Environmental Action Plan

SP Energy Networks
RIIO-T3 Business Plan

SP Energy Networks

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1. Introduction

1.1. Climate and Biodiversity Crisis

The science couldn't be clearer: we are in a climate and biodiversity crisis that threatens the future of life on our planet. Global warming must be limited to 1.5°C to avoid critical tipping points that could lead to extreme weather, rising ocean levels and the loss of species and habitats as well as food scarcity and increasing poverty for millions of people worldwide.

The recently published State of Nature Report (Nature, 2023) laid bare the stark fact that nature is seriously declining across the UK, a country that is already one of the most nature-depleted in the world. Almost half of Britain's natural biodiversity has disappeared since the 1970s, with farming and urban spread triggered by the industrial and agricultural revolutions being blamed as major factors for this loss. Biodiversity loss poses an existential threat to humanity.

1.2. Our Role in the UK's journey to Net Zero and Nature Positive

The UK has a clear, long term energy security strategy to accelerate the transition away from non-renewable fossil fuels to reach the target of net-zero greenhouse gas (GHG) emissions by 2050. The Scottish Government have chosen to accelerate this, setting their target for 2045, a target which still stands, despite the Scottish Government's decision to scrap the associated annual and interim targets as a result of failing to meet these near-term goals. This demonstrates just how challenging these targets are. To achieve the required GHG emissions reductions, the implementation of low-carbon technology for heating/cooling and transport needs to exponentially increase over the next decade, with much of this technology powered by electricity.

Electricity networks will have a central role in achieving the Governments' decarbonisation targets. As the Transmission electricity network operator for central and southern Scotland we have a vital role to play if the UK and Scotland are to achieve their climate change targets. Our networks provide the connections and pathways for renewable electricity to travel from where it is generated to power homes and businesses across the country. The increase in demand for electricity, along with changes in the operating environment of networks due to decentralisation of power generation and network digitalisation, will require unprecedented growth and network transformation to support decarbonisation. This decarbonisation reduces the likely climate change impacts on the natural environment and is pivotal in the restoration and regeneration of nature.

With electricity demand forecast to double in the next 10 years, the International Energy Agency predicts the UK requires more than 600,000km of new or upgraded electricity lines. The planned investment in our network during RIIO-T3 is unprecedented with over £10.6bn needed. It will facilitate the connection of 21GW of clean renewable energy to the GB transmission system and reduce the UK's reliance on fossil fuels.

Whilst as an energy network company we are key enablers for Net Zero GHG, paradoxically our own absolute emissions and impacts on nature will rise as we increase construction on

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the network to enable this growth. We therefore recognise we need to be ambitious to mitigate this and to play the necessary leadership role to support achievement of the Governments' climate targets. This Environmental Action Plan (EAP) details the initiatives we will deliver on our own route to becoming a sustainable networks business and achieving our target for Net Zero GHG by 2035.

2. Strategy

Our Sustainable Business Strategy, first published in 2017 and updated most recently in 2023, sets out our Vision for a cleaner, greener and more sustainable future for the people and planet. The Strategy serves as the foundation to the development of this EAP, depicting our long-term goals for Climate Action, Action for Nature, Circular Economy, Supply Chain Sustainability and fostering a Sustainable Society, in line with the UN Sustainable Development Goals (SDGs).

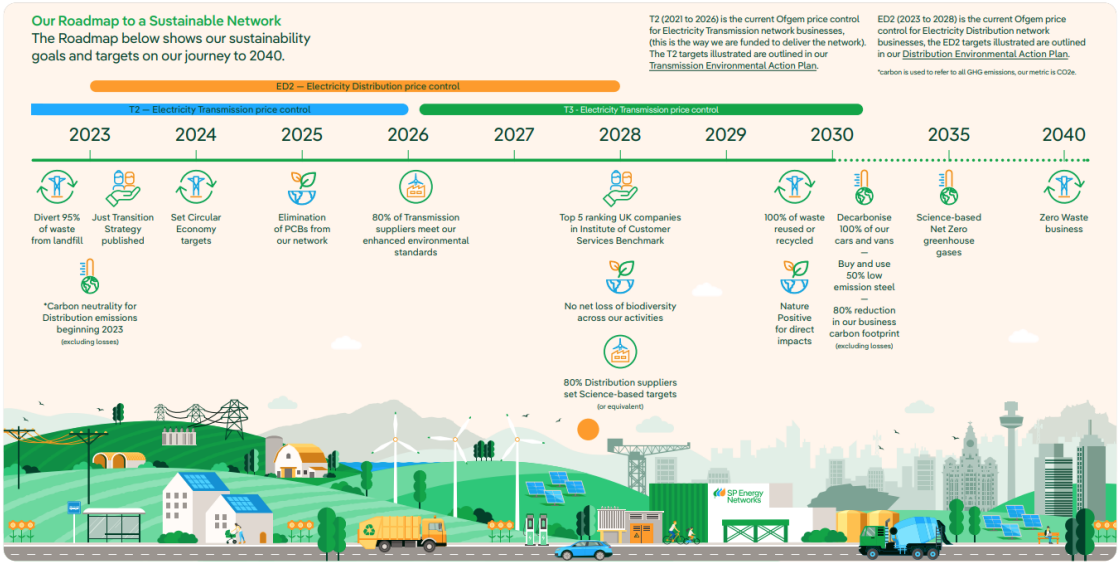

FIGURE 1 – OUR ROADMAP TO A SUSTAINABLE NETWORK

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2.1. Our Vision

A sustainable electricity network connects renewable energy from generators to consumers, this is a core purpose for SPEN and facilitates the UK Net Zero Greenhouse Gas (GHG) ambitions. While building and operating our network to deliver renewable energy, we must ensure that our own operations are sustainable from an environmental, social and economic perspective.

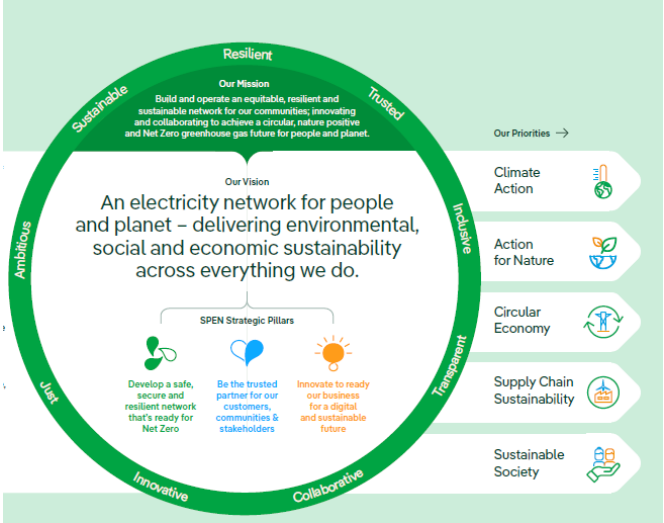

FIGURE 2 - OUR VISION

2.2. Alignment with The United Nations' 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 greatest contributions are to goals 7 and 13 - 'Affordable and Clean Energy' and 'Climate Action', respectively. To achieve these goals, it is essential that we build a strong "green" workforce and innovate to create solutions to facilitate the transition to Net Zero GHG, thus contributing to goals 8 and 9 (see figure 3).

FIGURE 3 – THE FOUR UN SUSTAINABLE DEVELOPMENT GOALS THAT SPEN CAN CONTRIBUTE TO MOST

However, when considering the breadth of our activities (e.g. Net Zero GHG, network construction and maintenance, working collaboratively, work and skills, diversity and inclusion, digitalisation and customer service) we make a significant contribution, directly or indirectly, to the wider SDGs. Through internal and external collaboration, we mapped the SDGs to our key sustainability areas, identifying our direct and indirect contributions (see figure 4). Please see our Sustainable Business Strategy (page 7) for further detail.

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FIGURE 4 – HOW SPEN CONTRIBUTES TO EACH OF THE UN SUSTAINABLE DEVELOPMENT GOALS

3. Developing Our Environmental Action Plan

As set out above, our Sustainable Business Strategy provides the foundation for building this RIIO-T3 Environmental Action Plan (EAP), in conjunction with Ofgem's RIIO-T3 Business Plan Guidance.

Our EAP aligns with our Sustainable Business Strategy priority areas:

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FIGURE 5 - OUR PRIORITY AREAS

We engaged extensively with stakeholders during the development of this EAP, in particular with our Sustainability Stakeholder Working Group (SSWG) and our Independent Net Zero Advisory Board (INZAC), and we issued a draft version for wider consultation, sending it directly to a large group of our key stakeholders.

Our SSWG was established in 2017 and meets bi-annually for in person workshops at Scottish Power HQ, bringing together our key environmental sustainability stakeholders. This group provides considerable input into our Sustainable Business Strategy and our price controls business planning processes. More information on the member groups of the SSWG can be found in 9.1 Keeping Us on Track of this document.

Our INZAC are tasked by Ofgem with independently assessing and reporting on the stakeholder engagement conducted to inform the development of our RIIO-T3 Business Plan in its entirety. A statement from the INZAC will be published confirming that they are satisfied that we have met the requirements for stakeholder engagement set by Ofgem.

3.1. Our Environmental Action Plan Commitments

Our sustainability commitments for T3 are listed in Table 1 below. These reflect the improvements necessary during the T3 period to maintain the required trajectory towards our

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long-term targets and to, as a minimum, deliver the 'baseline expectations' described in Ofgem's T3 guidance.

Key ambitious EAP Commitments (identified in Table 1) have been incorporated in the Business Plan Commitments described in Section 1G of the main T3 Business Plan document. The relevant Business Plan Commitments are:

- We will deliver economically efficient actions to reduce our Scope 1, 2 and 3 Greenhouse Gas emissions in line with our sector-leading 2035 Net Zero GHG Target, including targeting 80% of our supply chain, by spend, to set externally validated GHG reduction targets.
- We will install SF_6 free equipment in RIIO-T3. SF_6 filled equipment will only be installed if a viable SF_6 free solution is not available. We will also reduce emissions from SF_6 leakage in line with the trajectory required to meet our Science-Based Target (SBT).
- We will deliver nature enhancements across all projects with a measurable impact on ecosystems, achieved through local partnerships, providing at least a 10% increase in biodiversity on projects subject to planning consent.

Through our ongoing collaboration, common RIIO-T3 Environmental Commitments were agreed between the Transmission Owners (TOs) where possible. These commitments are marked in the table below in the 'Common TO Commitment' column.

TABLE 1 – OUR EAP COMMITMENTS

EAP Section	Commitment	Common TO Commitment
4.0 Climate Action	Deliver economically efficient actions to reduce our Scope 1, 2 and 3 Greenhouse Gas (GHG) emissions in line with our Net Zero GHG target *(BP Commitment)*	✓
	Reduce emissions from SF_6 leakage in line with the trajectory required to meet our Science-Based Target (SBT) *(BP Commitment)*	✓
	Install SF_6 free equipment in RIIO-T3. SF_6 filled equipment will only be installed if a viable SF_6 free solution is not available. *(BP Commitment)*	
	Decarbonise our fleet* by 2030 - electrifying 100% of feasible vehicles and implementing lower carbon alternatives for all other vehicles (where an electric alternative is not feasible for operational or technological reasons) **Fleet is estimated to increase by 50% and will include additional cars, vans and 4x4s*	
	Reduce emissions from substation buildings' energy consumption by 3,488 MWh/annum by undertaking works at 31 substations.	

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EAP Section	Commitment	Common TO Commitment
	Reduce impacts relating to depot buildings' construction and operation by applying a best practice sustainability standard for the new Depot to be provided during T3.	
	Reduce losses on the network by an estimated 4,781 MWh thereby limiting losses to a lower level than would otherwise be the case.	
	Implement cost-effective* sustainable materials and solutions in our construction programmes. **to ensure investment is efficient and economic, we have used the UK Department for Energy Security & Net Zero ' s Valuation of energy use and greenhouse gas (GHG) emissions as an economic and efficient investment threshold guide for carbon abatement, which is set at £274/tCO2e for the RIIO-T3 period*	✓
	In preparation for our Net Zero Greenhouse Gas (GHG) Target, we will offset emissions of 80,000tCO2e emissions in the RIIO-T3 period	
	Achieve PAS2080 certification, validated by an external company by 2028.	✓
	Improve our carbon footprint reporting to cover whole life carbon associated with new projects.	✓
	Collaborate with other TOs to develop a methodology for calculating land use change emissions in line with best practice and aim to start reporting against this during RIIO-T3.	
5.0 Action for Nature	Provide at least 10% Biodiversity Net Gain (BNG) on projects subject to planning consent. *(BP Commitment)*	✓
	Deliver Natural Capital enhancement across projects with a measurable impact on ecosystems, achieved through local strategic nature partnerships. *(BP Commitment)*	
	Set targets by the middle of RIIO-T3 to reduce the impact on nature from our supply chain.	

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EAP Section	Commitment	Common TO Commitment
	Develop and implement five pilot climate resilience partnership projects using nature-based solutions to protect network assets.	
	Replace 32.4km (28% of our inventory on the network) of our leakiest fluid filled cable, removing over 47,080 litres of oil from our network.	
	Upgrade existing or install new bunds associated with 27 transformers to meet our current standard, using low carbon and sustainable alternatives to concrete where technically feasible.	
6.0 Circular Economy	Fully align with circular economy standard BS8001	
	Achieve 30% recycled or reused content across our top three materials (by volume) by 2030.	
	Recycle or reuse 100% of our waste by 2030 (excluding 'compliance waste*) ** Specific potentially hazardous waste that must be specially disposed of/handled separately for safety reasons*	
7.0 Supply Chain Sustainability	Our Supplier Code will be annually reviewed, increasing supplier sustainability standards over time, in line with our targets and goals. This Supplier Code will be published, and supplier compliance will be audited.	
	At least 80% of suppliers by value set Science-Based Targets (SBTs) (or equivalent externally validated Greenhouse Gas (GHG) reduction target) *(BP Commitment)*	✓
8.0 Sustainable Society	Publish an annual Just Transition Report and review our Strategy every 3 years.	

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EAP Section	Commitment	Common TO Commitment
9.0 Keeping Us On Track	Continue to improve the accuracy of our data, aligning with evolving best practice and collaborating with other TOs to ensure a consistent approach.	✓
	Collaborate with other TOs to create common reporting methodologies and align our reporting to internationally recognised sustainability reporting standards (GRI/ESRS).	
	Collaborate with other TOs to create common reporting methodologies and align our reporting to internationally recognised sustainability reporting standards (GRI/ESRS).	
	Develop common supply chain social sustainability metrics, tools and methodologies with other TOs.	✓
	Independently assure our annual sustainability data to ensure a high standard of data and reporting governance and transparency.	

3.2. Investment

The RIIO-T3 delivery model for network construction differs from previous price control delivery models due to parallel assessment and funding mechanisms and the degree of uncertainty regarding connections projects. Detail on the different funding mechanisms can be found in 'Part II Delivering a Network for Net Zero' in the main Business Plan document.

This results in a smaller proportion of investment being submitted as a baseline plan than in previous price controls. The investment outlined for nature, climate action and circular economy indicated in figure 6 below is for baseline works only, predominantly non-load projects.

We define non-load projects as those that are not adding new capacity, for example the refurbishment of overhead lines. Load projects are those which add capacity, connect generation, and demand or improve the operability of the network, for example new substations, substation extensions or uprating overhead lines to increase the operating voltage.

The investment mechanisms for load projects are mainly out with the submitted RIIO-T3 costs. However, all commitments in this EAP will be applied to all activity in the price control period and will be costed under the appropriate investment mechanism as outlined below.

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Further details of the associated investment requirements are outlined in the Climate Action and Action for Nature sections of this EAP.

Accelerated Strategic Transmission Investment (ASTI): A streamlined framework set out by Ofgem to deliver large strategic projects to progress the Government's ambition to connect 50GW of offshore generation to the electricity network by 2030. These include both new substations and overhead line routes and the upgrading of the existing network.

tCSNP2: Works identified by the recent 'Beyond 2030' report will be funded by a process outside the RIIO-T3 Business Plan. Ofgem issued a consultation on this process in early August 2024.

Uncertainty Mechanisms: The timing of the business plan submission does not align with the development programmes of some planned load-related works. Ofgem have introduced a process to allow submissions of projects whose need case and solution is known at the time of the Business Plan submission but whose costs will be sufficiently mature at a later date. We have submitted these projects in our Business Plan for approval of the need case which would provide pre-construction funding with cost assessment by a streamlined re-opener process. Others will be submitted for full approval where the need case and solution mature during the price control period.

Connections: Due to the uncertainty of the investment requirement for new connections, a volume driver is used to protect consumers against inaccurate forecasting of investment and ensures timely connection of new generation. A volume driver is a price control investment framework for a set of metrics, for example £ per km of overhead lines or cables, £ per new substation or transformer capacity (MVA). This cost framework will be re-evaluated for RIIO-T3.

High Voltage Direct Current (HVDC) – These projects consist of onshore converter stations and onshore and offshore cabling. While the governing mechanisms are currently ASTI and tCSNP2, it is notable that as collaboration projects these developments will have their own set of commitments which will be at least as ambitious as those outlined in this EAP. Investment requirements for these collaboration projects have not been included in this EAP.

Figure 6 below summarises the investment embedded in our RIIO-T3 Business Plan to deliver sustainability commitments; further detail is provided throughout this EAP.

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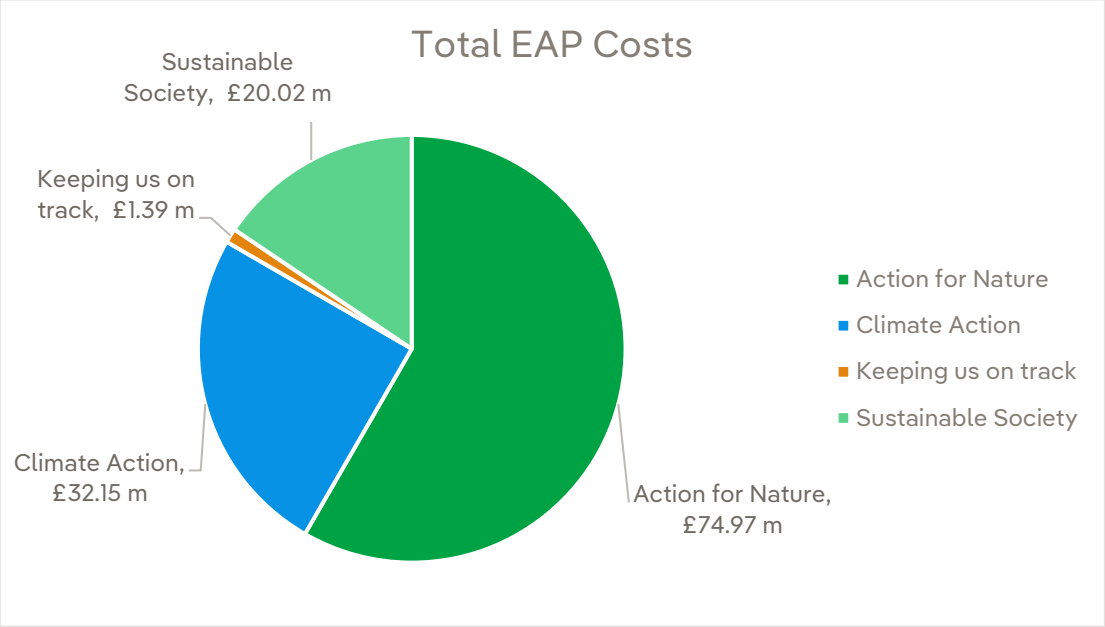

FIGURE 6 – BREAKDOWN OF ALL THE COSTS INCLUDED IN THE ENVIRONMENTAL ACTION PLAN

3.3. Incentives and Other Regulatory Mechanisms

3.3.1. Insulation and Interruption Gas (IIG) Incentive

What is the incentive?

During RIIO-T2 we have been incentivised by a symmetrical incentive mechanism, which has driven us to reduce gas leakage including sulphur hexafluoride (SF_6) assets operating on the system. We will continue to mitigate the leakage of gas from our assets and are working with industry to identify alternative insulation and interruption technology to improve our environmental footprint.

Why do we need an IIG incentive?

We have been successful in reducing our gas leakage over previous price control periods. We are committed to working towards achieving our Science-Based Targets (SBT) set in 2018/19, aiming to reduce our greenhouse gas emissions by 4.2% per year, equivalent to the scale of reductions necessary to limit global temperature rise to 1.5°C. The transition to SF_6 free equipment and the multiple gas types in use are a challenge for all TOs to manage, yet the reduction of the global warming impact of any leakage makes this a high priority area for SPT.

This incentive will support delivery of our Commitment:

Reduce emissions from SF_6 leakage in line with the trajectory required to meet our Science-Based Target (SBT)

See section 4.3.4 for more detail on our plans to reduce the usage of SF_6.

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Our RIIO-T3 IIG proposal

We consider it prudent that any incentive mechanism target in the new price control period should be based on outperforming the rate of reductions necessary to achieve our SBT. We want to work with Ofgem to set a tangible target, recognising our success to date and the difficulties in achieving an ambitious target in relation to SF_6 emissions. Our belief is that our target for RIIO-T3 should focus on our SBT and a linear reduction of 4.2% per annum.

3.3.2. Uncertainty Mechanism: Sustainable Materials and Solutions (known materials and emerging technologies)

All 3 TO's consider capital carbon reduction as a key priority. We have worked together to create a common carbon database, share best practice and drive a consistent message for the supply chain. In RIIO-T3, we collectively recognise that a cost uplift is required to continue to drive down emissions in construction and support sustainable resource use. Therefore, we are proposing low carbon funding options (which will also support sustainable resource use) appropriate for our programme of works and delivery methods.

This incentive will support delivery of our Commitment:

Implement cost-effective sustainable materials and solutions in our construction programmes

The most significant materials by volume and carbon impact are concrete, steel and diesel. Sustainable options of these materials will, at least initially, incur additional costs over conventional options. We propose an uncertainty mechanism to enable cost-efficient investment in more sustainable options for these materials, which are necessary to meet our climate action and circular economy targets and commitments.

We also understand that we need to go further than our top three impact materials to reach our targets. We are therefore proposing to trial and implement further low carbon, circular and sustainable materials and solutions. We have set an investment efficiency threshold aligned with the other Transmission Owners and best practice guidance on efficient cost of carbon to ensure best value to customers. Further details on our approach is included in Section **Error! Reference source not found.** - **Error! Reference source not found.**.

A Use It or Lose It (UIOLI) mechanism with a defined cost-efficiency threshold would enable us to specify and procure such solutions whilst protecting the customer from excessive costs and taking into account the deliverability risks of maturing markets and availability.

3.3.3. Uncertainty Mechanism: Environmental Reopener

It is important we have an environmental reopener that captures any changing environmental legislative and regulatory requirements that will result in additional costs during the RIIO-T3 period. For example, it is expected that a new National Park will be designated in Scotland and this may result in increased costs associated with increased expectations of impact mitigation such as damage to nature or visual amenity. It is important that the scope of this new reopener has a sufficiently wide enough definition to capture changes in the regulatory approaches of the Planning Authorities and the Scottish Environment Protection Agency (SEPA) whose changes in policy or standards can have similar impacts to those driven by new legislation.

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3.3.4. Carbon Border Adjustment Mechanism (CBAM)

The UK Government plans to implement a new Carbon Border Adjustment Mechanism in 2027, a policy designed to address carbon leakage to support the UK's decarbonisation efforts. The CBAM is intended to ensure that imports are subject to the same carbon costs as UK-made goods, promoting fair competition and encouraging global competition. The CBAM will apply a carbon price to imported carbon-intensive goods, calculated based on the emissions intensity of the imported goods and the carbon price difference between the UK and the country of origin.

Initially the mechanism is expected to target carbon intensive imports including aluminium, iron and steel. As a result, the mechanism is likely to increase the costs of components required for electricity networks. Before policy decisions are finalised, it is not possible to estimate the full extent of the impact on costs that TOs may face as a result of the CBAM. However, we expect price increases across a broad range of the components that we procure globally. For electricity networks, the CBAM may also introduce disruption during procurement activities and could contribute to additional supply chain uncertainty. Therefore, an uncertainty mechanism is required during RIIO-T3 to address the impacts of the CBAM implementation in 2027. We support the UK Government's ambition to reduce carbon leakage, and we will look to work closely with Ofgem and wider industry on the appropriate regulatory mechanism to ensure the price control can react in an agile way to the introduction of the CBAM.

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4. Climate Action

We principally support climate action by operating, maintaining and expanding our world class network to allow the integration of renewables which will facilitate the decarbonisation of electricity, transport and heat. We sit at the heart of the Net Zero greenhouse gas (GHG) transition and in RIIO-T3 we will undertake an unprecedented infrastructure development programme. As we do this, we need to ensure we are doing the right thing in the right way – mitigating our own emissions and ensuring that our network adapts to the ongoing impacts of climate change.

To achieve our Net Zero GHG targets we have developed our "Route Map to Net Zero" (figure 7). The following sections give further details on the targets we have set, our plan to achieve our targets and the metrics we will use to track and transparently report our performance.

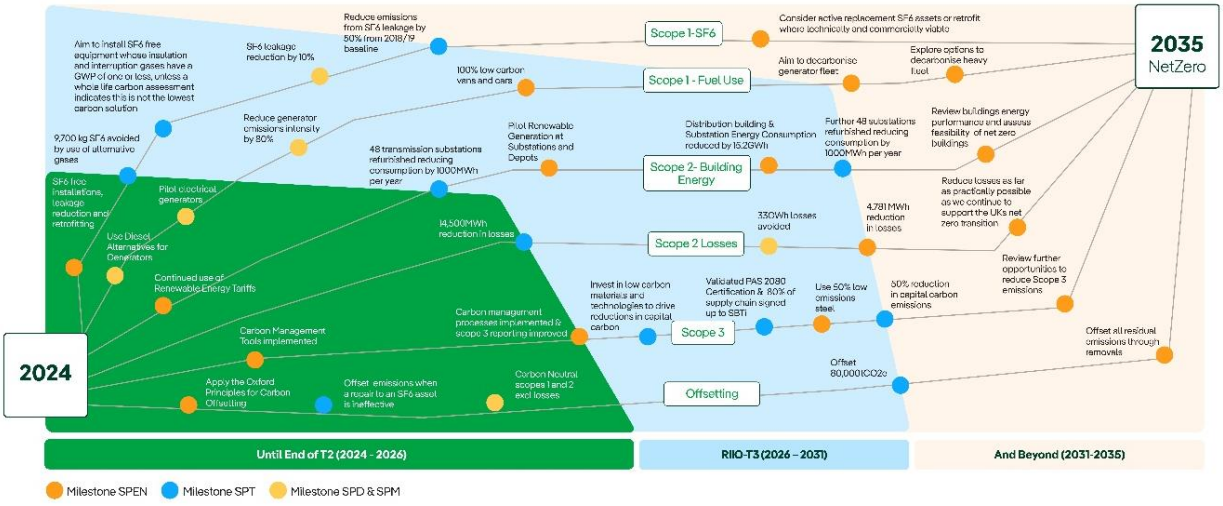

FIGURE 7 – ROUTEMAP TO NET ZERO GHG AND BEYOND

As a responsible Transmission Network Operator, we have a commitment to develop and maintain our network in a way that provides the best value for money for our customers, in addition to pursuing our decarbonisation targets.

