energy generation to our network and transporting this to end users. Therefore, our greatest contributions are to the following goals:









Our activities span a wide breadth from Net Zero greenhouse gas initiatives and workforce skills development to network construction, maintenance, and customer service. We also prioritise collaboration, diversity and inclusion, and digital transformation. Collectively, these efforts contribute meaningfully, both directly and indirectly, to the United Nations Sustainable Development Goals (SDGs).

Through internal and external collaboration, we have mapped the SDGs to our core sustainability priorities, which are represented at the centre of our SDG wheel. In the accompanying infographic, the longer SDG segments illustrate areas where we make a direct impact, while the shorter segments reflect our indirect contributions.

Our supply chain plays a vital role across all four priority areas shown in the infographic. As its contributions are integrated throughout these areas, it has not been mapped separately. Notably, many of our indirect impacts are delivered through our supply chain partnerships.

The mapping exercise also identified areas of opportunity to enhance our contribution to the SDGs:

- Climate change resilience: integrated in our Climate Action and Action for Nature Priorities
- Water efficiency and protection: integrated in our Circular Economy and Action for Nature Priorities
- Sustainable Society and Circular Economy: distinct priority areas.
- SDG & Key Priority Area Mapping

#### **SDG & Key Priority Area Mapping**



# Commitments update

Red - at risk and highly likely to be unachievable

Amber - delayed but still likely to be achieved

G Green - on track and progressing as planned

We have set out a wide range of ambitious RIIO-T2 commitments aligned with our key priority areas, as summarised below. Progress against these commitments is detailed throughout the relevant sections of this report. For further information, please refer to the <u>Commitments Update Annex</u>.











Action for Nature



Circular Economy

Priority Area	Commitment	RAG	Status Update Status Update
Sustainable Society	Achieving the Sustainability step- change	G	Progress has been made on all commitments and we are confident that we will deliver these during RIIO-T2
Supply Chain Sustainability	Supply Chain Sustainability	G	Our Supply Chain commitments have progressed well this year with 78% of our supply chain by value now meeting our enhanced standards
Climate Action	Strategic Carbon Reduction	G	We continue to perform well against our Business Carbon Footprint Targets. In 2024/25, our Business Carbon Footprint was 14,294 tCO <sub>2</sub> e—29% lower than in 2013/14—despite a one-off SF <sub>6</sub> leak, now repaired. Continued asset repairs, EV rollout, and substation upgrades are expected to drive further reductions, though Scope 2 emissions rose slightly ahead of projected energy savings
	Business Carbon Footprint Scope 1	A	We have advanced SF <sub>6</sub> reduction efforts, achieving a 0.39% leakage rate and preparing for the deployment of SF <sub>6</sub> -free technologies. The transition of our operational fleet is behind our RIIO-T2 target. Due to availability of suitable vehicles, we will be unable to meet our target of 72 cars and vans transitioning to EV during RIIO-T2. In 2024/25, we expanded our electric fleet and charging infrastructure, aiming to electrify 21% of vehicles by the end of RIIO-T2, while continuing trials for larger EVs and collaborating with partners to overcome market limitations.
	Business Carbon Footprint Scope 2	A	We are continuing to deliver our commitments on buildings energy use and losses reduction programmes. In 2024/25, we advanced our RIIO-T2 building refurbishment programme, completing eight sites and integrating PV systems and structural upgrades to extend asset life and reduce energy use. Alongside this, modern equipment replacements have saved 5,370MWh of losses to date, supporting our low-carbon goals despite rising transmission losses from growing network demand.
	Business Carbon Footprint Scope 3	G	We've set Science-based Targets for Scope 3 emissions and are trialling carbon measurement tools to improve reporting accuracy, particularly for construction activities. Early assessments show that electrical assets and cables contribute around 73% of embodied carbon, guiding our focus on lower-carbon materials like recycled concrete, steel, and aggregates
	Climate Change Resilience	G	All ten of our Flood Risk Assessments have been completed, identifying four sites requiring remediation. Work has been finalised at one location, with progress ongoing at two others, both expected to be completed by the end of 2025. The final site cannot be completed within the RIIO-T2 period due to current planning conditions. We continue to engage with the local authority and stakeholders to find an efficient, cost-effective solution and complete the necessary works as soon as possible.
	Net Zero Transition	G	Since launching in 2022, SP Energy Networks' £5 million Net Zero Fund has awarded over £3.7 million to 27 community groups for low-carbon projects, saving nearly 29,000 tonnes of CO <sub>2</sub> e. The fund also promotes social equity, delivering a £3.10 social return for every £1 invested in vulnerable communities
Action for Nature	Pollution Prevention	A	In 2024/25, we remained on track to meet our RIIO-T2 environmental commitments, effectively managing two reported incidents with no regulatory action. We advanced PCB removal, reduced oil topups through major leak repairs, and strengthened safeguards with improved spill response, drainage plans, and Pollution Prevention Plans across all major projects and substations
	Land & Biodiversity	G	In 2024/25, SPT upheld its 'no net loss' biodiversity goal through off-site habitat improvements, stakeholder collaboration, and trials of the EcoUplift tool. Community-led projects, nature volunteering, and microgrants supported pollinator planting, gardens, and education, balancing environmental impact with operational needs amid growing network demands
Circular Economy	Sustainable Resource Use	G	In 2024, we launched Qflow to enhance real-time waste tracking and data accuracy, maintaining a 94.4% recycling rate and 97.9% landfill diversion despite increased waste volumes. We're also developing a circular economy strategy and supply chain engagement plan to support our goal of 100% waste reuse or recycling by 2030

# Performance Dashboard

Climate Action



67.2%

SBTi GHG reduction target Scopes 1,2,3 by **2030** 

23%

Decrease in business carbon footprint (excl. losses) from last year

0.26%

Decrease in business carbon footprint (incl. losses) from last year

28% **①** 



Decrease in SF<sub>6</sub> emission from last year



Low Carbon Generation Connections made this year

Note: 2023/24 updated from 48MW from 98MW

£3.5<sub>M</sub> ①

Investment in innovation supporting decarbonisation **Supply Chain Sustainability** 





Supply Chain Sustainability School partner

**78% 1** 

Suppliers progressing towards enhanced environmental standards

59% **①** 

Suppliers who have set Science Based Targets

CLIMATE COLLABORATION

Development partner for Scottish Business Climate Collaboration

Reportable environmental incidents

Sustainable Society



16

Community Net Zero Carbon workshops delivered since November 2022

£3.7<sub>m</sub>

Net Zero fund awarded to charities during Round One

Gender pay gap



ISO14001 EMS certification

**Circular Economy** 



98% 1

Waste diverted from landfill

254<sub>k</sub> ①

Tonnes of annual waste generated

Green arrow: improvement from prior year

Red arrow: deterioration from prior year

1 Up arrow: increase in value

Down arrow: reduction in value

— Dash: no change

**Action for Nature** 



Area of biodiversity habitat assessment undertaken

104

Post Intervention Biodiversity Units increase

19%

Total % biodiversity enhancement





# Sustainable Society

### Achieving the sustainability step-change

As an electricity network operator, we play a key role in enabling transition to a cleaner, greener future. We are ensuring that we leave a positive legacy by delivering social value in the communities we serve. Net Zero GHG means we need to decarbonise buildings, electrify transport and rethink how we power and heat our homes. To ensure our communities can achieve their local targets, we set up the Net Zero Fund to support projects that deliver social, environmental and economic benefits within local communities to deliver a Just Transition.

Our sustainability initiatives are built on a robust foundation of environmental management and compliance. We are dedicated to adhering to environmental regulations and preventing pollution, with integrated processes to ensure these standards are met in all our business activities. Our long-standing certification to the ISO 14001 International Standard for environmental management, which we have maintained for over a decade, underscores our commitment to these principles.

#### **Status update**

In September 2024, SP Energy Networks published its first <u>Just Transition Report</u> which summarised the steps we have taken so far to embed the principles of a fair and equitable transition into everything we do. It outlined the methods we have taken to embed new ways of working, along with showing case studies on how we are supporting customers and

enabling a transformational change to ensure a more sustainable future for all. This year, we have also been developing Key Performance Indicators (KPIs) for each of our four Just Transition principles. These KPIs are being established to provide clear, measurable benchmarks that will help us track progress, ensure accountability, and guide continuous improvement in delivering on our commitment to a fair and inclusive transition.

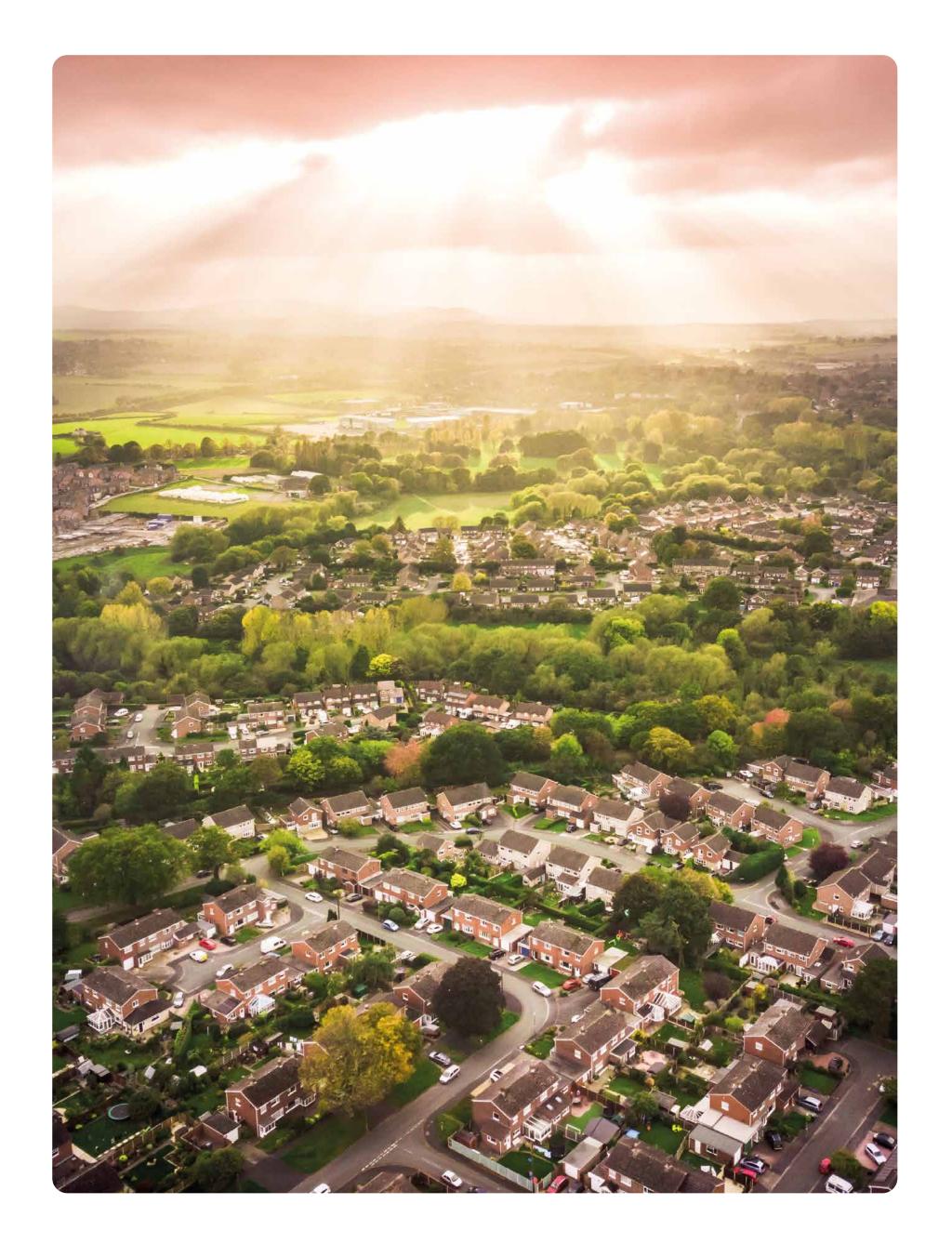
In the 2024/25 regulatory year, SP Energy
Networks successfully retained its ISO
14001 certification following an external
recertification audit of our Environmental
Management System. We are actively
integrating the audit's recommendations
and identified opportunities into our internal
processes to drive continuous improvement.

SPT Major Projects has enhanced its contractor requirements by mandating ISO 14001 certification and introducing a new Environmental Baseline Assessment (EBA) for permitted developments. The EBA replaces the outdated Environmental Management Plan and provides clear, sitespecific environmental information using a Red-Amber-Green scoring system. It includes project scope, environmental risks, survey results and licensing responsibilities, helping contractors better understand and price environmental requirements. Designed to align with ISO 14001:2015, the EBA improves clarity, reduces technical jargon and supports more effective environmental risk

management across project teams and contractors.

This year we produced our Sustainability Data and Reporting Strategy. This strategy outlines our vision for data collection and analysis, as well as the necessary digital tools and timelines to achieve our goals. More details can be found in the Data and Assurance section at the end of the report.

This year, as part of the RIIO-T3 business planning process, we further enhanced our Stakeholder Engagement Strategy to identity nine dedicated workstreams. These were identified through collaboration between our Independent Net Zero Advisory Council (INZAC), an independent group of energy industry experts, and internal leadership, and are structured around stakeholder interest and business operations. Each workstream undertook stakeholder mapping and then planned tailored engagement. The INZAC reviewed and provided advice to identify any gaps and ensure key stakeholders were represented. As a result, each workstream was paired with a dedicated "buddy group" from our INZAC. This aligned specific members with a mix of relevant expertise to each workstream, allowing for concise, informed and balanced discussions on our stakeholder engagement activities. This enabled more efficient scrutiny and constructive challenge of strategies and activities.



#### Countdown to 2035 -

### Empowering our workforce to achieve our Sustainability Goals

In January 2025, we kicked off our 'Countdown to 2035' campaign, marking the beginning of a 10-year journey towards achieving Net Zero GHG emissions by 2035. This initiative builds on the momentum of our successful 'Year of Sustainability' campaign from 2023-2024. The campaign's goal is to empower our workforce with the knowledge, tools, and resources necessary to integrate sustainability into all aspects of their work. Our employees play a vital role in driving sustainable practices within our processes and projects. Throughout the campaign, our employees are encouraged to share and celebrate their sustainability achievements, no matter the size. While the 2035 target is ambitious, it is essential to foster accelerated behaviour, set aspirational goals, and inspire others to follow our lead. This campaign serves as a platform to showcase our current sustainability efforts and identify areas for further improvement.

#### **Campaign Successes to Date:**

- We have established a brand identity centred around SP Energy Networks' five sustainability priority areas, ensuring clear linking of activities to priorities, consistency in our annual reports and clear identification of campaign materials.
- To date, the campaign has been communicated to over 3,000 employees with over 250 employees engaging with tools and resources.
- The campaign has received strong support from the leadership team, ensuring a clear and unified vision and visible prioritisation from the top.



# Commitments

Commitment	RAG
We will maintain and continually improve our ISO14001 certified Environmental Management System to achieve 'beyond compliance' environmental performance.	G
We will embed a process for Initial Environmental and Sustainability Reviews (IESRs) for all relevant projects, to identify potential environmental issues and opportunities at the earliest stage.	G
We will improve the quality of environmental data collected and analysed at all stages of the asset lifecycle, investing in enhanced geospatial systems and formalising data sharing collaborations with key stakeholders.	G
We will continue to ensure that our staff, contractors and supply chain have the skills and knowledge to move beyond compliance and achieve our Sustainability Goals.	G
We will continue to drive industry-wide collaboration in RIIO-T2 for the benefit of all customers.	G
We will continue to engage our key environmental stakeholders via our Sustainability Stakeholder Working Group, ensuring progress via collaboration activities arising from this engagement.	G
We will continue to provide transparent reporting of our environmental and sustainability performance publishing an annual report of our progress against all environmental and sustainability commitments (as detailed in our Environmental Action Plan in Annex 7) in line with metrics and a format developed in collaboration with the other TOs.	G

# **Metrics**

Year		2021-22	2022-23	2023-24	2024-25
ISO14001:2015 certification	Certification	Yes	Yes	Yes	Yes
Training Plan Delivery	Completion %	94%	61%	98%	80%
Stakeholder Engagement Plan delivery	% of Engagement plan target	-	-	100%	100%



# Supply Chain Sustainability

Building strong partnerships within our supply chain is vital to achieving our sustainability goals. Our diverse network of suppliers supports every stage of the asset lifecycle—from design through to disposal. We work closely with them to ensure that all activities are carried out safely, efficiently and in full compliance with regulations. Beyond operational excellence, we aim to reduce environmental impact, raise environmental standards and champion best practices across the industry. We are proud to benefit from the broad expertise and wide-ranging services our supply chain partners provide.

#### Status update

We continue to collaborate closely with our supply chain to enhance the sustainability of our projects and programmes, while also working towards consistent reporting across all partners.