4.1. RIIO-T3 Ofgem Baseline Expectations

TABLE 2 – OFGEM BASELINE EXPECTATIONS AND SPEN ACTIONS TO MEET EXPECTATIONS FOR BCF

BUSINESS CARBON FOOTPRINT (BCF)		
Network Companies should:	**What we have done: RIIO-T2**	**What we are doing: RIIO-T3**
Adopt or retain an appropriate science-based target to reduce their business	We adopted a Science-Based GHG Target in line with a 1.5°C trajectory covering all areas of impact (Scopes 1, 2 and 3) and developed a plan to deliver. We	We will deliver our Climate Action RIIO-T3 Commitments to achieve GHG reductions in line with the trajectory towards our Science-Based

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BUSINESS CARBON FOOTPRINT (BCF)		
Network Companies should:	**What we have done: RIIO-T2**	**What we are doing: RIIO-T3**
carbon footprint (BCF).	also set a Net Zero GHG Target which we are in the process of validating to the Science-Based Targets Initiative's Corporate Net Zero Standard. This target will require us to reduce emissions in line with a 90% reduction by 2035.	Net Zero GHG Target whilst developing our experience in offsetting residual emissions.
Commit to efficient and economic actions to reduce their controllable BCF in RIIO-3.	We costed, outlined and delivered actions in RIIO-T2 to decarbonise Scope 1 and 2 emissions. We met our short-term target of 15% reduction by 2022/23.	We have costed and outlined actions we will take in RIIO-T3 to decarbonise all scopes - ensuring these are both economic and efficient by assessing against an efficient cost of carbon abatement
Report on BCF Scopes 1 and 2, and progress towards science-based targets and net zero, using the GHG Protocol Corporate Accounting and Reporting Standard; and **Report on Scope 3 emissions on the basis of the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard**	We worked with other TOs to align our BCF reporting – with a focus on Scope 1 & 2.	We will publish a common methodology for tracking and reporting emissions in collaboration with the other TOs and we will improve the way we track our Scope 3 emissions.
Embodied Carbon		
Network Companies should:	**What we have done: RIIO-T2**	**What we are doing: RIIO-T3**
Commit to monitoring and reporting on embodied carbon in new projects (projects beginning in the given price control period).	We have collaborated with other TOs to develop embodied carbon reporting tools and align our approach to reporting embodied carbon projects throughout RIIO-T2.	We will continue to report embodied carbon emissions associated with major new infrastructure projects throughout RIIO-T3, improving our approach to include whole life emissions.
Commit to collaborating with the supply chain on addressing challenges to	We have collaborated with our supply chain to introduce a Product Carbon Calculator Tool to gather life cycle information	We will obtain certification to PAS 2080 Carbon Management in Buildings and Infrastructure (2023) across our construction programme,

Internal Use

BUSINESS CARBON FOOTPRINT (BCF)		
Network Companies should:	**What we have done: RIIO-T2**	**What we are doing: RIIO-T3**
reduce embodied carbon in the network.	on the electrical equipment we procure.	reducing whole life carbon emissions in line with our target, working with our supply chain to address challenges.
Set baseline and adopt a target for reducing embodied carbon on new projects during RIIO-3	We have completed our 'Truly Sustainable' Substation and Circuits innovation projects to develop a benchmark for key electrical infrastructure projects, identify embodied carbon hotspots and developed opportunities register.	We have undertaken a baseline assessment for embodied carbon for all major projects within the T3 investment programme. We will target identified carbon hotspots to minimise emissions on projects.
Set out the materiality threshold (i.e. a £m value) for qualifying new projects that require reporting in this area*	From 2023/24, we are reporting embodied carbon emissions for new major transmission projects.	BAU for all major transmission projects (>£1M).
Sulphur hexafluoride (SF_6) & Other Insulation and Interruption Gases (IIGs)		
TOs should use their EAPs to set out their plans and commitments for reducing the use of SF_6 and other Insulation and Interruption Gases (IIGs) on their networks. This should include (rows below): Minimising new additions of SF_6 inventory on the network in RIIO-T3 i.e. only in instances where it is the most cost-effective option on the basis of a life cycle assessment	All T2 Gas Insulated Busbar installations are SF_6 free, along with the majority of replacement 132kV circuit breakers, except where space is constrained, and it is not technically feasible. We consider greenhouse gas emissions of dielectric gases to determine cost effectiveness for other SF_6 free equipment.	SPT's strategy is to install SF_6 free equipment in RIIO-T3. SF_6 filled equipment will only be installed if a viable SF_6 free solution is not available.
Strategy implementation in RIIO-T3 to manage SF_6 on the network. This should include	In RIIO-T2 we have successfully reduced SF_6 leakage by focusing on asset replacement and repairing existing leaks quickly were possible.	SPT will undertake retro filling of Gas Insulated Busbars (GIB), proactive asset intervention and online

Internal Use

BUSINESS CARBON FOOTPRINT (BCF)		
Network Companies should:	**What we have done: RIIO-T2**	**What we are doing: RIIO-T3**
economic and efficient actions to reduce leakage rates and, economic and efficient SF_6 asset replacement		density minoring to reduce leakage in RIIO-T3.
Adopt a reduction target for IIG leakage over the course of RIIO-T3 consistent with their science-based target for the company's BCF.	Our target in RIIO-T2 was to reduce leakage by 15% and we are on track to delivering this, although exception leakage events continue to be a challenge.	We will reduce emissions from SF_6 leakage in line with the trajectory required to meet our SBT.
Commit to reporting on total SF_6 leakage reduction rates using a common TOs' methodology.	We have reported SF_6 leakage under a common methodology, following EREC S38.	We will continue to report SF_6 leakage using a common methodology, evolving our approach in line with best practice.
Transmission losses		
TOs should develop and commit to implementing a strategy to efficiently manage both technical and non-technical losses on the TO's network over the long term. This should include specific actions and performance measures to track the impact of actions in RIIO-T3, including:	We are implementing our RIIO-T2 Losses Reduction Strategy to reduce losses on the network by a target of 14,500MWh.	We are implementing our RIIO-T3 Losses Reduction Strategy to reduce losses on the network by a target of 4,781 MWh
Commit to reporting on the progress of implementing the losses strategy and associated performance measures;	We are reporting estimated MWh of losses reduced through the implementation of our loss's strategy, alongside total annual losses and the associated greenhouse gas impacts.	We are reporting estimated MWh of losses reduced through the implementation of our loss's strategy, alongside total annual losses and the associated greenhouse gas impacts
Contribute to the evidence base on the proportion of losses that network	Losses are an inevitable consequence of transferring energy across electricity networks, from generation to	We will continue to work to understand the proportion of losses that we can influence and control, as per our

Internal Use

BUSINESS CARBON FOOTPRINT (BCF)		
Network Companies should:	**What we have done: RIIO-T2**	**What we are doing: RIIO-T3**
companies can influence/control	demand. We are continuing to work to understand the proportion of losses that we can influence and control, as per our Losses Strategy commitment.	Losses Strategy commitment.

* Italic text represents new expectations for RIIO-3 relative to RIIO-2

4.2. Achieving our Net Zero GHG Target

4.2.1. How we did in RIIO-T2: Our Net Zero GHG Target

Our Business Carbon Footprint

In 2013/14, we started measuring our 'Business Carbon Footprint' (BCF) and set targets to measure performance. Figure 88 shows our performance to date. In RIIO-T2 we achieved our short-term target of 15% reduction by 2023, although this was exceeded the following year due to an exceptional SF_6 leakage event. In RIIO-T3, we will work towards a target of 80% reduction by 2030 (set in 2013/14). Further details on how we are doing for individual emissions streams and the strategy for RIIO-T3 is included in subsequent chapters.

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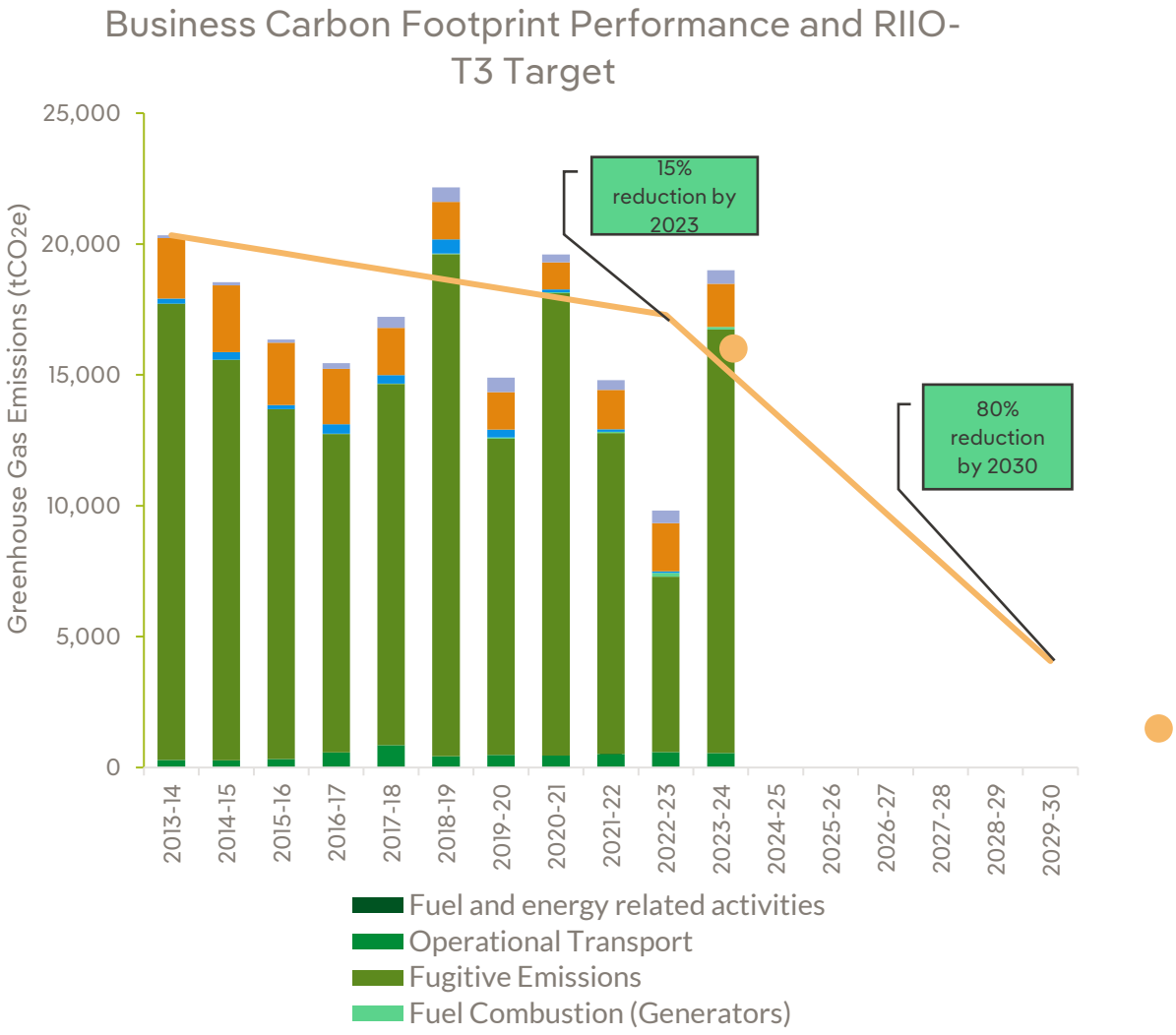

FIGURE 8 - GRAPH SHOWING SPTS HISTORICAL BCF AND FUTURE REDUCTION TARGETS

Our Science Based Targets

In RIIO-T2, we made a Commitment to adopt Science Based GHG Targets (SBTs) and monitor progress towards meeting these targets. We set validated Science-Based Targets for greenhouse gas emission reductions aligned with a 1.5°C pathway. Our SBTs include Scope 1, Scope 2 and Scope 3 emissions, which is a wider scope than the historical use of the term 'Business Carbon Footprint'. Our emissions are reported in line with the GHG Protocol Corporate Accounting and Reporting. Each Scope is defined below:

TABLE 3 – DESCRIPTION OF EACH SCOPE IN OUR NEW BUSINESS CARBON FOOTPRINT (BCF)

Scope 1: Direct emissions associated with fuel used, operational fleet, SF_6 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.

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

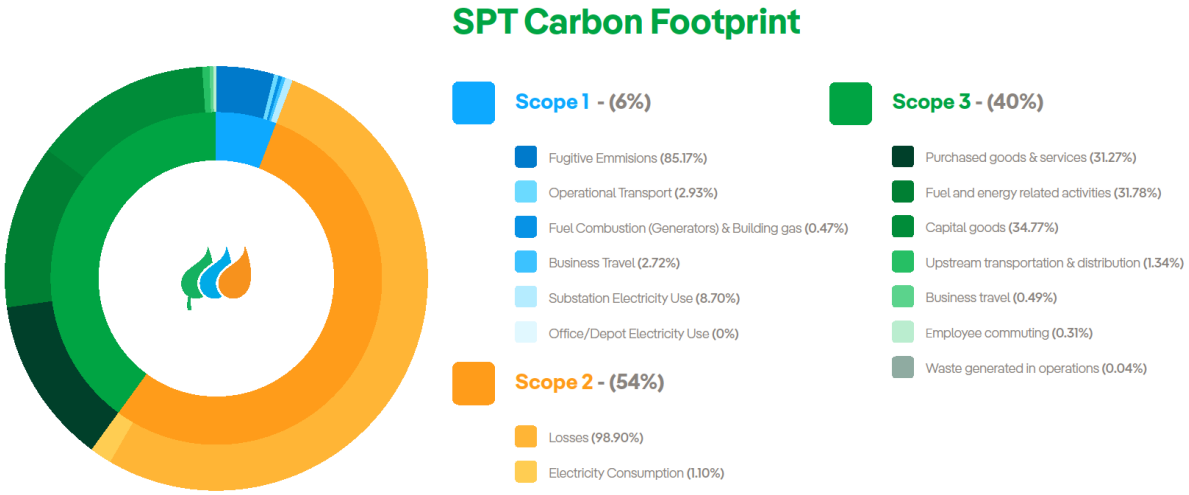

FIGURE 9 - BREAKDOWN OF EMISSION BY SCOPE

Figure 9 shows the relative magnitudes of our Scope 1, Scope 2 and Scope 3 carbon footprint - and the breakdown of individual emissions streams within each scope. A detailed description of each emissions stream can be found in Appendix 10.3.

TABLE 4 - RIIO-T2 CLIMATE ACTION COMMITMENT RAG STATUS

RIIO-T2 COMMITMENT	CURRENT RAG STATUS	EXPECTED RAG STATUS AT END OF RIIO-T2
We will implement processes for carbon management in relevant business activities, aligned with PAS 2080 Carbon Management in Infrastructure.	GREEN	GREEN
We will adopt a science-based target for scope 1*, 2* & 3 carbon reduction.	GREEN	GREEN
We will identify, and subsequently monitor, metrics to track progress towards our science-based carbon reduction targets.	GREEN	GREEN

4.2.2. RIIO-T3 Commitments and Metrics: Climate Action

TABLE 5 – OUR COMMITMENTS AND RELATED PERFORMANCE METRICS

COMMITMENT	METRIC
Deliver economically efficient actions to reduce our scope 1, 2 and 3 Greenhouse Gas (GHG) emissions in line with our Net Zero GHG target	tCO2e reduction

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4.2.3. RIIO-T3: Investments and Benefits: Our Net Zero GHG Target

In order to understand the benefits of our Climate Action investments, we developed an emission forecast model for a business-as-usual (BAU) scenario (see RIIO-T3 9.17 Environment Table) and for a scenario where our T3 Climate Action Commitments were implemented.

Figure 10 shows our modelled forecast emissions for RIIO-T3 when the Commitments in Table 1 are applied.

Overall, by the end of RIIO-T3, we forecast that we will reduce our carbon footprint by approximately 62% relative to our 2018/19 baseline. This is roughly in line with the scale of reductions we need to make in RIIO-T3 to achieve our Net Zero by 2035 target.

Our T3 Climate Action Commitments are estimated to result in a reduction of around 28ktCO_2e/yr by the end of T3 relative to a BAU scenario. This is the equivalent of powering more than 10,300 UK households annually. Further details on the cost and benefits within each scope are outlined in the sections below.

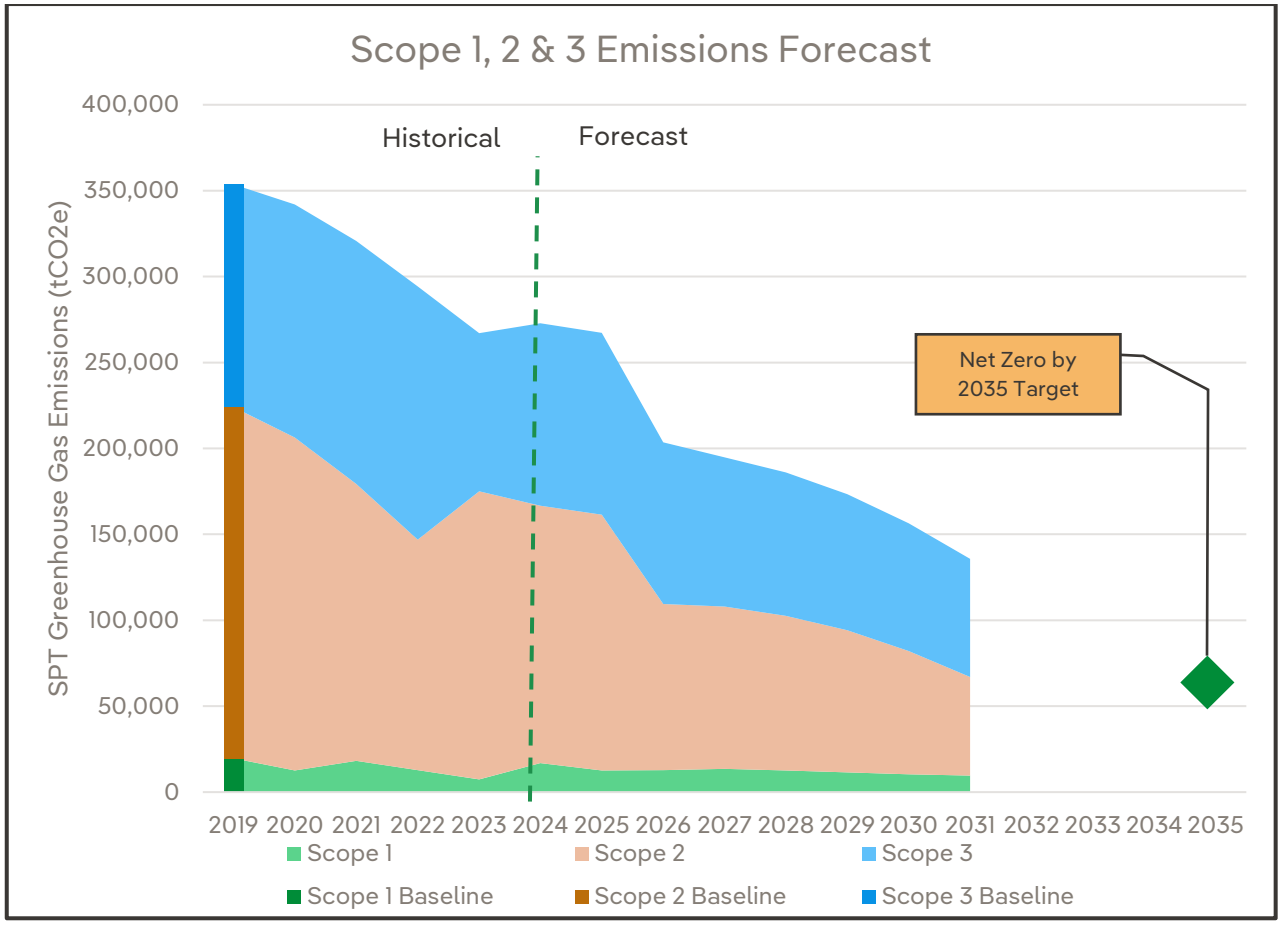

FIGURE 10 - EMISSIONS FORECAST AGAINST SCIENCE-BASED NET ZERO TARGET TRAJECTORY

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Cost Efficiency

We have been given clear expectations by our regulator and stakeholders to commit to ambitious whilst efficient and economic actions to reduce controllable GHGs in RIIO-T3.

Error! Reference source not found.11 shows the Marginal Abatement Cost Curve (MACC) for d elivering Climate Action Commitments. The graph shows the cost effectiveness of each Commitment (in £ per tCO_2e abated) against the scale of GHG abatement (the estimated emissions reduced as a result of the Commitment). We know that we will need to invest in order to reach net zero. To ensure our investments are efficient and economic, we have used the UK Department for Energy Security & Net Zero's Valuation of energy use and greenhouse gas (GHG) emissions as an investment threshold guide for carbon abatement, which is set at £274/tCO2e for the RIIO-T3 period.

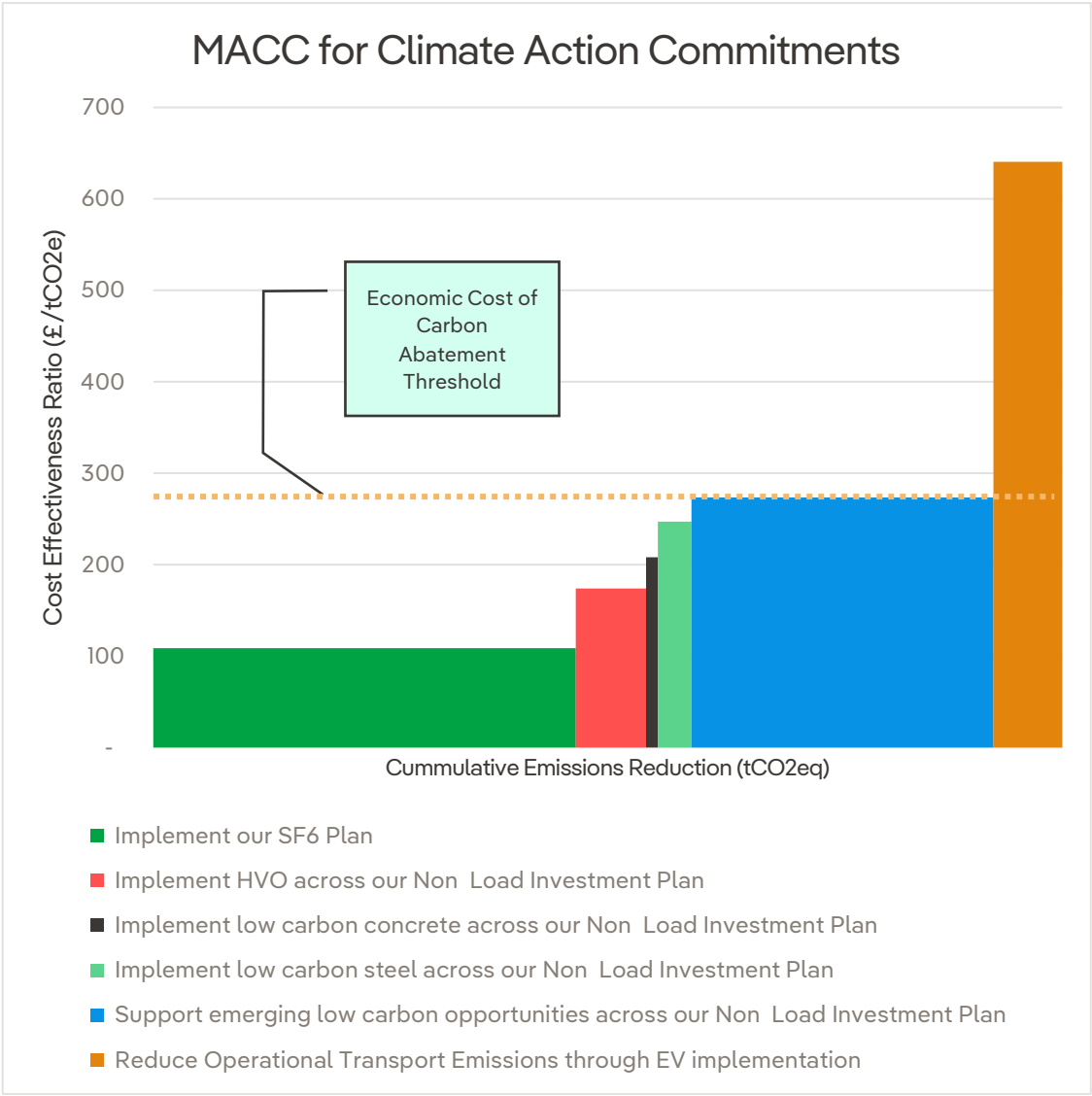

FIGURE 11 - MARGINAL ABATEMENT COST CURVE FOR CLIMATE ACTION

All Commitments sit under the investment threshold indicated by the dashed line, with the exception of our Commitment to transition our fleer to electrical vehicles. Although the

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transition to electric vehicles doesn't sit within this threshold, we still consider this an economic investment as there are unquantifiable savings associated with e.g. vehicle maintenance costs, and it will future proof our fleet and support market development for larger utility vehicles. Substation energy refurbishment and losses have also been excluded as these initiatives are required to modernise our network and have not been implemented specifically to reduce greenhouse gases (although there will be greenhouse gas savings associated). Further information on our Net Zero GHG Delivery is included below.

4.2.4. RIIO-T3: Net Zero GHG Delivery

Our approach to Climate Action is shown in Figure 12.

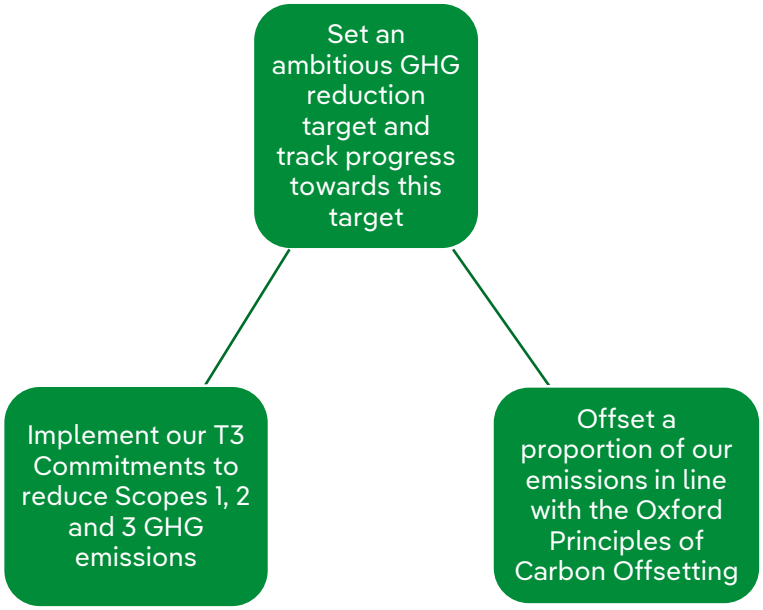

FIGURE 12 - THE THREE PILLARS THAT DEFINE OUR APPROACH TO CLIMATE ACTION

Commitment: **Deliver economically efficient actions to reduce our Scope 1, 2 and 3 GHG emissions in line with our Net Zero GHG target**

We are in the process of validating our Net Zero GHG target of 2035 against The Corporate Net Zero Standard from the Science-Based Target Initiative. This is much more ambitious than our 1.5°C aligned Science-Based Target (set in RIIO-T2) in two key ways:

- By 2035 we will need to reduce our emissions by 90% which is more ambitious than our RIIO-T2 1.5°C aligned target of 67.2% reduction by 2035
- By 2035 we will neutralise all remaining residual annual emissions, by supporting net zero aligned carbon offsets which will permanently remove and store carbon from the atmosphere.

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Stakeholder engagement

Stakeholders support efforts to reduce our GHG emissions and our 2035 Net Zero GHG target. Stakeholder feedback for individual initiative areas is detailed in the relevant sections below.

4.3. Reducing our Scope 1 Emissions in line with our Net Zero Target

4.3.1. How we did in RIIO-T2: Scope 1 Emissions

Operational Transport Emissions

We made a Commitment to decarbonise 100% of our operational vehicles (72 cars and vans) with electric alternatives. We will electrify all our small vans and cars by the end of RIIO-T2, but we do not anticipate that we will fully meet our Commitment, because there are no operationally suitable electric alternatives to our larger vans and 4x4 fleet.

Fugitive Emissions

At the time of the RIIO-T2 Business Plan submission the SF_6 free technology available would allow us to install SF_6 free equipment across our portfolio at 132kV and where we were installing Gas Insulated Switchgear (GIS) at 275 kV and 400kV, the Gas Insulated Busbar (GIB) would be SF_6 free. We have stuck to our commitment - all RIIO-T2 projects that have installed GIB have been SF_6 free and we have only installed a small number of new SF_6 filled 132kV circuit breakers following faults. This has been due to space constraints on sites not allowing a SF_6 free circuit breaker to be installed.

We also committed that we would drive the manufacturers to develop new SF_6 free technologies. We are currently undertaking a project to develop a new retrofill gas that can replace SF_6 in GIB. This project will allow SPT to remove a little over 8 tonnes of SF_6 from our network which currently represents around a 6% reduction in our overall inventory. This project allows us to reduce our SF_6 inventory but also has a wider benefit that it brings a new retrofill gas to the market.

In previous price control periods, we had focused our efforts removing end of life air blast and oil filled circuit breaker from our network. As part of our RIIO-T2 Business Plan we recognised we now had SF_6 filled assets exhibiting deterioration mechanisms that would indicate assets near their end of life. Previously we would have repaired these assets as part of our operational activities however more significant intervention was now required.

In RIIO-T2 we have a programme which is a combination of asset replacement and resource intensive repairs. This project has seen our SF_6 emissions reduce significantly in RIIO-T2 from 775 kg in 2021 to 291 kg in 2023.

Our expectation is that as we continue with this programme, SF_6 emissions will continue to reduce. Our experience, however, is that sometimes when a leak is repaired a weakness on another element is exposed which then starts to leak.

Our emissions reduction is therefore unlikely to be a linear as the programme progresses. Our assets are manufactured to very stringent tolerances particularly around gas tightness

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however the assets cannot be made completely gas tight and therefore some SF_6 leakage is inevitable. Unfortunately, assets will develop leaks beyond their design tolerances, and we will continue to repair these at the earliest opportunity.

TABLE 6 – RIIO-T2 SCOPE 1 COMMITMENT RAG STATUS

RIIO-T2 COMMITMENT	CURRENT RAG STATUS	EXPECTED RAG STATUS AT END OF RIIO-T2
We aim to decarbonise our operational fleet by replacing 100% of our 72 cars and vans with electric alternatives by the end of RIIO-T2.	RED	RED
We will strive to lead the decarbonisation of fleet vehicles, working with suppliers and other fleet operators to pilot technically viable alternatives to drive technical advancements and early adoption	AMBER	GREEN
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.	GREEN	GREEN
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	GREEN	GREEN
Where a repair to a leaking asset proves ineffective and the asset requires to be replaced, we will offset the SF_6 emissions from that asset until its replacement via a Carbon Offsetting partner	GREEN	GREEN
We will use alternatives to SF_6 insulating gas for all new circuit-breakers and GIS installations where there are technically feasible market-ready solutions.	GREEN	GREEN
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	GREEN	GREEN

Our work in RIIO-T2, which has included collaboration on innovation projects to develop new repair techniques, has reduced our emissions but we need to ensure in RIIO-T3 that we take steps to reduce our emissions further but also to try and reduce the opportunity for future leaks.