During this regulatory year, we conducted a comprehensive review of our suppliers and contractors to identify those with the most significant impact. This led to the creation of our priority suppliers list, comprising 153 suppliers who collectively represent 90% of our total supplier value. This targeted approach enables us to focus our efforts on those with the greatest influence on our operations, while still supporting smaller contractors through initiatives such as the <u>Supply Chain Sustainability School (SCSS)</u> and the <u>Scottish Business Climate Collaboration (SBCC)</u>.

The SBCC provides a free access website to SMEs across Scotland, offering a suite of

12 e-learning modules covering topics from climate science to carbon foot printing and the development of carbon reduction plans.

The introduction of our priority suppliers list has sharpened our reporting focus. Currently, 78% of these suppliers meet our enhanced environmental requirements.

#### These include:

- GoSupply Platform used to assess suppliers' environmental, social, and governance (ESG) performance through a structured, scored questionnaire.
- Supply Chain Sustainability School –
   a learning platform that helps evaluate
   and improve suppliers'
   sustainability capabilities.

Our reporting now also tracks whether suppliers have publicly committed to, or achieved, validation of their greenhouse gas (GHG) reduction targets through the Science-Based Targets initiative (SBTi) or an equivalent external validation process. This serves as our benchmark for determining whether a supplier has established its own sustainability KPIs, in line with our T2 Commitment. As of the 2024/25 regulatory year, 59% of our supply chain has either committed to or achieved SBTi validation.

Looking ahead, we will continue to engage and collaborate with our supply chain to further embed and advance our enhanced environmental standards throughout the remainder of RIIO-T2.



### Case Study - Strategic Agreement

This regulatory year, we named 19 companies as preferred partners in our landmark £5.4 billion supply chain contract programme, marking a major step forward in accelerating investment in our electricity network.

These partners will support SP Transmission (SPT) in delivering the most significant upgrade of the GB electricity grid since its creation—essential to meeting rising demand and enabling future growth.

The programme is expected to generate 1,000 new direct jobs and tens of thousands more across the wider supply chain. Notably, 17 of the 19 selected contractors are based in the UK or Ireland, reflecting SP Energy Networks' strong commitment to strengthening the domestic supply chain.

Among the selected partners are:

- Keltbray Energy Limited based in Surrey and a recent recipient of ScottishPower's Supplier of the Year Award, who will contribute to both overhead line and substation projects.
- **I&H Brown -** a family-run civil engineering firm headquartered in Scotland.
- RJ McLeod a Glasgow-based contractor, who will support the delivery of new and upgraded substations.

This strategic partnership is set to run for an initial five years, with the option to extend to ten. This long-term approach provides our partners with the confidence and stability to invest in their workforce, equipment, technology, and services throughout the duration of the programme





### Commitments

Commitment	RAG
We will introduce consideration of environmental sustainability in our procurement processes in line with ISO20400 Sustainable Procurement Standard, including a carbon metric as a minimum.	G
We will work in collaboration with our suppliers and industry peers to develop a suite of targets and impact metrics designed to drive environmental improvements throughout our value chain.	G
We will further enhance environmental management standards and KPIs within contract specifications and supplier codes of conduct (including requirements for public disclosure of metrics) and cascade to all relevant suppliers.	G
We will target more than 80% of RIIO-T2 suppliers (by value) meeting these enhanced environmental standards.	G
We will report on the actual percentage of suppliers (by value) meeting these standards.	G
We will engage with suppliers throughout the duration of their contracts to continue to reduce impacts and optimise benefits	G
We will increase our internal supply chain management resources to enable the collection and analysis of enhanced data and a greater level of collaborative working.	G
We will become a Supply Chain Sustainability School Partner, requiring contractors and suppliers for all new contracts to become members and undertake relevant sustainability and environmental training.	G
We will engage with suppliers early in the development of projects to enable them to propose environmental improvements at concept and design stages	G

# Climate Action

### **Supporting the Net Zero GHG transition**

The energy generation system is changing, moving from a traditional centralised model reliant on fossil fuels, to a decentralised Net Zero GHG model focused on low carbon renewable generation. The development and maintenance of our infrastructure is a key enabler for energy security and achieving Net Zero GHG emissions. During this time of unprecedented network growth, we must also reduce the carbon footprint of our business operations, and make sure our network is resilient to the effects of climate change.

Our targets for decarbonising our network are deliberately challenging and to achieve them, we will need transformation at every level of our business. We must determine the most cost-effective interventions by identifying the options available and considering their costs against the quantity of carbon reduction. Thus, ensuring that we achieve carbon savings at an efficient cost to customers.

Demand for electricity is also changing, with the UK and Scottish Governments setting ambitious targets to decarbonise sectors such as transport and heat. Our network must be prepared for these changes in demand and generation. While we drive this transition, we must ensure that none of our customers are left behind, recognising that those communities and customers who are least likely to have access to low carbon vehicles or heating will frequently also be the most vulnerable in society.

We have developed our plans to align with the Scottish Government's Energy Strategy to ensure we are playing our part to meet the national ambition for Net Zero greenhouse gas emissions by 2045.



# Climate Action

#### **Net Zero Fund**

SP Energy Networks' £5 million Net Zero Fund was launched in 2022 to help communities to advance their net zero plans and projects, prioritising those at risk of being left behind on the country's journey to net zero emissions. The Transmission Net Zero Fund has been established to support communities across central and southern Scotland.

Since its launch, the fund has enabled communities to develop their project ideas through delivery of 16 tailored community workshops and 16 project feasibility studies, providing support to those who needed more guidance in formalising their plans to get their projects ready for delivery.

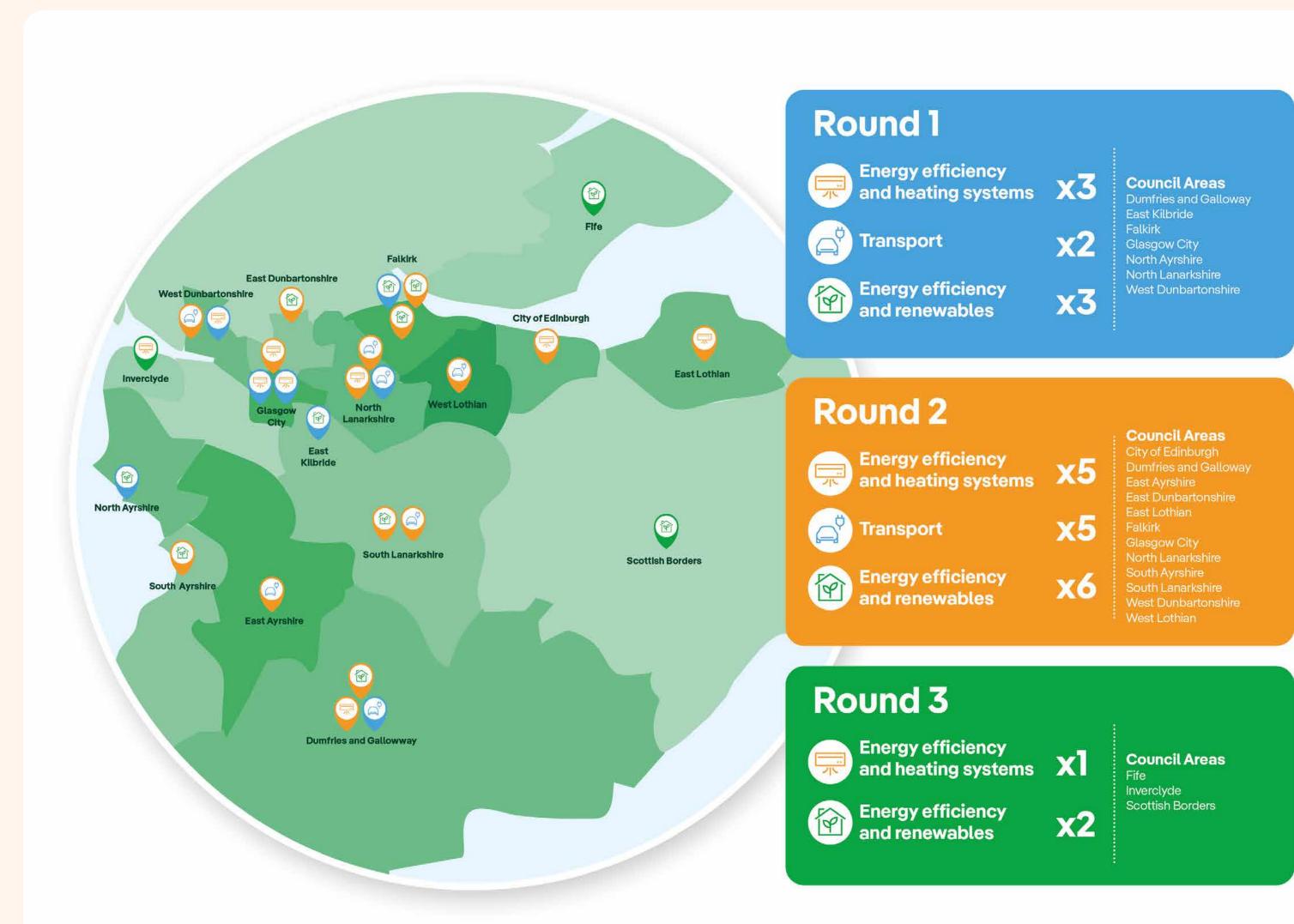
Over £3.7m has been awarded to 27 community organisations and charities across Scotland. Projects include: the installation of heat pumps and renewable energy solutions; the purchase of electric vehicles; and retrofitting listed buildings to increase energy efficiency and reduce greenhouse gas emissions.

The investment to date is predicted to save a combined 28,904 tCO $_2$ e - the equivalent to driving around the Earth over 7,000 times in an average car. We expect that for every pound spent on these projects, an overall Social Return on Investment (Net Benefit per £ spent) of £3.10 will be realised over the maximum benefit lifetime.

Not only is our Net Zero Fund creating a cleaner environment through carbon savings, but it is also enabling a more equitable transition to Net Zero by supporting vulnerable consumers and communities. From creating warmer and more energy efficient spaces for community use, to electrifying transport that enables access to essential services like health appointments or food deliveries for vulnerable members of the community – the fund is supporting local projects that unlock social, environmental and economic benefits to deliver a just transition for all.

Find out more about this fund at - spenergynetworks.co.uk/netzerofund

Case Study Images and stories can be found here -Net Zero Fund News - SP Energy Networks



### Commitments

Area

Introducing our Net Zero Fund

For RIIO-T2 we have proposed a £5m 'Net Zero' Fund so that we can use our central and impartial role within the energy system to ensure local communities, including those identified as 'vulnerable', are financially supported to maximise the social, environmental and economic benefits of local energy solutions.

### **Metrics**

Metric	Amount
Community Workshops	16
Awarded to Community Organisations	£3.7m
tCO₂e savings	28,904 tCO <sub>2</sub> e

# 

# **Connecting Low Carbon Generation**

#### Status update

The past year has seen significant changes to the connections process under NESO's Connections Reform project, while we have seen continued growth in the number and complexity of connection applications. With over 850GW¹ of contracted generation and demand projects in the GB-wide transmission and distribution queues, SPT have been supportive of these reforms to prioritise those projects which can demonstrate they are ready and needed to deliver the UK Government's Clean Power 2030² ambitions and Net Zero targets. We have been fully engaged in the development of these reforms, working closely with Ofgem, Government, NESO and other network operators and industry, ensuring full SPT representation on the key working groups which have considered and driven these key industry changes, including: the Connections Delivery Board, Connections Process Advisory Group, the ENA's Strategic Connections Group, connections reform code working groups (CMP434, CMP435, CMP448) and NESO's Connections Reform Hub.

Low Carbon Generations Connections will be strategically aligned with the Clean Power 2030 Action Plan², where GB wide and regional capacity allocations will guide what capacity of low carbon technologies is required across the country. Regional capacities have been agreed for solar, wind and battery energy storage systems (BESS) and so we have included BESS in our low carbon generation totals for the first time, requiring an upwards revision to last year's figures. This year we connected 50MW of new low carbon generation in 2024/25, aligned with our Clean Power 2030 Action Plan. We plan to connect a further 760MW of new low carbon generation by the end of 2025.

We continue to work closely with UK and devolved governments and regulators to address related challenges, specifically planning and consenting and supply chain availability and sustainability. As a result, we welcomed the UK Government's Planning and Infrastructure Bill and Ofgem's Advanced Procurement Mechanism, both of which seek to address some of the planning and supply chain challenges which SPT is currently experiencing.



<sup>&</sup>lt;sup>1</sup>Electricity Networks Association Connections Data Dashboard - <u>Connections data – Energy Networks Association (ENA)</u>

<sup>&</sup>lt;sup>2</sup> Clean Power 2030 Action Plan - <u>Clean Power 2030 Action Plan - GOV.UK</u>

### **Metrics**

Year		2021-22	2022-23	2023-24	2024-25
New low carbon generation connections	MW	186	534	98	50
Low Carbon Share of Generation %	%	88.5%	89.5%	90.5%	90.6%
Average time to issue connection offer	Days	68.86	74	71	67
Connection offers accepted	Number	74	219	220	417
Quality of Connections ODI score	1-10	8.3	8.2	8.27	8.89
Quality of Connections ODI target	1-10	8.3	8.4	8.64	8.81

Note: updates made to 2023-24 New Low Carbon Generation Connections and Low Carbon Share of Generation % to include BESS



#### **Innovation**

Over the past year we have invested through the Network Innovation Allowance (NIA) and Strategic Innovation Fund (SIF) to support a diverse portfolio of projects aimed at advancing environmental sustainability and system resilience. This funding enabled progress across multiple initiatives, including the development of decarbonisation technologies and environmental protection solutions materials with carbon savings and circular opportunities for key such as landslide mitigation and SF, leak reduction. These projects, many of which are ongoing, reflect a strong commitment to innovation greenhouse gas emissions. that supports the transition to a low-carbon energy system while enhancing the reliability and sustainability of network operations.

#### **Truly Sustainable Circuits Project**

The Truly Sustainable Circuits Project (TruSC) was commissioned by SP Energy Networks to gain a better understanding of how to develop and operate electricity transmission and distribution infrastructure in a way that minimises environmental impacts and transitions from a traditional linear model towards a circular model. This serves as a comprehensive blueprint for integrating low-carbon and circular principles into the design and construction of overhead line and underground cable projects.

The projects key aims are to:

- Minimise the environmental impact of overhead lines and underground cables across their lifetime.
- Transition towards a circular economy model by adopting principles that prioritise resource efficiency and waste reduction.
- A summary of findings is shared below for each area:

#### **Whole Life Carbon Impacts**

The whole life carbon (WLC) assessment identified several carbon hotspots within typical underground cable and overhead line transmission systems. For underground cables, the most significant emissions were linked to the B4 and B5 lifecycle stages (material replacement and refurbishment) which together accounted for around 53% of total emissions, with cables and plastic membranes being the main contributors. In overhead line systems, the greatest emissions source (approximately 66%) was associated with the Al to A3 stages, covering material extraction, manufacturing, and

construction, with aluminium and galvanized steel identified as key contributors.

The study also identified several opportunities for reducing whole life carbon emissions. These are mainly attributed to the use of alternative waste streams that have the potential to reduce resource use and

#### **Opportunities**

A list of opportunities aimed at embedding circularity, reducing greenhouse gas emissions and other environmental impacts was developed, resulting in a document on Nature Positive opportunities and a shortlist of quantifiable opportunities that assessed material savings, carbon savings and cost benefit estimates. Additionally, potential risks associated with the opportunities such as technical performance concerns and supply chain constraints were highlighted.

#### **Supply Chain & Circular Economy**

Supply chain readiness and ways to collaborate with SP Energy Networks on delivering sustainable outcomes were explored with a list of suitable short- and long-term targets, indicators, metrics and time-locked aspirations developed to enable a circular economy strategy.

#### **Applying Learnings**

The TruSC project has provided valuable baselines and benchmarks for WLC across asset types, but its true impact lies in how these insights are being embedded into future projects. SPT will incorporate the carbon baseline established in the TruSC report into its carbon management implementation plan, using it as a reference when detailed project data is unavailable to ensure credible early-stage carbon estimates. These baselines will also guide the setting of WLC reduction targets that align with SPT's broader sustainability objectives, including those outlined in the RIIO-T3 business plan. This approach establishes a feedback loop where each new project builds on previous learnings, driving continuous improvement in carbon performance across the organisation.





### **Business Carbon Footprint**

Since 2013, we have published our Business Carbon Footprint (BCF) annually, providing transparency on the emissions we directly control and influence. This commitment reflects our dedication to environmental stewardship and accountability.

In 2022, we made a significant step by setting validated science-based targets (SBTs) for all direct and indirect emissions, aligning with the global goal to limit warming to 1.5°C. Our current Science Based Target is a 67.2% reduction by 2030 from a 2018/19 baseline and we aim to achieve Net Zero Greenhouse Gas (GHG) emissions by 2035 (Scopes 1, 2 and 3).

We have recently collaborated with consultants from Planet Mark to review and update our near- and long-term Net Zero GHG targets, and to develop a supporting Net Zero Transition Plan. This work has now been completed, and we are currently in the process of submitting our revised targets for validation by the Science Based Targets initiative (SBTi). We anticipate receiving validation by the end of the year.

Our emissions reporting follows the Greenhouse Gas (GHG) Protocol and is categorised into three scopes:

**Scope 1:** Direct emissions associated with fuel used, SF<sub>6</sub> and other refrigerant gas leakage which occur from assets we own or control.

**Scope 2:** Indirect emissions associated with either energy consumed in assets we own or control, and electricity lost as we transport electricity from supply to our customers.

**Scope 3:** All other emissions which occur as a result of our activities. These are upstream emissions predominantly associated with our supply chain.

#### Status update

In 2024/25, our annual BCF (excluding losses) was  $14,294 \text{ tCO}_2\text{e}$ . This is 29% lower than in 2013/14 when we first started measuring our BCF, and 34% lower than our 2018/19 RIIO-T2 baseline.

Whilst our fugitive emissions were lower than the previous year, they were still higher than forecast. This was largely due to a leaking section of Gas Insulated Busbar at Kilmarnock which has now been repaired successfully. We continue to make good progress in fixing known leaking assets, through our repair programme and robust fault processes, and we anticipate that we will continue to decrease our BCF in line with our targets, pending any further exceptional  $SF_6$  leakage events.

As we rollout our EV solutions we predict that our transport emissions will reduce in line with our targets.

Our scope 2 emissions have increased since last year. This is due to a combination of increased losses and a higher 'residual fuel mix' conversion factor from our electricity supplier. Losses, which are largely outwith our control contributed to not achieving Planet Mark Certification this year, which requires an annual Business Carbon Footprint decrease of 5%. However, our actual electricity consumption at substations has decreased despite the slightly higher emissions attributed to this.

We have begun our substation refurbishment programme which is calculated to save over 10MWh of electricity a year by upgrading and modernising the buildings. We will complete 32 of the 48 substations in 2025 with the remaining in 2026.



# Commitments

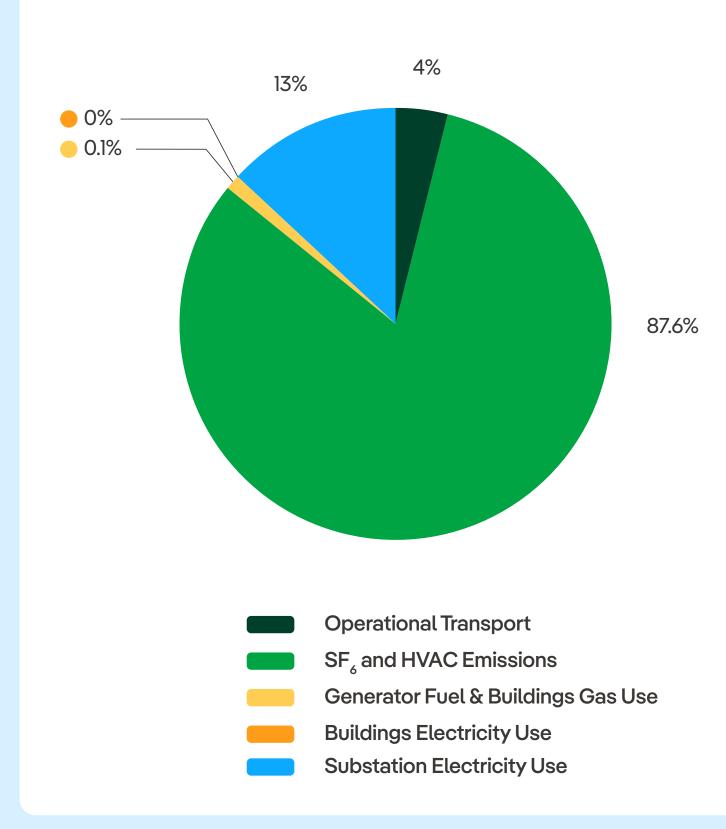
Commitment	RAG
We will implement processes for carbon management in relevant business activities, aligned with PAS 2080 Carbon Management in Infrastructure.	G
We will adopt a science-based target for scope 1*, 2* & 3 carbon reduction.	G
We will identify, and subsequently monitor, metrics to track progress towards our science-based carbon reduction targets.	G

### **Metrics**

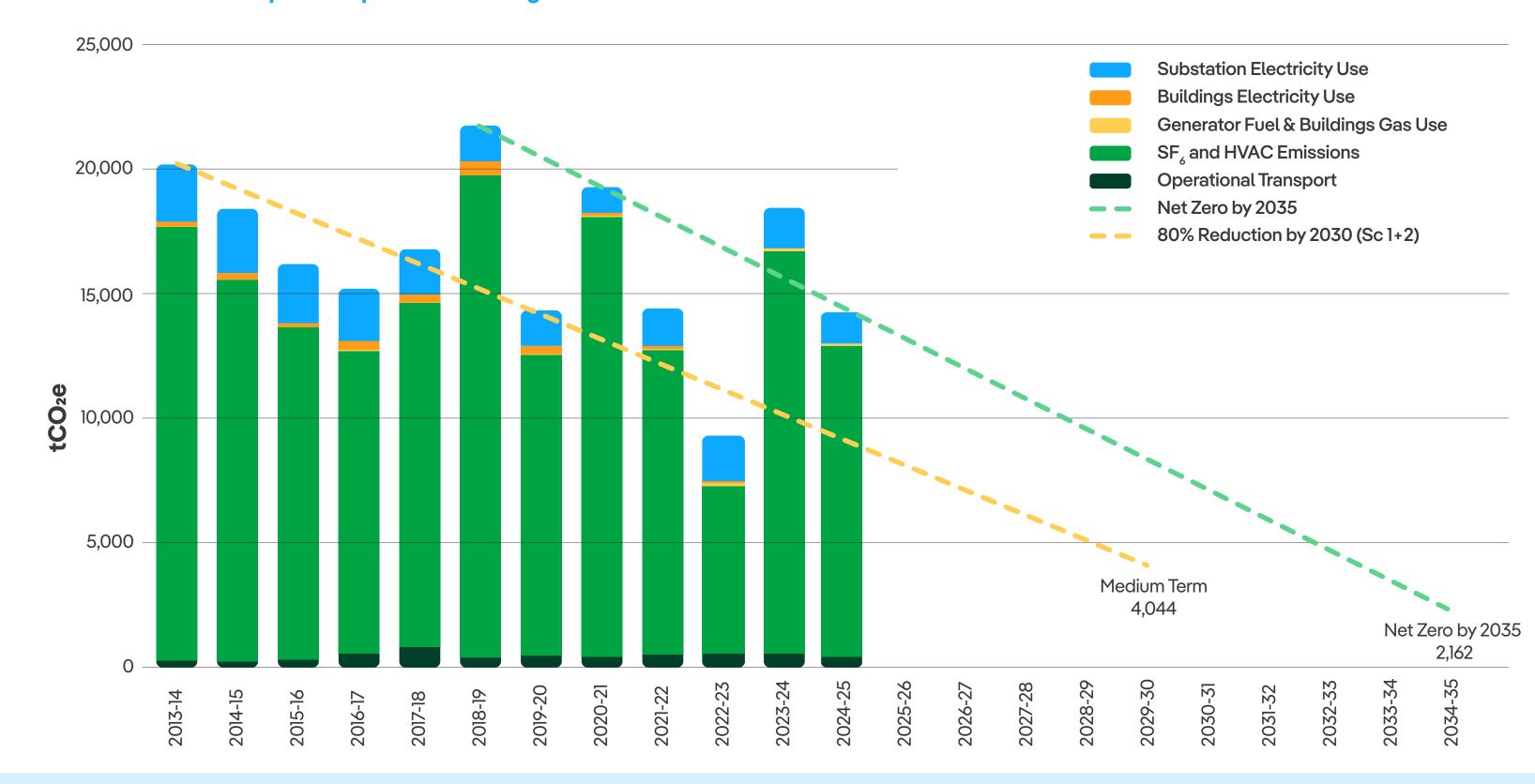
Emissions in tCO₂e	Specific Area	2018/19	2021/22	2022/23	2023/24	2024/25
Scope 1 - Operational Transport	Road	433	518	584	558	631
Scope 1 - Fugitive emissions	SF <sub>6</sub>	19,184	12,085	6,703	16,180	11,699
	HVAC	0	170	2	0	0
Scope 1 - Fuel combustion	Generator Diesel & LPG	0	9	100	29	22
Scope 1 - Building energy use	Buildings gas	21	47	45	59	64
Coope 2 Puilding operature	Buildings electricity	540	92	57	0	0
Scope 2 - Building energy use	Substation electricity	1,439	1,505	1,849	1,653	1,878
Scope 2 - Electricity losses		202,371	132,554	165,625	148,177	151,939
Total excluding losses		21,617	14,425	9,340	18,481	14,294
Total including losses		223,988	146,979	174,966	166,658	166,233



#### **Business Carbon Footprint Scopes 1+2 excluding Losses tCO<sub>2</sub>e**



#### **Business Carbon Footprint Scopes 1+2 excluding Losses**



### Case Study - PAS2080 Implementation plan

Given that embodied carbon from construction constitutes a significant part of our emissions, we have developed our PAS 2080 Carbon Management Plan to improve our processes and have a greater influence over emissions related to construction activities.

This has involved working alongside all delivery departments to understand current processes in detail to assess where carbon management can be implemented and improved. As a next step we are currently working to implement these changes and update our processes to better track, understand and reduce the emissions associated with our construction projects.





### **Operational transport**

In September 2019, our parent company, Iberdrola, joined The Climate Group's EV100 initiative, committing to electrify its cars and small vans—subject to local market conditions—by the end of 2030. Our SP Energy Networks target goes beyond these requirements, and we aim to fully decarbonise our fleet, including larger vans, within the same period. We continue to support this goal and remain dedicated to transitioning our operational vehicle fleet to electric by 2030.

#### Status update

We have replaced four internal combustion engine (ICE) vehicles with electric alternatives, and a rollout plan has now been approved to expand this number by 11 by the end of RIIO-T2. We are on track to employ electric versions of all cars and small vans by the end of the RIIO-T2 period, which will account for 21% of our total fleet — a total of 15 vehicles, compared to our original target of 72.

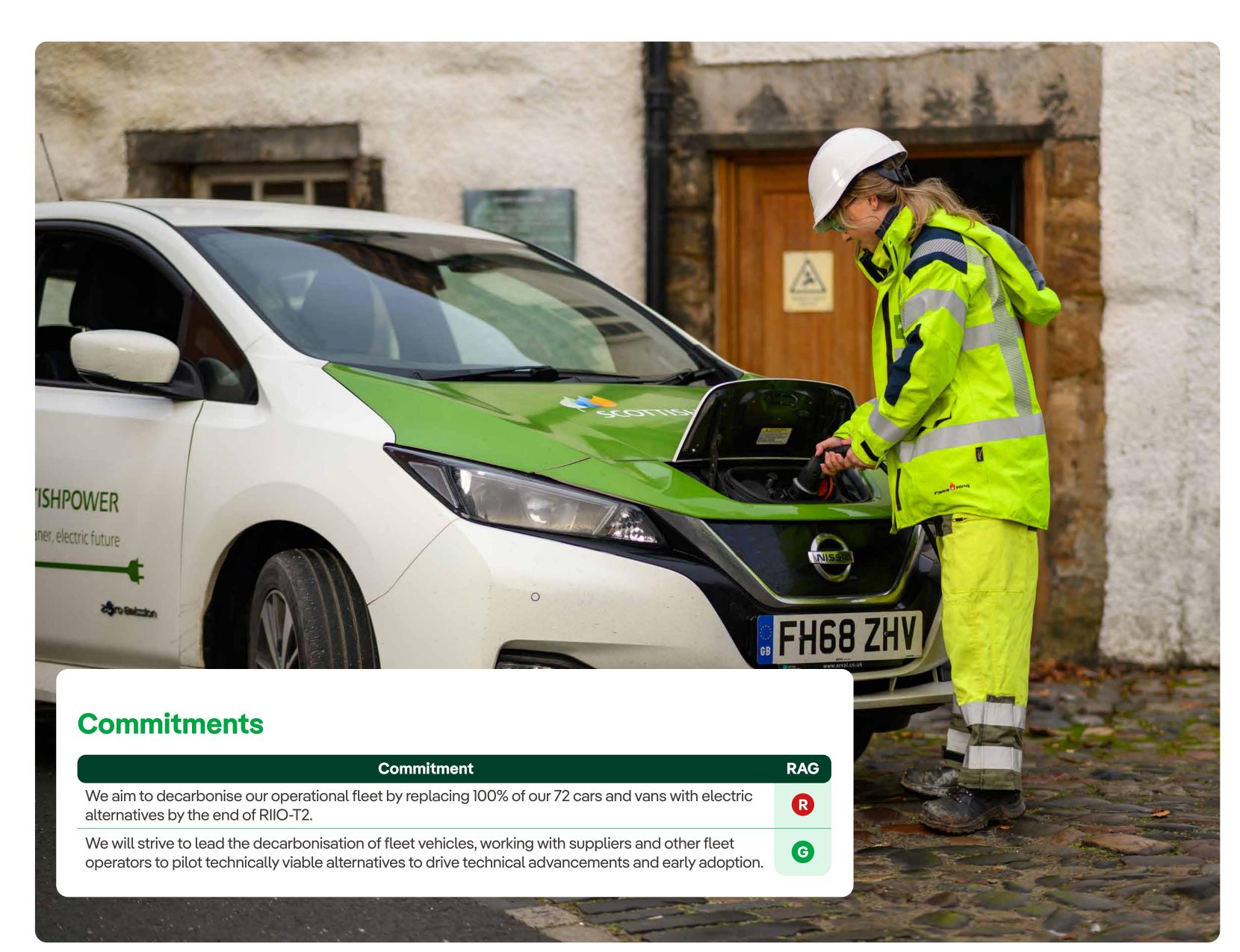
However, we will not meet our ambitious goal of fully electrifying medium and large vans, as well as 4x4 vehicles, within the same timeframe. This shortfall is primarily due to ongoing challenges with vehicle range and payload capacity.

To help overcome these barriers, we continue to collaborate with industry partners to support the development of suitable electric vehicles. We are currently trialling electric 4x4s and similar light commercial vehicles, with two model lines identified as promising candidates for use within our Transmission business.

The success of our fleet electrification strategy depends heavily on the availability of reliable and resilient charging infrastructure. In Year 4 of the RIIO-T2 price control period, we began installing electric vehicle (EV) charging points at our existing substations. Over the remainder of the price control, we plan to install a total of 300 charging points, enabling our operational fleet to recharge while on site and throughout the region.

We have also launched our 'home start' initiative, which offers the installation of EV chargers at the homes of staff who operate fleet vehicles, supporting more flexible and efficient charging.

In addition, we are collaborating with third-party charging infrastructure providers to ensure nationwide charging coverage, particularly for routes where our own infrastructure may not be suitable.





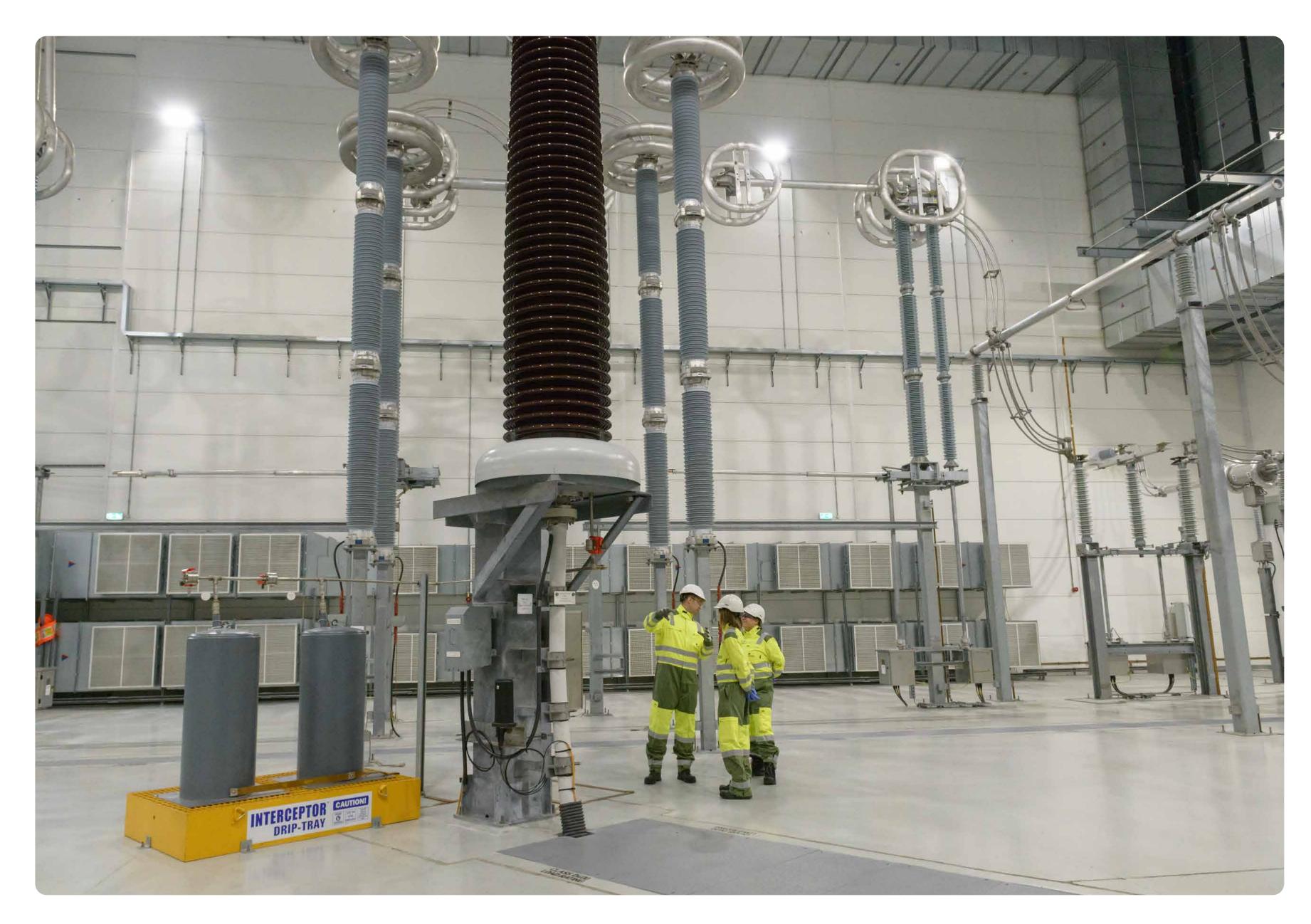
### **Fugitive emissions**

We continue to collaborate closely with industry partners and our supply chain to advance the adoption of  $SF_6$ -free technologies, aiming to integrate suitable alternatives across our network. Where feasible we are procuring equipment that does not contain  $SF_6$ .  $SF_6$  is a colourless and odourless gas used for both insulation and arc interruption in switchgear applications. It has exceptional insulating properties which enable safe, compact and low-cost switchgear solutions. Although it causes no detectable impact on the local environment if released, it is a highly potent greenhouse gas with a global warming potential of 23,500 times that of  $CO_2$ .