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4.3.2. RIIO-T3: Commitments and Metrics: Scope 1 Emissions

TABLE 7 - OUR SCOPE 1 COMMITMENTS AND RELATED PERFORMANCE METRICS

COMMITMENT	METRIC
Decarbonise all fleet* vehicles by 2030 - electrifying all feasible vehicles and implementing low carbon alternatives for all other vehicles (where an electric alternative is not feasible for operational or technological reasons)	Number and % of EVs Number and % of other low carbon vehicles
Reduce emissions from SF_6 leakage in line with the trajectory required to meet our Science-Based Target**	Leakage in kg per year tCO2e
Install SF_6 free equipment in RIIO-T3. SF_6 filled equipment will only be installed if a viable SF_6 free solution is not available.	Number of SF_6 assets installed

**Fleet is estimated to increase by 50% and will include additional cars, vans and 4x4s*

***Set against our original Science-Based Target of 67.2% reduction by 2035*

4.3.3. RIIO-T3: Investments and Benefits: Scope 1 Emissions

Overall, our Scope 1 emissions are forecast to decrease by 51% by the end of RIIO-T3 compared to a 2018/19 baseline. This level of reduction is reliant upon the investment detailed below, which is forecast to deliver almost 25ktCO_2e reductions over RIIO-T3 compared to a 'Business as Usual' approach:

TABLE 8 – SCOPE 1 INVESTMENTS AND BENEFITS

Objective	Cost (£m)	Estimated Benefit **(Total reduction in tCO_2e against a BAU baseline)**
Reduce Fugitive Emissions	£5.09m (Assets) £5.42m (Leakage Reduction)	22,677 tCO2e
Reduce Operational Transport Emissions	£3.21m	5,214 tCO2e

This investment consists of the uplift required above BAU cost:

- Ensuring SF_6 free equipment in line with our strategy below and delivering the retro-fill solution
- Ensuring electric and lower carbon vehicles are adopted in RIIO-T3 rather than traditional diesel vehicles, in line with our strategy below

4.3.4. RIIO-T3: Scope 1 Delivery

We have the most control over Scope 1 emissions, however we are still reliant on external drivers to enable decarbonisation. The most material emissions streams in Scope 1 are Operational Transport and SF_6 Emissions. Our approach to reducing these emissions streams is outlined below:

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Operational Transport Emissions

Commitment: Decarbonise all fleet vehicles by 2030 - electrifying all feasible vehicles and implementing low carbon alternatives for all other vehicles (where an electric alternative is not feasible for operational or technological reasons)

RIIO-T3 Total Greenhouse Gas Savings: 5,214 tCO2e

Transitioning to electric vehicles (EVs) is an important part of our RIIO-T3 strategy, which will reduce our reliance on fossil fuels and allow us embrace cleaner energy alternatives. Our parent company has signed up to The Climate Group's EV100 initiative. This is a global initiative bringing together forward-looking companies committed to accelerating the transition to electric vehicles (EVs) and making electric transport the new normal by 2030.

Our specific operational requirements for medium/large vans and 4x4s present a challenge and collaboration with vehicle leasing providers is key to integrating EVs or low carbon alternatives that meet these performance standards. We must balance the need to decarbonise with our primary goal of providing energy our customers. Our operational fleet must be ready to react to unplanned events such as storms – in addition to running our 'business as usual' operations - and we must ensure vehicles are fit for this purpose. As the market availability of suitable models improves, it will become increasingly feasible to replace existing vehicles with low carbon counterparts. With this in mind, we have shortened the lease periods for these vehicles to facilitate earlier replacement with lower carbon options.

In addition, our fleet needs to grow by 50% as we expand our network. These additional vehicles will also be part of our vehicle decarbonisation transition.

Stakeholder engagement

Stakeholders were supportive of our strategy to decarbonise our vehicles; discussion was focussed on accelerating progress where possible. It was recognised that to achieve our targets within the RIIO-T3 period, we are reliant on the availability of suitable electric and lower carbon vehicles that meet our operational specifications.

It was noted that SPT should be upfront about what can and cannot be decarbonised and what % of its total fleet this relates to. As a result, we made this clear in our Commitment and will provide details of what we have been able to deliver and the challenges we are facing in our Annual Environmental Report.

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FIGURE 13 - A SPEN ELECTRIC VAN

SF_6 and other Insulating and Interruption Gases (IIG) emissions

Our strategy in RIIO-T3 is to minimise the addition of SF_6 to our network, remove SF_6 from our network where possible and to minimise leakage of SF_6 and other IIG from our assets.

New Equipment

When SPT set out our RIIO-T2 Business Plan SF_6 free equipment was in its early stages of development. At the start of RIIO-T2 we installed SF_6 free equipment at 132kV and SF_6 free GIB are 275 & 400kV. The development of SF_6 free equipment has moved on as has SPT's approach to adopting these new technologies.

Commitment: Install SF_6 free equipment in RIIO-T3. SF_6 filled equipment will only be installed if a viable SF_6 free solution is not available.

When considering if an SF_6 free solution is viable we need to consider if it meets the requirements of our technical specification, for example does a circuit breaker have the appropriate short circuit rating for our application.

We will also review the cost effectiveness of a solution; we are fully committed to being SF_6 free, but this cannot be at any price. We know that SF_6 free equipment is likely to be more expensive than SF_6 and we have built our costs taking this into account for our RIIO-T3 Business Plan. When we are potentially having to extend an existing GIS substation for example the costs are less certain and to facilitate a transition to SF_6 free may be prohibitively expensive due to a number of factors. This is something we need to consider ensuring we are providing the best value to consumers.

With the transition to SF_6 free many different gases are being used, it cannot be automatically assumed the equipment with the gas that uses the lowest GWP is best. It is the

Internal Use

view of SPT that to fully understand the CO_2e impact of our activities we need to evaluate the lifecycle CO_2e emissions associated with an asset and not just focus on the global warming potential of any IIG used within the asset.

GIS using gases with a GWP of one or less will typically be larger than a GIS using an IIG with a GWP greater than one. This means that more material will be used constructing the equipment, any building that houses the equipment will need to be larger and concrete foundations for the GIS will require to be bigger. When considering an asset's CO_2e impact, we will consider all of these factors, and others such as transportation, to fully understand the CO_2e impact of our activities.

The technological challenge when migrating from SF_6 to SF_6-free technologies is significant. Whereas previously one gas, SF_6, was used throughout the SPT voltage range from 11kV to 400kV, now other insulation mediums and gases are used depending on system voltage.

This technological change therefore means we need to understand the new technologies that are being installed, their maintenance requirements and, if appropriate, any different requirements associated with gas handling on these assets. Our operational teams will require additional training to ensure we maintain this new equipment in line with our existing high standards.

When considering the technology available for our assets at 132kV and above there is a notable gap in the market. The original equipment manufacturers (OEMs) have understandably developed SF_6 free equipment for their larger markets, where they can bring more benefit.

Currently there are multiple manufacturers of SF_6 free Air Insulated Switchgear (AIS) and GIS available at 132kV. There are a number of manufacturers with SF_6 free GIS available and AIS in development at 400kV.

Unfortunately, there is no development of a market for 275kV SF_6 free assets due to the size of the market being relatively small. The development of this equipment may come in time however is not currently on any published manufacturers' road maps.

In RIIO-T3 therefore SPT will install 400kV SF_6 free equipment for operation at 275kV. This will lead to increased equipment cost and footprint of the equipment but is preferable to installing new SF_6 assets. We believe the increased cost and footprint of the equipment still makes installing 400kV equipment at 275kV viable. If we do not take this approach, then we would have to continue installing SF_6 at 275kV for the foreseeable future.

SPT have demonstrated our commitment to being SF_6 free during RIIO-T2 and we are continuing this in RIIO-T3. SF_6 filled equipment will only be installed if a viable SF_6 free solution is not available.

Fugitive Emissions

During RIIO-T2 SPT have reduced the fugitive emissions of SF_6 and will continue to reduce our emissions, following the trajectory required to meet our Science-Based Targets, in the RIIO-T3 period.

Repairs of any of SF_6 asset leaks will be funded under our business-as-usual Network Operating Costs. We have also identified some older SF_6 filled assets where we only have a

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small number remaining and they have a family history of leakage. We intend to replace these assets. This is primarily because these assets may not be currently leaking but we are sure they will in the future.

For RIIO-T3 we have developed an SF_6 Management Plan this includes a number of initiatives designed to allow us to minimise our emissions of SF_6 or other IIG.

Commitment: Reduce emissions from SF6 leakage in line with the trajectory required to meet our Science-Based Target

Gas Insulated Busbar (GIB) Retrofill

GIB are long metal tubes containing electrical conductors surrounded by a gas. For any GIB installed in SPT prior to RIIO-T2 this will contain SF_6. Due to the design of these types of installation they generally hold large quantities of SF_6 and therefore in the event of a leak, large volumes of gas can be lost.

As previously mentioned SPT have a partnership to develop a new retrofill gas which will remove around eight tonnes of SF_6 from our equipment. Retrofill gases are manufacturer and model specific so one gas cannot be used for all applications. Another retrofill gas is available on the market for use in GIB. In RIIO-T3, SPT plan to retrofill all compatible outdoor GIB with this gas. This will see the outdoor GIB at Hunterston East and Wishaw 400kV substations become SF_6 free removing just under seven tonnes or just more than 5% of SF_6 from the SPT inventory.

The retrofill gases currently available are a gas mixture utilising the C_4-FN gas molecule. The GWP of the retrofill gases are significantly higher than for new SF_6 free equipment however this still leads to a 96% reduction in GWP when compared to SF_6.

Typically, when SF_6 is removed from an asset it is disposed of by incineration. SPT are currently taking part in an innovation project considering the lifecycle management of SF_6 and one of the outputs of this is to use a less energy intensive method of disposing of SF_6. SPT will also review the possibility of SF_6 being recycled and utilised elsewhere therefore reducing the amount of new SF_6 being produced.

Proactive Asset Intervention

Through discussion with OEMs, SPT have identified a common issue with a circuit breaker type which causes the asset to leak SF_6. SPT have 51 of this circuit breaker type and so far, have had only a minor problem. We are however aware this has been more challenging for our colleagues in other companies. SPT plan to replace this problematic component on all 51 circuit breakers therefore avoiding future leaks. It will be our intention to act in a similar manner if other such problems arise on other switchgear types.

Additional GIB Barrier Protection

The majority of a GIB installation is outdoors and as such is exposed to the weather. As previously described GIB is a long set of metal tubes containing an electrical conductor and is designed to run from the main body of the GIS to an overhead line entry point or other electrical assets. Due to the nature of its construction, there can be a significant number of interfaces on any GIB circuit where the metal tubes are joined together.

Internal Use

Typically, GIB components are aluminium, if water can penetrate and settle into these interface points it can lead to the aluminium oxidising which reduces the effectiveness of any gas seals. On a number of SF_6 GIB installations SPT are retrofilling the GIB with a SF_6 alternative gas but currently retrofill gases are not available for every GIB type on the SPT network.

In RIIO-T3 SPT want to explore the installation of additional barrier protection to stop water penetrating GIB interfaces and therefore avoiding leaks. SPT plan to install this additional barrier protection on all currently in-service GIB either filled with SF_6 or a SF_6 retrofill mix.

Online Density Monitoring

All SPT's gas filled assets have gas density monitoring equipment installed. This monitoring equipment sends an alarm to our network control centres if the gas density levels drop below certain levels. This monitoring function is to primarily ensure that if the gas density of an asset is not within certain operating levels the operator is made aware and can take mitigating action. A secondary feature is they can be visually monitored to indicate a leak and action taken to initiate a repair. The use of standard density monitoring doesn't facilitate the earliest possible intervention on a leaking asset.

In RIIO-T3 SPT plan to retrofit new gas density monitoring on asset families with significant populations that have a known history of leakage. The outputs from this new gas density monitoring will allow real time trending of the gas densities and therefore will indicate if an asset starts to leak well in advance of conventional monitoring techniques.

SPT have identified 57 assets that belong to the same family that were installed before 2014 that have a history of leakage on multiple areas of the circuit breaker. SPT have continued to install this asset until the present however, having changed their gas testing requirements in 2014 the leakage on this asset type has almost been eliminated.

In RIIO-T3 we will replace the gas density monitoring on the identified assets and therefore be able at react quicker to any future leak. So far this asset type has leaked over 175 kg of SF_6. SPT have made provision to be able to carry out similar interventions on other assets when the need arises.

SF_6 and Scotland's 2045 Net Zero Target

SPT has around 127 tonnes of SF_6 currently installed on our network. Due to the status of technology at the time switchgear was procured, our inventory has continued to grow in RIIO-T2 mainly consisting of 275kV and 400kV AIS circuit breakers and the active elements of 275kV and 400kV GIS switchgear. We have plans to remove SF_6 from our network in RIIO-T3 and hope that the amount of SF_6 added to our network after RIIO-T3 will be minimal. Our plans to remove SF_6 from our network will continue after RIIO-T3 and we already have projects identified that will reduce our inventory significantly.

Globally, transmission and distribution network operators will have a requirement to manage their inventories of SF_6 in order to play their part in enabling their governments' respective net zero targets. There are a range of options that should be considered, ranging from minimal intervention to early-life replacement of complete asset bases. The correct choice is dependent on the nature of the assets, the net zero targets, the feasibility, noting the large

Internal Use

numbers of assets, particularly in distribution networks, and the carbon and cost impacts of each option.

The push to net zero and the connection of low-carbon generation is leading to unprecedented growth of electricity networks. This growth is stretching the existing supply chain and extending the associated lead times for equipment. The removal of assets before they are end of life, for the sole reason they contain SF_6, puts greater demand on the supply chain and could negatively impact the ability to connect renewable generation.

It is the view of SPT that to ensure we meet net zero we need to manage our network carefully, minimising fugitive emissions and reducing our inventory of SF_6. However, we do not believe that removing all equipment containing SF_6 from our network by 2045, the Scottish Government's net zero target date, is either the most appropriate or effective way to achieve this goal. We install assets for a service life of at least 40 years, therefore a GIS asset we install in 2025 is designed and built to last until at least 2065. Retrofill is not an option for all applications therefore we may need to start replacing this asset in 2040 to ensure it is removed from service to meet the 2045 deadline. The asset would have a remaining service life of at least 25 years and the maximum benefit from the carbon generated in its construction would not have been extracted. Early replacement of these assets will result in an additional carbon impact in the construction of the assets and associated concrete and steel for civil works. This carbon impact must be weighed against the forecast fugitive emissions were the SF_6 filled assets to remain in service for their full lives. We will pursue early asset replacement where there is a clear carbon benefit and we can demonstrate that the additional costs, which are borne by consumers, is justified. Our RIIO-T3 strategy, therefore, is that we will study our network carefully to consider what level of retained SF_6 is consistent with our commitment to meet net zero and we will formulate plans to manage these assets to ensure any leakage is reduced to an absolute minimum.

Stakeholder Engagement

Our stakeholders endorsed our approach to additional investment for SF_6 free technology where this results in GHG reduction.

4.4. Reducing our Scope 2 Emissions in line with our Net Zero GHG Target

4.4.1. How we did in RIIO-T2: Scope 2 Emissions

Buildings Electricity Use

We made a Commitment to reduce energy consumption in substations by 1,000MWh. Our plan was to refurbish one third of our substations to achieve this target. It is anticipated all works will be completed by 2026. We also transitioned to a REGO (Renewable Energy Guarantees of Origin) tariff which has significantly reduced our annual emissions for all electricity in our metered buildings.

Losses

We made a Commitment to reduce electrical losses to a lower level than would otherwise be the case - by an estimated 14,500 MWh. It is anticipated that this will be achieved by 2026 in line with our Losses Strategy.

Internal Use

TABLE 9 – RIIO-T2 SCOPE 2 COMMITMENTS RAG STATUS

RIIO-T2 COMMITMENT	CURRENT RAG STATUS	EXPECTED RAG STATUS AT END OF RIIO-T2
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	AMBER	GREEN
We will implement our RIIO-T2 Losses Reduction Strategy to reduce losses on the network by an estimated 14,500 MWh (circa 3% of 2018/19 losses), thereby limiting losses to a lower level than would otherwise be the case, where this is economic and provides benefit to customers.	AMBER	GREEN

4.4.2. RIIO-T3 Commitments and Metrics: Scope 2

TABLE 10 – SCOPE 2 COMMITMENTS AND METRICS

Commitment	Metric
Reduce substation energy consumption by 3,488 MWh/annum by undertaking works at 31 substations	MWh reduced
Reduce losses by an estimated 4,781 MWh thereby limiting losses to a lower level than would otherwise be the case.	MWh reduced

4.4.3. RIIO-T3: Investments and Benefits: Scope 2

Overall, our Scope 2 emissions are forecast to decrease by 72% by the end of RIIO-T3 compared to a 2018/19 baseline. This level of reduction is largely driven by the decarbonisation of energy, which affects the GHG emissions from losses. The investment detailed below is forecast to deliver 734tCO_2e reductions over RIIO-T3 compared to a 'Business as Usual' approach. Although this is modest in comparison to the effects of the decarbonisation of energy, it is important to track as part of our overall Net Zero plan:

TABLE 11 – SCOPE 2 INVESTMENTS AND BENEFITS

OBJECTIVE	EAP COST (£M)	ESTIMATED BENEFIT **(TOTAL REDUCTION IN TCO_2E AGAINST A BAU BASELINE)**
Reduce Substation electricity consumption	£7.34M	420 tCO2e
Reduce Depot and Office electricity consumption	£1.84	N/A*
Reduce losses (through SPT losses strategy)	N/A**	1,129 tCO2e***

*Not possible to estimate carbon savings at this time due to uncertainty over required specifications for new depot in RIIO-T3

Internal Use

**There is no direct cost related to losses reductions. Older high-loss assets are being replaced due to age and condition; the replacement assets will have lower loss rates.

***This is the benefit we expect from our Losses Strategy. We expect losses to increase in T3, but we are undertaking positive interventions to reduce losses to a lower level than they otherwise would be. This figure includes the impacts of the positive interventions we are taking in RIIO-T3 to reduce losses to a lower level than would otherwise be the case.

4.4.4. RIIO-T3: Scope 2 Delivery

Scope 2 emissions are associated with electricity consumed in our buildings (office, depots, substations, etc) and electrical losses. In T3 we will focus on reducing the energy consumption of substations and ensure energy consumption is minimised in the building designs of two new SPT Depots.

Transmission network losses account for the largest share of our Scope 2 emissions and are expected to increase over T3 with the expansion of our network. Our focus on network innovation and efficiency will mitigate this as far as possible, within the boundaries of our influence. The climate impact of electrical losses is linked to the decarbonisation of the UK electricity grid and will therefore reduce into the future as SPT and other network operators connect more and more renewables.

Our strategy for reducing emissions associated with buildings energy use and losses are highlighted below:

Buildings Energy Use - Substation energy efficiency programme
Commitment: Reduce substation energy consumption by 3,488MWh/annum by undertaking works at 31 substations

Estimated Total Greenhouse Gas Reduction in RIIO-T3: 420 tCO2e

Network protection and smart control assets are designed for indoor use and are housed within substation buildings. These assets are susceptible to poor environmental conditions that can reduce performance, cause network assets such as circuit breakers to operate incorrectly leading to extended loss of supply incidents, potential damage to equipment and risk to staff and the public. Such failures can lead to increased lifecycle costs ultimately passed on to consumers through use of system charges.

The continued roll out of our Substation Energy Efficiency programme in T3 will target 31 substations. These substations were selected on the basis of condition assessments which were undertaken on 90 sites constructed prior to 2000. This not only ensures the operational integrity of assets but also aligns with sustainability goals. By focusing on the condition of the building fabric and services, the aim is to optimise energy efficiency and minimise network losses. We will refurbish substations based on Energy Savings Opportunity Scheme (ESOS) assessments and academic research, along with learnings from our T2 works, taking a proactive stance to reduce energy consumption and its associated costs. This will also prolong the life of substations avoiding GHG impacts of early replacement. This holistic view of asset management underscores the importance of preventive maintenance and its role in safeguarding equipment, personnel and the public while also considering the broader environmental and community impact.

Internal Use

Stakeholder Engagement

Stakeholders wanted to ensure that there was a clear rational behind the substations selected for the energy efficiency project. It was therefore highlighted that the substations were selected on the basis of condition assessments to ensure we are targeting the worst performing substations.

Buildings Energy Use - Depot energy efficiency

Commitment: Reduce impacts relating to depot buildings' construction and operation by applying a best practice sustainability standard for the new Depot to be provided during T3

Estimated Total Greenhouse Gas Reduction in RIIO-T3: it is not possible to estimate the benefits of this initiative in advance, particularly due to the need to increase Depot capacity to accommodate the significant forecast increase in staff numbers. This initiative will minimise the associated additional impacts.

During T3 we plan to develop one new depot and our aim is for this to be a 'flagship' building that uses sustainable materials and methods in its construction and has minimised impacts during operation and at end of life. The sustainability standard to be applied will be confirmed in advance of building design.

Stakeholder Engagement

Stakeholders were supportive of our plans to create a new 'flagship' depot in order to best compensate for the future increase in staff numbers as a result of growth in during RIIO-T3.

Losses Strategy

Commitment: Reduce losses by an estimated 4,781 MWh thereby limiting losses to a lower level than would otherwise be the case

Estimated Total Greenhouse Gas Reduction in RIIO-T3: 469 tCO_2e

Our Networks Losses Strategy is published in Annex 7 of our RIIO-T3 Business Plan. To accommodate the significant growth in renewable generation, we need to expand our electricity network and more heavily utilise new and existing transmission assets. This is estimated to result in an increase in losses of approximately 340,657MWh in RIIO-T3. However, we are taking proactive action to reduce Network Losses to a lower level than would otherwise be the case by undertaking the following works:

- **Replacing transformers**. It is proposed that 13 older transformers are replaced in RIIO-T3. This is expected to provide a reduction in losses as modern transformers have considerably lower fixed and variable losses than transformers which have been in service on our network for decades.
- **Replacing shunt reactors**. It is proposed that 1 shunt reactor is replaced in RIIO0-T3. Modern reactors have lower losses than older equipment and as such, replacing these assets leads to a reduction in losses.
- **Replacing Overhead Lines and cables.** It is proposed that 96 circuit km of conductor and 27 circuit km of cables are replaced with modern alternatives in RIIO-T3. These cables have a lower resistance and therefore, losses are anticipated to reduce on a like for like basis.

Internal Use

Stakeholder Engagement

Though network losses are an area where we have little control, they contribute to a large proportion of our carbon footprint and stakeholders were keen to see us find ways to mitigate losses where possible. Stakeholder were therefore supportive of our plans to mitigate the increase in network losses in RIIO-T3.

4.5. Reducing our Scope 3 Emissions in line with our Net Zero GHG Target

4.5.1. How we did in RIIO-T2: Scope 3 Emissions

We made a Commitment to adopt a Science-Based Target for Scope 3 emissions and to subsequently monitor and report against metrics to track progress towards this target. We also made a Commitment to collaborate with our supply chain to reduce Scope 3 and capital carbon, including embodied carbon, emissions.

In 2021, we set a validated Science-Based Target for Scope 3 emissions. Since then, we have reported Scope 3 emissions in each Annual Environmental Report (AER) in line with GHG Protocol Technical Guidance for Calculating Scope 3 Emissions and the GHG Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

We made Commitments to develop tools to measure, report and manage embodied (capital) carbon in line with PAS 2080 Carbon Management in Infrastructure and collaborate with the wider industry to reduce embodied carbon.

We collaborated with our supply chain and other Transmission Operators to develop a digital product carbon calculator which allows suppliers to provide data on the GHG emissions associated with their products.

We successfully implemented processes for carbon management in relevant business activities aligned with PAS 2080 Carbon Management in Infrastructure. Capital carbon reporting is now standard for major transmissions projects.

We worked closely with our supply chain to understand low carbon opportunities and introduced key performance indicators for reporting embodied carbon emissions on projects. We delivered our 'Truly Sustainable Substation Innovation Project' and 'Truly Sustainable Circuits' project to assess and target opportunities for RIIO-T3 to reduce impacts though the use of more sustainable materials and construction techniques.

TABLE 12 – RIIO-T2 SCOPE 3 COMMITMENTS RAG STATUS

RIIO-T2 COMMITMENT	CURRENT RAG STATUS	EXPECTED RAG STATUS AT END OF RIIO-T2
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.	GREEN	GREEN
We will, in collaboration with the other Transmission Operators, introduce a measurement tool for embodied	AMBER	GREEN

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carbon in new projects, in order to establish a baseline and set a reduction target.		
We will collaborate with our supply chain and other Transmission Operators to drive scope 3 and embodied carbon footprint reductions.	GREEN	GREEN
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.	GREEN	GREEN
We will identify, and subsequently monitor and report, metrics to track progress towards our Scope 3 science-based carbon reduction target.	GREEN	GREEN

4.5.2. RIIO-T3 Commitments and Metrics: Scope 3 Emissions

TABLE 13 – SCOPE 3 COMMITMENTS AND METRICS

Commitment	Metric
Implement cost-effective sustainable materials and solutions in our construction programmes	Evidence of use of low carbon and more sustainable materials (case studies) Calculated reduction in tCO2e relative to the embodied carbon baseline % reused/recycled content of top 3 materials
Achieve PAS2080 Carbon Management in Infrastructure Certification, validated by an external company (by 2028)	External Validation Certification
Improve our carbon footprint reporting to cover whole life carbon associated with new projects, by the end of RIIO-T3	Embodied Carbon Emissions (tCO2e) Operational Carbon Emissions (tCO2e) End of Life Carbon Emissions (tCO2e)
Collaborate with other TOs to develop a methodology for calculating land use change emissions in line with best practice	Land use change emissions methodology created Yes/No

4.5.3. RIIO-T3: Investments and Benefits: Scope 3 Emissions

It is very difficult to accurately measure Scope 3 emissions and estimate forecast emissions. Our approach will continue to evolve during the remainder of RIIO-T2 and into RIIO-T3.

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We estimate that during the RIIO-T3 period Scope 3 will become our largest source of emissions. This will be predominantly driven by an increase in purchased goods and services that will be required to deliver our network growth coupled with an ongoing decrease in Scope 2 emissions driven by the decarbonisation of losses. By implementing our Climate Action Commitments, our forecasts indicate that we may be able to offset this growth and decrease our Scope 3 emissions during RIIO-T3. The investment detailed in below is forecast to deliver almost 18.8ktCO_2e reductions over RIIO-T3 compared to a 'Business as Usual' approach:

TABLE 14 – ESTIMATED COSTS AND EMISSIONS REDUCTIONS FOR SCOPE 3 INITIATIVES

OBJECTIVE	COST (£M)	ESTIMATED BENEFIT IN RIIO-T3 FOR NON-LOAD PROJECTS (TOTAL REDUCTION IN TCO_2E AGAINST A BAU BASELINE)
Implement low carbon concrete, steel and HVO across our Non-Load Investment Plan	£1.23M	6,200tCO_2e.
Support emerging low carbon opportunities across our Non-Load Investment Plan	£4.43M	12,600tCO_2e.
Implement PAS 2080 Carbon Management in Infrastructure	£0.15M	*Not quantifiable*

Investment Detail

Implement cost-effective sustainable materials and solutions in our construction programmes £5.66M

Our baselining exercise forecasts that capital carbon emissions associated with our Non-Load Investment programme will result in approximately 44,800tCO_2e.

Funding will support low carbon concrete, low carbon steel and diesel free sites across our entire Non-Load Investment plan. This will cost £1.23M and we will aim to reduce emissions by 6,200tCO_2e (14% reduction from the Non-Load baseline).

The Department for Energy, Security and Net Zero (DESNZ) states that the UK needs to implement many policies and technologies that have relatively high upfront investment costs and long lead times. It notes that early action will contribute to innovation in the clean technology space and thus encourage future cost advantages.

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Additional funding therefore supports investment in emerging low carbon and circular materials, while also taking into account wider sustainability considerations such as critical materials.

To ensure investment is efficient and economic, we will use the UK Department for Energy Security & Net Zero's Valuation of energy use and greenhouse gas (GHG) emissions in economic appraisals to assess the cost-effectiveness of investments in further low carbon materials and technologies. This will cost £3.45M and we will aim to reduce emissions by 12,600tCO2e (28% reduction from the Non-Load baseline).

Detailed information and methodology can be found in the supporting Capital Carbon Plan methodology document.

PAS 2080 Carbon Management in Infrastructure Investment: £0.15M (TBC)

This investment will support certification to PAS 2080 Carbon Management in Infrastructure, accredited by a 3rd party.

Our Climate Action Commitments also apply to our load investment programme and associated funding requirements will be provided via the relevant cost assessments.

We have developed sustainability investment calculations to be included in these cost assessment processes for our network connections and strategic projects; indicative costs are outlined in table 15 below.

4.5.4. RIIO-T3: Scope 3 Delivery

Arguably, our biggest challenge to meeting our Net Zero GHG target is reducing our Scope 3 emissions. Scope 3 emissions are not within our direct control, therefore, the key to reduction is to identify the material emissions streams which we can most influence. See Figure 9 above for a breakdown of our Scope 3 emissions.

Category 1 and 2, associated with 'Purchased Goods and Services' and 'Capital Goods', have collectively been identified as emissions streams which we have the greatest opportunity to influence. A significant proportion of these emissions (estimated to be 87% through analysis of our carbon footprint) are associated with infrastructure development (capital/embodied carbon emissions).

The development of infrastructure is a significant source of greenhouse gas emissions worldwide. In January 2024, leading construction industry and built environment experts from 11 organisations wrote a Policy Position Paper entitled *'Embodied carbon regulation – alignment of industry policy recommendations'* requesting that the UK Government should mandate the measurement and reporting of whole-life carbon emissions by 2026 and introduce legal limits on the upfront embodied carbon emissions of such projects, with a view to revise and tighten as required in the future. The paper highlights the significance of embodied carbon at a national level: noting that 10% of the UK's total greenhouse gas emissions relate to the production and use of construction materials. To put this in context, this is more than the UK's aviation and shipping emissions combined. As we expand the infrastructure on our network, we must embed whole life carbon management principles across our business and supply chain processes to reduce our Scope 3 emissions. We will

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demonstrate leadership in collaborating with our supply chain and sharing best practice with other client organisations to encourage industry best practice. In addition, we will continue to improve our reporting accuracy, particularly where we are still reliant on the use of financial proxies.

Capital Carbon Reduction

Commitment: Implement cost-effective sustainable materials and solutions in our construction programmes

Estimated Total Greenhouse Gas Reduction in RIIO-T3: 18,800tCO_2e

Commitment: Achieve PAS2080 Carbon Management in Infrastructure Certification, validated by an external company (by 2028)

Our capital carbon reduction approach is aligned to The Five Client Carbon Commitments published by the Construction Leadership Council in 2024.

These are outlined below:

- Eliminate the most carbon intensive concrete products
- Eliminate the most carbon intensive steel products
- Set phase out dates for fossil fuel use
- Procure for low carbon construction and provide incentives in our contracts
- Adopt PAS 2080, Carbon Management in Infrastructure, as a common standard

Our plan to eliminate the most carbon intensive concrete products

SP Energy Networks is part of Scotland's Low Carbon Concrete Collective. This partnership brings together large infrastructure operators, construction companies, material suppliers and innovators and will support the deliverability of low carbon concrete on our network in RIIO-T3, including:

- Provision of non-CEM-1 concrete products (concrete containing 100% cement) where technically compliant and economically and geographically available*
- Provision of environmental product declaration or lifecycle analysis data
- Participation in collaboration, testing, innovation, research and development to explore, trial and adopt lower carbon concrete mixes.

**Where non-CEM-1 concrete products are not available or feasible, provision of suitable justification for the use of CEM-1.*

Our plan to eliminate the most carbon intensive steel products

SP Energy Networks, through its parent company Iberdrola, has committed to SteelZero, a global corporate initiative led by the Climate Group bringing together over 40 ambitious businesses committed to driving the transition to a net zero GHG global steel industry. Iberdrola have made a public commitment to transition to lower emission steel for 50% of their steel requirement by 2030.

Our plan is to introduce low carbon steel by increasing reused and recycled content and prioritising the use of steel produced in Electric Arc Furnaces (EAF) where possible.

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Our plan to phase out fossil fuels

We are phasing out diesel use in all generators used to provide temporary power in the event of power cuts. This has been primarily driven by the replacement of diesel with hydrogenated vegetable oil (HVO) and through the piloting of electric battery replacements for generators.

We will apply the same approach to our construction sites where practical – replacing diesel use in plant and site generators with HVO from the start of RIIO-T3 where feasible and assessing other ways to reduce and eliminate diesel use on our sites.

Our plan to procure for low carbon and circular construction materials and provide incentives in our contracts

To reduce our emissions in line with our Science-Based Net Zero Target, we are targeting further reductions in overall capital carbon emissions. We recognise that the price control runs until 2031 and it is not possible to understand all technology and innovation which will be available. Low carbon and circular alternatives and solutions for the construction industry are rapidly evolving and it is important to support the supply chain in developing emerging opportunities.

Our plan to adopt PAS 2080, Carbon Management in Infrastructure, as a common standard

During RIIO-T3, we are aligning our carbon management approach to the principles of PAS 2080 Carbon Management in Infrastructure 2016. This Standard was updated in 2023, which emphasised the importance that the full value chain plays in whole life carbon management. It also goes beyond the original specification by setting requirements to consider interrelationships with climate adaptation and land use change. This links well with the Action for Nature and Climate Resilience sections of this EAP and our Transmission Climate Resilience Strategy. For example, in our Action for Nature chapter we have committed to assessing the natural capital impact of our construction projects which includes land use change.

In RIIO-T3 we will go a step further to gain independent third-party assessment and certification to PAS 2080 to demonstrate that we fully align to these principles.

We will continue to report on embodied carbon associated with infrastructure and, in line with PAS 2080 specification, we will work towards understanding whole life carbon emissions associated with infrastructure development.

Capital Carbon Reduction - Load & Strategic Project Investments

Although only costs for baseline projects are included in our RIIO-T3 Business Plan costs, we will also implement cost-effective sustainable materials and solutions in our construction programmes for network connections and strategic projects.

- Networks Connections: Cost uplift will be applied to the volume driver for each type of construction project to support the implementation of cost-effective sustainable materials and solutions in our construction programmes. SP Energy Networks has developed a series of capital carbon baseline estimations based on conceptual models of typical transmission projects. This has been used to estimate the typical emissions for

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each project type – and also to estimate capital carbon reduction opportunities. The table below shows the indicative cost uplift for connections if the same process is applied:

TABLE 15 - INDICATIVE COST INCREASES FOR APPLYING CAPITAL CARBON APPROACH TO NETWORK CONNECTIONS PROJECTS

RIIO-T3 Project Category	Project Type	Unit	Percentage Reduction in Capital Carbon Emissions	Indicative Forecast Cost Increase (£M per unit)
Substation	General substation	MVA	**-5%**	0.0115
	Transformer	MVA	**0%**	0.010
OHL	132kV new conductor (with wooden poles)	km	**-9%**	0.432
	132kV new conductor (with steel towers)	km	**-22%**	0.577
	132kV reconductor (no vertical structures)	km	**-9%**	0.252
	275+kV new conductor (with steel towers)	km	**-22%**	0.577
	275kV+ reconductor (no vertical structures)	km	**-9%**	0.252
UGC	Cable<1km	km	**-3%**	1.823
	Cable>1km	km	**-3%**	0.543

Strategic Projects: strategic projects in RIIO-T3 will also be subject to the capital carbon reduction approach.

Land Use Change Emissions

Commitment: Collaborate with other TOs to develop a methodology for calculating greenhouse gas emissions associated with land use change in line with best practice and aim to start reporting against this during RIIO-T3.

Currently, we do not measure and report the GHG emissions associated with land use change. In December 2023, SBTi produced guidance on setting targets for emissions associated with land use change. The guidance is largely focussed on industries within the

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forest, land and agriculture (FLAG) sector. However, our activities indirectly create land use change – and there has not been a comprehensive review of these impacts to date.

In collaboration with the other TOs, we will develop a methodology for calculating greenhouse gas emissions associated with land use change and ensure we report on these impacts during RIIO-T3.

Stakeholder Engagement

Stakeholders are supportive of our capital carbon reduction proposals and noted that it demonstrated good external awareness. Stakeholders agreed that PAS 2080 was the correct standard to follow. It was also stressed by stakeholders that other metrics such as circularity and wider environmental impacts of materials should be considered. In response, we will ensure that investment funding decisions consider the circularity of materials and wider sustainability impacts, as well as carbon (see Section 6.2 for links to Circular Economy).

4.6. Offsetting our Emissions in line with our Net Zero GHG Target

Despite our ambitious decarbonisation plan, we understand that there will be greenhouse gases which we cannot feasibly reduce. In line with The Corporate Net-Zero Standard, we aim to reduce our emissions by at least 90% to meet our Net Zero GHG target and remove any residual emissions.

4.6.1. How we did in RIIO-T2: Offsetting our Emissions in line with our Net Zero GHG Target

We made a Commitment to offset the SF_6 emissions where repairs to leaking SF_6 assets proved ineffective. To meet this commitment we purchased UK Pending Issuance Units. These units, when, mature, will compensate for emission in line with our Commitment. We predict we will purchase around 10,000tCO_2e by the end of RIIO-T2. This approach also helps to restore biodiversity and benefits local communities who can enjoy new native woodland.

Internal Use

RIIO-T2 offsetting has increased our knowledge of the carbon market, its maturity and limitations and this has helped us to devise our RIIO-T3 approach as a mix of verified carbon offsets and collaborative market development.

FIGURE 14 - PHOTO FROM HAWKSHAW NATIVE WOODLAND PROJECT – A PROJECT SUPPORTED BY SPT WHICH WILL SEQUESTER CARBON AND SUPPORT REGENERATION OF NATIVE WOODLAND

4.6.2. RIIO-T3 Commitments and Metrics: Offsetting

TABLE 16 – OFFSETTING COMMITMENT AND METRICS

COMMITMENT	METRIC
In preparation for our Net Zero Target, offset emissions of 80,000tCO2e emissions in the RIIO-T3 period	tCO2e offset

4.6.3. RIIO-T3: Investments and Benefits: Offsetting

Investment will support a range of carbon removal and avoidance activities, offsetting 80,000tCO2e, the emissions sequestered by approximately 8,900 hectares of broadleaved trees. Pending Issuance Units will be a part of our offsetting strategy, recognising the limited

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number of verified Woodland Carbon Units and Peatland Carbon Units on the market. Where offsets are delivered though unverified activities, we will transparently communicate the offsetting methodology:

TABLE 17 – ESTIMATED COSTS AND EMISSIONS REDUCTIONS THROUGH OFFSETTING INITIATIVES

OBJECTIVE	COST (£M)	BENEFIT (TOTAL OFFSETTING IN TCO2E)
Offset emissions	3.59	80,000tCO_2e

4.6.4. RIIO-T3: Offsetting Delivery

Commitment: In preparation for our Net Zero Target, we will offset 80,000tCO2e emissions in the RIIO-T3 period.

Our goal is to develop our maturity and capacity to deliver 10% offsetting by 2035. In RIIO-T3 we will develop our offsetting approach to ensure we can mitigate residual emissions in a way which maximises benefit to nature and our local communities, as well as supporting the development of local net zero aligned offsetting markets. We will start to build our offsetting capacity, targeting 1% of our baseline emissions in the first year, to around 6% by the final year of RIIO-T3.

The delivery of our Carbon Offsetting Strategy will focus on two key areas:

Purchasing verified offsets and supporting local emerging offsetting markets which may not be verifiable.

Verifiable Offsets

We will follow the Oxford Principles for Net Zero Aligned Carbon Offsetting (2024) for any verified offsetting credits purchased in RIIO-T3. We will prioritise investment in projects based in our operating area and ensure social and environmental integrity by ensuring any purchased offsets:

- Have a high probability of additionality.
- Have ongoing monitoring systems in place.
- Are verifiable and accountable.
- Have low risk of reversibility.
- Have a low risk of negative unintended consequences to ecosystems and communities.

Based on our performance in RIIO-T2, we have developed a good understanding of the UK market for verified carbon credits for UK based projects. We will continue to support local, verified woodland and peatland schemes verified under the Woodland Carbon Code or the Peatland Carbon Code and will also consider credits from other similar high standard Carbon Codes that come to market in future.

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Supporting local emerging offsetting markets

We will also support local emerging offsetting markets and codes which may not be currently verifiable. Supporting initiatives such as the development of the UK Salt Marsh Code is imperative as availability of offsets may be a challenge in the future. We will consider both reduction and removal schemes (as defined in the Oxford Principles for Net Zero Aligned Carbon Offsetting (2024)). We will ensure offsets can be evidenced through a robust methodology. As well as nature-based solutions for offsetting, avoidance schemes will identify opportunities to increase social benefits through technological solutions such as renewables and energy efficiency programmes for vulnerable consumers.

Stakeholder Engagement

Our stakeholders support our approach to offsetting, they have reinforced that verified credits should follow the Oxford Principles for Net Zero Aligned Carbon Offsetting, that they should be within Scotland and issued under the woodland and peatland carbon codes or any similar standard of carbon codes that might become available in future. They were also positive about supporting emerging markets and an element of avoidance where this is focused on energy efficiency as they felt the social benefits of this aligned with our business.

Internal Use

5. Action for Nature

We are committed to managing our infrastructure with care and sensitivity to minimise our impact on nature. Understanding how we interact with the surrounding environment is crucial to informing our approach to managing our impacts. In line with the requirements of ISO14001, we continuously review our environmental risks and impacts and target those of highest priority/impact on nature.

We aim to make our network as inconspicuous as possible and support the restoration and regeneration of habitats for biodiversity. By investing in natural capital, we provide added benefits to our communities and can make our operations more resilient to climate shocks and stresses, such as extreme weather events. This section outlines our RIIO-T3 approach to Action for Nature related to biodiversity, natural capital, climate resilience, visual amenity and preventing pollution.

5.1. Ofgem Baseline Expectations

TABLE 18 – OFGEM BASELINE EXPECTATIONS AND OUR ACTIONS TO MEET EXPECTATIONS FOR BIODIVERSITY AND NATURAL CAPITAL

Biodiversity/Natural Capital Network Companies Should:	What we have done:	What we are doing: RIIO-T3
Adopt an appropriate tool to assess net changes in biodiversity from different options for new connections and network projects;	In RIIO-T2, in partnership with the other TOs, we carried out an analysis of Natural Capital and biodiversity AI tools. We worked with AECOM consultants to develop the Eco-Uplift tool to meet OFGEM and TO requirements to calculate biodiversity unit impact and the type and quantity of ecosystem services and the annual flow of ecosystem services.	This will be BAU, we will continue to review tools as they develop to ensure the best solutions are implemented.
Set out what the materiality threshold should be for new connections and network projects that require reporting on biodiversity*	The materiality threshold will be projects which have a measurable impact on ecosystem services and will not recover to original value within two years.	This has been set in RIIO-T2.
Regularly report on changes in natural capital and ecosystem services provision (using an	Eco-uplift tool will be used in RIIO-T2 to calculate a Natural Capital baseline on	We will report Natural Capital on land which we own or have direct control over at the start

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Biodiversity/Natural Capital Network Companies Should:	What we have done:	What we are doing: RIIO-T3
appropriate methodology) if a company has an EAP commitment that is directly linked to such measures in its RIIO-3 Business Plan/Price Control	land which we own or have direct control over.	midpoint and end of RIIO-T3.
Set out their planned approach and timeline for embedding climate resilience. Network companies should do as much work as possible within the price control timeframe, and where it isn't realistic, clearly explain why	We will undertake detailed Flood Risk Assessments at our remaining 10 high risk sites and implement measures to mitigate the risk to the network from flooding. We will publish a report in line with the 3rd Round of Adaptation Reporting under the Climate Change Act, in line with the Energy Networks Association work to produce a sector report.	See Climate Resilience Strategy

* Italic text represents new expectations for T3 relative to T2

There are no Ofgem baseline expectations associated with Visual Amenity or Preventing Pollution.

5.2. Natural Capital and Biodiversity Enhancement

5.2.1. How we did in RIIO-T2: Natural Capital and Biodiversity Enhancement

At the start of RIIO-T2 our level of maturity in this area was low and the Scottish Government approach to biodiversity strategy was under development. The focus of RIIO-T2 was to increase maturity through the delivery of the No Net Loss biodiversity Use It or Lose It scheme (UIOLI), building our capacity to deliver biodiversity enhancements in line with regional strategic priorities for nature, in partnership with local nature organisations.

We developed our Action Plan for Nature outlining our targets, processes and approach to nature restoration and regeneration.

By the end of RIIO-T2 the land boundaries of our SPEN Transmission network sites will be digitalised and we will have created a natural capital and biodiversity baseline. We have worked with the other Transmission Owners (TOs) on an approach to assessing natural capital, using the Eco-uplift tool to create a network baseline of ecosystem services. For biodiversity we use an adapted version of the Defra statutory biodiversity metric for Scottish habitats, aligning with SSE approach. This provides the same biodiversity unit outputs as the DEFRA metric used by NGET, ensuring a TO wide approach.

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TABLE 19 – RIIO-T2 ACTION FOR NATURE COMMITMENTS AND RAG STATUS

RIIO-T2 COMMITMENT	CURRENT RAG STATUS	EXPECTED RAG STATUS AT END OF RIIO-T2
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	GREEN	GREEN
We will pilot these biodiversity and natural capital assessment methodologies and associated tools on selected RIIO-T2 projects.	AMBER	GREEN
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	AMBER	GREEN
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.	GREEN	GREEN
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'.	AMBER	GREEN
We will work with our local communities, landowners and other stakeholders to deliver a net positive impact in natural capital across our existing sites.	AMBER	GREEN
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	GREEN	GREEN

5.2.2. RIIO-T3 Commitments and Metrics: Natural Capital and Biodiversity Enhancement

TABLE 20 – BIODIVERSITY AND NATURAL CAPITAL COMMITMENTS AND METRICS

Commitment	Metric
Set targets by the middle of RIIO-T3 to reduce the impact on nature from our supply chain.	Target set by 2029
At least 10% Biodiversity Net Gain (BNG) on projects subject to planning consent.	Biodiversity Units
Deliver positive Natural Capital enhancement across projects with a measurable impact on ecosystem services, achieved through local strategic nature partnerships.	Ecosystem services £ value

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5.2.3. RIIO-T3 Investments and Benefits: Natural Capital and Biodiversity Enhancement

The investment outlined for biodiversity and natural capital in this Plan relate to RIIO-T3 non-load projects: our major and minor overhead line refurbishment programmes. Network connections and strategic projects will be costed separately; an indication of these costs is provided later in this chapter.

- 10% BNG and positive natural capital on non-load total £4.03m
- Natural capital tool subscription cost £0.25m
- External management of BNG projects £2.4m

Benefits

Our approach to Natural Capital and Biodiversity enhancement and the benefits we will deliver are aligned with the Interim Principles for Responsible Investment in Natural Capital, including:

- Collaboration/partnerships with communities that can deliver wider social and economic benefit.
- We will respond to local circumstances, acknowledge the suitability of land for particular uses and seek to protect and enhance existing natural capital.
- Creating benefits that are shared between public, private and community interests, contributing to a just transition.
- Development of enhancement opportunities delivered externally by suitably qualified experts. This approach ensures that investments are reliable and align with the strategic priorities for the area.

5.2.4. RIIO-T3: Natural Capital and Biodiversity Enhancement Delivery

Context

Our Transmission network area is covered by the draft Scottish Biodiversity Strategy, which sets out an ambitious new framework for Scotland to be Nature Positive by 2030 and to have restored and regenerated biodiversity across the country by 2045.

Under National Planning Framework 4 (NPF4) new developments subject to planning in Scotland must secure positive effects for biodiversity. We are committed to developing and operating our infrastructure with care and sensitivity to ensure we align with these frameworks and have existing targets to achieve 'no net loss' of biodiversity from our activities from 2028 and deliver 'Nature Positive' on our direct impacts by 2030. Our direct impacts are where work conducted in the operation and maintenance of existing infrastructure and the development of new infrastructure impact nature. Indirect impacts are those associated with our supply chain, for example caused by the mining of materials.

Our overhead line network is ideally placed to create crucial corridors for nature and our Action Plan for Nature reflects this. The importance of nature networks is highlighted in the draft Scotland Climate Change National Adaptation Plan 2024 to 2029: *"Connectivity is*

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essential for functioning healthy ecosystems. It is key for the survival of animal and plant species, and crucial to ensuring genetic diversity and adaptation to climate change."

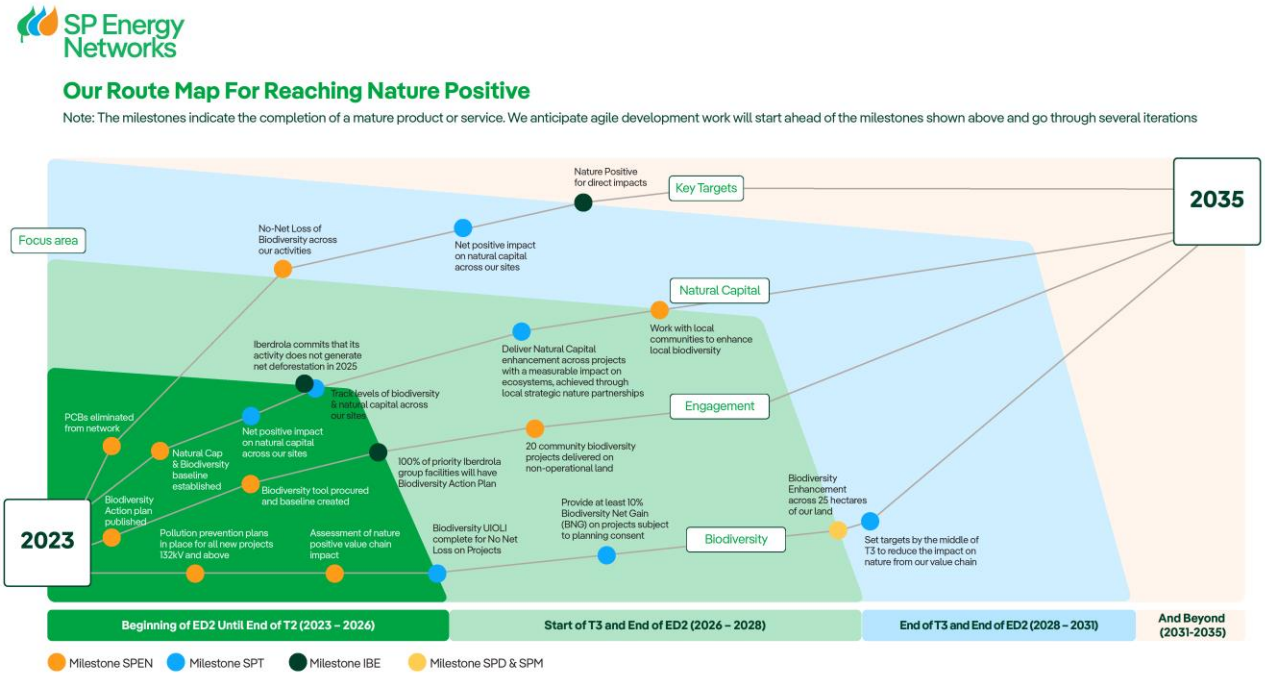

FIGURE 15 – ROUTEMAP TO NATURE POSITIVE

Stakeholder engagement

Our Sustainability Stakeholder Working Group (SSWG) supports our Action for Nature ambitions and commitments. They support our 10% BNG and positive natural capital commitments and understand that with the limited land holdings associated with our assets, we need to deliver positive effects for biodiversity and natural capital offsite. They would like us to do this collaboratively, prioritising regional strategic priorities, nature networks and maximising outcomes through enhancing natural capital, targeting priority areas such as carbon removals. They suggested we align with the Scottish Government Interim Principles for Responsible Investment in Natural Capital, which we have done (see 5.2.4 above).

T3 Action for Nature

Network development biodiversity enhancement

NatureScot are currently developing a Scottish biodiversity metric, adapting England's statutory biodiversity metric, which is used to measure and deliver BNG on developments in England to comply with legislation. It is envisaged that the Scottish metric output will be biodiversity units, which will allow a UK wide comparable calculation methodology. The most recent engagement with NatureScot indicates Scottish requirements will continue to be "positive effects for biodiversity" rather than BNG, however individual planning authorities may set a percentage biodiversity net gain that developments should achieve. Indeed, we are already seeing this on current developments, with some Scottish Local Authorities

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requesting 10% net gain in planning conditions. Therefore, in collaboration with the other UK TOs we have set the following commitment for RIIO-T3:

Commitment: At least 10% Biodiversity Net Gain projects subject to planning consent

We use the mitigation hierarchy approach to protecting and restoring nature – avoid, minimise, restore, offset, enhance. We implement our Approach to Routeing guidance to deliver this hierarchy. We will restore biodiversity on site where practical and we will work collaboratively with nature partners to deliver offsite local strategic enhancement aspiring to create comparable habitats to those lost and where possible create or improve nature networks.

Given the scale of T3 network investment and the goal to achieve a 10% Biodiversity Net Gain on projects subject to planning, it will often be necessary to deliver additional enhancements off-site. Our internal resources for identifying offsetting opportunities within SPT are limited. Therefore, for T3, we propose engaging an external organization to manage the initial sourcing, development, and screening of these opportunities. These will then be presented to SPT for investment decisions.

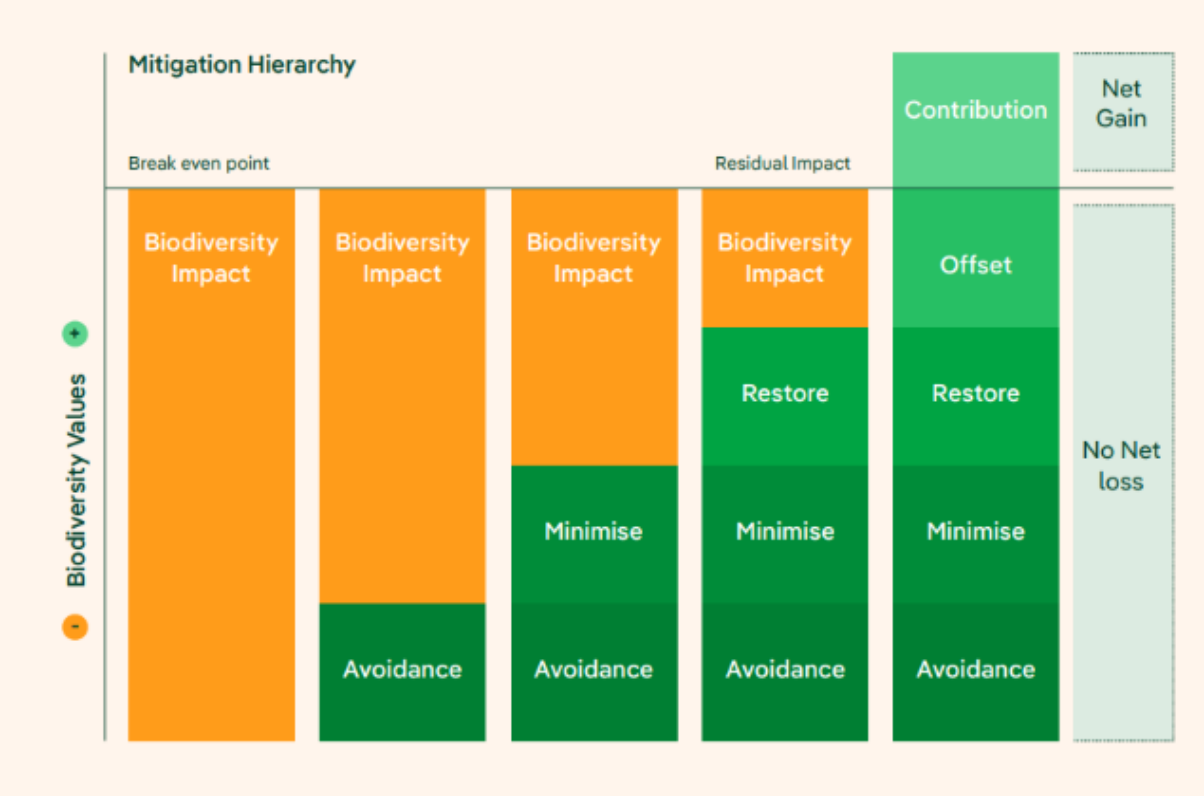

FIGURE 16 – AN ILLUSTRATION OF HOW BIODIVERSITY IMPACT IS MITIGATED AND NET GAIN IS ACHIEVED

Network development and Natural Capital enhancement

Using the natural capital assessment tool Eco-Uplift, in place by the end of RIIO-T2, we will conduct an options assessment at early stages of developments which have a potential

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impact on ecosystem services. For efficiency we will **not** undertake this assessment on developments where there is no impact e.g. extensions within current substation operational footprints or where the impact is too small to be measured by natural capital assessment tools.

We will update our processes by the beginning of RIIO-T3 to ensure natural capital costs are factored into optioneering decision making, carefully balancing the technical feasibility and economic viability of developments with their impact on ecosystem services. This is in line with Ofgem baseline expectations **to adopt appropriate tool to assess net changes in natural capital from different options for new connections and network projects which have an impact on ecosystem services** and will be BAU by the end of RIIO-T2.

Our greatest opportunity to protect nature is in this initial decision-making stage where we can avoid impacts, however in connecting generation we often have limited choice as to the habitats we will impact therefore we recognise that we need to go beyond optioneering to successfully create a positive nature restoration legacy.

We have set an ambitious natural capital commitment on all RIIO-T3 development projects where we have an impact on ecosystem services:

Commitment: Deliver positive natural capital enhancement across projects with a measurable impact on ecosystem services, achieved through local strategic nature partnerships.

Once the initial optioneering avoidance phase has taken place we will design projects and use construction methods to minimise impact. We will then ensure project landscape plans include restoration and enhancement of natural capital on site as far as practical.

With limited land holdings, and a constantly evolving network, it is often not possible for us to restore natural capital onsite to pre-construction condition. Our mission is to deliver tangible improvements for natural capital, and we see collaboration as the key to achieving this, aligning with strategic goals for natural capital in the local authority areas where we have an impact, maximising benefits to nature, people and planet.

In discussion with the other TOs we will target priority ecosystem services most relevant to electricity networks including biodiversity, climate and water regulation and visual amenity. These are also the ecosystem services in which we have confidence in the maturity of the data. We are currently using the Eco-Uplift natural capital tool for assessment and optioneering.

<u>Network Operations</u>

By the beginning of RIIO-T3 we will have a natural capital baseline for our transmission network sites. We define network sites as the red line boundary of sites where the land is owned, or leased, by SPEN around our substations. This baseline will provide data for what is present on site and will allow us to identify risks and opportunities, set targets and track progress over time. By investing in natural capital, we can make our operations more resilient to shocks and stresses such as extreme weather events, enhance biodiversity and increase nature-based benefits for local communities, such as access to nature for recreation where land adjacent to our asset boundaries is open to the public. Due to our limited landholdings and limited opportunities to enhance natural capital on operational land we do not envisage

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the natural capital on existing sites will vary greatly on an annual basis, therefore we will conduct further assessment at the mid-point and end of RIIO-T3 to include new developments and any enhancement works on existing sites.