Annual emissions are influenced by various factors, including equipment faults and asset age. For the 2024/2025 regulatory period, the SPT Insulation and Interrupting Gas (IIG) leakage rate was recorded at 0.39%—a notable improvement following an exceptional event in the previous year.

Alongside our  $SF_6$  repair programme, our operations team has maintained rigorous monitoring of all  $SF_6$  and other gas-filled assets. This proactive approach enables early identification of issues, timely analysis and swift repairs to minimise delays. All circuit breakers previously identified as emitting gas, and not included in the RIIO-T2  $SF_6$  repair plan, are now listed on a register with agreed interventions ranging from enhanced monitoring to manufacturer-supported repairs. We are also working with key suppliers to deliver  $SF_6$ -free equipment. Notably, we have signed a Memorandum of Understanding (MoU) with Hitachi Energy to supply  $SF_6$ -free solutions through their EconiQ portfolio. The first deployment of the EconiQ 420kV GIS is planned for two new substations on our network.

SPT remains committed to planning and preparing for the integration of alternative IIG assets, ensuring our teams are equipped with the appropriate training and resources to manage all gas types and mixtures effectively.



# Case Study Last of SP Energy Networks' 132kv Oil Circuit Breakers removed from the transmission network

We completed a major milestone by removing the final oil-filled circuit breaker (OCB) from our transmission network at Galashiels. This marked the end of an era that began in 1953 with the first OCB installations at Currie and later at Galashiels in 1974.

The last unit had been operational since 1975. Its removal was part of a broader modernisation initiative across five key sites: Galashiels, Westfield (132kV and 275kV), Devol Moor, and Glenrothes.

In total, 118 OCBs have been replaced with a mix of repurposed units, SF<sub>6</sub>-free circuit breakers (where feasible), and SF<sub>6</sub>-based alternatives. This transition significantly reduces environmental risks, such as oil leaks from older units, and improves operational efficiency—cutting major maintenance time from 80 to just 6 man-days.

The project involved close collaboration between Transmission Operations, Major Projects teams and contractors including Siemens Energy, GE Vernova and others. The successful completion enhances network reliability, safety and sustainability.





## **Metrics**

Year	Unit	Baseline 2018-19	Year1 2021-22	Year2 2022-23	Year3 2023-24	Year4
Total IIG emissions	tCO <sub>2</sub> e	20,103	12,196	6,839	16,291	12,097
SF <sub>6</sub> emissions	tCO <sub>2</sub> e	20,103	12,196	6,839	16,291	12,097
Other (IIG) emissions	tCO <sub>2</sub> e	0	0	0	0	0
Leakage rate	%	0.86%	0.45%	0.23%	0.54%	0.39%
Interventions per annum	Number	0	0	0	0	0
Estimated impact of interventions	tCO₂e avoided/abated	0	0	0	0	0

The figures in the IIG table above are taken from the E1.4 RRP table. There are slight differences in the reporting between the Business Carbon Footprint and the IIG table due to two factors:

1)  $SF_6$  emissions as stated in the BCF are as per the Ofgem RRP guidance and based on DESNZ conversion factors (in line with GHG Protocol) of 23,500kgCO<sub>2</sub>e for 2023/24. However, for IIG Incentive reporting Ofgem require us to convert using 24,300kgCO<sub>2</sub>e in line with the latest UN IPCC report. This discrepancy arises because the DESNZ factors have not yet been updated to reflect the latest UN IPCC report.

2) the timing of table production, any differences will be reconciled and compensated in the following years tables/reports.



## **Carbon Offsetting**

Given the urgent need to reduce greenhouse gases emitted to the atmosphere and mitigate the effects of climate change, it is important that we develop our network in support of the Net Zero GHG transition in a way that achieves neutral or positive environmental and social impacts. To do this, we must reduce carbon emissions within our operations as far as possible within technological and regulatory boundaries and remove or offset what cannot be reduced - in line with SBTi guidance.

SP Energy Networks has signedup to the **Environmental Markit** Registry, which is an international registry for managing carbon, water and biodiversity projects, issuing, transferring and retiring credits to ensure transparency for all stakeholders. We have also developed an approach to carbon offsetting that focuses on carbon removal in line with The Oxford Principles for Net Zero Carbon Aligned Carbon Offsetting. Aligning with this best practice standard ensures a high probability of 'additionality' and low probability of 'reversibility'.

Through market research we identified UK Woodland Carbon Code and UK Peatland Carbon Code as well aligned with both the Oxford Principles and our own offsetting

principles, which aim to deliver additional environmental and social benefits in the UK, where practical.

Our commitment is to offset SF<sub>6</sub> emissions from failed repairs on any leaking asset. To deliver against this in 2024 we purchased 2,000 tonnes of verified Pending Issuance Units (PIUs) under the UK Woodland Carbon Code. PIUs represent a forwardlooking commitment to carbon sequestration, based on scientifically modelled predictions of carbon uptake by newly planted woodlands. These units are expected to transition into Woodland Carbon Units (WCUs) once the carbon sequestration is verified through ongoing monitoring and reporting.

The PIUs were acquired to offset the SF<sub>6</sub> emissions associated with the 2023/2024 regulatory year. We have invested in Hawshaw, a native broadleaf woodland in the Scottish Borders, adjacent to the River Tweed. This woodland will be managed on a non-intervention basis and provide a range of benefits beyond offsetting, including rainwater interception, biodiversity, habitat, and amenity. This investment not only supports our Net Zero GHG ambitions but also contributes to the expansion of UK woodland, enhancing biodiversity and supporting local ecosystems.



## Commitments

Commitment	RAG
We will continue to require manufacturers to provide equipment with an $SF_6$ leakage rate which is half that of the internationally recognised standards, where technically viable.	G
We will continue to carefully monitor and manage our assets to minimise $SF_6$ leakage, repair leaks quickly, and where this is not possible, replace the asset before its anticipated end of life	G
Where a repair to a leaking asset proves ineffective and the asset requires to be replaced, we will offset the SF <sub>6</sub> emissions from that asset until its replacement via a Carbon Offsetting partner.	G
We will drive the development and adoption of $SF_6$ -free technologies, collaborating with supply chain and industry peers and piloting new technologies where technically viable.	G
We will use alternatives to ${\sf SF}_6$ insulating gas for all new circuit-breakers and GIS installations where there are technically feasible market-ready solutions.	G



## Scope 2 emissions

## **Buildings energy usage**

Since September 2019, we have sourced green electricity for our depots and offices through a 100% UK-based renewable energy tariff, supported by Power Purchase Agreements (PPAs). All energy procured under this tariff carries a zero-carbon emissions factor, significantly reducing the environmental impact of our operations.

In addition to our depots and offices, we also secure PPAs for all metered substations. We continue to advance our RIIO-T2 substation building refurbishment programme, further supporting our commitment to sustainable energy use and infrastructure improvement.

Our substation energy emissions have increased since last year (from  $1,653tCO_2e$  to  $1,878tCO_2e$ ). This is mainly due to a higher 'residual fuel mix' conversion factor from the electricity supplier. However, our actual electricity consumption at substations has decreased (from 12.4MWh to 12.2MWh) despite the slightly higher emissions attributed to this.

# Energy Use in Offices, Depots and Substations 100% 75% 50% Baseline Year 1 Year 2 Year 3 Year 4 2021/22 2022/23 2023/24 2024/25 Office and Depot-Renewable Sourced Substation-Non Renewable Sourced Non Renewable Substation-Non Renewable Sourced Substation-Non Renewable Substation-Non Renewable Sourced Substation-Non Renewable Sourced Substation-Non Renewable Substation-Non Renewable Sourced Substation-Non Renewable Substation-



### **Status update**

During this regulatory year, we have made strong progress in advancing our RIIO-T2 building refurbishment programme. Eight sites have already been completed, and we are actively progressing work across the forty remaining locations, demonstrating our strong intent to deliver the full programme as efficiently and effectively as possible.

In parallel with the refurbishments, we are also installing photovoltaic (PV) systems where suitable and undertaking structural improvements to concrete and steel elements within substation buildings, where required. These enhancements are designed to extend the lifespan of existing assets, reduce the need for new construction, and lower the energy consumption of our substation facilities.

We remain confident in our ability to meet our commitments in these areas over the course of the RIIO-T2 period.

## Commitments

RAG

We will implement energy efficiency measures as part of our RIIO-T2 building refurbishment programme at 48 substations (representing around 1/3 of our sites) with the aim of reducing energy consumption by more than 1000MWh per year.



## **Metrics**

Year		2018-19	2021-22	2022-23	2023-24	2024-25
Office & Depot Electricity	tCO₂e	540	92	57	0	0
Office & Depot Gas	tCO₂e	21	47	45	59	64
Substation Electricity	tCO₂e	1,439	1,505	1,849	1653	1,878



## Scope 2 emissions

### **Network Losses**

Energy losses are an unavoidable part of transporting electricity across the network, primarily caused by heat generated in transmission components. We are committed to minimising these losses and have set a target to reduce them by approximately 14,000MWh, around 3%, over the RIIO-T2 price control period. This proactive approach ensures that overall losses remain lower than they would be without intervention, contributing to greater network efficiency and reduced environmental impact.

## **Status update**

We continue to replace aging infrastructure including transformers, shunt and series reactors and overhead lines with modern, lower-loss equipment. To date, asset replacement has been completed on several transmission circuits, resulting in estimated savings of 5,370MWh across the lifetime of the assets. This accounts for 38% of our target for T2, with some large infrastructure projects aiming to be complete in Year 5.

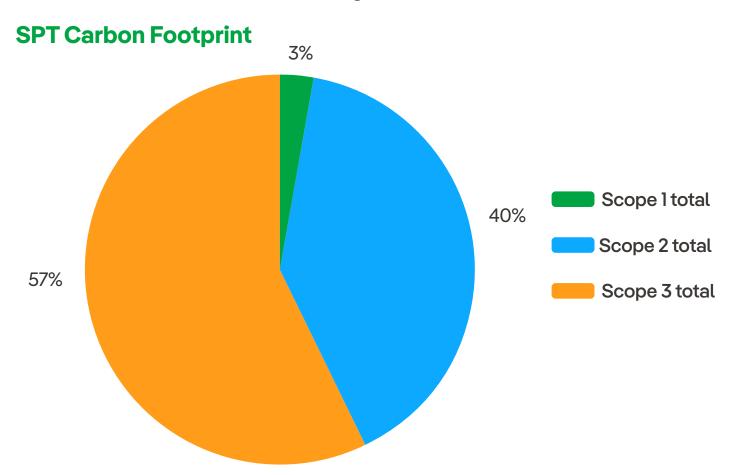
As our network grows in size, complexity and demand, driven largely by increased renewable generation in the North and higher North-to-South power flows, transmission losses are also expected to rise. The decarbonisation of these losses will primarily depend on the broader decarbonisation of the UK energy mix. This year our Losses increased by 18MWh and contributed to us not achieving Planet Mark Certification which requires an annual Business Carbon Footprint decrease of 5%. Although we have limited influence over energy market dynamics, we are committed to accelerating the connection of renewable energy sources to the grid and continuing the development of infrastructure that supports a low-carbon future.



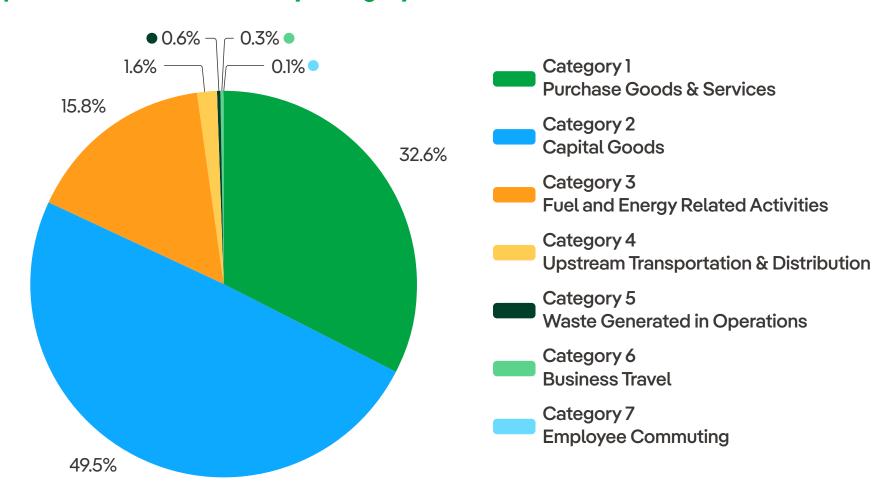


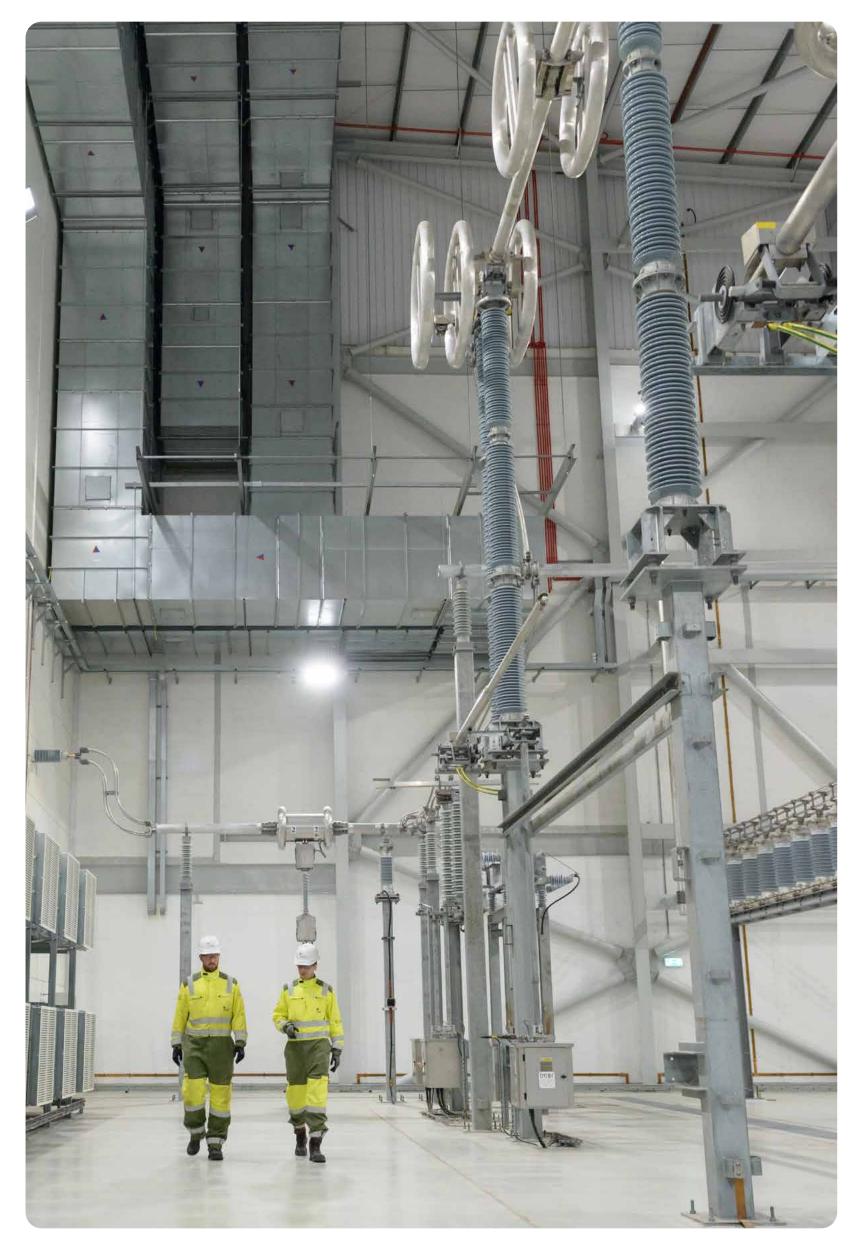
## Scope 3 emissions

Scope 3 emissions account for approximately 57% of our overall carbon footprint. These emissions include upstream impacts largely associated with our supply chain. Scope 3 emissions are classified into categories in accordance with the Greenhouse Gas Protocol.