We will continue to assess and update our vegetation management processes to benefit nature, including consideration of nature networks e.g. by planting low-lying native species of grass and shrubs to enhance biodiversity and reduce the need for vegetation management for resilience cutbacks.

For ground maintenance on operational sites, we will work with our contractors to identify alternatives to harsh chemical weed killers and, where appropriate, reduce their use on non-operational land, piloting innovative approaches to improving ecosystem health.

Nature Positive and our value chain

The extraction and processing of raw materials used in the construction and maintenance of energy infrastructure and transportation has an impact on nature, however our knowledge in this area is at low maturity stage. Prior to RIIO-T3 we are working with the other TOs on an Innovation project to understand high level impacts and opportunities to enable setting of improvement targets in RIIO-T3.

Commitment: Set targets by the middle of RIIO-T3 to reduce the impact on nature from our supply chain.

Resourcing RIIO-T3 Action for Nature

As biodiversity and natural capital impact and enhancement costs are dependent on habitat type and the right solution for the right place, exact costs are challenging to predict in advance of detailed project design and construction. To ensure efficient and effective resourcing in RIIO-T3, we employed specialist consultants to undertake analysis of the impact of all baseline projects, as well as projects which will be funded out with Business Plan investment by other mechanisms (please see section 3.2 Investment for further information). The Eco-Uplift tool was used for calculations and the results analysed by natural capital and biodiversity experts. The detailed assessment methodology can be found in the supporting AECOM EcoUplift Methodology document.

- The RIIO-T3 baseline projects' impact on nature is limited to access roads. The AECOM Eco-uplift tool was used to calculate estimated biodiversity and natural capital change through analysing the impact on habitats. Restoration and enhancement costs were then calculated for each project. A cost factor of £42k per biodiversity unit was used for 10% biodiversity net gain calculations (figure identified through external expertise of average actual costs of delivering biodiversity in Scotland and DEFRA biodiversity statutory credit cost). Analysis was then conducted to calculate additional investment required on these projects to ensure positive natural capital. The costs are provided in RIIO-T3 Business Plan Data Table 8.7 NOCs.
- RIIO-T3 Connections volume driver – using design parameters such as tower and pole base sizes, buffer zones, width and length of access roads, underground cable widths and vegetation clearance requirements the Eco-Uplift tool was used to provide volume driver cost uplift requirements. Impact was assessed on different habitats and an average impact and enhancement factor used. A range of different

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types of RIIO-T3 connection projects were then analysed to test this methodology and allow biodiversity and natural capital costs to be incorporated into individual projects cost projections. (indication added by end of August)

- Uncertainty mechanism and strategic projects, though not included in our RIIO-T3 costs, have also been analysed and will be subject to the same biodiversity and natural capital commitments.

5.3. Climate Resilience

As the climate changes and becomes increasingly unpredictable we need to strengthen the resilience of our network to climate change risks. We have developed a Transmission Climate Change Resilience Strategy which outlines networks risks and the adaptation measures required to address these. The Climate Resilience Strategy also details the Baseline Expectations from OFGEM in this area, and how SPT will meet these requirements.

This section of the EAP will provide enhanced detail of our Nature Based Solutions (NBS) approach to climate change resilience and the interconnectedness with our Action for Nature commitments.

5.3.1. RIIO-T3 OFGEM Baseline Expectations

Detail on OFGEM's Baseline Expectations are listed in the Climate Resilience Strategy, as are the actions planned by SPT to meet these requirements.

5.3.2. RIIO-T3 Commitments and Metrics: Climate Resilience

TABLE 21 – CLIMATE RESILIENCE COMMITMENT AND METRIC

Commitment	Metric
Develop and implement five pilot climate resilience partnership projects using nature-based solutions to protect network assets.	Number of climate resilience partnership projects

5.3.3. RIIO-T3 Investment and Benefits: Climate Resilience Nature Based Solutions

To deliver our RIIO-T3 plans relating to Nature Based Solutions (NBS) pilots for climate resilience, it will cost £3,135,980. This will deliver climate adaptation measures which will benefit both our assets and surrounding communities by reducing the risks of climate change impacts specifically related to landslides and flooding. Further climate resilience measures to protect our assets are detailed in our Transmission Climate Resilience Strategy.

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5.3.4. RIIO-T3: Climate Resilience Delivery

Context

The draft Scotland Climate Change National Adaptation Plan 2024 to 2029 outlines "Nature Connects" as one of the key outcome areas to address climate change:

"Both because climate change is degrading our natural environment, and it must be protected and restored in its own right, but also because nature is one of the best tools we have to adapt to the changing climate."

Nature Based Solutions therefore need to be an integral part of our strategy to deliver a resilient Transmission network.

In addition, our Commitment to the enhancement of Natural Capital will target priority regulating ecosystem services, including climate and flood regulation. This will ensure climate resilience is embedded in project optioneering and decision making, reducing the risk to network assets and local communities.

Stakeholder engagement

Our Sustainability Stakeholder Working Group are broadly supportive of our approach, they agree we should prioritise nature-based solutions and implement pilot projects in RIIO-T3. They like our approach to multiple outcomes layering climate resilience, natural capital and biodiversity. The number of our proposed NBS pilots was questioned, our initial thinking was to deliver three partnership pilots in this period. Through further analysis of effective NBS we have increased this to five pilots, each of the projects will test a different NBS to increase our knowledge of implementation and test the effectiveness of adaptation solutions.

Bilateral engagement with Sniffer, who manage the Adaptation Scotland programme, and further analysis of solutions to be trialled resulted in a change to one of the trial measures to include strategic woodland creation for ground stabilisation. Where possible, stakeholders would like the projects to link to wider schemes identified by climate adaption networks in the vicinity of assets identified as priorities for long term adaptation. We agree, where existing schemes are planned that reduce climate risk to our network, it will be an effective and efficient approach to prioritise these. Stakeholders would like us to analyse the impact our construction projects may have on local climate resilience; our approach to natural capital measurement and optioneering on new projects will provide this analysis.

RIIO-T3 Climate Resilience

Natural capital enhancement will take place on, or in the immediate vicinity of projects, where possible. Regulating ecosystem services will be prioritised on projects identified as high risk or high impact from climate change. Due to our limited landholdings and limited opportunities to enhance natural capital on operational land we will work with nature organisations and landowners across our linear infrastructure to ensure a positive natural capital impact, with a focus on nature networks and connectivity.

As outlined in our Action Plan for Nature in the section Climate Resilience and Nature Based Solutions, we are adapting to longer growing seasons and preparing for extremes of

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temperature by reviewing our vegetation management procedures and exploring Integrated Vegetation Management Methods (IVM).

Adaptation Pilots

We recognise that protecting our assets in isolation will have limited impact and benefits therefore we commit to the development of catchment area partnership climate change adaptation projects:

Commitment: Develop and implement five pilot climate resilience partnership projects using nature-based solutions to protect network assets.

This approach aims to tackle the causes of climate related risks which may impact our assets now, or in the future. Climate resilience expert consultants advised the following NBS adaptation solutions to be the most effective to pilot in our geographical area:

- Rewetting of peatbogs: reduces climate change risk of flooding and wildfire. Provides additional benefits of increasing biodiversity and carbon sequestration.
- Creating riparian buffer zones: a strip of grass, shrubs, and trees on riverbanks to control climate risks of flooding and erosion. Provides additional benefits of increasing biodiversity and the filtering of pollutants entering watercourses.
- Leaky barriers (natural dams): reduces climate change risks of flooding. Provides additional benefits of improved water quality and consequently biodiversity.
- Strategic woodland creation and other tree planting on steep slopes to help to stabilise the ground and reduce the risks of landslips and flooding. A focus on native tree planting can also maximise biodiversity benefits.
- Restoring natural river channels: Reduces flooding. Provides additional benefits or increasing water quality, biodiversity and recreation.

Delivery methodologies, scale and costs have been calculated for each of the proposed solutions using real life experience of delivery by specialist organisations. These can be found in the RIIO-T3 Climate Resilience Strategy.

A key element of our Transmission Climate Resilience Strategy was mapping our assets at greatest risk of climate change impacts. We will use this map to target areas to create a shortlist of potential pilot projects. The next critical stage will be collaboration and partnership, prior to and in the first year of RIIO-T3, to create development plans for pilot implementation in years 2 to 5.

Throughout RIIO-T2 we have developed the following partnerships and are in early-stage discussions to prioritise and develop our RIIO-T3 catchment area projects:

- Scottish Linear Infrastructure Environmental Management Group – including Network Rail, Scottish Water and NatureScot.
- Sniffer – Environmental charity delivering the Adaptation Scotland Programme for the Scottish Government, members of our Sustainability Stakeholder Working Group.
- Borderlands Nature Group – SPEN are a core member of this group established to identify nature collaboration projects in Dumfries and Galloway, the Borders and South Ayrshire. Membership consists of Local Authorities, South of Scotland Enterprise and local nature organisations.
- Local nature and climate resilience groups such as Climate Ready Clyde, Greening Glasgow hub and Climate Ready South-east Scotland.

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This collaboration approach is at the centre of Adaptation Scotland's programme as illustrated in cluster 6 of this diagram.

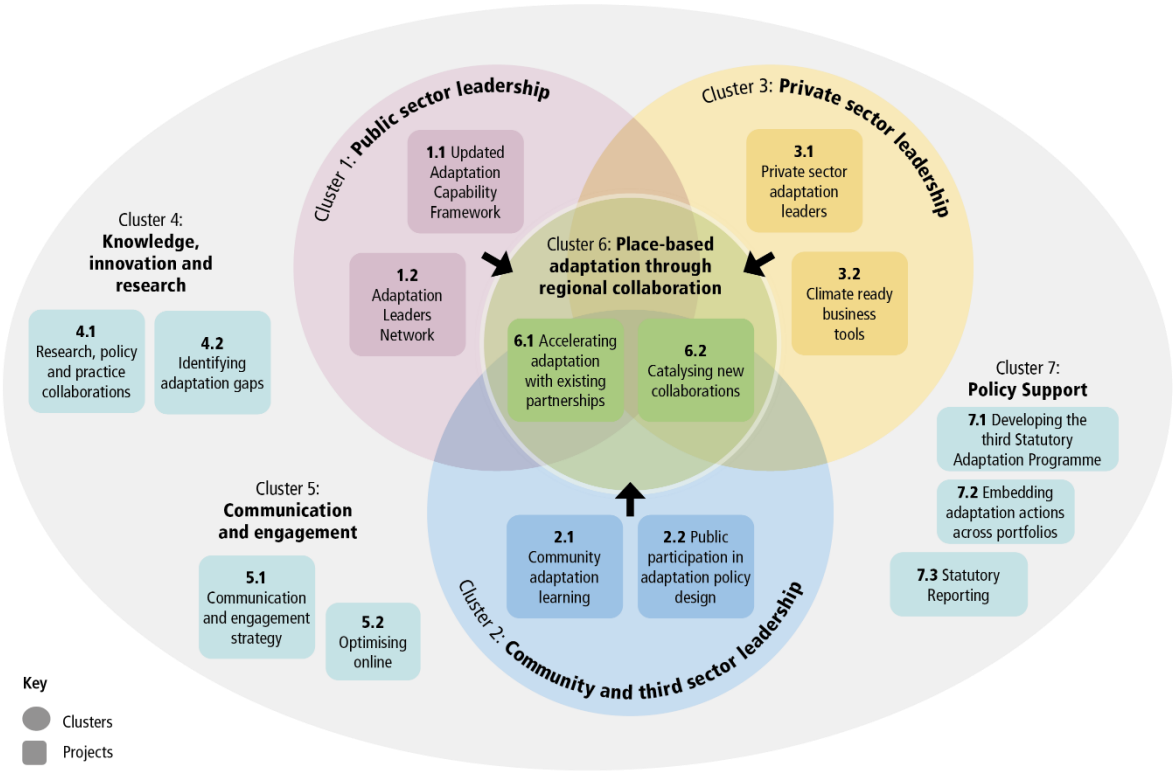

FIGURE 17 – ILLUSTRATION OF ADAPTATION SCOTLAND'S PROGRAMME (SOURCE: ADAPTATION SCOTLAND)

This place-based approach provides societal benefits too, it not only reduces the risk to our assets, but it also reduces the risk to communities in the catchment area. We are targeting solutions that make the most of local partnerships, opportunities and resources, solutions that are fair and just.

Along with Network Rail and Scottish Water we are a founding member of the 'Climate Ready Infrastructure (Scotland) Forum.' One of the early aims of this group is to develop a climate risk interdependencies register by 2026. Identifying interdependencies will further help to target priority areas for collaboration pilots RIIO-T3.

This approach is vital to a resilient Scotland, for example if the electricity network is impacted this can affect the ability of other infrastructure organisations to provide vital services such as clean water and transport; if the roads network is impacted this can delay access to areas of the electricity network, delaying repair works after storm damage.

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5.4. Compensatory Planting Strategy

Background

Globally, forest cover has reduced significantly over the last century with deforestation now comprising a significant proportion of the world's greenhouse gas emissions, alongside other contributors such as electricity generation, heat generation, transport and agriculture. At world, UK and Scottish level, there is a strong presumption against deforestation, with climate change considerations being a significant factor in this stance.

In a Scottish context, extensive deforestation has occurred since pre-historic times, mainly for agriculture. Some reforestation took place during the 20th century, mainly for commercial timber operations, but the last 40 years has seen a significant amount of woodland removal associated with landscape design, restoration of priority habitats, wind farms and other types of development. Crucially, in terms of quality of woodland areas, only around a third of Scotland's Forest resource is comprised of ancient, semi-natural woodland.

The Scottish Government's Control of Woodland Removal Policy (CoWR) provides overarching policy direction for decisions on woodland removal in Scotland and has been in place since 2009, with updated guidance published in 2019. This policy provides a strategic framework for woodland removal, supporting the maintenance and expansion of forest cover in Scotland. It is important to note that this covers all forms of woodland removal, not just development which requires planning consent.

In regard to development requiring consent, the importance of woodland expansion and retention is further reinforced through the National Planning Framework for Scotland (NPF4) Policy 6, published in March 2023 . This policy directs decision makers for applications for new development, including electricity transmission development, to give significant weight to the protection of existing woodland and the potential for their enhancement or expansion. This also directs project promoters to seek to enhance, expand and improve woodland and tree cover as part of their proposals, placing a strong emphasis on the protection of existing ancient woodlands and veteran trees.

SPT Approach

In line with CoWR and NPF4 (Policy 6), during the planning, design and optioneering (routeing and siting) for new transmission projects, SPT's overarching aim is to avoid, wherever possible, areas of forestry and woodland, with appropriate weight given to the avoidance of areas of ancient, semi-natural native woodlands, alongside other competing matters which must be balanced during the routeing and design of new transmission projects e.g. landscape, visual, biodiversity and cultural heritage matters.

Where tree removal is required e.g. for the creation of a new overhead line wayleave corridor or for construction working areas, the cumulative project total hectarage will require to be replanted offsite to ensure no overall net loss of woodland through the construction and operation of the proposed overhead line, substation or cable project. For projects requiring consent, this will require the submission of a 'woodland planting strategy', required under suspensive planning condition, to the relevant decision maker, either the Scottish Government or Local Planning Authority (LPA), for approval prior to construction commencing, to be implemented within a set time of the project being completed and becoming operational.

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Delivery Strategy for Compensatory Planting

Through the RIIO-T2 investment plan period, SPT has developed a delivery strategy for the provision of compensatory planting which presents best value for the UK consumer, whilst allowing full compliance with Scottish Government policy. While developing this approach, SPT considered a number of options for delivery, including direct land purchase. However, given the increasing demand for land for woodland planting and associated increase in land prices associated with this, SPT do not consider this a viable delivery option.

The delivery strategy relies on partnership working with third party landowners who have been identified as having land which they wish to plant and whose proposed planting areas are equal to or greater than the total hectarage that requires to be offset by the project. In the first instance, SPT will seek to identify landowners within the region in which the project is being delivered, but this is not required by the CoWR policy, which is Scotland wide. This allows SPT the flexibility to ensure that suitable sites can be identified and delivered, in line with individual project commitments and targets.

The landowners will be responsible for securing the necessary planting permissions from the Scottish Ministers' forestry regulator, Scottish Forestry. SPT will also have the ability to direct that certain species e.g. native broadleaves are included, including planting volumes of these species within the planted area, to ensure compliance with the project woodland planting strategy and planning conditions.

Once permissions have been obtained, the landowner will be responsible for the planting and ongoing maintenance of the planted areas, including ancillary works required for these purposes e.g. access track installation, fencing, and ground preparation.

Under this arrangement, SPT will fund all aspects of the proposals, underpinned by a legal agreement to ensure that areas are planted and maintained to the expected standard. However, once areas are planted, any proposals by the landowner to fell these areas e.g. where parts of the area are commercial timber under a specific felling cycle (typically 40 years) would require felling permission by Scottish Forestry under the Forestry and Land Management (Scotland) Act 2018 and The Felling (Scotland) Regulations 2019.

5.5. Visual Amenity

Landscape and visual amenity are key considerations in the planning and development of new assets and the reinforcement and modernisation of existing assets. However pre-existing transmission infrastructure can have a direct impact on the surrounding environment and the landowners and communities who live, work and visit there. In various areas, this is due to the fact that the assets pre-date newer development, such as settlement expansion and areas designated for landscape and visual sensitivity, such as National Scenic Areas and National Parks. Landscape and visual amenity are key considerations in the planning and development of new assets and the reinforcement and modernisation of existing assets. However pre-existing transmission infrastructure can have a direct impact on the surrounding environment and the landowners and communities who live, work and visit there. In various areas, this is due to the fact that the assets pre-date newer development, such as settlement expansion and areas designated for landscape and visual sensitivity, such as National Scenic Areas and National Parks.

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We developed the VIEW project during the RIIO-T1 period considering visual enhancement around our existing infrastructure in the Loch Lomond and the Trossachs National Park. We worked directly with communities and other stakeholders to identify potential candidate sites.

Following discussions between SPT and Ofgem, there is potential to recommence stakeholder engagement on this project in 2024 with a view to having a defined scheme for potential delivery in 2025. This will be dependent on several factors, including engagement with key stakeholders, landowners and communities.

The Scottish Government has committed to designate at least one new National Park in Scotland by 2026, to bring positive benefits for the environment and economy. The Galloway Forest Park area has now been presented as the preferred site, with a public consultation in Autumn 2024 and likely final decision in 2026, at the start of RIIO-T3.

While we are broadly supportive of the establishment of a new National Park in principle, we will be feeding into the consultation in the coming months as we have a significant amount of existing infrastructure in the area as well as planned works which are due to take place in the next few years, including multiple tCSNP2 projects which have been given permission to begin construction, or a 'proceed', by the ESO.

We will require some flexibility in the funding mechanisms, such as a reopener, in the event the new National Park falls in our remit and gathers stakeholder interest to improve the visual amenity.

5.6. Preventing Pollution

We operate and maintain critical linear infrastructure, which is routed through, or adjacent to, a wide range of culturally or environmentally sensitive landscapes and structures, ranging from pristine to degraded habitats. While we provide the network connections and services that customers require, we recognise the need to minimise any negative effects these activities could have on the environment and communities as far as is reasonably practicable.

Throughout the life of our assets, we not only meet the requirements of government policies and legislation but strive to move 'beyond compliance' by integrating fair and responsible environmental practices with socio-economic considerations.

Many of our assets are designed to have a lifetime of over 40 years and therefore much of our network was constructed several decades ago, before the introduction of the high levels of environmental protection that we now build in as standard. We are therefore progressively working towards bringing these older sites up to current standards. To support the development of our RIIO-T3 investment plan, the results of a previous comprehensive programme of civil inspections have been used to inform a condition-based asset risk assessment, which has identified a number of bunds and drainage systems requiring refurbishment and upgrade to modern standards.

Internal Use

5.6.1. Priority Impacts for Preventing Pollution

In line with the requirements of IS0 14001, we regularly review our environmental risks and impacts and seek to prioritise and reduce them. This Process has informed the development of our RIIO-T3 programme of measures to prevent pollution. Priority areas we have identified include:

- Construction sites environmental risk management
- Upgrading historic pollution controls to current standards at our substations
- Investigating and addressing historic land contamination
- Fluid filled cables, and oil leaks.
- Oil leaks at our substations
- Use of hazardous materials including asbestos and creosote poles
- SF_6 leakage

5.6.2. How we did in RIIO-T2: Preventing Pollution

Our company wide commitment to comply with environmental legal requirements is the foundation for all activities to reduce environmental impacts. We are on a trajectory towards our goal of zero regulatory interventions and zero notifiable environmental breaches.

TABLE 22 - SPT RIIO-T2 INCIDENT PERFORMANCE

Incident Performance	Environmental impact area	Unit	2021/22	2022/23	2023/24
Notifiable Environmental Breaches of Legislation	Water discharge	number	1	1	0
	Spill or Leak	number	1	1	2
	Unauthorised excavation	number	1	0	0
	Regulatory Interventions	number	0	0	0

Our most common incident types are oil spills and issues with environmental constraints such as working around wildlife, including birds, bats and other species, and protected environments that are present in areas that our network passes through.

We investigate and learn from incidents so that the behaviours, systems and processes can be improved, driving improved performance and continuous improvement of our standards to minimise our impacts to the environment.

We conducted a multiyear environmental training programme. designed to increase staff knowledge levels to ensure they have the required competence to deliver environmental compliance as it relates to their role. The training was developed further during RIIO-T2, and we created internal 'environmental certifications' to simplify the process and provide clarity as to who needs what training and why. Since 2021 over 75% of our 4,000 staff have undergone this environmental training. The courses have a refresher period of 4-years,

Internal Use

meaning that all relevant staff will complete at least one refresher programme during the RIIO-T3 period.

We also have an internal engagement plan which ensures that we are regularly communicating environmental requirements, improvement opportunities and best practice to staff to drive improved understanding and on-going action.

TABLE 23 – RIIO-T2 PREVENTING POLLUTION COMMITMENTS AND RAG STATUS

RIIO-T2 COMMITMENT	CURRENT RAG STATUS	EXPECTED RAG STATUS AT END OF RIIO-T2
We will target zero environmental regulatory interventions and notifiable breaches	RED	RED
We will deliver our RIIO-T2 programme of mitigation measures (oil containment) for pollution prevention, developed via a condition-based assessment process	AMBER	GREEN
We will implement Pollution Prevention Plans for all future projects for RIIO-T2 and beyond	GREEN	GREEN
We will implement a programme to identify, risk assess and address high risk legacy land contamination.	GREEN	GREEN
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.	AMBER	GREEN

5.6.3. RIIO-T3 Commitments and Metrics: Preventing Pollution

TABLE 24 – PREVENTING POLLUTION COMMITMENTS AND METRICS

COMMITMENT	METRIC
Upgrade existing or install new bunds associated with 27 transformers to meet our current standard, using low carbon and sustainable alternatives to concrete where technically feasible.	No. of bunds installed or upgraded
Replace 32.4 km of our leakiest fluid filled cable removing over 47,080 litres of oil from our network.	Km of Cable replaced; Oil remaining on network. Oil top ups

Internal Use

5.6.4. RIIO-T3 Investments and Benefits: Preventing Pollution

The cost to deliver the fluid filled cable replacement is embedded in multiple sections of the Business Plan, as cable will be removed during Load and Non-load projects, the environmental benefits of 8,404 litres of oil leakage will have been avoided through this solution during the RIIO-T3 period.

Costs:

Bunding upgrades will cost: £7.43M

Enhancing our maintenance of our environmental civil assets will cost: £4.7M

Fluid Filled Cables: £47.54M

Cable Tagging: £2.23M

Land Contamination clean up: £3M

Ecology Specialist Support: £0.5M

The benefits associated with preventing pollution are:

- Improving bunding and the maintenance of civil assets that protect the environment reduces the likelihood of incidents impacting on the environment on sites which may be adjacent to sensitive receptors.
- Replacing fluid filled cables reduces the potential for leaks from these buried assets. These leaks can take more time to identify than for above ground assets and removing the oil reduces the inherent risk.
- Addressing legacy land contamination reduces the risks to local receptors of pollution from historic leaks from assets that do not have modern pollution prevention features.
- Accessing additional specialist ecological support will enable smoother environmentally compliant work planning and execution, increase staff awareness and knowledge and reduce both risks to the environment and impacts from delays in work delivery.

5.6.5. RIIO-T3: Preventing Oil Pollution Delivery

Oil has been used on our electricity network for as long as the network has been established. It is used within much of our equipment such as transformers, cables and protection assets due to its great insulating properties.

However, it's also one of the main products that can cause environmental damage if it escapes, therefore we must manage the environmental risks that these assets containing oil create. We need to ensure that our assets are well maintained, replaced where appropriate and adequate pollution prevention measures are in place to minimise our impacts on the environment, including appropriate disposal of any contaminated materials.

Internal Use

Transformer bunds and their associated oily water drainage systems are installed around oil filled transformers to prevent the oil from entering the environment in the event of a leak/failure. Traditionally the bund has been constructed of concrete or brick with an oily water drainage system.

As part of the planned RIIO-T3 investment SPT has a transformer refurbishment programme. This programme addresses the health of the transformer ancillary components to allow the remaining life in the transformer to be fully realised. Typically, these transformers were installed at a time when the oil containment standards were less rigorous and therefore any containment has been designed to retain the transformer oil for only a short period of time unlike the current standards in place. The RIIO-T2 civil condition surveys have also identified bunds for refurbishment in RIIO-T3 based on the condition of the bund, or containment. This results in bund upgrades in 3 workstreams; bund upgrades associated with transformer refurbishment and/or replacement.

- bund upgrades due to condition of the existing containment.
- bund upgrades at a limited number of sites due to issues identified during the price control period, for example incidents or further degradation in condition.

This programme will bring the relevant bunds and associated drainage up to current standards and will remediate any soil contamination issues.

Coordinating the refurbishment/replacement bund works at the same time as the transformer refurbishment programme makes it more efficient from not only a cost perspective but also a GHG emission perspective, as we take a 'touch the network once' approach.

Commitment: Upgrade existing, or install new bunds associated with 27 transformers, enhancing existing arrangements to our current standard, we will use low carbon alternatives to concrete bunding where technically feasible.

High-Density Polyethylene (HDPE) Bunding

Our interventions at sites where the transformer is not being replaced will use an alternative bunding solution to the use of concrete to construct bunds. HDPE bunds are a relatively new innovative solution with a lower cost, lower embodied carbon, shorter installation times and are adaptable to existing transformer layouts. The HDPE solution can also be adopted to repair existing bunds which are no longer oil/watertight.

HDPE bunding will provide a range of environmental and cost efficiency benefits we cannot achieve using traditional concrete bunding. These benefits will be delivered through the entire life cycle of the bund:

- **Embodied Carbon:** The lower volume of concrete required for HDPE bunding will provide significant embodied carbon savings.
- **Emissions:** Where feasible, the sump pump and control system will be powered by solar panels, eliminating the emissions associated with bund drainage systems.

Internal Use

- **Sustainable Resource Use**: The use of Innovative HDPE bunding solution allows for the re-use of the bund asset should the transformer be decommissioned. The HDPE bund system can be modified to suit an alternative arrangement or even relocated to alternative site.

FIGURE 18 – AN EXAMPLE OF A TRANSFORMER BUNDED USING HDPE

It is important that once environmental civil assets are installed, we ensure that they retain the capacity for which they were designed by completing appropriate inspection and maintenance programmes. During RIIO-T2 we have reviewed our current maintenance programmes and identified improvements that will be implemented throughout RIIO-T3. These programmes cover all types of environmental civil assets at our transmission substations including bunds, sump pumps, drainage, oil water separators and other common pollution prevention measures.

By improving our maintenance routine, we hope this will reduce the number of environmental incidents each year associated with our assets, a robust maintenance programme will also prolong the life and operational ability of our assets allowing us to maximise the life of the asset.

More information on our Environmental Civil Assets Inspection and Maintenance Programme can be found in the Network Asset Management Strategy

Leakage From Fluid Filled Cables

Underground cable technology has changed over the years as science, materials and engineering have developed. Since the 1930s we have used fluid filled cables on our networks, the fluid acts as in insulant. They were traditionally filled with a heavy mineral fluid with low biodegradability, since then the fluid used has been improved and since 1986 top-ups to cables have been made using a light synthetic biodegradable fluid.

Fluid filled cables operate under pressure, and are monitored by pressure alarm systems, therefore the primary risk is leakage of the insulation oil into the environment causing environmental pollution, loss of pressure and ultimately a cable failure. When a leak occurs

Internal Use

finding the location can be difficult and the subsequent repair costly, time consuming and damaging to the environment. Therefore, during RIIO-T3 we plan to replace 32.4 km of our pressure assisted fluid filled cable which is over one quarter (28%) of the current inventory on the network. The cost of the replacement of these fluid filled cables is forecast as £47.54m for the RIIO-T3 period. The remainder on the network will be replaced over multiple price controls, on a condition-based assessment. Fluid filled cables are typically replaced by dry cables that do not contain oil, although some limited cases require the installation of new fluid filled cables.

The environmental benefit of this will mean removing 47,080 litres of oil from our network and those cable at highest risk of leaks due to their age and condition.