## **Scope 3 Baseline Breakdown by Category**





Categories 1 and 2, covering emissions from purchased goods and services and capital goods account for nearly two-thirds of our total Scope 3 emissions. Ongoing analysis indicates that the majority of these emissions are linked to infrastructure development. To address this, we are aligning our practices with the principles of PAS 2080 and enhancing our understanding of embodied carbon, both of which are critical to reducing emissions in this area.

Another significant contributor to Scope 3 emissions is fuel- and energy-related activities, primarily associated with the upstream production of electricity that is lost during transmission across our network. These emissions are expected to decline over time as the UK electricity grid continues to decarbonise.

## Status update

In line with our commitment to reducing emissions, we have established Science-based Targets for Scope 3 and are continuously refining our emissions measurement practices. Accurately reporting Scope 3 emissions remains a complex task, particularly in relation to the goods and services we procure, due to the intricate and varied nature of our global supply chain. To address this, we are currently trialling several carbon emission measurement tools aimed at improving the precision of our Scope 3 reporting for construction activities. These tools are being customised to fit our operational processes and are undergoing testing on selected projects to assess their effectiveness. Following the completion of these trials, we intend to adopt the most suitable tool to standardise our methodology and enhance the reliability and consistency of our emissions data.



## **Business Travel**

## Status update

Emissions associated with business travel include indirect emissions from the use of vehicles not owned by SP Energy Networks such as employees' personal vehicles, rental cars, public transport and air travel. Since the start of RIIO-T2, we have seen a general increase in greenhouse gas emissions from business travel. This reflects both the increase in travel mileage as our operations expand and the reduced travel at the beginning of the price control due to COVID. A key driver of this operational growth is the significant increase in TOTEX, rising from £263 million in 2022 to £624 million in 2025, which has necessitated greater travel to support project delivery and network activities.

However, whilst our overall emissions have increased due to higher travel mileage, the carbon intensity per mile has consistently decreased each year. This trend highlights changes in travel behaviour and a growing shift towards lower-emission transport options.



## **Metrics**

Year	Unit	Baseline	2021-22	2022-23	2023-24	2024-25
	tCO <sub>2</sub> e	547	369	474	517	613
Business Travel (excluding contractor business travel)	Miles	2,119,675	1,373,064	1,903,919	2,087,380	2,505,717
	kgCO₂e/ mile	0.258	0.269	0.249	0.248	0.245



## **Embodied Carbon & Carbon Management in Infrastructure**

Recognising that embodied carbon in infrastructure is one of our largest sources of emissions, we have been developing a standardised carbon assessment tool for use across our projects. This tool incorporates emissions factors from a range of sources, including direct supplier data, industry benchmarks and average values.

For major plant assets and electrical equipment, we utilize a shared database in collaboration with other transmission operators. For primary civil engineering impacts such as concrete, steel, earthworks and timber we rely on the ICE database. For other electrical and civil materials not covered by these categories, emissions are estimated based on cost. This tiered approach ensures we apply the most accurate data to the most significant contributors to our embodied carbon footprint.

We have used an internal carbon tool to complete this year's assessment. However, we are currently trialling several other solutions available on the market so that we can expand our data collection capabilities.

Our current carbon analysis calculates embodied carbon at the 'final design' stage. As part of our PAS 2080 verification process, we plan to measure emissions at three key stages: IP2 (initial project design), final design and 'as-built' to measure emissions in categories Al-A4.

A1-A3: Embodied carbon from materials and products, representing the largest share of emissions.

**A4:** Emissions from transporting materials and products to site, which contribute a smaller portion. Please refer to Annex A - Embodied Carbon Methodology for further information.

## **Status Update**

Embodied carbon assessments have been completed for 10 SPT projects<sup>1</sup>, including switchgear replacements, transformer upgrades, fault mitigation and cable reinforcement.

While previous assessments focused primarily on civil works, this year's results reveal that electrical assets and cables account for the majority of emissions - approximately 73%. No overhead line (OHL) projects were included, which may have shown different hotspots, particularly due to the number of steel towers.

Concrete and steel combined contributed 12% of emissions, while roads and aggregates accounted for 6%.

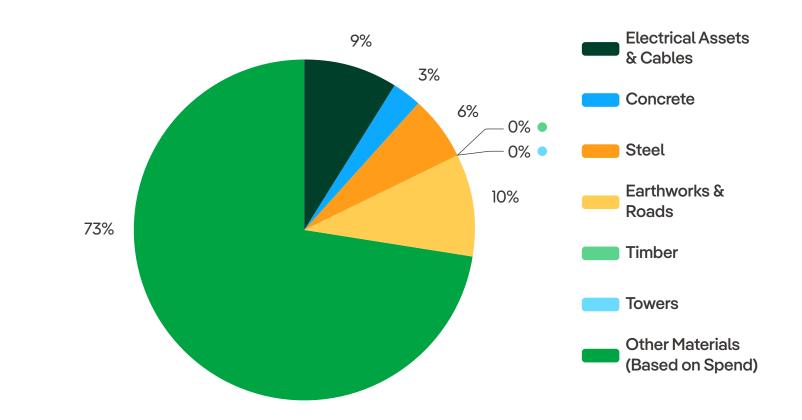
Understanding these emission hotspots is critical for targeted reduction efforts. Our current focus areas for civils include:

**Concrete:** Trials are underway for lower-carbon alternatives, including increased use of precast over in-situ mix, 3D-printed concrete, and recycled content in mixes.

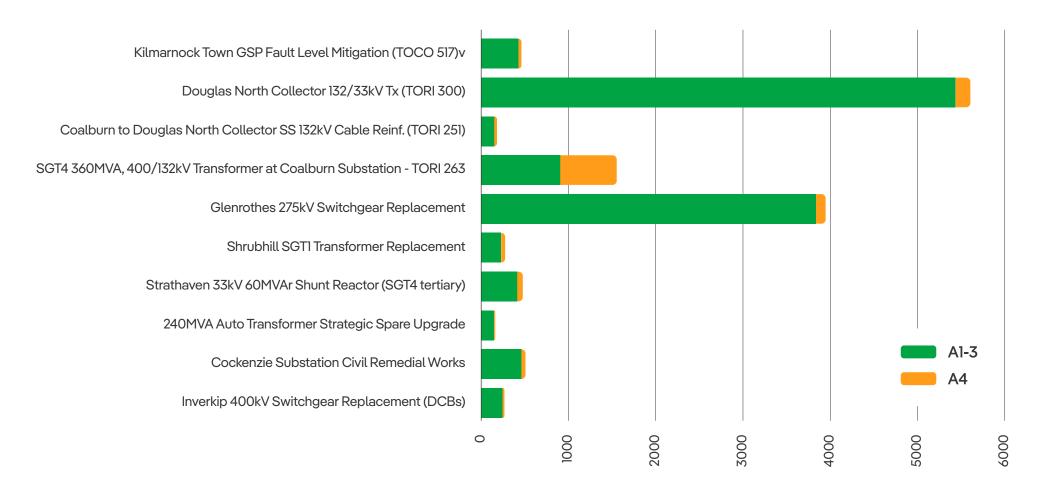
**Steel:** We are engaging with suppliers to explore low-carbon steel options that may be available on the market as well as analysing our current steel usage and requirements for the future.

**Aggregates:** We aim to maximize the use of recycled aggregates and explore opportunities for inter-site reuse.

## Material breakdown (%) of Embodied Carbon in Construction Projects<sup>1</sup>



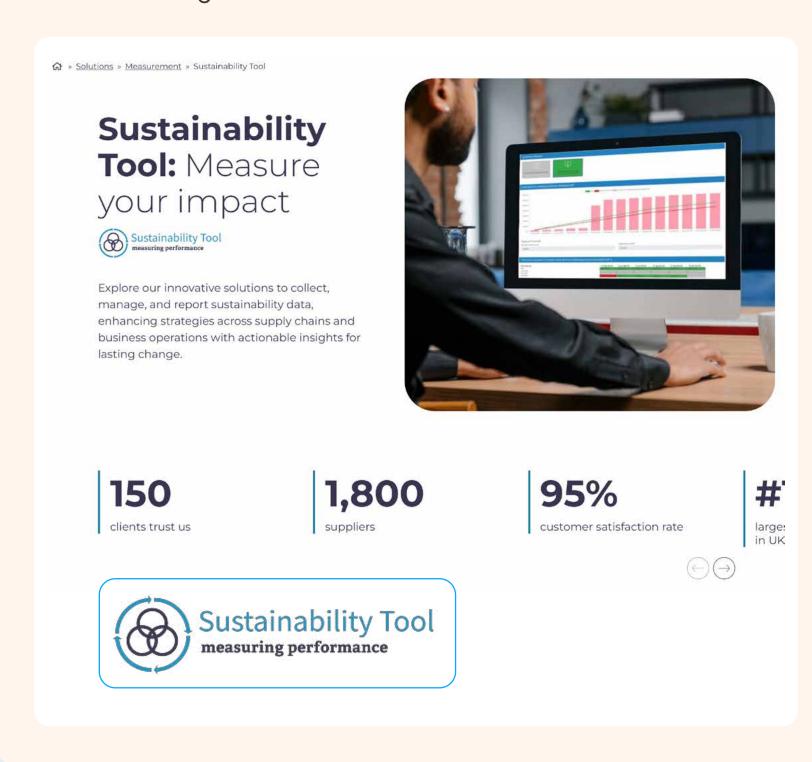
## Embodied Carbon Breakdown (TCo<sub>2</sub>e)



<sup>&</sup>lt;sup>1</sup>These assessments have been carried out on 10 SPT projects and does not cover all types of SP Energy Networks projects.

## **Product Carbon Calculator**

In partnership with other UK Transmission Operators, we are developing and deploying a 'Carbon Product Calculator'. This tool will collect material data from procured electrical assets to generate specific carbon emission factors. These results will be integrated with our broader carbon assessment tool to further enhance data accuracy and decision-making.



## Commitments

Commitment	RAG
We will work collaboratively with our stakeholders, including the other Transmission Operators, throughout RIIO-T2 with the aim of assessing and managing capital carbon on our projects, driving efficiencies throughout our supply chain, and sharing best practice.	G
We will identify, and subsequently monitor and report, metrics to track progress towards our Scope 3 science-based carbon reduction target.	G
We will, in collaboration with the other Transmission Operators, introduce a measurement tool for embodied carbon in new projects, in order to establish a baseline and set a reduction target.	G
We will collaborate with our supply chain and other Transmission Operators to drive scope 3 and embodied carbon footprint reductions.	G
We will collaborate with our supply chain to implement sustainable project sites to reduce carbon and other impacts, for example energy efficiency, diesel use, re-use of materials and reducing impact of transportation.	<b>G</b>

## **Pollution Prevention**

While we deliver the low carbon transition and reduce our own carbon impact, we must also continue to prevent pollution, protect and enhance biodiversity, use resources sustainably and encourage our supply chain to optimise their environmental impacts. Protection of the environment is a key component of how we operate our business, and an area in which we work to continuously improve our performance.

## **Status Update Incidents**

During the reporting period, SP
Transmission reported two environmental incidents to SEPA. The first involved an oil leak at the Killermont 132kV site, traced to a tank where oil had pooled in a clay joint bay. The area was excavated, the leak repaired, and contaminated soil removed. Due to the clayey ground, the oil remained contained. Continuous pumping managed rainfall, and environmental contractors conducted water sampling at nearby drains and the River Kelvin. Boreholes will be installed and monitored until the site is deemed remediated.

The second incident occurred at the Westfield 275kV substation, where excavation works revealed historical oil contamination. Most accessible oil has been removed, and the team is considering installing above-ground oil separators to replace the underground drainage system, reducing future risk. Trial pits are complete,

and borehole locations are being mapped for ongoing monitoring and oil removal.

Neither incident resulted in contamination of watercourses, and no enforcement actions or undertakings were issued by the regulator.

### **Pollution Prevention Plans**

All major transmission projects now include a Pollution Prevention Plan as part of risk management, ensuring environmental risks—such as construction run-off—are effectively controlled in both normal and abnormal conditions. These plans identify risks, define controls and allocate resources to manage them appropriately.

Key focus areas include:

- Protecting watercourses and drainage systems
- Managing dewatering activities
- Safe handling and storage of fuel and COSHH materials
- Use of materials like concrete and bentonite clay
- Soil management
- Implementation of a wet weather protocol

Transmission Operations operates and maintains around 200 substations across Scotland, each with unique environmental sensitivities. Over the past year, drainage plans for each site—including valve,

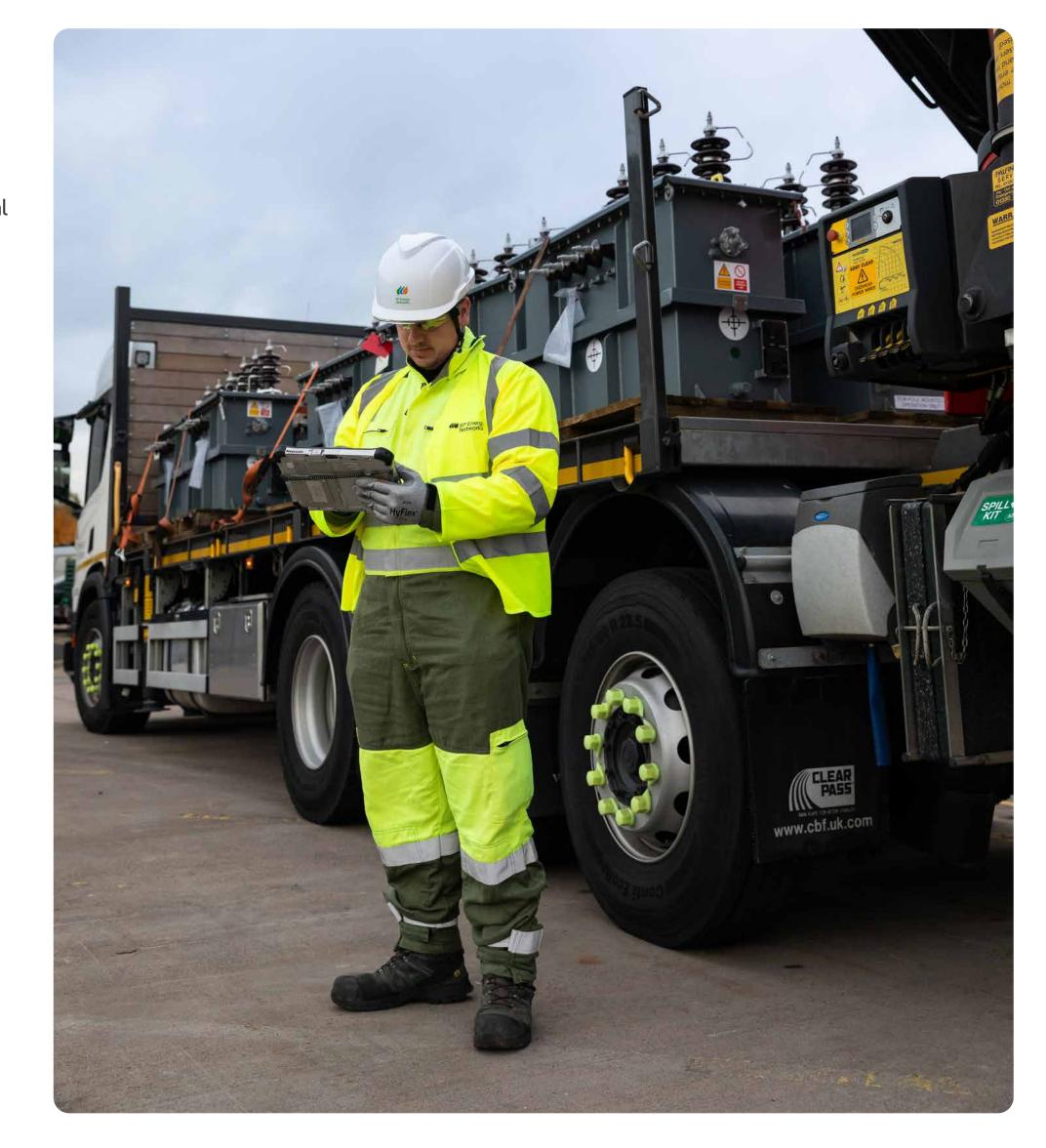
separator and outfall locations—have been mapped, printed, and displayed in control rooms alongside the Pollution Prevention Plan and emergency spill kits

### **PCB** removal

Work is progressing on the planned removal of PCB contaminated (or potentially contaminated and sealed) assets to ensure that we meet the deadline of 31 December 2025 for the removal of those assets from our Transmission network. 55 assets are still to be sampled, and a plan is being worked through to ensure that we sample and assess all the assets in time to enable decontamination, or replacement if it is needed. This programme remains on track to ensure all testable items will be tested before the deadline.