The top 12 circuits with the highest leakage history have been selected within the replacement programme. The total leakage from fluid filled cables during the first three years of RIIO-T2 has been 47,840 litres of fluid.

Improving Leak Detection and Repairs

Cable tagging systems use a small amount of a tracer chemical that can be readily detected above ground and hence helps to pinpoint leaks quickly. During RIIO-T3 we will be expanding the number of circuits that operate a tagging system.

This brings cost, operational and environmental benefits as reducing the time required to accurately identify the leak location reduces the volume of oil lost to the environment and the amount of excavation required.

A total of 20 fluid filled cables have been identified for Perfluorocarbon Tracer (PFT) tagging. We are currently assessing the risks and benefits of using this tracer and will conclude our assessment prior to installing. These circuits have been chosen due to their volume of oil, leakage history, criticality to customers or complexity to repair due to proximity to other infrastructure. For more information on these details can be found in Network Asset Management Strategy.

Therefore, we are replacing our worst performing circuits from a leakage perspective and strategically tagging a further 20.

5.7. Creosote

Creosote treatment for wood utility poles is regulated by the GB Biocidal Products regulations and is currently approved for use in the UK until February 2025. Discussions are currently underway regarding an extension to this deadline; however, they are delayed due to constraints at the approval stage. Creosote is approved for use until 2029 in Europe, and it is not clear at the time of compiling this EAP of what the future approvals will be, therefore the cost requirements for poles may be subject to regulatory change during the RIIO-T3 price control.

Internal Use

Oil based copper alternative pole treatments are available and have been proven to perform similarly to creosote in Project APPEAL*. However, poles treated with these alternatives are approximately 40% more expensive than creosote treated poles.

SP Energy Networks will continue working with pole suppliers on a transition plan to switch new poles to alternative preservative treatments through the course of RIIO-T3 in order to reduce the environmental impact of creosote and also improve safety for staff, contractors and the public who come into contact with treated poles.

*Project APPEAL is a Network Innovation Allowance (NIA) project that identified environmentally acceptable wood pole pre-treatments to creosote and tested accelerated decay to test the alternative pre-treatments. The testing was completed in 2021.

FIGURE 19 – WOOD TREATMENT TESTING FACILITY

5.8. Land Contamination

Given the lower historic environmental protection standards and practices for the design and construction of the networks oil filled assets, we will continue to review our sites legacy contamination status and assess and remediate sites, where required, to ensure that the risks they pose to the environment and people are low.

This requires us to maintain a risk-assessed list of relevant sites and prioritise those of highest risk for remedial works. We assess the sites environmental setting to identify relevant receptors, investigate the ground conditions and select an appropriate remediation approach for each site. Once the remediation approach has been determined it is then required to be delivered and the reduction in contamination validated. External support is required to provide the expertise and capabilities to deliver this work.

Internal Use

We have estimated costs for this programme of work, based on costs incurred in RIIO-T2, resulting in a funding request of £3m to address legacy land contamination in RIIO-T3.

Internal Use

6. Circular Economy

To build and operate our network infrastructure we inevitably use a wide range of resources. We have a responsibility to use these sustainably by implementing the principles of the circular economy, ensuring the life cycle of products and materials is extended as long as possible.

A key metrics we use in assessing the sustainability of materials is GHG emissions, in the majority of cases this is inextricably linked with resource efficiency. This section and section 4 Climate Action – Capital Carbon Reduction are cross referenced and share a common investment for sustainable materials.

6.1. Ofgem Baseline Expectations

TABLE 25 – OFGEM BASELINE EXPECTATIONS AND OUR ACTIONS TO MEET EXPECTATIONS FOR RESOURCE USE AND WASTE

Resource Use and Waste		
Network Companies Should:	**What we have done:**	**What we are doing: RIIO-T3**
Update procurement processes to embed Circular Economy principles; and	Procurement processes were updated, focusing on the waste hierarchy and landfill avoidance	We will align with circular economy standard BS8001.
Adopt a target for zero waste to landfill by at the latest 20[XX] **Commitment to reporting on actual waste to landfill, recycling and reuse as a percentage of total**	We adopted the following target in RIIO-T2: Recycle or reuse 100% of our waste by 2030 (excluding 'compliance waste')	Target is in place, activity in RIIO-T2 and RIIO-T3 focussed on achieving this target.
Adopt a target for recycled and reused materials as a percentage of total measurable materials where feasible by at the latest 20XX	By the end of RIIO-T2 we will have set targets for recycled and reused materials for end RIIO-T2, 2030 and 2050.	We have proposed the following target: Achieve 30% recycled or reused content across our top three materials (by volume) by 2030

6.2. Sustainable Resource Use and Waste Reduction

6.2.1. How We Did in RIIO-T2: Sustainable Resource Use and Waste Reduction

During RIIO-T2 we focused on improving waste data and implementing processes to meet our landfill diversion target and on collecting data on our resource use. We are on track to

Internal Use

achieving our landfill diversion target (figure 20) and further detailed analysis is required to ensure the correct actions are taken to move waste up the waste hierarchy (figure 21).

We carried out two detailed studies in RIIO-T2: the 'Sustainable Substation' and 'Sustainable Circuits' projects. Circularity opportunities for RIIO-T3 were identified as a key outcome of these projects, this included the identification of the top materials that can be utilised for reuse and recycling. This will enable us to make significant impact towards our targets.

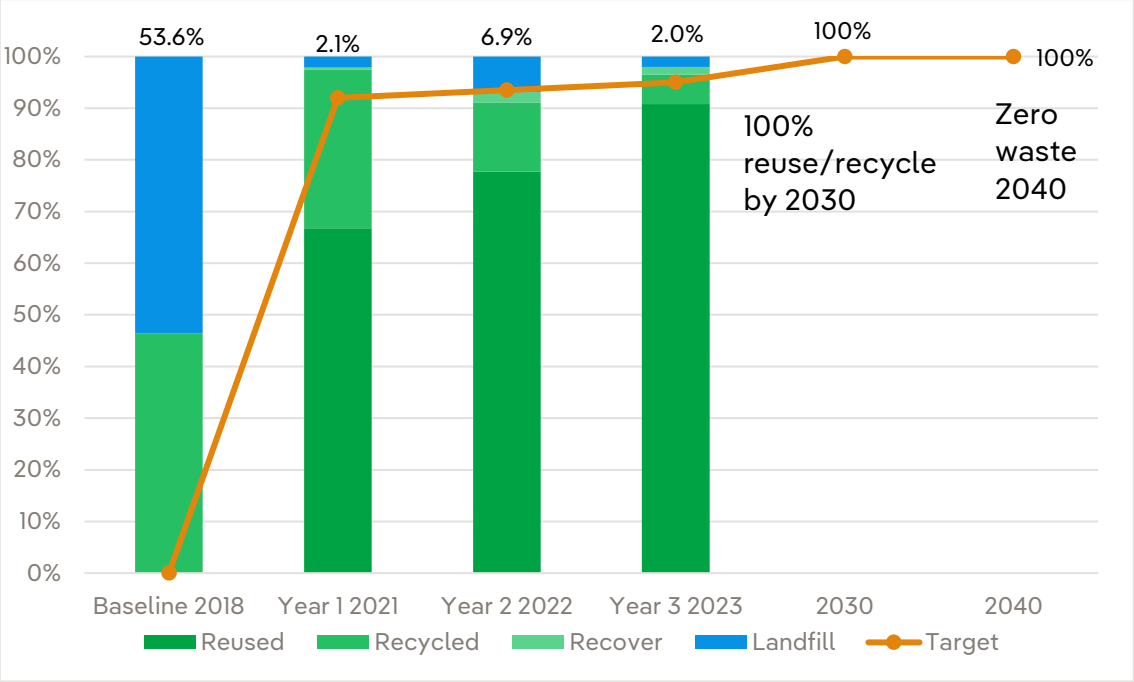

FIGURE 20 – GRAPH SHOWING HISTORICAL WASTE DATA AND TRAJECTORY TO ACHIEVE ZERO WASTE BY 2040

FIGURE 21 - WASTE HIERARCHY

Internal Use

TABLE 26 – RIIO-T2 CIRCULAR ECONOMY COMMITMENTS AND RAG STATUS

RIIO-T2 COMMITMENT	CURRENT RAG STATUS	EXPECTED RAG STATUS AT END OF RIIO-T2
We will embed circular economy principles where relevant throughout our business processes, considering whole life cycle environmental impacts.	AMBER	GREEN
We will divert 95% of our waste from landfill	GREEN	GREEN
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	AMBER	GREEN
We will require project Waste Management Plans for all new projects in RIIO-T2 and beyond.	GREEN	GREEN
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.	GREEN	GREEN
We will set targets for recycled/reused materials as a % of total input materials to be achieved by end RIIO-T2, 2030 and 2050	GREEN	GREEN
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	GREEN	GREEN
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.	GREEN	GREEN

6.2.2. RIIO-T3 Commitments and Metrics: Sustainable Resource Use and Waste Reduction

TABLE 27 – SUSTAINABLE RESOURCE USE AND WASTE COMMITMENTS AND METRICS

COMMITMENT	METRIC
Achieve target of 30% recycled or reused content across our top three materials (by volume) by 2030	% of recycled/ reused content across concrete, steel and aggregates

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Align with circular economy standard BS8001.	External validation of circular economy standard BS8001 progress
Recycle or reuse 100% of our waste by 2030 (excluding 'compliance waste')	% of waste recycled and reused

6.2.3. RIIO-T3: Investments and Benefits: Sustainable Resource Use and Waste

There will be a cost uplift associated with increasing the recycled content in the concrete and steel we use. This is inextricably linked to low carbon versions of these materials and is included in the Uncertainty Mechanism allowance outlined in the Climate Action Section 4.5.4 of the EAP. This investment also allows for wider sustainability considerations, for example the use of critical materials.

Aggregates are our most significant material by volume; however, they have relatively low carbon emissions and there is generally no cost differential between virgin and recycled aggregates. For these reasons aggregates have not been included in the uncertainty allowance investment above. We recognise the benefits of minimising virgin aggregates from a circularity and wider environmental impact perspective and therefore we have set ambitious targets for RIIO-T3 that will be delivered under business-as-usual investment.

A key element of delivering our RIIO-T3 Circular Economy commitments will be ensuring the accuracy of data to enable improvement plans to be developed and implemented where required. A circular economy and carbon data tool will cost £1m and has been included in the Digitalisation Strategy and Action Plan annex and associated investment. More on this solution can be found in Section 04 - Resource Use and Waste Management of the Environmental Compliance Solutions EJP.

6.2.4. RIIO-T3: Sustainable Resource Use and Waste Reduction Delivery

Context

Scotland's National Planning Framework 4 (NPF4) Policy 12 highlights priority areas of action to reduce, reuse or recycle materials in line with the waste hierarchy. The following extracts from NPF4 have been followed to develop our approach to circularity in RIIO-T3:

- "Minimise demolition and salvage materials for reuse."
- "Minimise waste, reduce pressure on virgin resources and enable building materials, components and products to be disassembled, and reused at the end of their useful life."
- "Use materials with the lowest forms of embodied emissions, such as recycled and natural construction materials."

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Further to this, the draft Scottish Government Circular Economy and Waste Routemap to 2030 supports "the development of regional Scottish hubs and networks for the reuse of construction materials and assets" from 2025/26 and a "Focus on embedding circular construction practices to reduce resource needs, reduce waste and carbon, and encourage refurbishment and reuse. .... reducing whole life carbon emissions... and adopting sustainable/circular procurement practices". In keeping with these Scottish national frameworks, we recognise the true value of the resources we use to build and operate our network and will embed circular economy principles to ensure they are used efficiently and sustainably. We recognise the role we have in influencing policy in Scotland and ensure we feed into consultations relevant to the circular economy and are active members of collaborations which identify common challenges and opportunities to efficiently drive strategic change.

As can be seen in our route map to Zero Waste below, our ambitious and over-arching long-term targets are to reuse or recycle 100% of our waste by 2030 (excluding compliance waste) and to become a totally Zero Waste business by 2040. To reach our vision of a Zero Waste business we need to go beyond reuse and recycling and look at the design, construction and management of our assets to systematically avoid waste being produced in the first place.

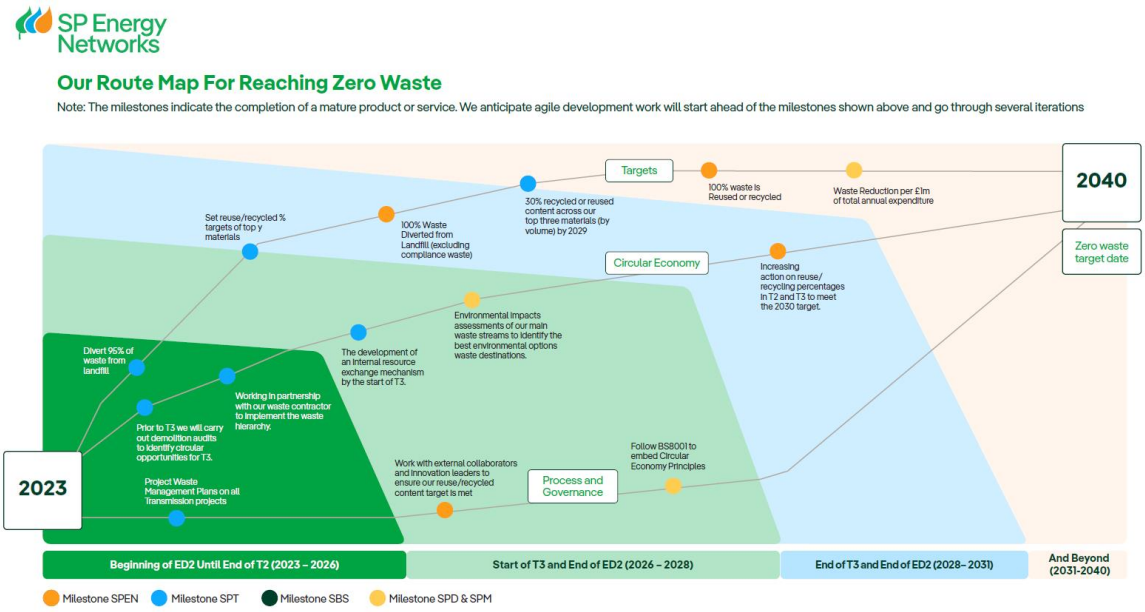

FIGURE 22 – ROUTEMAP TO ZERO WASTE

Stakeholder engagement

Our Sustainability Stakeholder Working Group support our circular economy ambitions and commitments, they support our targets and our focus on priority materials. They have asked us to ensure that assessment of full environmental impact, beyond circularity and carbon, is included in our decisions regarding sustainable resource use; we have integrated this into our plan. They would like us to move towards separate targets for reuse and recycling; as we build our knowledge and experience throughout RIIO-T3 we will work towards this. They

Internal Use

recommend that opex as well as capex funds are included within the related funding mechanisms to facilitate market maturity and the implementation of circular processes.

T3 Plan for Circular Economy

Our RIIO-T3 approach to sustainable resource use is driven by our 2040 Zero Waste target and commitment to:

Commitment: Recycle or reuse 100% of our waste by 2030 (excluding 'compliance waste')

Sustainable materials

Priority circular opportunities were identified in the outcomes of our Sustainable Substation and Sustainable Circuits projects in RIIO-T2. Looking to these opportunities in RIIO-T3, we will focus on the higher volume materials where we can make the greatest impact.

Analysis was undertaken to identify the materials used in the creation of 132kV and 275kV substations (see fig 22) this demonstrated our top three materials by tonnage:

- Aggregate
- Concrete
- Steel

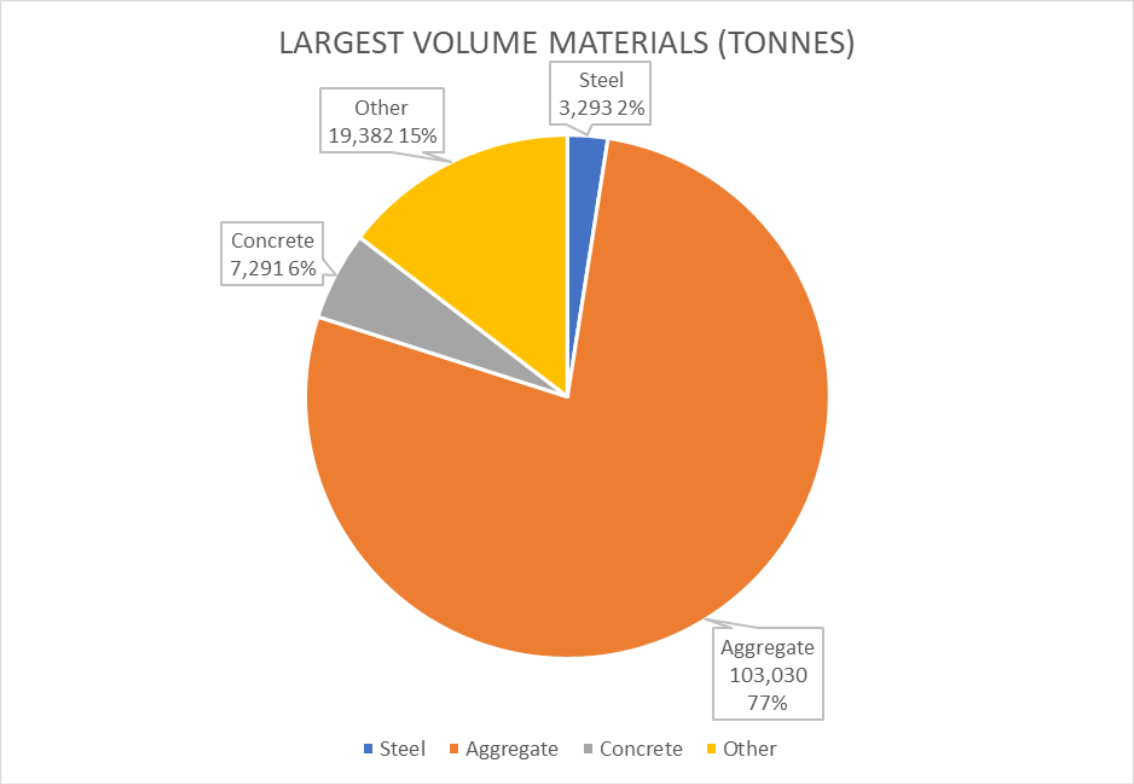

FIGURE 23 – BREAKDOWN OF MATERIALS USED IN 132KV AND 275KV SUBSTATION CONSTRUCTION

The breakdown of materials used in the development of overhead lines and circuits also shows that concrete, steel and aggregates are the most common bulk materials – although

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conductors are also significant. The other main materials include soils and asphalt; however, this is not the case for the majority of construction and was not focused on.

The circularity of these materials represents a challenge across the whole construction sector, and we cannot work in isolation to drive the change required. We are working in collaboration with infrastructure organisations, supply chain industry bodies and materials experts to identify challenges and opportunities to increase the availability and cost effectiveness of circular solutions. It will require a significant degree of innovation and supply chain engagement to meet our target:

Commitment: Achieve target of 30% recycled or reused content across our top three materials (by volume) by 2030

Our top three 'business as usual' materials by volume, as shown in Figure 23 are aggregate, concrete and steel. We have set a cumulative target for 30% reuse or recycling across these three materials. This has been calculated through analysis of the volume of these materials and the potential to increase reuse and recycled content. As we develop our knowledge in this area prior to RIIO-T3 we will confirm this target meets the appropriate balance between ambition and deliverability.

We have engaged with industry representatives[1] and conducted interviews to better understand market availability, predictions and trends of recycled and reused content. We anticipate that we will meet our 30% recycle and reuse target by focussing on recycled aggregate and our capital carbon reduction approach to procuring low carbon steel and concrete (as outlined in Section 4.3.3), in a way that supports the circular economy.

Aggregates

Recycled aggregate in the UK is mainly produced from demolition and its cost-effective supply is dependent on the proximity of the location of demolition (supply) and construction (demand). Sourcing supply local to demand is critical to ensure transportation emissions do not exceed the potential CO2e savings from using recycled instead of virgin quarried aggregate.

The recycled content of recycled aggregate is usually 100%. Recycled and virgin aggregate are not mixed on a regular basis and the aggregate is usually either 100% recycled or 100% virgin.

Looking at overall aggregate use, recycled aggregates make up approx. 30% of the overall UK mix on the market with the rest being virgin aggregates. As it may not be possible to ensure recycled aggregate on all projects, due to the aforementioned availability constraints, we will put systems in place to increase reuse and target 30% reused or recycled aggregates across our RIIO-T3 project portfolio.

There is no uplift in cost for recycled aggregate compared to virgin mainly due to the Aggregates Levy, which is charged on primary virgin aggregate (rock, sand and gravel) that is

[1] **PENDING REFERENCES FROM Industry engagement including the Mineral Products Association, Brewster Bros, Cleveland Steel, ERM, CELSA.*

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commercially exploited within the UK. The levy encourages the efficient use of aggregate including the use of recycled and secondary aggregate as an alternative.

Concrete

Concrete is made up largely of aggregate, bound by cement and reinforced with rebar. Opportunities to increase the recycled content of concrete include:

- Increasing the recycled content of sands and aggregates in line with permissible standards
- Cement replacements such as ground granulated blast slag (GGBS) and fly ash (FA)
- Increasing the recycled content of rebar

Section 4.3.3 outlines our approach for reducing embodied carbon emissions associated with steel and concrete. This will also support an increase in recycled content of cement binders, with 60% being made up of GGBS as a replacement for portland cement. It will also increase the recycled content of rebar (up to 97% recycled content through electric arc furnace sourced steel (EAF)). This, along with the use of recycled aggregates and sand in line with permissible standards may push the recycled content of concrete higher than our overall target of 30%.

Structural Steel

Structural steel is primarily used in overhead line towers and for other general structural purposes. It is possible to achieve very high recycled content for structural steel. Section 4.5.3 outlines our approach for reducing embodied carbon emissions associated with steel. This will require Electric Arc Furnace (EAF) galvanised steel for towers where possible, which can achieve a high recycled content. However, it is recognised that only around 37% of the global steel supply is sourced from scrap and demand is set to exceed supply for scrap steel worldwide. The UK market continues to import 80% of its steel, and the average recycled content varies between 40-60%. By targeting EAF galvanised steel for towers and exploring the potential for reusing structural steel sections in applications, we will push the recycled content of steel higher than our overall target of 30%.

Supply Chain Engagement

As well as the focus on key materials we aim to improve the circularity of our assets, this will involve working in partnership with our supply chain to identify market ready alternatives and to innovate and trial alternative solutions. Prior to RIIO-T3 we will develop a supply chain sustainability engagement plan to facilitate these discussions.

A supply chain sustainability innovation award is also in the pipeline to encourage and reward circular practices and GHG reduction in contracts.

Governance

In preparation for RIIO-T3 the UK Transmission Owners have established a Circular Economy working group to identify commonality in setting targets and opportunities to work together. One of the initial outcomes of this group was the commitment to work towards achievement

Internal Use

of a recognised circular economy framework, BS8001. This will provide a systematic approach to managing and embedding circular economy principles in our business.

Commitment: Align with circular economy standard BS8001.

7. Supply Chain Sustainability

7.1. Ofgem Baseline Expectations

TABLE 28 - OFGEM BASELINE EXPECTATIONS AND OUR ACTIONS TO MEET EXPECTATIONS FOR SUPPLY CHAIN SUSTAINABILITY

Supply Chain		
Network Companies Should:	**What we have done:**	**What we are doing: RIIO-T3**
Adopt high standards of environmental management in its supplier code, including requirements for public disclosure of metrics and cascading code to their suppliers that are material to the company's inputs;	Our Supplier Code will be annually reviewed, increasing supplier sustainability standards over time, in line with our targets and goals. This Supplier Code is published in RIIO-T2 as KPI metrics, and supplier compliance will start to be audited by the end of RIIO-T2.	We will continue to implement the systems put in place in RIIO-T2. We will publish our Supplier Code and audit compliance and will work with our supply chain to support them meeting increasingly ambitious standards.
Adopt a target of more than 80% of suppliers (by value) meeting the code in RIIO-3; and	Our RIIO-T2 target of 80% of suppliers (by value) to meet this code was achieved and this metric is now business as usual (BAU)	This target is BAU, and we will continue to monitor and report supplier compliance with our Supplier Code
Commit to reporting on actual percentage of suppliers (by value) meeting the code.	Reported annually in our AER	BAU

7.2. Supply Chain Sustainability

7.2.1. How We Did in RIIO-T2: Supply Chain Sustainability

We support our supply chain to become sustainable in a fair and collaborative way, ensuring that our partners are equipped with the tools and knowledge they need to match our ambitions. Throughout RIIO-T2, we partnered with the Supply Chain Sustainability School (SCSS) to provide this knowledge through tailored web-based training, webinars and workshops. The Scottish Business Climate Collaboration (SBCC), a group of leading corporate businesses with a major footprint in Scotland (including ScottishPower) joined

Internal Use

forces to develop The Climate Action Hub. SPEN co-chaired the SBCC subgroup which led on the development of the Hub. This platform provides a practical step by step programme, equipping small and medium enterprise (SME) businesses with the tools and knowledge to achieve Net Zero GHG within their own organisations and in the goods and services they supply.

All SPEN suppliers must meet our environmental compliance standards. For RIIO-T2, we committed to 80% of our supply chain going beyond this to meet our enhanced environmental standards. This process required analysis of our supply chain to appropriately target 80%; we prioritised contracts over £1m and suppliers that deliver goods and services with potential environmental impact, therefore ensuring we focus on our greatest supply chain impacts and don't unfairly disadvantage small suppliers who are less mature in this area. We regularly review and update these environmental standards; our procurement and contract management processes and published supply chain environmental reporting metrics aligning to ISO20400 Sustainable Procurement and have conducted a gap analysis outlining further improvements.

In 2020 Iberdrola adopted a new supplier engagement platform - Go Supply. All Iberdrola group suppliers are required to sign up to the platform, which provides a mechanism for assessing and recording supply chain sustainability. All strategic suppliers must complete a sustainability questionnaire to achieve a sustainability score. If suppliers do not meet the required score improvement plans will be put in place and the suppliers will be supported to deliver changes.

TABLE 29 – RIIO-T2 SUPPLY CHAIN COMMITMENTS AND RAG STATUS

RIIO-T2 COMMITMENT	CURRENT RAG STATUS	EXPECTED RAG STATUS AT END OF RIIO-T2
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	GREEN	GREEN
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	GREEN	GREEN
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.	GREEN	GREEN
We will target more than 80% of RIIO-T2 suppliers (by value) meeting these enhanced environmental standards	GREEN	GREEN
We will report on the actual percentage of suppliers (by value) meeting these standards.	GREEN	GREEN
We will engage with suppliers throughout the duration of their contracts to continue to reduce impacts and optimise benefits	GREEN	GREEN

Internal Use

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	GREEN	GREEN
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.	GREEN	GREEN
We will engage with suppliers early in the development of projects to enable them to propose environmental improvements at concept and design stages.	GREEN	GREEN

7.2.2. RIIO-T3 Commitments and Metrics: Supply Chain Sustainability

TABLE 30 – SUPPLY CHAIN SUSTAINABILITY COMMITMENTS AND METRICS

Commitment	Metric
80% of suppliers by value set Science-Based Targets (SBTs) (or equivalent externally validated Greenhouse Gas (GHG) reduction target)	% Transmission Suppliers have set validated targets
Our Supplier Code will be annually reviewed, increasing supplier sustainability standards over time, in line with our targets and goals. This Supplier Code will be published, and supplier compliance will be audited.	Updated Supplier Code published annually % suppliers compliant with Supplier Code Number suppliers audited

7.2.3. RIIO-T3: Investments and Benefits: Supply Chain Sustainability

Our ongoing membership, at Partner level, of the Supply Chain Sustainability School for the duration of RIIO-T3 has a cost of £0.07m and provides all the training and other materials necessary for our supply chain to upskill as required to meet our sustainability standards.

Other investment required for supply chain sustainability is integrated into the Climate Action and Circular Economy investment for materials and reporting tools.

7.2.4. RIIO-T3 Supply Chain Sustainability

Our supply chain are critical to the delivery of our Sustainable Business Strategy and our commitments across this EAP. Our Supplier Code will be reviewed and published annually; in RIIO-T3 this will be a key change as we move towards an action focused delivery plan to reduce impacts, with targets to reduce carbon and increase the circularity of materials.

We will maintain our Partner status in the Supply Chain Sustainability School (SCSS) due to the significant benefits both SPEN and our suppliers have realised from access to quality training materials to upskill staff in sustainability topics.

Internal Use

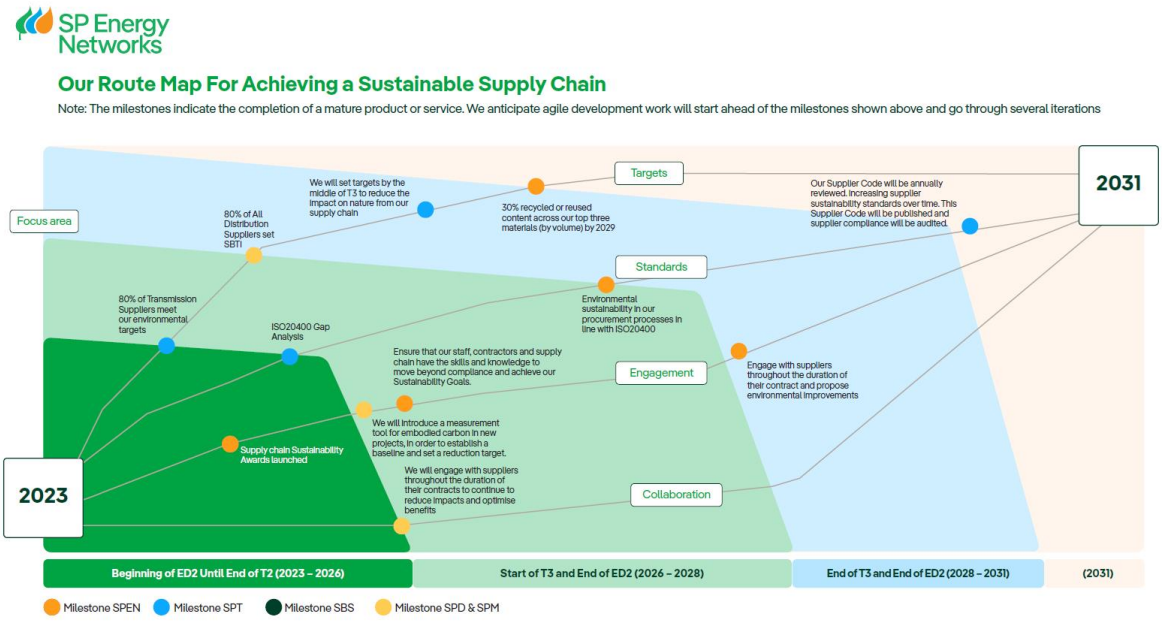


FIGURE 24 – ROUTEMAP TO A SUSTAINABLE SUPPLY CHAIN

Stakeholder engagement

Our Sustainability Stakeholder Working Group initially questioned whether we should increase the percentage of suppliers meeting our enhanced environmental standards beyond 80%, the level set for RIIO-T2. Through discussion and explanation that the Supplier Code itself would become more challenging our stakeholders agreed it was appropriately ambitious to retain at 80%. Stakeholders requested that Supplier Code metrics are clear and specific. We will work with the other TOs in RIIO-T3 to further develop a supplier code which aligns as far as possible across the three organisations and is targeted, transparent and measurable.

Through the development of our commitments relating to low carbon and circular materials we engaged with industry experts in steel, concrete and aggregates to understand market availability and the potential additional cost of more sustainable options to ensure a balance between ambition, deliverability and cost effectiveness.

Engagement with our suppliers remains at the heart of delivering a successful plan. We have an engagement strategy which includes our supply chain; as well as supporting free access to the training and other materials of the Supply Chain Sustainability School, we communicate sustainability requirements and changes in quarterly newsletters, we hold an annual health, safety and environment supplier event and meet individually with contractors on a quarterly basis. Prior to RIIO-T3 we will strengthen our collaborative approach through regular meetings with the sustainability professionals of our main suppliers to understand their sustainability opportunities and challenges and enable us to amend standards and specifications appropriately to capture changing supply chain capabilities whilst driving this change at pace.

Internal Use

We have purposefully limited the number of specific commitments in this supply chain section as we are reliant on our suppliers and contractors to deliver our commitments throughout this EAP. Clear examples of this can be seen in our sections on Climate Action and Circular Economy where we need to work with the supply chain collaboratively and innovatively to increase the availability of low carbon and circular materials and solutions. This will include the further development of our supply chain engagement strategy and ongoing collaboration with the other Transmission Owners to align as far as possible.

Commitment: Our Supplier Code will be annually reviewed, increasing supplier sustainability standards over time, in line with our targets and goals. This Supplier Code will be published, and supplier compliance will be audited.

During RIIO-T2 we established a joint TO supply chain working group, outlining beneficial areas of collaboration. This working group pin-pointed the need to collaborate, working with 80% of suppliers by value to set Science-Based Targets (SBT's) or equivalent. In 2024 66% of our supply chain, by value have set SBTs, we have committed to 80% in RIIO-T3 as a suitably stretching target.

Commitment: 80% of suppliers by value set SBTs (or equivalent externally validated GHG reduction target)

Internal Use

8. Sustainable Society

While working to enable the decarbonisation of the energy system we need to deliver value and benefits for people and communities across our licence area. We need to anticipate the social implications of the shift to a low-carbon circular economy, the biodiversity crisis and the increasing impacts of climate change. A just transition should ensure environmental sustainability, quality work, social inclusion and poverty eradication are all given equal consideration.

We are an employer that works hard for our people too, with policies and targets in place to deliver a truly inclusive and diverse workforce, with training and development a core part of our workforce model. We engage with our workforce through biannual surveys and safeguard their physical and mental health and wellbeing; for example, through the provision of mental health first aiders and a range of employee networks. We are dependent on our supply chain to deliver our sustainability goals; we will continue to support them in their just transition journey and ensure their standards and ambitions are reflective of our own.

Our communities sit at the heart of everything we do. A strong and resilient community energy sector is essential to achieving a just transition and meeting our net zero targets. See section 8.5 for more information about how we will deliver lasting benefits in the communities we serve.

8.1. How We Did in RIIO-T2: Sustainable Society

We published our Just Transition Strategy in 2023- the first of its kind for a UK electricity network company. This strategy showcases our strong track record in prioritising the needs of our communities and outlines future plans to support communities and customers and enable transformational change to ensure a more sustainable future for all.

Our Just Transition Strategy is centred around four principles, which demonstrate our long-term ambition to a well-managed, socially inclusive transition to Net zero.

Internal Use

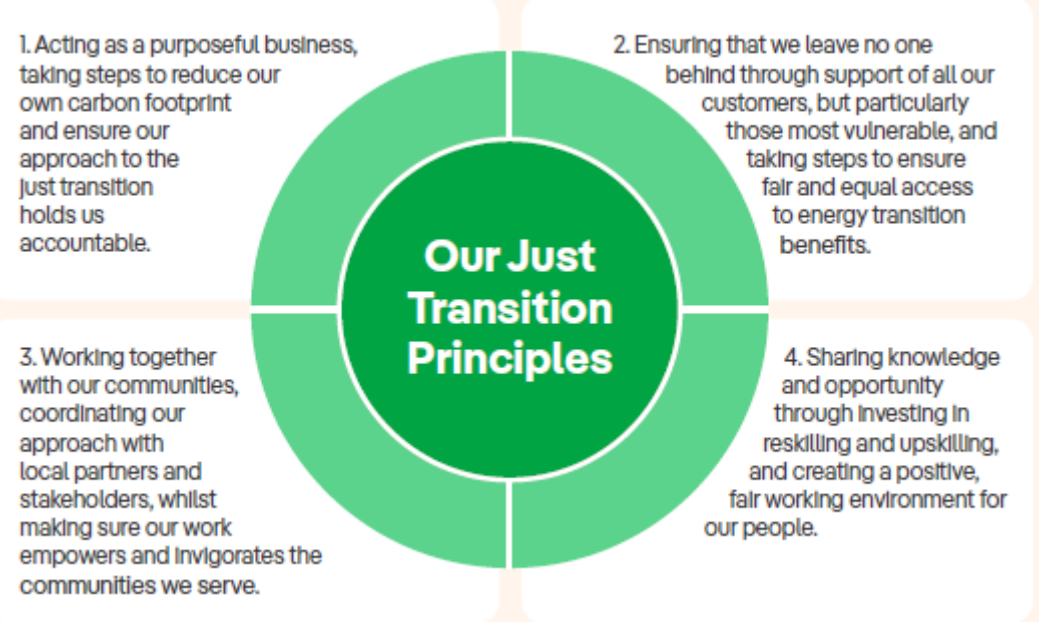


FIGURE 25 – THE FOUR PRINCIPLES OF OUR JUST TRANSITION STRATEGY

To be successful in achieving our just transition vision, we are committed to embedding these principles into everything we do.

Supporting the achievement of a sustainable society is not new to us. Our RIIO-T2 Net Zero Fund supports community organisations to decarbonise their communities across Central and Southern Scotland. This fund focuses on empowering and delivering social, environmental and economic benefits within local communities to deliver a just transition for all. Read more about our Transmission Net Zero Fund. Section 8.5 details our work so far using our Net Zero Fund and the Green Economy Fund

As we accelerate towards Net Zero GHG, we are committed to growing our own talent from the communities we serve, ensuring we continue to build a diverse and inclusive workforce. As outlined in our Workforce & Supply Chain Resilience annex we want to recruit new talent and support all our employees to meet the changing workload, technology, sustainability and portfolio requirements. For example, our transitional programme enables our workforce to develop skills in new roles and disciplines. There are no minimum educational qualification criteria, so this programme provides people from all different academic backgrounds with the opportunity to apply to the programme and develop their career.

TABLE 31 - RIIO-T2 SUSTAINABLE SOCIETY COMMITMENT RAG STATUS

RIIO-T2 COMMITMENT	CURRENT RAG STATUS	EXPECTED RAG STATUS AT END OF RIIO-T2
We will maintain and continually improve our ISO14001 certified Environmental Management System to achieve 'beyond compliance' environmental performance.	GREEN	GREEN
We will embed a process for Initial Environmental and Sustainability Reviews (IESRs) for all relevant projects,	AMBER	GREEN

Internal Use

to identify potential environmental issues and opportunities at the earliest stage.		
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	GREEN	GREEN
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.	GREEN	GREEN
We will continue to drive industry-wide collaboration in RIIO-T2 for the benefit of all customers.	GREEN	GREEN
We will continue to engage our key environmental stakeholders via our Sustainability Stakeholder Working Group, ensuring progress via collaboration activities arising from this engagement.	GREEN	GREEN
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	GREEN	GREEN

8.2. RIIO-T3 Commitments and Metrics: Sustainable Society

TABLE 32 – SUSTAINABLE SOCIETY COMMITMENTS AND METRICS

Commitment	Metric
Publish an annual Just Transition Report and review our Strategy every 3 years	Just Transition report published annually. JT Strategy updated and published every three years.
Develop common supply chain social sustainability metrics, tools, and methodologies with other TOs.	Common metrics developed and implemented

8.3. RIIO-T3: Investments and Benefits: Sustainable Society

- £0.05M for annual Just transition Report and three-yearly Strategy review. Benefit- ensuring our Just Transition Strategy aligns to the needs of our stakeholders and the communities we serve, whilst continuing to be embedded across our business. Publishing information on how we are doing to inform our stakeholders and communities.

Internal Use

- £0.02M cost for third party assurance. Benefit - This is to ensure the way we measure social value is consistent and accurate across the TOs and the social value claims we make are as accurate as possible. This cost is an anticipated cost and is based on our understanding of the current market. This commitment has been agreed jointly by all three TOs.

To deliver our RIIO-T3 commitments we forecast £0.07m.

8.4. RIIO-T3 Sustainable Society

Context

We know how vital our role is to facilitate the changes required to reach net zero greenhouse gas (GHG), supporting a just transition for the communities we serve, delivering jobs, economic growth and environmental benefits. We recognise our transmission projects can be disruptive, so we make it a priority to work with our communities to minimise this and to give something back. Following the latest Scottish Just Transition Commission report, we support the principle that "building fairness into climate policy acts as an enabler and accelerant rather than a reason for inaction" and agree that significant further action is urgently needed to put Scotland on track to deliver a just transition towards net zero GHG can be seen in our route map below our ambitious and over-arching long-term commitments are to deliver social value in our communities, ensuring that we leave a positive legacy through our work.

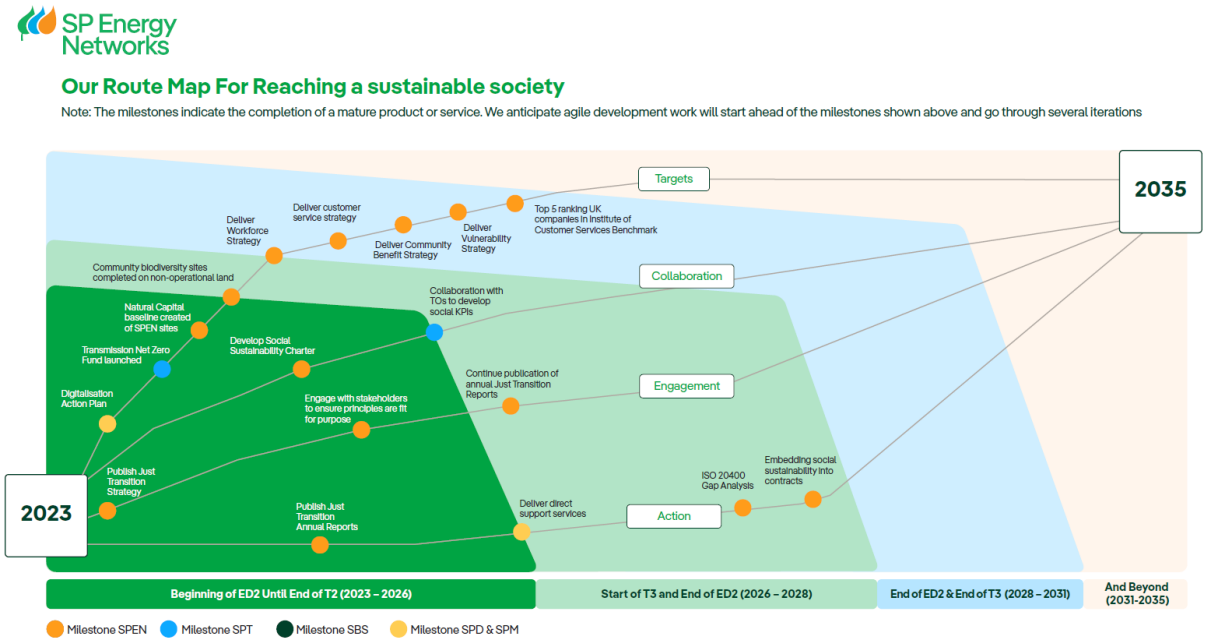


FIGURE 26 – ROUTEMAP TO A SUSTAINABLE SOCIETY

Internal Use

Stakeholder engagement

Our Sustainability Stakeholder Working Group supports our vision for a just transition to Net Zero GHG and our commitments on how we can make an impact. They have asked us to review our progress regularly and work and engage with our internal and external stakeholders including customers, our people, communities, regulators and other industry players to develop and implement solutions. We have integrated this into our plan.

Collaboration with TOs to establish a shared approach to social sustainability.

Feedback from our Sustainability Stakeholder Working Group further cemented our need to collaborate with the other Transmission Owners to drive consistency when reporting social benefits.

A joint TO social sustainability working group has been established, outlining beneficial areas of collaboration. Agreeing common metrics, tools and methodologies will ensure valuable and consistent data when reporting social sustainability data - increasing confidence that any claims made are accurate. Therefore, we have an agreed joint TO commitment in this area:

Commitment: Develop common supply chain social sustainability metrics, tools, and methodologies with other TOs.

The funding for this commitment will be included in our Indirect- OPEX, and each TO has asked for the same amount within their business plans. As part of the established TO social sustainability working group, peer reviews will be completed, validating use of social sustainability proxies, tools and reporting. External validation will be an additional step to ensure that the way we measure social value is consistent and accurate.

Support for SME's (Small, Medium Enterprise)

We are committed to building a resilient and sustainable supply chain by providing equal opportunities through support for SMEs. We will continue to collaborate to deliver SME support programmes through upskilling suppliers on latest trends and regulations.

Living Wage in Supply Chain

We are aware that paying a living wage can stimulate local economies by increasing the purchasing power of workers. This can lead to broader economic development and a more equitable distribution of wealth within communities where suppliers operate. In 2023, the ScottishPower was pleased to be accredited as a Real Living Wage employer by Living wage Scotland. The Real Living Wage is a voluntary UK wage rate which is set by the Living Wage Foundation each year to reflect the cost of living based on a basket of goods and services. This is higher than the UK Government's National Living Wage.

We will add a pre-qualification question to track which suppliers are paying their staff and contractors the real living wage.

Internal Use

8.5. Community Funding

This is how we enable a Just Transition and deliver lasting benefits in the communities we serve

Our communities are at the forefront of the journey to Net Zero and we want to ensure this is a fair transition for everyone. Upgrading our energy system will enable homes and businesses across the country to switch to greener energy solutions, but not all communities have access to expertise and funding they need to make that switch. To address these gaps in funding and capacity, we want to support local projects that cut carbon emissions, create social value and boost the local economy. This is how we will empower communities to take a more active role in the Net Zero transition and enable them to benefit from a more sustainable energy system.

In this section, we outline our proposals for funding that we will introduce to support our communities. This includes funding streams illustrated in the figure below.

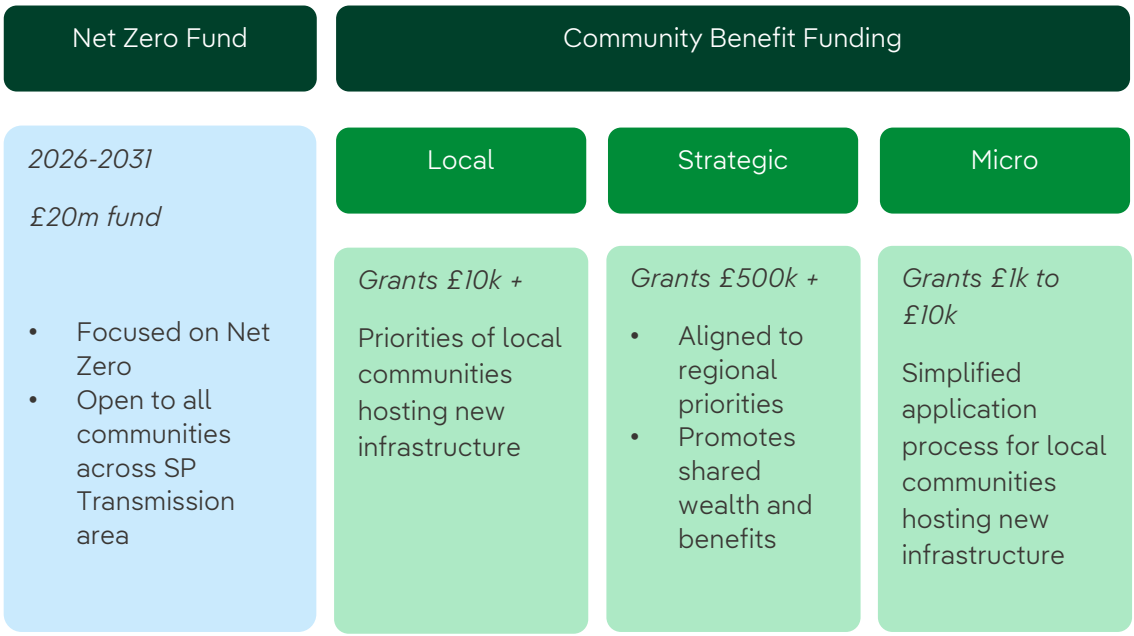


FIGURE 27 – PROPOSED COMMUNITY FUNDING STRUCTURE

We expect communities that will host our new transmission infrastructure projects to qualify for **Community Benefit Funding.** While we await government guidance on this, we want to be ready to support these communities. That's why we're requesting funding for running costs to start early engagement and help them explore their ideas and develop successful environmental, social and economic development projects. We will continue to engage with the UK government and Ofgem to ensure our plans are aligned to the government guidance and relevant regulatory mechanism.

Internal Use

Our stakeholders have also emphasised the need for funding that would be accessible to communities across our entire licence area to ensure the transition to net zero is fair for all. Therefore, we're requesting the **RIIO-T3 Net Zero Fund** that will enable communities, which are facing the risk of being left behind and do not qualify for Community Benefit Funding, to actively participate in the net zero transition and develop viable decarbonisation projects.

The scope and purpose of both community support proposals are summarised in the table below, with further detail on how we will deliver each in the subsequent sections of this annex.

TABLE 33 - SCOPE AND PURPOSE OF OUR COMMUNITY FUNDING

Funding	Regulatory mechanism	Purpose	Scope
T3 Net Zero Fund	Use-It-Or-Lose-It (UIOLI) Net Zero Fund Allowance	Provide advice and support to communities facing barriers in taking part in the net zero transition	• **All communities across our SP Transmission licence area**, with priority given to projects supporting consumers and communities in vulnerable situations. • **Tailored workshops and feasibility support** offered to communities to help them develop their project plans. • Projects focusing on **capital net zero measures** which lead to CO_2 savings and create social value
Community Benefits	• Funding allowance for eligible projects in line with government guidance • Separate Allowance for Community Benefit Running Costs	Enable communities hosting our new infrastructure to create lasting social, economic and environmental benefits	• **Communities impacted by our new Transmission infrastructure projects** • Projects aligned to the **local and regional community priorities,** delivering **social, environmental and/or economic benefits** for the local communities • **Capacity building and project planning support** to be tailored to community needs

Internal Use

How we did in RIIO-T1 and RIIO-T2

We have a great deal of experience in delivering community funding, having already dispersed almost £25m of funding to our communities through our industry leading Transmission Net Zero Fund and Green Economy Fund. We were the first Transmission Operator in the UK to launch this type of funding to help our communities actively participate in the transition to a greener future.

Our **£20m Green Economy Fund (GEF)** was established in 2018 to support and accelerate Scotland's green ambitions. It supported 35 projects across Central and Southern Scotland to enable decarbonisation of transport and heat, whilst boosting economy and addressing fuel poverty. The fund also supported building of low-carbon workforce by creating 58 full time jobs, whilst supporting over 600 jobs indirectly. Read more about the impact of the fund in the GEF Final Report.

Our **£5m Transmission Net Zero Fund (NZF)** was established in 2022 to provide advice and support to vulnerable communities on their journey towards achieving net zero. The fund provides financial and technical assistance to community organisations, charities and other not-for-profit organisations to improve and decarbonise heating systems, electrify transport, increase energy efficiency, and upskill communities. The funded projects are predicted to save 28,904 tCO_2e, the equivalent to driving around the earth over 7,000 times in an average car. On average we invested £256 to save each tonne of CO_2e, which is more efficient than the UK Government's £274/tCO_2e threshold for economic and efficient investment. 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.

The fund is not only creating a cleaner environment through carbon savings, it is also enabling a more equitable transition to Net Zero by supporting communities facing the risk of being left behind. 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 deliver social, environmental and economic benefits to deliver a Just Transition for all. The latest fund updates are available on our website.

The impact of these funds and the role they played in enabling a Just Transition to Net Zero has been externally recognised through industry award success. Our Green Economy Fund won the Outstanding Project Award at The Scottish Green Energy Awards and Planet Mark's Best Company Award, while our Net Zero Fund has been shortlisted for The EDIE Just Transition to Net-Zero Award and Planet Mark's Best Company Award in 2024.

Internal Use

We designed these funding programmes to respond to the needs of our communities, to create a positive impact and deliver an enduring legacy. We learned many lessons through the delivery of these funds and we have applied these to our RIIO-T3 plans.

Lessons Learned

1. **Robust governance is essential.** Clear task separation and independent decision-making ensure fairness and transparency in funding decisions.

   The Independent Fund Administrator provides scrutiny at the initial project assessment stage, enabling shortlisting. The Independent External Expert Panel evaluates the shortlisted funding applications to reach an unbiased consensus on funding recommendations.

2. **We need to support communities** to enable them to take advantage of funding opportunities. While many communities have great ideas, there is a risk that these ideas won't become projects, leading to a shortage of suitable applications. To tackle this, we need to understand local challenges and offer tailored support to build capacity and skills through workshops and project planning assistance.

3. **Leaving a lasting legacy is vital.** Projects that are embraced by the local community demonstrate a strong lasting legacy by generating measurable socio-economic and environmental value.

Internal Use

8.5.1. RIIO-T3 Net Zero Fund

We want the transition to net zero to be a **Just Transition**. To do that, we need to support communities which face barriers in joining the country's decarbonisation journey. Our engagement with communities indicated that the main barriers they face are limited capacity, knowledge and access to funding. As a network operator with pioneering experience in this area, we have the expertise needed to address the gaps and support our communities on this journey, enabling and inspiring them to play an active role in delivering Net Zero.

Our £5m Net Zero Fund (NZF) in RIIO-T2 was a great start, but it wasn't enough to meet the high demand from all eligible communities. The need for net zero funding is clear, and demand far exceeds supply with only 12 out of 40 applicants receiving funding in the last round of our RIIO-T2 NZF. That's why we want to do more and expand this vital funding programme in RIIO-T3, so we can support even more communities in their journey to a greener future.

Since our infrastructure investment will increase significantly in RIIO-T3, we are proposing an equivalent increase in funding for our communities. We will establish a £20 million Net Zero Fund to support more communities and deliver impact at scale. This fund will help communities identify and implement the best Net Zero solutions. Because this process takes time, we have set the fund value at £20 million to balance ambition with deliverability.

Why do we need this fund in addition to Community Benefit Funding?

There are two distinct reasons:

- The criteria of the Net Zero Fund are focused on reducing GHG emissions and the additional social and economic benefits this brings, providing a real focus on supporting communities to deliver net zero action. The Community Benefit funding has a significantly wider scope in that communities can use the funding for any environmental, social or economic priorities.
- The Net Zero Fund will be open to all communities in our Transmission network which will ensure equitable access to net zero support across our area. Community Benefit funding will be restricted to areas where new construction projects are located.

The feedback we received from our stakeholders highlighted the need for this fund and why it is so crucial in enabling a Just Transition to Net Zero. They said:

> *"Funding like this is vital for charities and cultural organisations with limited funding to achieve net zero effectively. The costs of capital works such as insulation are prohibitively high and funding opportunities like this are basically the only way that we're able to carry out these works. They will provide benefits for the organisation but also the surrounding community, and the funding is instrumental for that to happen. "*
>
> *– Glasgow Women's Library*

Internal Use

This is why we need a RIIO-T3 Net Zero Fund - to offer support to all communities we serve across central and southern Scotland and facilitate a Just Transition by enabling those who are facing barriers in taking part in Net Zero to accelerate their journey.

As a network operator we are at the forefront of national decarbonisation efforts, but our role extends beyond solely maintaining and upgrading our infrastructure. We want to deliver this transition in a fair and socially responsible way. To do that, we need to support consumers and communities we serve, especially those who are vulnerable and at risk of being left behind, through initiatives like this fund.

It's not just about funding projects, our Net Zero Fund enables communities to explore their net zero ideas and identify best solutions through the additional capacity building support.

Affordability Tolerance Research from Sustainability First and Yonder commissioned by National Grid Electricity Transmission, with input from SPEN, as part of RIIO-T3 engagement indicated that there is still limited understanding of net zero among energy consumers across the UK. Although most respondents recognised the importance of addressing climate change, there is a need for clear explanations of net zero. Our experience has shown that net zero workshops and tailored project planning support can effectively enable communities to improve their understanding of net zero and turn their ambitions into feasible projects. The case study below demonstrates how.

Internal Use

Case Study: Building net zero capacity through tailored support

Funding community projects is critical to enable local net zero ambitions, but some communities need additional support to develop those project plans. This is why our Transmission Net Zero Fund helps local communities develop their ideas through Net Zero Workshops and Project Planning and Feasibility Support.

Community Workshops

The first general net zero workshop was delivered in January 2023 with the aim to demystify Net Zero for community representatives. This workshop introduced over 70 people to net zero options that they can consider when decarbonising their homes and communities. We have also delivered 16 tailored community workshops since November 2022. Over 130 community representatives have attended these workshops which explored local challenges and routes to net zero.

> *"Workshop was a breath of fresh air and gave us the knowledge to move the project forward."*
>
> *"Excellent way to bring a disparate group of people together around a shared big idea."*
>
> *- Feedback from workshop attendees*

Project Planning and Feasibility Support

Our Project Planning and Feasibility Support offered further guidance in formalising their plans. We funded independent feasibility and energy assessment reports, which enabled communities to firm up their project plans. Not only does this support help to create robust project plans, but it also improves the quality of funding applications. We were delighted to see 10 out of the 12 supported projects take their plans forward and apply for our funding.

The independent external expert panel assessing the funding applications noted that projects which received feasibility support from the fund had higher quality applications compared to those who didn't. The panel highlighted that the feasibility report gives them greater confidence that projects are ready to go ahead as it provides the necessary technical assessments and supporting evidence.

Inspiring the wider community

To mark the launch of funding and raise awareness of net zero opportunities, we got schools involved. We hosted a Net Zero Day at Dumfries and Galloway college to bring to life the net zero vision of the next generation. 38 local school pupils were introduced to net zero through a tour of low carbon technologies and workshops designed to help them imagine a net zero future for their communities.

Internal Use

RIIO-T3 commitments

TABLE 34 - RIIO-T3 NET ZERO FUND COMMITMENT

Commitment	How	Implementation plan	Metrics for Measurement
Empower the Net Zero ambitions of our communities	We will deliver a £20m Net Zero Fund in RIIO-T3 to enable more communities we serve to take part in the transition to net zero. Building upon success of our RIIO-T2 Net Zero Fund, we will continue to provide vital support and tailored guidance to help communities develop robust Net Zero plans and projects. We will work with community organisations and charities across our license area to enable local decarbonisation initiatives and fund projects which will accelerate Net Zero transition and generate measurable social value.	• Appointment of the independent administrator and panel (Q2 2026). • First round of community workshops to open for applications (Q3 2026). • First round of feasibility support to open for applications (Q4 2026). • First round of funding to open for applications (Q2 2027). • All projects complete (Q1 2031).	• Reduction of CO2 emissions. • Social Return On Investment. • Number of people benefitting from a funded project. • Workshop attendee's perceived increase in their Net Zero knowledge.

RIIO-T3 Investment and Benefits

This £20m UIOLI Allowance will cover fund administration, operating costs, marketing and promotion of the fund, capacity building and technical support services, as well as funding for community projects. We have used the data from our 2023/2024 RRP Submission to profile our RIIO-T3 Net Zero Fund costs, which are outlined in the table below.