As part of a minor capital scheme that our Operations business is managing, we have removed/replaced 125 units which were suspected to contain PCB's so far in the RIIO-T2 period. On review of the results following disposal a total of 10 units were found to contain oil with greater than 50ppm PCB.

A total of 83 assets which are planned to be replaced as part of larger capital investment schemes are currently looking like they will go beyond the end date of 31st of December 2025 and we are working to review these programmes and speaking with the regulator SEPA to inform them of these units.





## Oil Mitigation and Maintenance

SPT have continued to regularly monitor our entire oil-filled asset base for leaks, future risk and oil purity. In doing so we can remain confident that they are fit for service and will cause no adverse effects to the surrounding environment.

Consistent with previous years results the majority of top ups are on Transformer/Reactor assets primarily carried out as part of routine maintenance. Repeated top-ups are tracked and repairs to assets are planned accordingly. Over the 2024/25 regulatory year, SPT have seen a significant reduction in fluid added to fluid filled cables on our network. The main factor for the decrease was the repair of two unprecedented leaks on the Gorgie to Telford Road 132kV FFC supply to Edinburgh. This leak was sealed in Q1 2024 after a significant challenge in identifying the leak location and other complicating factors. This cable is in the process of being replaced during RIIO-T2. Fluid filled cable leaks can be a challenge to locate, particularly in densely urbanised areas. Top up figures only include oil top ups resulting from loss of oil. Routine maintenance involving oil flushing is recorded however is not included in these figures as no oil has been lost.

We have an active fluid cable inspection and maintenance routine in place to monitor cable fluid. Our monitoring presents trending data that allows earlier intervention, especially where we see an increase. Over the 2024/25 period, we invested in a mobile emergency spill trailer that's equipped with deployable tanks, pump and spill control materials. The aim of this equipment is to limit ground losses until our environmental specialist can takeover.

In addition to the works underway for FFC, we are making strong progress with our T2 bunding

programme. To date, 17 bunds have been upgraded across five different sites, with work continuing at the remaining locations.

## **Legacy Land Contamination**

Two sites remain under active land remediation.

At the first site, investigations have progressed to determine the extent of remediation required. CCTV drainage surveys have been completed, and early mitigation measures such as cleansing of cable troughs were implemented to prevent further short-term contamination. RSK Geosciences has since undertaken a detailed review of background data and mapped borehole and trial pit locations, enhancing the understanding of contamination sources and pathways.

Site-specific ground investigations are now underway, with sampling and analysis informing the development of a targeted remediation strategy. To further reduce environmental risk, above-ground oil-water separators are being installed on the two 275kV transformer bunds. This will allow bund sumps to be securely sealed, preventing oily water from entering the drainage system and existing underground separators. Remediation works are scheduled to commence in Year 4 of RIIO-T2, led by RSK Geosciences, with ongoing monitoring and stakeholder engagement to ensure regulatory compliance and environmental protection.

At the second site, historical oil contamination has previously been reported to SEPA. Current investigations include CCTV drainage surveys and water and soil sampling to assess the extent and nature of the contamination. Upon completion of these investigations, a tailored remediation plan will be developed and implemented in line with environmental compliance requirements.

## **Commitments**

Commitment	RAG
We will target zero environmental regulatory interventions and notifiable breaches	R
We will deliver our RIIO-T2 programme of mitigation measures (oil containment) for pollution prevention, developed via a condition-based asset risk assessment process.	A
We will implement Pollution Prevention Plans for all future projects for RIIO-T2 and beyond.	G
We will implement a programme to identify, risk assess and address high risk legacy land contamination.	G
We will eliminate PCBs from our network in compliance with the relevant legislation and in line with the industry approach agreed with the Environmental Regulators.	A

## **Metrics**

	Unit	2021-22	2022-23	2023-24	2024-25
Oil in service (main transformers)	Litres	8,516,712	8,525,310	15,980,361*	17,024,101
Oil in service (FFCs)	Litres	268,000	268,000	268,000	268,000
Oil in service (total)	Litres	8,784,712	8793310	16,248,362	17,292,101
Cable oil top ups	Litres	3,307 (1.2%)	5805 (2.2%)	38,728 (14.5%)	4,573 (1.7%)
Transformer oil top ups	Litres	34,375 (0.4%)	22553 (0.3%)	23,329 (0.14%)	21,985 (0.13%)

<sup>\*</sup> Difference in Oil in Service in main transformers relates to improvements in data reporting

## Land and Biodiversity improvement

In Scotland, nature-positive development is guided by National Planning Framework 4 (NPF4), which under Policy 3b requires major developments to deliver significant biodiversity enhancements. Unlike England's statutory Biodiversity Net Gain (BNG) system, Scotland currently has no standardised metric. To address this, the Scottish Government has commissioned NatureScot to develop a bespoke biodiversity metric tailored to Scotland's planning system. This work, shaped through stakeholder engagement, is progressing toward a tool that reflects Scotland's policy-led approach. SP Energy Networks, alongside other network operators, is actively contributing to consultations to help ensure the metric and accompanying guidance support biodiversity and natural capital goals—aligned with our role in delivering a resilient, Net Zero GHG network.

During regulatory year 2024/25 we launched our <u>Action Plan for Nature</u> which details our vision for delivering a sustainable and nature positive network.

## **Status update**

We continue to collaborate with other UK Transmission Network Operators (TOs) to refine our approach to natural capital and biodiversity assessment and enhancement.

In 2024/25, we upheld our 'no net loss' commitment through the Use It or Lose It (UIOLI) fund and by delivering biodiversity enhancements required through planning. Given limited land availability within project boundaries, we are focusing on off-site habitat creation and improvement, working closely with local communities, stakeholders and landowners.

This year, we engaged with organisations including NatureScot and Fisheries Management Scotland to align on our 'No Net Loss' goals, shape our enhancement strategy and begin building a pipeline of investible projects. We will continue to deliver biodiversity enhancements from this pipeline during the remaining RIIO-T2 period.

## **Biodiversity Net Enhancement**

During the 2024/25 period, seven SPT projects received planning consent, which in the context of NPF4 Policy 3(b), required SPT to deliver significant enhancement of biodiversity as part of the project.

Each of these projects, along with their associated biodiversity enhancement schemes, was assessed using the SSEN Transmission Biodiversity Toolkit. This toolkit, adapted from the Natural England Biodiversity Metric, has been tailored to reflect the distinctive habitats found across Scotland.

Collectively, these projects have exceeded our T2 target of No Net Loss, delivering a total of 823.8 biodiversity units and achieving a 19% Biodiversity Net Gain.

## **Natural Capital Baseline**

Over an 18-month period, the three TOs reviewed existing Natural Capital tools to identify one that meets Ofgem's baseline requirements and aligns with network priorities. The chosen tool needed to integrate with GIS systems, be user-friendly for non-experts, support high-level assessments and allow for more detailed analysis as site data improves.

We are currently trialling EcoUplift, a tool developed in collaboration with AECOM and we are working with other TOs and linear infrastructure organisations to pilot the latest version across several projects. The next step is for SP Transmission to begin applying natural capital assessments to network developments by the end of the RIIO-T2 period.

Project Name	Baseline biodiversity units (area)	Biodiversity Units created (onsite & offsite)	Overall Net Enhancement (%)
Branxton 400kV GIS substation	135.92	199.39	47
Coalburn North	49.25	50.59	3
Cockenzie Blackstart	0.6	0.79	31
Glenmuckloch to Glenglass (GGRP)	193.2	222.41	15
Mark Hill Cluster - Chirmorie WF OHL	308.14	344.01	10
Moffat GSP Connection	2.58	2.76	6
New Cumnock Harmonic Filter Extension	1.03	3.9	278



## Case Study Tarras Valley Peatland Restoration

SPT are committed to working with local communities to ensure we are protecting and enhancing biodiversity across our projects. As part of our ongoing 'No Net Loss' UIOLI initiative under the RIIO-T2 framework, we continue to collaborate with key stakeholders to deliver meaningful environmental outcomes.

This year, SPT worked with The Langholm Initiative, landowners within the Tarras Valley Nature Reserve, on a significant peatland restoration project in the Middlemoss Head area.

The Middlemoss Head Peatland Restoration project aims to restore approximately 194 hectares of degraded peatland through a combination of drain blocking and rewetting techniques. With works scheduled to run from January to March 2025, once at target condition the scheme is expected to deliver a projected uplift of around 183 biodiversity units, across 190 hectares assessed using the adapted version of the metric that we are currently using. Once complete, the site will be maintained for a minimum of five years to ensure long-term ecological benefits.

Located within Dumfries and Galloway Council area, this project contributes to the creation of resilient ecosystems and supports our broader ambition to enhance Nature Networks—interconnected habitats that support pollinators, birds, and small mammals.







## Maximising environmental benefit from non-operational land

## **Status update**

SP Energy Networks is committed to enhancing biodiversity across our network and continues to explore innovative approaches to maximise environmental benefits in central and southern Scotland.

As part of our RIIO-T2 commitments, we launched a Consumer Value Proposition (CVP) to release unused non-operational land to community groups for biodiversity projects. Due to increased demand for new connections and limited land availability, we've adapted our approach.

We now deliver the CVP through:

- Community nature volunteering projects, in partnership with BugLife, on our available non-operational land at five of our substations.
- Microgrants supporting local biodiversity initiatives

This revised model enables continued support for community-led environmental action while aligning with network needs. In 2024/25, we actively delivered this approach, supporting projects such as community gardens, woodland restoration, pollinator planting and nature-based education across Scotland.

## **Commitments**

Commitment	RAG
We will work collaboratively with our stakeholders, including the other Transmission Operators, throughout RIIO-T2 to develop and pilot a common approach and robust methodologies for delivering Biodiversity Net Gain alongside Natural Capital assessment and enhancement.	G
We will pilot these biodiversity and natural capital assessment methodologies and associated tools on selected RIIO-T2 projects	G
We will embed these biodiversity and natural capital assessment methodologies and associated tools in our business decision making processes for projects and the management of existing sites.	G
We will identify, and subsequently monitor and annually report, metrics to baseline and track the levels of biodiversity and value of natural capital on our sites and the achievement of our targets.	G
We will work with our local communities, landowners and other stakeholders to deliver 'no net loss' in biodiversity and identify options for delivering 'net gain'.	G
We will work with our local communities, landowners and other stakeholders to deliver a net positive impact in natural capital across our existing sites.	A
We will release unused non-operational land to local community energy projects, allowing them to use sites for free to generate and deliver energy to their local communities.	G





Visual amenity is considered in the planning of new or replacement assets. However, some existing infrastructure continues to impact the surrounding landscape and its users. This may be due to settlements developing around older assets, changes in how people access and experience the landscape or because visual impact was not a priority when the infrastructure was originally installed.

## **Status update**

During the RIIO-T1 period, we launched the VIEW project to explore visual enhancements around existing infrastructure in Loch Lomond and the Trossachs National Park. Working closely with communities and stakeholders, we identified potential candidate sites, with progress dependent on engagement with landowners and key partners.

In 2024/25, SP Transmission contributed to Ofgem consultations on expanding visual amenity measures, aiming to broaden the scope of projects eligible for funding. We continue to prioritise visual amenity, incorporating screening planting where appropriate to reduce visual impact and enhance biodiversity.

This year, we also began developing a new SP Energy Networkswide biodiversity enhancement policy, setting clear expectations for landscaping quality and visual amenity standards in our plans.

## **Commitments**

Commitment RAG Where supported by visual amenity assessment and stakeholder engagement, and when cost effective to do so, we

will deliver visual amenity mitigations for those existing assets

not identified for upgrade or refurbishment during RIIO-T2.







## Circular Economy

As a sustainable networks business we are committed to incorporating circular economy principles into our policies, procedures and project delivery. We work collaboratively to improve the circularity of our resources, recognising the value of keeping them in use for as long as possible and retaining their value. In line with this, we have set challenging business targets to reuse or recycle 100% of our waste by 2030, excluding compliance waste.

## **Status Update**

## Waste Performance Overview (January – December 2024)

Total waste generated in 2024 was 253,520 tonnes, this represents an increase of 201,031 tonnes compared to the previous year, largely due to the timing and nature of construction projects during this period. Waste volumes naturally fluctuate based on project type and scale.

Despite the increase in total waste, our reuse/recycling rate remained strong, shifting only slightly from 96.5% to 94.4%. This is largely due to the continued reuse of soils and stones across our projects.

Our landfill diversion rate remained similar to last year at 97.9%, still well above our target of 95%. This reflects our strong progress toward ouroverarching goal of 100% waste reuse or recycling by 2030.

However, the remaining 2.1% of waste going to landfill presents a challenge. We are actively working to identify these waste types and are engaging with our waste contractors to prioritize their diversion.

As we transition to our new waste data reporting system, we anticipate that landfill diversion rates may appear to decline. This is due to improved visibility and accuracy in tracking the true fate of all waste. While this presents a new challenge, having reliable, comprehensive data is essential for influencing both our upstream and downstream supply chains to eliminate landfill waste entirely.

## **Waste and Resource Tracking Progress**

In November 2024, we launched a new Al-powered waste and resource tracking tool called Qflow. This innovative system enables our supply chain to capture and record waste data in real time through photographic evidence. Qflow performs multiple data validation checks, flagging any unclear Waste Transfer Notes (WTNs) as non-compliant. This ensures a transparent and reliable record of waste movements and custody.



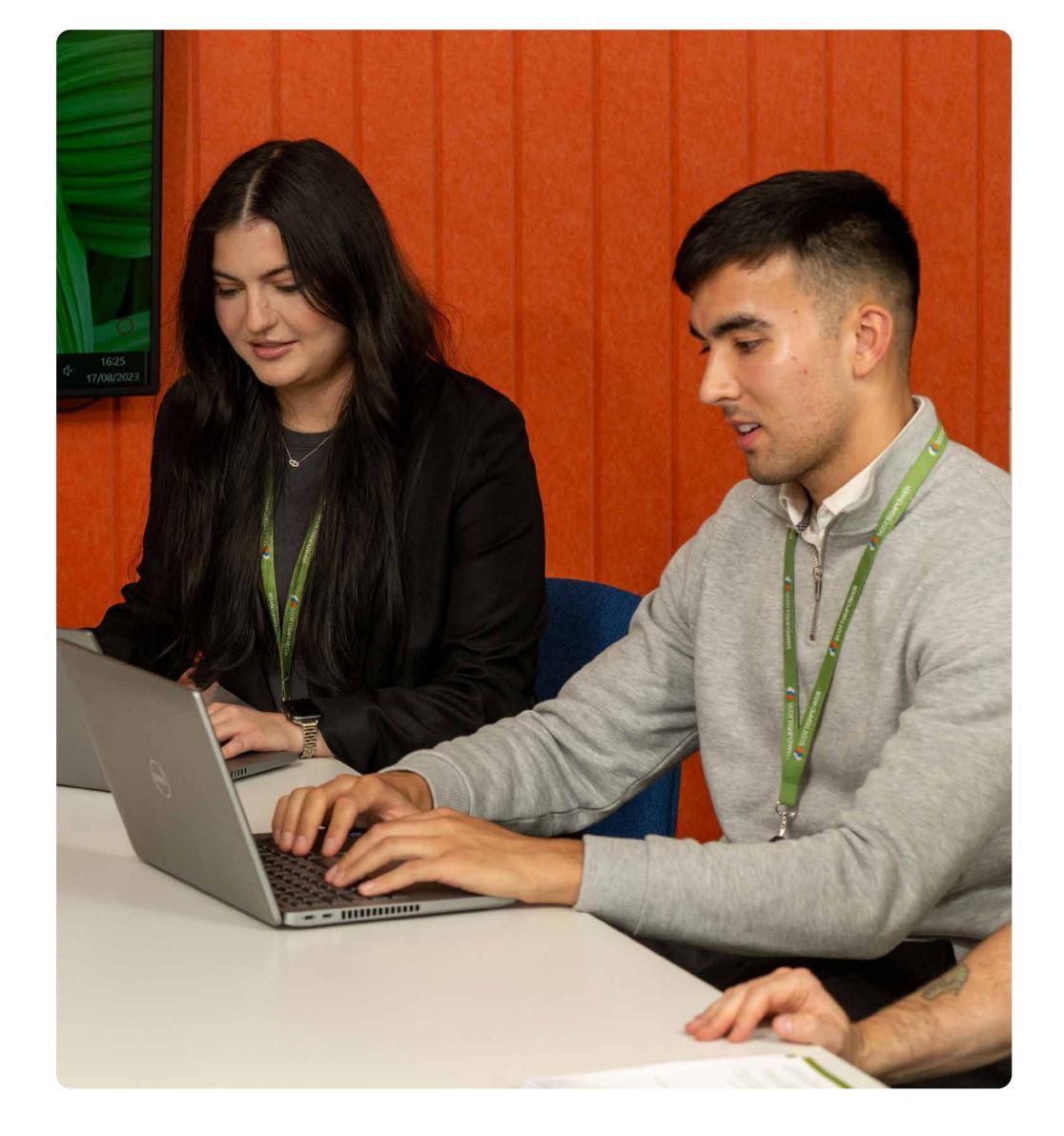
The enhanced data provided by Qflow is giving us a much clearer understanding of our waste generation, treatment and final destination. We've begun using this data to initiate meaningful discussions—both internally and with our downstream supply chain—about how waste is being treated.

Qflow is also helping us improve our materials data, particularly regarding the percentage of recycled content in materials used during project delivery. By capturing key information from material deliveries, we will be able to track and report on the recycled content performance of our key materials for RIIO-T3 and beyond.

## **Driving Circular Economy Through Collaboration**

We are currently developing a supply chain engagement plan to foster collaboration and embed circular economy principles across our operations. We are also looking to develop a circular economy strategy and action plan to begin in 2026. This approach, grounded in whole life cycle thinking, requires early planning and intervention at the project design stage.

Although delivery has been delayed due to the complexity of this initiative, SP Energy Networks is actively working with both our supply chain and internal engineering design and standards teams to get the programme back on track.





## Commitments

Commitment	RAG
We will embed circular economy principles where relevant throughout our business processes, considering whole life cycle environmental impacts.	A
We will divert 95% of our waste from landfill.	G
As part of our revision of design processes, we will include considerations of operational and end of life stages with the aim of designing out waste.*	A
We will require project Waste Management Plans for all new projects in RIIO-T2 and beyond.	G
We will implement metrics to measure the sustainability of our resource use, with the aim of establishing a baseline to enable target setting during RIIO-T2.	G
We will set targets for recycled/reused materials as a % of total input materials to be achieved by end RIIO-T2, 2030 and 2050.	G
We will continue our work to minimise the environmental impacts of our use of aggregates (soils and stones) via collaboration with other TOs, our supply chain and membership on infrastructure resource optimisation groups** with the aim of identifying and implementing solutions to reduce the use and disposal of aggregates, including increased use of secondary aggregates.	G
We will continue to collaborate with environmental / waste regulators, other infrastructure companies** and our supply chain to drive sustainable resource use and waste minimisation in order to meet our RIIO-T2 and Sustainability Goals.	G

<sup>\*</sup> See related commitment to align with PAS2080 in Decarbonising our network and assets and supply chain collaboration commitments in Supply Chain Sustainability, which also encourage resource use reduction and waste minimisation.

\*\* Via the Scottish Infrastructure Circular Economy Forum and Major Infrastructure Resource Optimisation Group.

## **Metrics**

	Baseline 2018	Year 1 - 2021	Year 2 - 2022	Year 3 - 2023	Year 4 - 2024
Reused	-	61.1	19.8	47.7	211.4
Recycled	44.2	28.4	3.4	3.0	27.9
Recover	-	0.4	0.5	0.8	8.9
Landfill	51.0	1.9	1.8	1.0	5.3
Total waste (thousands of tonnes)	95.2	92.3	25.4	52.5	253.5

% of waste - fate	Baseline 2018	Year 1 - 2021	Year 2 - 2022	Year 3 - 2023	Year 4 - 2024
Reused	0.0%	66.7%	77.7%	90.8%	83.4%
Recycled	46.4%	30.7%	13.4%	5.7%	11.0%
Recover	0.0%	0.4%	2.0%	1.5%	3.5%
Landfill	53.6%	2.1%	6.9%	2.0%	2.1%
% Diverted from Landfill	46.4%	97.9%	93.1%	98.0%	97.9%



## Scope

Our RIIO-T2 plan builds on current performance by following a structured approach to achieving data maturity. This begins with initial data collection, moves through metric and baseline development and culminates in setting targets and tracking progress. This journey is visualised in our Data Maturity Matrix, where we assess Key Priority Areas according to their current level of maturity. We've continued to make meaningful improvements over the past year:

Data and Reporting Strategy - We have defined a clear strategy for data collection, analysis and reporting. It outlines the digital tools and timelines required to meet our sustainability goals and the RIIO-T2 commitments. This roadmap lays out where we are today, where we need to be by 2028 and how we will strengthen our data and reporting processes to support our Sustainable Business Strategy.

Qflow Waste and Carbon Tool – In November 2024 we implemented Qflow, a tool that uses Optical Character Recognition (OCR) to scan waste transfer and delivery notes from our own operations and those of our contractors. Qflow has improved contractor engagement and enhanced data completeness and accuracy. It also helps identify compliance issues on tickets such as missing permit details or expired licences and allows us to act to rectify these. It has also given us greater insight into waste and carbon data with detailed information on materials delivered to site which will help with our Circular Economy ambitions.

**Digitalisation Roadmap –** We've continued to develop a digitalisation roadmap that links directly into our Data and Reporting Strategy. It aims to

enhance environmental and sustainability data capture, analytics and reporting capabilities across the organisation.

### **Data Quality**

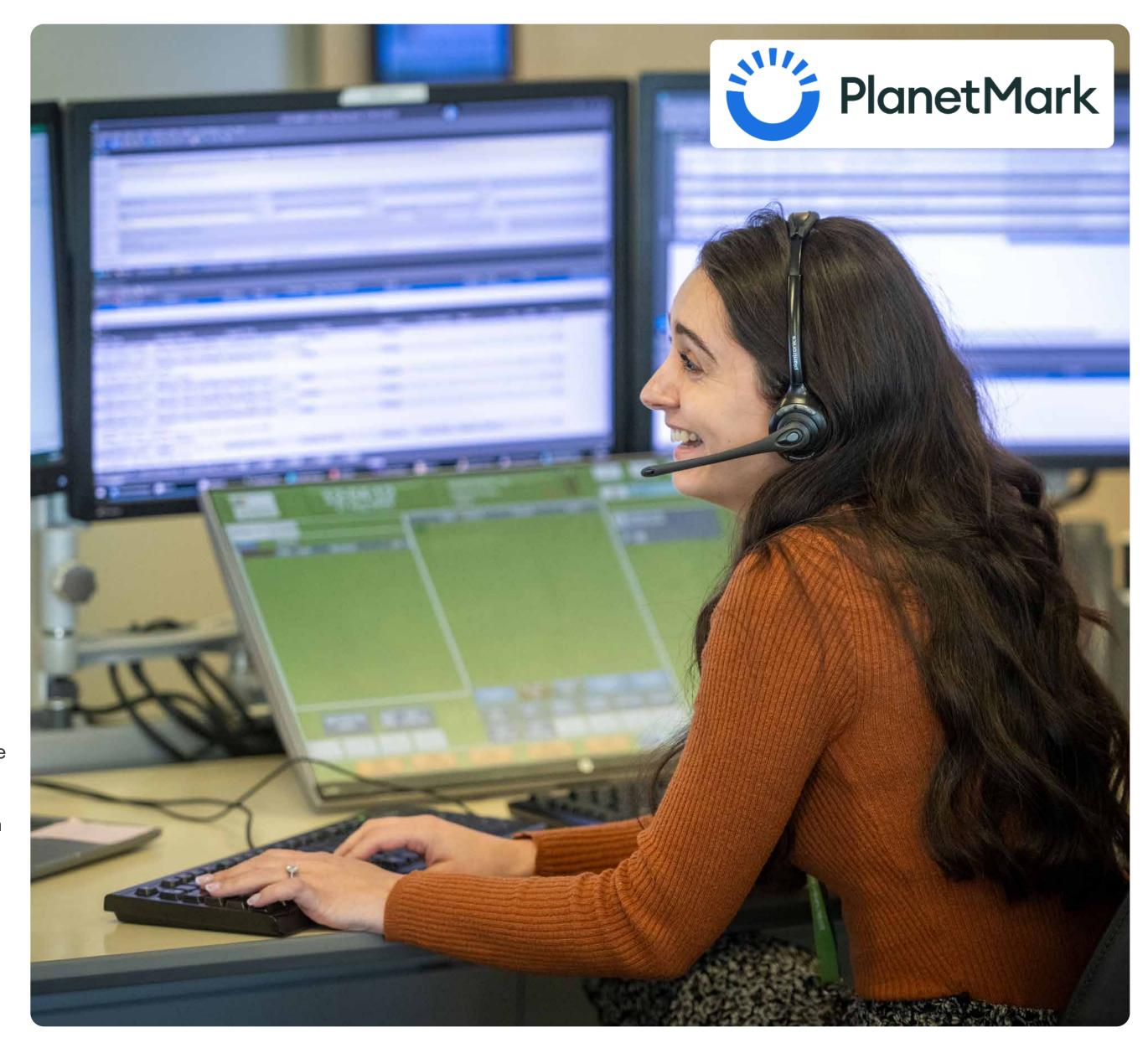
We operate under a robust internal assurance framework aligned with the Data Assurance Guidance (DAG) Licence Requirement. Its purpose is to reduce risks of inaccurate reporting and ensure stakeholder confidence. In line with the licence, this submission has undergone the following assurance stages:

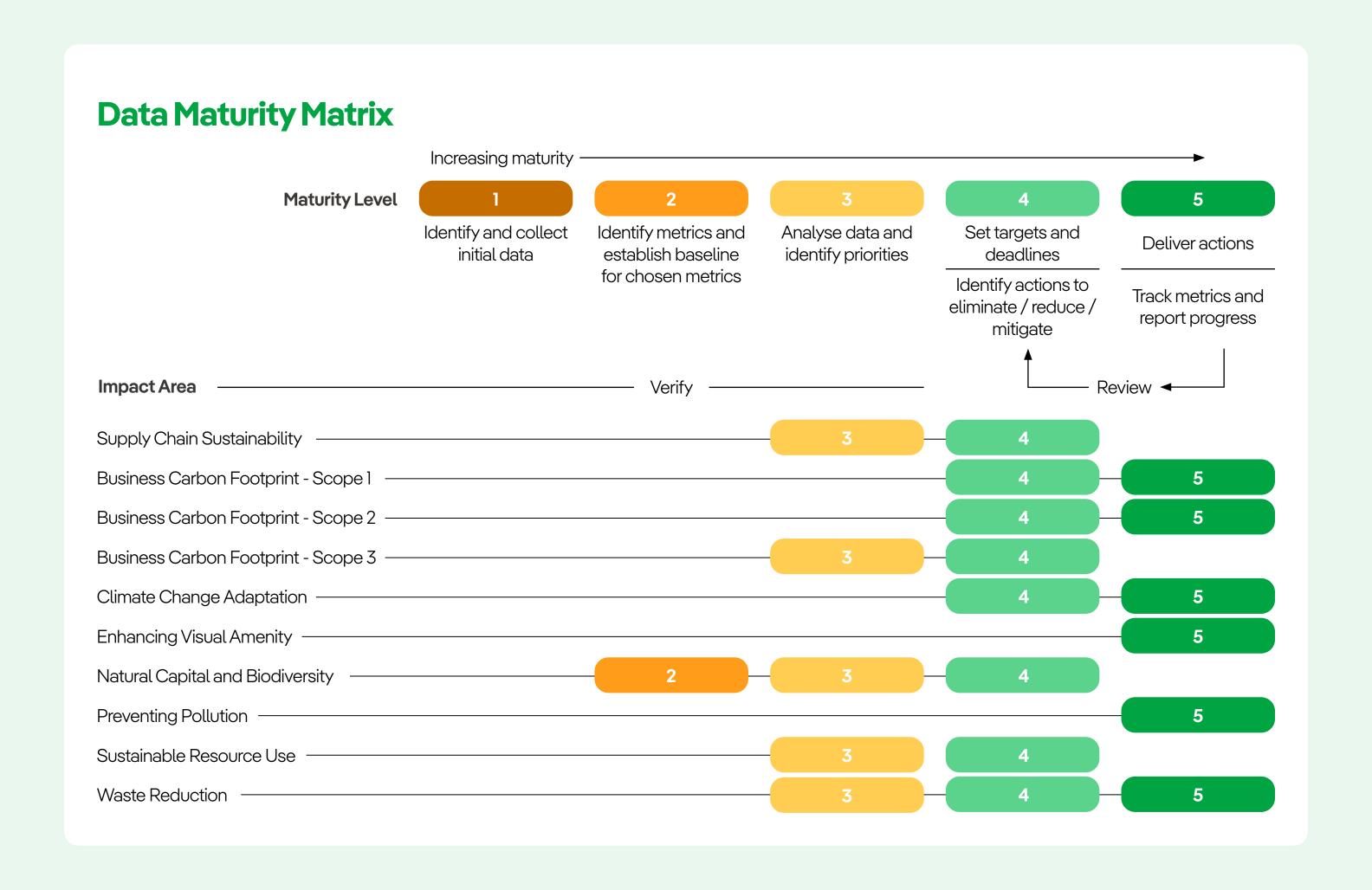
- Risk Assessment
- Method Statement
- Second-Person Review
- Senior Manager Sign-Off

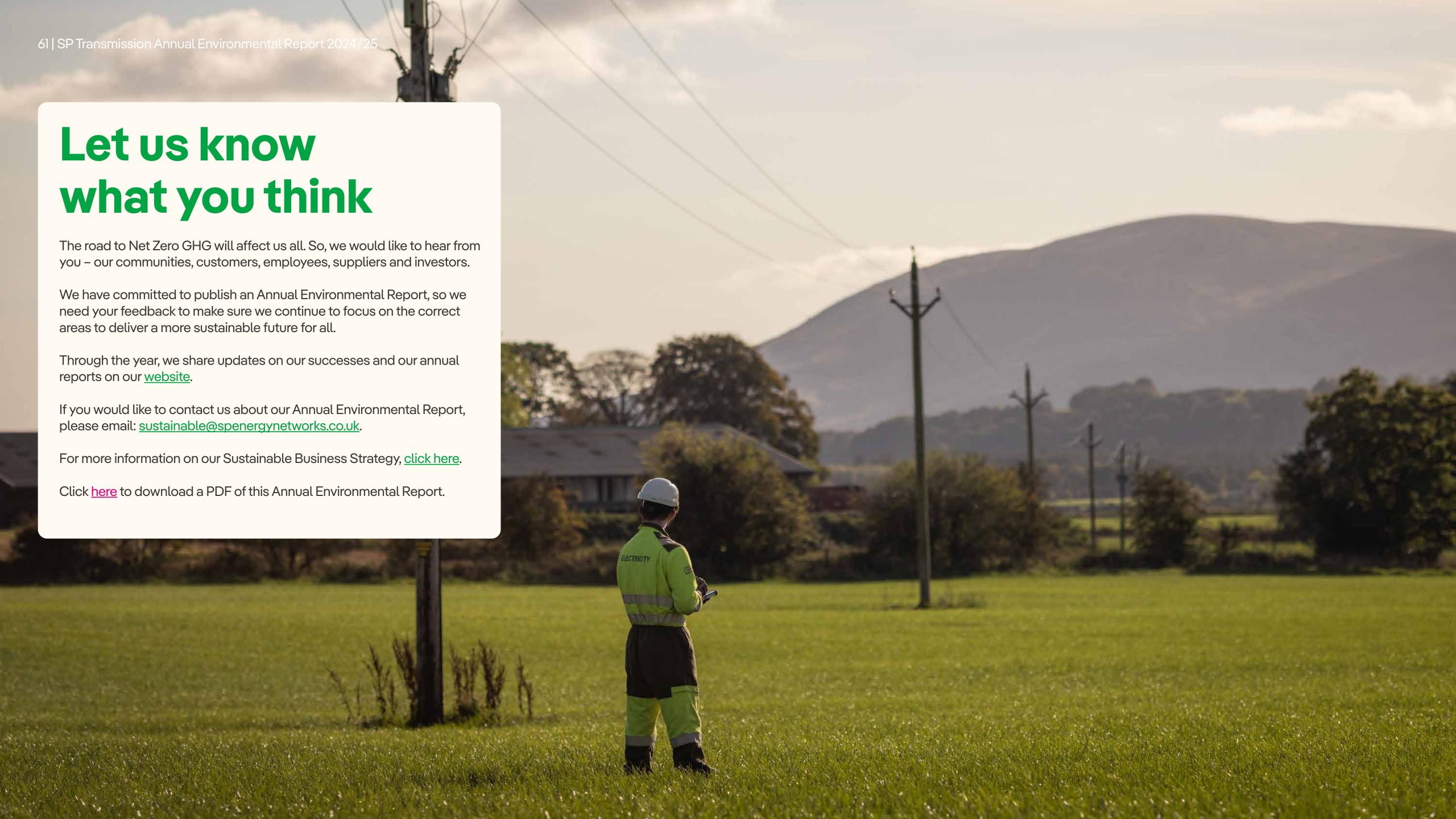
This framework supports the accuracy and completeness of our reporting prior to Director sign-off.

Our Business Carbon Footprint is subject to an independent external assurance verification by Planet Mark. This verification is undertaken to provide a defined level of assurance in accordance with ISO 14064-3 (2019) "Specification with guidance for the validation and verification of greenhouse gas assertions". This year we did not achieve Planet Mark certification due to an increase in Transmission Losses, which requires a 5% reduction in emissions year on year. We did however, receive assurance verification for our GHG emissions data.

A link to the SP Energy Networks Verification Statement can be found HERE.







## Performance Tables

Report Section	Metric	Units	Baseline Year 2018/19	Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 4 2024/25
	Long-Term GHG reduction target Scopes 1,2,3 67.2% SBTi reduction by 2030.	%	N/A	67%	67%	67%	67.2%
	Change in business carbon footprint (excl. losses) from last year	%	36%	-25%	-35%	98%	-23%
	Change in business carbon footprint (incl. losses) from last year	%	0%	-18%	19%	-5%	-0.26%
	Change in SF <sub>6</sub> emissions from last year	%	51%	-32%	-45%	141%	-28%
	Low Carbon Generation Connections made this year	MW	139	186	534	98	50
	Investment in innovation supporting decarbonisation	£m	0.25	2.8	2.6	2.9	3.5
Performance Dashboard	Waste diverted from landfill	%	46%	98%	93%	98%	98%
	Community Net Zero Carbon workshops delivered since November 2022	Number	N/A	N/A	16	16	16
	Net Zero Fund awards	£	N/A	N/A	N/A	N/A	£3.7m
	Gender pay gap	%	20.06%	16.33%	16.50%	14.79%	14.79%
	Suppliers progressing towards enhanced environmental standards	%	N/A	N/A	47%	71%	78%
	Percentage of suppliers (by value) that have their own sustainability metrics or KPIs (SBT)	%	N/A	N/A	57%	66%	59%
	Reportable environmental incidents	Number	0	3	2	2	2
	ISO14001:2015 Certification	Y/N	Yes	Yes	Yes	Yes	Yes
Achieving the Sustainability Step Change	Training Plan Delivery	Completion %	N/A	94%	61%	98%	80%
	Stakeholder Engagement Plan Delivery	% of Engagement plan target	N/A	N/A	N/A	100%	100%
	Percentage of suppliers (by value) meeting licensee's supplier code	%	N/A	N/A	47%	71%	78%
Sustainable Supply Chain	Percentage of suppliers (by value) that have their own sustainability metrics or KPIs (SBT)	%	N/A	N/A	57%	66%	59%

## Performance Tables (cont.)

Report Section	Metric	Units	Baseline Year 2018/19	Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 4 2024/25
	New low carbon generation connections	MW	n/a	186	534	98	50
Connecting Low Carbon Generation	Low carbon share of generation	%	n/a	88.50%	89.50%	90.50%	90.60%
	Average time to issue connection offer	Days	n/a	69	74	71	67
	Connection offers accepted	Number	n/a	74	219	220	417
	Quality of Connections ODI score	Score (1-10)	n/a	8.3	8.2	8.3	8.9
	Quality of Connections ODI target	Score (1-10)	n/a	8.3	8.4	8.6	8.8
Innovation	Annual investment in ongoing innovation activities that are primarily supporting decarbonisation and/or protecting the environment	£m	0.25	2.76	2.62	2.89	3.52
	Scope 1 - Operational Transport	tCO₂e	433	518	584	558	631
	Scope 1 - Fugitive emissions - SF <sub>6</sub>	tCO₂e	19,184	12,085	6,703	16,180	11,699
	Scope 1 - Fugitive emissions - HVAC	tCO₂e	0	170	2	0	0
	Scope 1 - Fuel combustion	tCO <sub>2</sub> e	0	9	100	29	21
	Scope 1 - Building energy use - Gas	tCO₂e	21	47	45	59	64
Business Carbon Footprint	Scope 2 - Building energy use - Building Electricity	tCO <sub>2</sub> e	540	92	57	0	0
	Scope 2 - Building energy use - Substation Electricity	tCO <sub>2</sub> e	1,439	1,505	1,849	1,653	1,878
	Scope 2 - Electricity losses	tCO₂e	202,371	132,554	165,625	148,177	151,939
	Total BCF excluding losses	tCO <sub>2</sub> e	21,617	14,425	9,340	18,481	14,294
	Total BCF including losses	tCO <sub>2</sub> e	223,988	146,979	174,966	166,658	166,233

## Performance Tables (cont.)

Report Section	Metric	Units	Baseline Year 2018/19	Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 4 2024/25
Fugitive Emissions	Total IIG emissions	tCO <sub>2</sub> e	20,103	12,196	12,145	16,291	12,097
	SF <sub>6</sub> emissions	tCO <sub>2</sub> e	20,103	12,196	6,839	16,291	12,097
	Other (G3) emissions	tCO <sub>2</sub> e	0	0	5,306	0	0
	Leakage rate	%	0.86%	0.45%	0.23%	0.54%	0.39%
	Interventions per annum	Number	0	0	0	0	0
	Estimated impact of interventions	tCO₂e avoided/ abated	O	0	0	0	0
Network Losses	Electricity losses	tCO₂e	202,371	132,554	165,625	148,177	151,939
	Annual losses	TWh	0.72	0.637	0.856	0.716	0.734
	Share of total electricity	%	n/a	1.75%	2.39%	2.09%	2.02%
Oil Top Ups	Oil in service (transformers)	litres	n/a	8,516,712	8,525,310	15,980,362	17,024,101
	Oil in service (FFCs)	litres	n/a	268,000	268,000	268,000	268,000
	Oil in service (total)	litres	n/a	8,784,712	8,793,310	16,248,362	17,292,101
	Cable oil top ups	litres	n/a	3,307	5,805	38,728	4,573
	Transformer oil top ups	litres	n/a	34,375	22,553	23,329	21,985

## Performance Tables (cont.)

Report Section	Metric	Units	Baseline Year 2018/19	Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 4 2024/25
Circular Economy	Reused	Tonnes (thousands)	0	61.6	19.8	47.7	211.4
	Recycled	Tonnes (thousands)	44.2	28.4	3.4	3	27.9
	Recovery	Tonnes (thousands)	0	0.4	0.5	0.8	8.9
	Landfill	Tonnes (thousands)	51	1.9	1.8	1	5.3
	Total tonnes of waste	Tonnes (thousands)	95.2	92.3	25.4	52.5	253.5
	Total weight of waste produced - Reused	%	0.00%	66.74%	77.70%	90.80%	83.40%
	Total weight of waste produced - Recycled	%	46.40%	30.73%	13.40%	5.70%	11.00%
	Total weight of waste produced - Recovery	%	0.00%	0.43%	2.00%	1.50%	3.50%
	Total weight of waste produced - Landfill	%	53.60%	2.11%	6.90%	2.00%	2.10%
	Total % of waste diverted from landfill	%	46.40%	97.90%	93.10%	98.00%	97.90%

## Appendix A – Embodied Carbon Methodology

This supporting Annex outlines the calculation methodology used to estimate embodied carbon for the purposes of our RIIO-T2 Annual Environmental Report.

Embodied carbon of major civil works and electrical assets was calculated using the data at final design stage. Quantities of materials and electrical assets were collected from the Bill of Quantities and Balance of Plant documents.

Various databases were used to calculate the A1-A3 emissions of our main materials: Electrical Assets, Cables, Concrete, Steel, Aggregate/earthworks, Timber and Roads. This included the CAT database (shared Transmission operator database), ICE, Government conversion factors, Oneclick LCA.

For the materials that did not fit into one of these main categories, or where we were unable to locate an appropriate carbon factor, carbon emissions were estimated on a Cost basis. An average cost per  $kgCO_2e$  was established from our 'Sustainable Substation' analysis that calculated average emissions for a substation build. This accounted for 10% of the total emissions.

A4 emissions were estimated by assigning transport modes and transport distances for each modelled material. These were estimated values and assume either a local, regional, national or international location of origin.

## **Next steps**

Only the 'Final design' stage has been calculated. As detailed in the report through our progress on PAS2080 we will look to incorporate emissions measurement at both 'Initial design' and 'As built' stages in the remaining T2 period. Furthermore, we are trialling a number of different embodied carbon reporting tools in order to standardise and expand on the number of projects we can measure.



## Appendix B - Eastern Green Link 1

EGL1 is a two-gigawatt high-voltage direct current connection being built between Torness in East Lothian, Scotland, and Hawthorn Pit in County Durham.

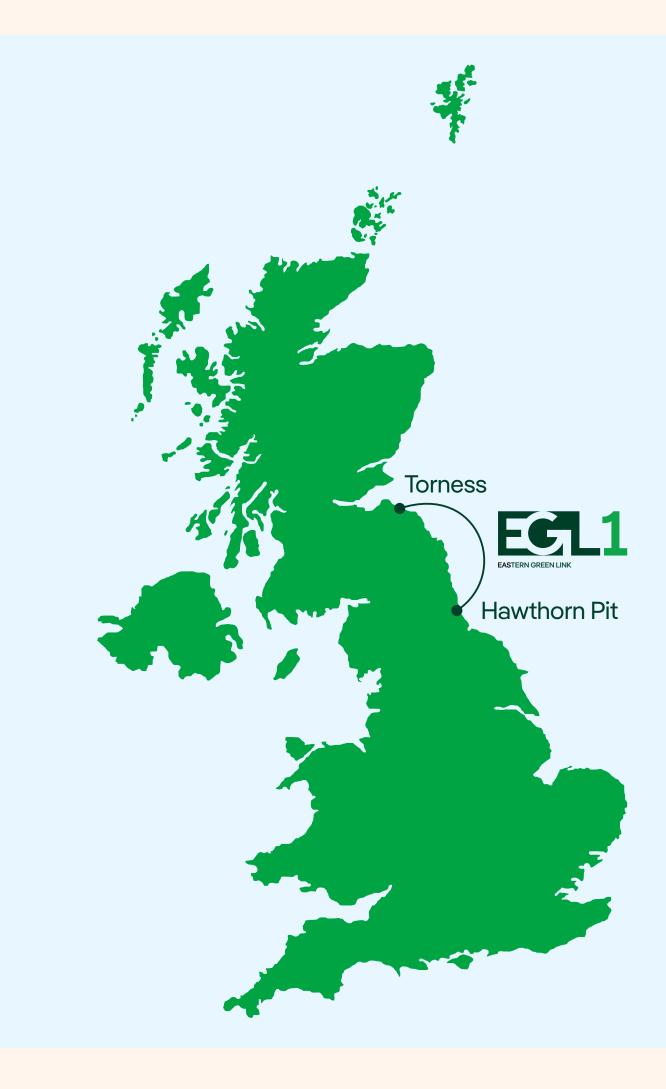
Developed as a joint venture (JV) between SP Energy Networks and National Grid Electricity Transmission, this multi-billion-pound project aims to enhance the UK's ability to transport clean energy from Scotland's renewable resources. Its multi-directional design will also improve the resilience of the UK's transmission networks.

The works to construct EGL1 started in March 2025, with the goal of becoming operational by 2029. Once complete, EGL1 have the capacity to deliver enough electricity for two million homes.

## **Project Sustainability Strategy**

EGL1 has identified six key priority areas where it can have the most significant impact and influence, based on stakeholder engagement and established transmission business commitments. Below is detailed EGL1 ambitions for each key area.

Priority Areas	Key Ambitions			
	• Reduce carbon emissions from construction, operations and decommissioning as low as possible.			
Carbon Management and Reduction	<ul> <li>Project delivered in accordance with PAS 2080:2023 - Carbon Management in Infrastructure.</li> </ul>			
Redection	<ul> <li>Avoid SF6 use where alternative are technically available.</li> </ul>			
<b>5</b>	<ul> <li>Adhere to circular economy principals in accordance with BS8001:2017 - Principles of the Circular Economy in Organizations.</li> </ul>			
Resource Efficiency	Deliver zero waste to landfill.			
	<ul> <li>Use of average recycled content by value of 30% for applicable materials.</li> </ul>			
Biodiversity Net Gain	Achieve 10% terrestrial biodiversity net gain across the project.			
Ethical Labour	<ul> <li>The Principal Contractor will pay the real living wage and holds a modern slavery policy.</li> </ul>			
Ethicat Labour	• The Principal Contractor will commit to improve ethical labour practices throughout the project.			
Social Value	<ul> <li>During the delivery phase, the project will implement a tool that quantifies Social Return on Investment (SROI).</li> </ul>			
Sustainable Procurement	<ul> <li>Sustainable procurement processes on the project will be line with ISO20400:2017 - Sustainable procurement — Guidance.</li> </ul>			
	<ul> <li>Advance sustainability knowledge of personnel involved in projects using the Supply Chain Sustainability School.</li> </ul>			



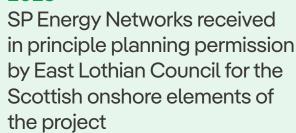
## Appendix B - Eastern Green Link 1 (cont.)

Project high-level timeline

2022 2023 2024 2025 2026 2027 2028 2029

onshore works

## 2023





2024 - early 2025
Enabling works,
including land,
geophysical and
archaeological
surveys



## 2025 - 2028

Underground cable installation between Torness converter station and Thorntonlock Beach



2025 - 2028

Torness
Converter Station
construction and
installation



2028

Completion of Torness Converter Station, and cable installation - system testing to begin



2029

EGL1 is energised

English shore works

## 4

2022

Planning consent granted outline planning permission by Durham County Council for the English onshore elements of the project



## 2024 - early 2025

Enabling works, including land, geophysical and archaeological surveys



## 2025 - 2028

Murton
Converter Station
construction and
installation



### 2026 - 2028

Underground cable installation between Murton Converter Station and Seaham Hall beach



### 2028

Completion of Murton Converter Station and cable installation system testing to begin



2029

EGL1 is energised

Marine

### 2023

Marine licences for the 176 km of subsea cables have been granted by the Marine Management Organisation and Marine Scotland



### 2024 - 2025

Survey works across the marine route





2029

EGL1 is energised

## Appendix B - Eastern Green Link 1 (cont.)

## **Project Milestones**

- The project has registered for the BREEAM
   (Building Research Establishment Environmental
   Assessment Method) Infrastructure Whole
   Project Award with the goal to achieve a "Very
   Good" Whole Project Award, with a target
   of "Excellent." The JV led the delivery of the
   strategy stage, while the PCs will manage the
   Design and Construction stages. EGL1 achieved
   "Excellent" rating in the BREEAM Strategy Stage.
- EGLI launched of the Culture Charter with a focus on the planet, people, and sustainable optimisation through innovation. The commitments and principles outlined in the charter are championed by leaders of the JV and the Principal Contractors

### **Waste Generated**

Waste generation	Tonnes
Recycling	6.3
Recovery	0.8
Anaerobic Digestion	10.2
Reuse Offsite	3.2
Landfill	0.0
Total tonnes of waste	20.5

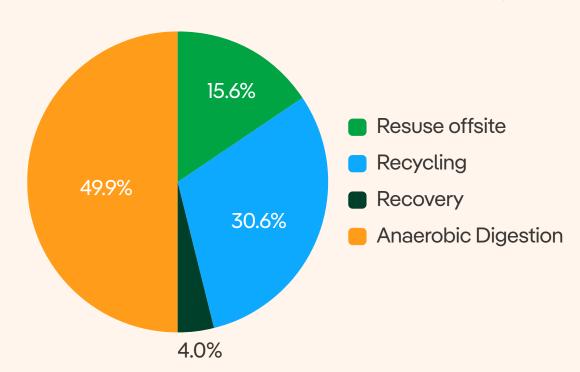
## Fuel usage

Fuel type	Litres
Diesel	13379

 138 volunteering hours donated in activities such as litter pick, removal of invasive non-native species plants, assembling care packages for victims of domestic violence and homelessness, and referencing a wildflower meadow.

## **Project Performance**

Data from enabling works carried out in the onshore works and offshore survey works is detailed on the tables and graph below (relates specifically to the JV and is not included within the SPT AER data).



### **Data Assurance**

The monthly data provided by the contractor is tracked, reviewed and analysed. This enables gaps to be identified, which are then discussed with the contractor to understand whether data is missing or not applicable (in which case, a justification is required). Comparisons are made between the data provided month on month to identify anomalies or recurring figures, which are then raised with the contractor and resolved accordingly. As part of the assurance process, we will be requesting records from the contractors for data entries to ensure the accuracy and reliability of data.

## **Culture Charter**



We commit to Health, Safety & the Environment



We commit to building trusting connections



We commit to including & valuing people



We commit to respecting others and our communities



We commit to sustainable optimisation