Based on our previous funding experience, we will drive cost efficiencies in marketing and resource expenditure. Marketing expenditure will now represent 2.5% of the total spend (from 5% of the total in RIIO-T2) and resourcing expenditure will constitute 5% of the total spend (from 16% of the total in RIIO-T2).

Internal Use

TABLE 35 - RIIO-T3 FORECASTED COSTS FOR THE NET ZERO FUND

Cost Description	2027 £m	2028 £m	2029 £m	2030 £m	2031 £m
Capacity building support and events for communities	0.144	0.144	0.144	0.144	0.144
Feasibility Support	0.320	0.320	0.320	0.320	0.320
Fund Delivery and Technical Support	0.200	0.400	0.400	0.400	0.200
Marketing expenditure for promotion of the funding, outcomes and case studies	0.100	0.100	0.100	0.100	0.100
Resource Expenditure	0.250	0.250	0.250	0.250	0.250
Funding for community projects	2.000	3.330	3.330	3.330	2.340
Total	3.014	4.544	4.544	4.544	3.354

We will measure impact of the funding activities throughout the fund delivery and upon completion. Some of the benefits that we are expecting to be realised as a result of our activities include:

- Increase in the Net Zero knowledge and capacity
- Increase in the likelihood of a community net zero project being taken forward
- Reduction of CO_2 emissions
- Energy cost savings
- Access to warm spaces
- New job opportunities
- Improved quality of life

We use a Social Return on Investment (SROI) framework to evaluate projects applying for funding and to assess the social value delivered upon completion of projects.

We anticipate an overall SROI (**Net Benefit per £ spent**) of **£3.10*** to be realised over the maximum benefit lifetime of the projects that have been funded by our RIIO-T2 Net Zero Fund. We expect projects which will be funded by our RIIO-T3 Net Zero Fund to deliver similar value for the local communities.

**The forecasted SROI figure is based on allocated NZF funding in isolation of the other costs funded via other sources. This rests on the assumption that, without this funding, the projects would not take place.*

Internal Use

RIIO-T3 Actions

Our RIIO-T3 Net Zero Fund structure and governance will be based on our RIIO-T2 experience. Reflecting on the lessons learned and feedback we received from the fund applicants and stakeholders, we will take the following steps in RIIO-T3:

TABLE 36 - STAKEHOLDER FEEDBACK AND OUR RIIO-T3 ACTIONS FOR THE NET ZERO FUND

Lessons learned / Feedback from applicants and stakeholders	RIIO-T3 Actions
Expert advice and support: Feedback we received following the delivery of NZF workshops indicated that communities found workshops useful and that attending workshops increased their confidence in taking the project forward.	We will continue to offer capacity building support through workshops and feasibility support.
Specialised and technical support: Need for more specialist advice and project specific support.	We will widen feasibility support scope to provide additional support. Feasibility support will help applicants find solutions to a defined challenge or a project idea, whilst supporting preparation of the documentation they need to apply for funding.
Staff capacity and reliance on volunteers: Applicants highlighted that the NZF requirement to have a dedicated project manager and providing funding for their time is extremely valuable as it enables them to deliver a project whilst addressing one of the key barriers for community organisations and charities which is lack of staff capacity or reliance on volunteers.	We will retain our funding criteria regarding project management costs in line with the award amount and project complexity to enable effective project management and delivery support.
Support and guidance during the application process and project delivery: • Projects which have successfully secured funding also noted that the advice and guidance they received from the Fund Administrator (project monitor) was beneficial.	The Independent Fund Administrator will continue to provide guidance and monitor progress to ensure successful project delivery.

Internal Use

• Increasing capacity for more support and providing general resources like lists of trusted contractors. • Application Process: Need for more help and guidance during the application process, and modernising the process (e.g., digital contracts).	The administrator will also direct applicants to resources such as lists of trusted contractors and provide guidance at the application stage for both Expression of Interest and formal application process.
Reporting Requirements: Challenging for volunteers.	We will offer guidance for reporting and provide customised reporting templates for each project, but it will remain mandatory in line with agreed milestones due to regulatory requirements.
Long-term Support: Need for long-term support and local, in-person assistance rather than remote advice.	Due to price control periods, support is timebound. However, by embedding capacity building into the fund, we aim to extend value of the support delivered and leave a positive legacy in the community. Community workshops take place in-person or online depending on community needs and preferences. Project planning and feasibility support often necessitates a site visit, where an element of the overall support is delivered in-person.

Internal Use

Fund Structure

The fund will be delivered in three stages outlined below. While the structure of the fund will remain the same as in RIIO-T2, the scope of support offered at the feasibility stage will expand to address the identified gap and enable communities to explore feasible solutions to an identified local net zero challenge rather assessing a pre-defined project plan.

TABLE 37 - STAGES OF THE FUND

Stage of the fund	Objective	Support offered to communities
Tailored Community Workshops	Provide expert guidance and advice to help communities identify appropriate net zero solutions and develop their plans	• General workshops demystifying net zero and introducing different technologies and routes to decarbonisation. • Workshops tailored to community needs to explore low-carbon solutions to local challenges and help them develop their plans.
Project Planning and Feasibility Support	Enable communities to explore feasible solutions to a defined challenge/ project idea and develop robust project plans.	Technical support to assess feasibility of the identified solutions and help communities develop formal project plans
Funding	Accelerate decarbonisation and create measurable social and environmental impact	Funding support to enable communities to accelerate decarbonisation and deliver projects which wouldn't be able to go ahead without our funding.

We will deliver each stage of the fund through multiple rounds to enable communities to access the support they need at their own pace. Depending on the level of project readiness and support they need, they can apply at any stage of the fund without necessarily applying for each stage. The timescales outlined in the figure below show when each phase will be delivered, with staggered application windows to allow us to promote one stage of the fund at the time.

Internal Use

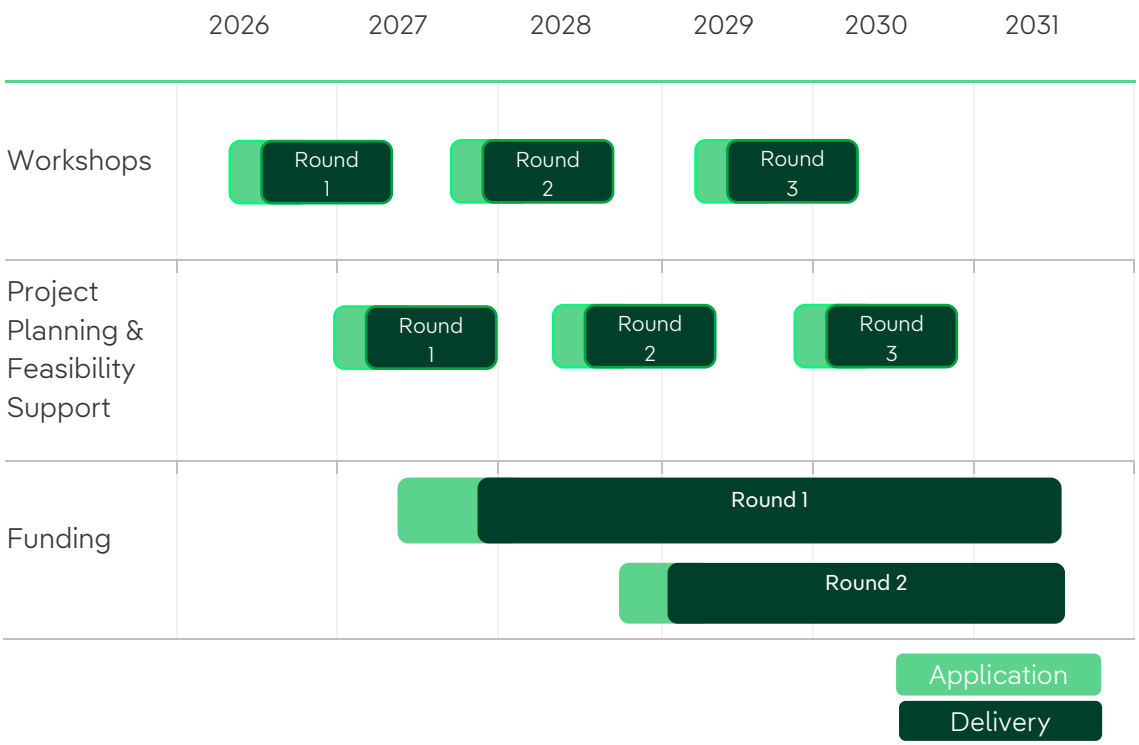


FIGURE 28 – RIIO-T3 NET ZERO FUND DELIVERY TIMESCALES

Governance

The RIIO-T3 Net Zero Governance will follow the same principles as our RIIO-T2 Net Zero Fund. Our governance framework has been built on the success and lessons learned from both our Green Economy Fund and the Transmission Net Zero Fund. It is designed to be transparent, independent, and fair, ensuring every funding decision delivers best value for our communities.

We will appoint an Independent Fund Administrator to set clear guidelines, evaluation criteria, and scoring systems. At the heart of our process is an application review conducted by the Independent Fund Administrator, which eliminates conflicts of interest and ensures the projects meet the criteria. An independent panel of external experts, with diverse expertise, will review and recommend projects for funding, which will then be passed to the SPEN Board of Directors, legal and compliance experts to ensure regulatory requirements are met and for final sign off. The governance process will follow the steps outlined in the figure below.

Internal Use

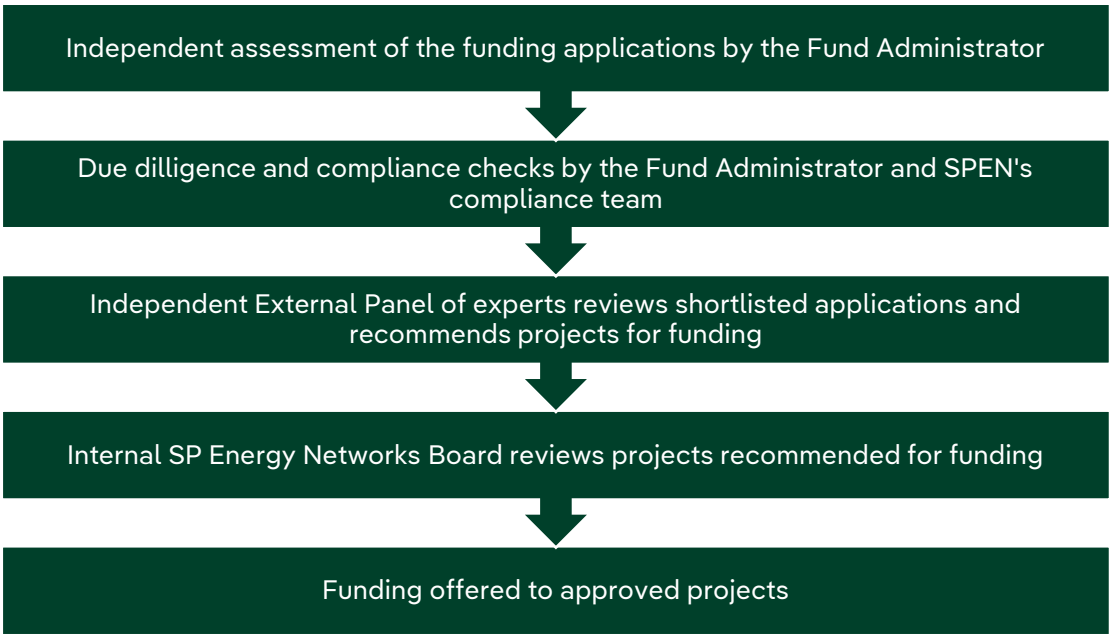


FIGURE 29 - FUNDING GOVERNANCE PROCESS

Measuring Impact

As a regulated business, it is crucial for us to effectively report how funds have been distributed and how funded projects are creating value for the communities we serve. To achieve this, we track quantifiable metrics to assess the impact of support we provide and projects we fund.

We have embedded impact assessment into all our funding and support activities. For each stage of the fund, impact is measured as follows:

1. **Workshops:** We assess the perceived increase in knowledge among attendees after the workshop and how confident they feel about moving their project ideas forward.
2. **Feasibility Support:** We compare the likelihood of a project progressing to the delivery stage before and after our assistance. A positive outcome at this stage might also involve deciding not to proceed with the initiative if it is found unfeasible, enabling prudent spending of resources.
3. **Funding Projects:** We measure key environmental, economic, and social indicators for each project. This helps us capture both qualitative and quantitative benefits, providing a comprehensive view of the wider impact. The indicators we track include:
    - Environmental: CO_2 reductions, energy efficiency improvements
    - Economic: Cost savings, job creation
    - Social: Boosted community capacity, enhanced quality of life and health, supporting vulnerable households and addressing fuel poverty

Internal Use

To ensure that community organisations and charities, which often rely on volunteers, get the help they need to capture and report impact effectively, we offer guidance and support throughout the process. This includes:

- Providing customised reporting templates for each project
- Offering briefing workshops and guidance on reporting and impact measurement
- Regular check-ins throughout project delivery to ensure accurate and consistent reporting

The indicators captured at each stage of the fund enable us to build a full picture and evaluate the overall impact of the fund. We use the metrics gathered throughout each stage to apply a Social Return on Investment (SROI) model, which provides a holistic overview of the benefits communities receive from our activities and funded projects, helping us understand and share the real value created by the funding.

RIIO-T3 Stakeholder engagement

Our approach to Stakeholder Engagement is outlined below, describing how we will engage with stakeholders and address needs of applicants at each stage of the fund delivery:

1. Raising Awareness

To effectively raise awareness about the new fund, we will leverage our existing stakeholder database to directly reach over 700 community organisations across central and southern Scotland. Additionally, we will collaborate with third sector community organisations to extend our outreach to the charities and community groups they support. Our strategy also includes utilising media channels for both raising awareness and celebrating success. Furthermore, we will liaise with internal stakeholders like our colleagues from stakeholder engagement, community liaison, land & planning, sustainability, and project teams who have direct interactions with the communities we serve.

2. Supporting Applicants

The Fund Administrator will offer support to applicants throughout the application process. Guidance on how to apply, what constitutes a high-quality application, and best practice will be shared during application workshops or drop-in sessions.

3. Ongoing Guidance and Monitoring

For projects that successfully secure funding, the Independent Fund Administrator will continue to provide guidance and monitor progress to ensure successful project delivery. This ongoing support includes regular check-ins, progress reviews, and guidance on any challenges that may arise during the project implementation. By maintaining close communication and offering continuous support, we aim to ensure that funded projects achieve their intended outcomes and create meaningful value for the communities they serve.

Internal Use

8.5.2. Community Benefits

Futureproofing our electricity system to support the ambitious decarbonisation plans across the country is not just about wires and towers – our communities are at the forefront of this transition.

The energy transition will unlock many long-term benefits for our communities – from cleaner air and healthier ecosystems to cost savings and a sustainable energy system. Nevertheless, it brings some challenges as the construction of infrastructure can disrupt local communities and the environment. We recognise the opportunity to unlock lasting social, economic, and environmental benefits and build a positive legacy in the communities that will host these new developments. As the investment into the energy infrastructure ramps up in the upcoming RIIO-T3 period, we want to take our communities on this journey with us by delivering **Community Benefits**.

What are Community Benefits? Community benefits, in the context of network infrastructure, refer to an additional mechanism, separate from the planning process, aimed at enabling communities to directly benefit from hosting electricity infrastructure. They aim to enhance the local economy, society, and environment, and can also drive growth in the local area by investing in local priorities such as infrastructure, supply chains, and skills (UK government, 2023).

We are engaging with the UK Government, Scottish Government and other Transmission Operators to develop a consistent approach to community benefits. Whilst we still await publication of the government guidance, we want to make sure that we are in a good position to start delivering for our communities, which is why we have consulted our stakeholders to ensure that our plans outlined below reflect the needs of the communities we serve.

Not only have we spoken to community organisations, development trusts, charities and other community representative bodies, but we have also listened to feedback from community members through our public consultation. To ensure that our plans are inclusive, we have also organised focus groups with 'hard-to-reach' stakeholders representing rural communities, vulnerable customers, young people and older people. Through this engagement we have gathered insights which helped us refine our funding structure, governance and delivery plans. The plans we present in this section have been designed to be flexible and adaptable to unique needs of different communities, whilst removing barriers for vulnerable and 'hard-to-reach' stakeholders to enable all members of the local communities to get involved and join this journey.

Internal Use

Investing in Community Benefits is crucial for fostering positive engagement with our communities and leaving a positive legacy. To ensure timely engagement and project readiness when the Community Benefit Funding allowance for eligible projects is released, we are requesting running costs separately. This will allow us to prepare effectively and ensure that community projects are ready for funding as soon as it becomes available.

Through analysis of our RIIO-T3 projects and draft Government Community Benefit guidance we anticipate that projects delivered during RIIO-T3 will be eligible for £92 million in community benefit funding. To manage this scale of funding, we will need to initiate early engagement and ensure that robust operational plans are in place for each funding stream. Our operating costs will cover this extensive local community engagement alongside capacity building services, legal activity, media & marketing activations, and funding administration. To drive efficiencies and ensure we deliver value for money in RIIO-T3, we are proposing a separate funding request for the operating costs outlined in the table below, alongside funding we expect will be unlocked in RIIO-T3 for community projects.

We have based the operational costs forecast on our extensive experience of running large-scale local community funds in RIIO-T1 (Green Economy Fund) and RIIO-T2 (Net Zero Fund). These costs include provision for early community engagement and capacity building, alongside 3rd party administration, marketing, legal, and resourcing costs. Our resource modelling indicates we can achieve 33% efficiency in the process of scaling up from a small fund to running a much larger series of funds. Our modelling shows these resources ramping up across 2026 – 2028, aligned to the amount funding we expect to be available in this period.

TABLE 38 - FORECASTED COMMUNITY BENEFIT FUNDING AND OPERATIONAL COSTS

Cost Description	2027 £m	2028 £m	2029 £m	2030 £m	2031 £m
Operational costs	3.246	3.667	3.950	3.950	3.950
Estimated Community Benefit Funding	9.081	12.719	24.504	19.287	26.758

Internal Use

We are expecting Community Benefit Funding to unlock a variety of social, environmental and economic benefits for the local communities. These include, but are not limited to:

- Reduction of households' or community's energy costs to tackle fuel poverty
- Reduction of CO_2 emissions
- Protection and regeneration of the local environment
- Job Creation
- Skills development
- Improved quality of life

We are committed to ensuring that this funding builds a legacy and delivers best value for our communities. This is why we are embedding impact assessment into our processes as outlined in the subsequent sections of this chapter.

RIIO-T3 Actions

Our Community Benefit Funding will build upon our award-winning Green Economy Fund and Net Zero Fund, using the knowledge and experience we gained over the years.

We have also shared our draft plans publicly with our communities and key stakeholders for feedback to ensure that our plans reflect needs of local communities and regional aspirations. See Figure 8.3.2.1 below for key insights from our public consultation, focus groups and bi-lateral engagement. This feedback has informed our Community Benefit Principles and shaped our governance and delivery plans.

Our Community Benefit Principles set out our aims and purpose of our Community Benefit Funding. We will:

- Work in partnership with communities to understand their needs, ambitions and plans for social, economic and environmental sustainability.
- Provide tailored support for communities to get the right skills, knowledge, capability and structures in place.
- Put in place clear independent assessment of funding allocation with fair and straightforward governance.
- Deliver lasting outcomes for communities aligned to their ambitions.
- Evaluate the benefits that funding has delivered to communities, develop case studies, and share learnings publicly.

Internal Use

TABLE 39 - KEY INSIGHTS AND ACTIONS IN RESPONSE TO STAKEHOLDER FEEDBACK ON OUR COMMUNITY BENEFIT PLANS

Feedback Themes	Stakeholder Feedback	Our Actions
Engagement and Governance	**Early Engagement**: Importance of early engagement to ensure transparency and understanding of funding.	Update timeline to show that planning engagement starts earlier. We will work with local organisations to avoid consultation fatigue.
	Community Panels: Need for clarity on the role and decision-making process of community panels.	Clarify the definition of host/impacted communities and the advisory role of the panel. Ensure fair representation and inclusion of hard-to-reach groups by being flexible and open to compensation.
	Governance and Transparency: Importance of independent application assessments and transparent processes to build community trust. The governance structure was seen as appropriate for large-scale projects but cumbersome for smaller local initiatives. SPEN's role questioned – if SPEN was to overturn the decisions made by the panel, it would discourage communities from engaging in the future.	Remain committed to independent decision-making. Community panels will have advisory and observational role, while SPEN's board will review panel's recommendations to ensure compliance with regulatory requirements. The same independent decision-making principles will apply to smaller initiatives, with micro-grant processes to be detailed in our operational plans.
Capacity Building and Support	**Capacity Building and Resources**: Need for adequate resources and support for small organisations.	Tailor capacity building approach to community needs. Fund resource allocation for project development and delivery.
	Administrative Burden and Reporting Support and Training: Necessity for support and training to help community groups understand and implement the Social Return on Investment (SROI) model effectively.	As a regulated business, we must report funding outcomes, so we will need to request quantifiable reporting to agreed milestones. We'll tailor our approach and offer support to capture specific project outcomes beyond SROI metrics.

Internal Use

Community-led approach and flexibility	**Integration with Existing Plans:** Importance of aligning support with existing local plans and priorities to avoid duplication and ensure relevance. Importance of aligning projects with regional strategic priorities.	Tailor our support to the community's needs and adapt it to existing plans to avoid duplication and fatigue. Projects applying for strategic funding will need to demonstrate alignment with regional and/or national strategic priorities.
	Community-led Projects and Eligibility of Local Authorities: Emphasis on funding community-led projects. Local Authorities should not overshadow community groups. Many respondents believe Local Authorities should not apply directly for funding but can be project partners.	Amend our list of eligible organisations. Local Authorities will only be able to apply in consortium with a community organisation to ensure that projects are truly community-led.
	Flexibility and Customisation: Call for flexible support and project categories tailored to community needs. Requests to include projects that support economic development, skills training, and employability. Strong support for projects focused on decarbonisation, energy efficiency, and renewable energy. Importance of addressing fuel poverty and improving home energy efficiency.	Consider projects on their merits and alignment to community needs. Rename social projects category to include economic development and cover skills development. Add fuel poverty and household examples to the decarbonisation and energy efficiency category.
	Support for Smaller Organisations: Concerns about the £10k minimum grant limit.	Explore micro-grant schemes and define administrative approach in the operational plans.

Taking into account all the stakeholder feedback we received and our previous funding experience, this is how we will deliver Community Benefits in RIIO-T3:

Internal Use

Fund Structure

Given the record level of investment in Transmission network infrastructure expected over the RIIO-T3 period, we anticipate that the scale of our community benefit funding will be significant, as previously mentioned, an estimated £92m. This funding will unlock meaningful benefits for communities but will bring administrative challenges that we need to meet from day one.

We want to ensure that the full funding amount for each project is available for our communities, therefore we propose that administrative costs for operating our Community Benefit pot will be funded separately. We will work with Ofgem to ensure that these costs are as efficient as possible and at the right scale to allow us to deliver an impactful scheme.

To ensure we are delivering best value for our communities, we have considered lessons learned from our existing and previous funds. Establishing and managing a fund takes a significant amount of time and resources, which is why we have designed a structure that will be applicable and replicable across our upcoming Transmission infrastructure projects eligible for community benefit funding.

We propose distributing funding through the following mechanisms:

1. Local Funds

    - Our local funds will address the priorities of local communities impacted by our new transmission infrastructure projects. We anticipate the need to create separate governance arrangements for projects at a scale that will attract a substantial amount of Community Benefit funding.
    - Area of Eligibility - Targeting local communities within our SP Transmission licence area that are impacted by new transmission infrastructure projects.
    - Funding Amounts - Projects would be able to request funding of £10k and above.

2. Strategic Funding

    - To ensure consistency in the funding approach by TOs across the UK and in response to stakeholder feedback calling for wider funding promoting shared wealth and benefits, we will provide access to funding that can be utilised for larger community projects that can be applied to a wider geographical area. This Community Benefit funding will look to support projects that are aligned to Local Authority, Scottish Government, or regional priorities.
    - Area of Eligibility - Open to all communities across our SP Transmission licence area across Central and Southern Scotland, however, projects must be able to demonstrate the benefit to communities impacted by new Transmission infrastructure projects.
    - Funding Amounts - Projects would be able to request funding of £500k and above.

Internal Use

3. Micro Funding

- Some communities have highlighted the need for micro-grants to support projects which might request less than £10k. We will be open to funding smaller projects through micro-grants if the projects meet the funding criteria and demonstrate alignment to local community priorities, measurable impact and long-term benefits.
- Area of Eligibility - Targeting local communities within our SP Transmission licence area that are impacted by new Transmission infrastructure projects.
- Funding Amounts - Projects would be able to request funding of £1000 to £10k.

RIIO-T3 Stakeholder Engagement

Our approach to engagement during RIIO-T3 will include:

Logical Engagement

Engagement regarding community benefits and the project business-as-usual engagement will be separate, however, the teams will work in parallel. The level of engagement will be proportional and inherently linked to the project size, scale, and impact. We will engage with established community groups and organisations operating in the local areas to avoid duplication and consultation fatigue. We will also carry out research to develop a better understanding of any existing funding mechanisms that communities have access to and structures in place.

Early Engagement

Once the project route is defined, we will initiate early engagement. We will aim to start this engagement 2 years prior to any construction works beginning.

Identifying the Community and Boundary

We will engage with communities identified during the planning process and be flexible in our approach to ensure that we are as inclusive as possible. We will:

- Prioritise communities closest to the infrastructure
- Analyse impacts such as visual amenity and construction noise and traffic
- Reflect the interconnectedness of local places, their common priorities and needs and existing boundaries.

Broad Engagement

We will engage with a wide range of community organisations to ensure that we are engaging with the right people, including those who are hardest to reach. We will conduct due diligence in the initial stages of engagement to identify existing community organisations in each area.

Internal Use

Capacity Building

We will work with communities to understand their existing capabilities and provide any additional support or training needed to ensure that communities can fully participate in the Community Benefits process.

Community Led Decision Making

We will engage with communities to support the creation of community action plans or to develop a better understanding of their existing plans. This will help communities to plan strategically for the priorities of their local area, ensuring any funding opportunities which do emerge are community-led and aligned with local ambitions.

Community Panels

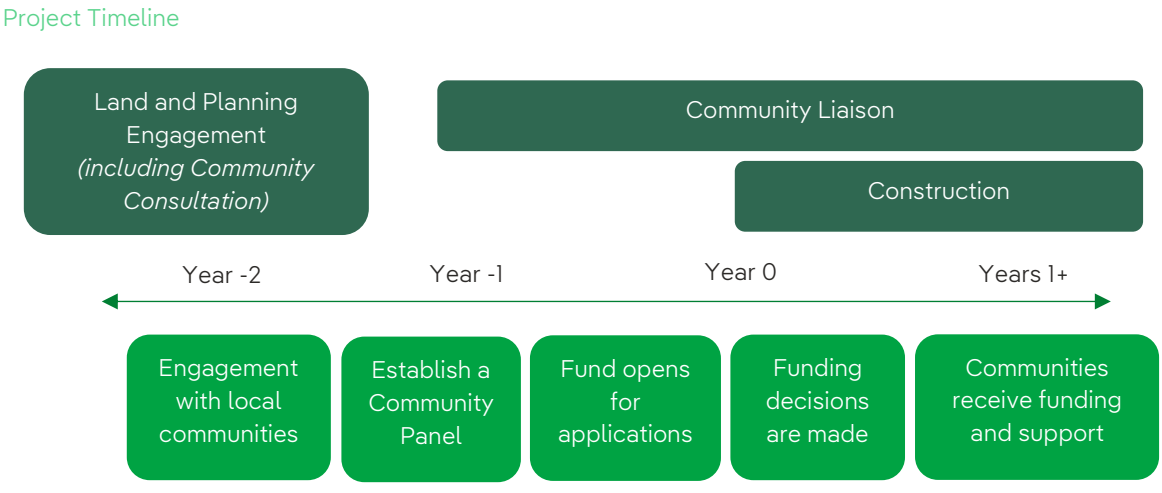
We will establish a community panel for any project where this is deemed necessary according to size, scale, and community impact. We anticipate that this will be for projects attracting a large amount of Community Benefit funding, however we will define criteria for panels and review this as each new project comes forward.

The panel will be responsible for ensuring that the community views are represented, defining community priorities and observing the independent decision-making for project awards.

Our projects sometimes span across multiple community boundaries or Local Authority areas, so we will need to ensure that all impacted communities have an opportunity to have their say. This is why we anticipate panels will consist of community representatives from each area, including hard-to-reach stakeholders.

Since Community Benefits are an additional regulatory mechanism, which is separate to the planning process, our stakeholder engagement will be carried out independently but in parallel with project business as usual engagement. The timeline below outlines this process.

FIGURE 29 - COMMUNITY BENEFIT AND PROJECT ENGAGEMENT TIMELINE



Internal Use

Enabling Local Community Plans

It is essential that we ensure that any Community Benefits being delivered meet the needs, aims and ambitions of the local or wider community.

Our experience has shown that local workshops with community groups are invaluable for both parties. We anticipate that some communities might already have plans in place, while others might need some support to develop their plans. To empower our communities and ensure they have access to the expertise needed to develop their community plans and/or projects, we will work with them to understand local priorities and offer tailored support. This will enable community members to actively participate in shaping their local plans and turn them into actions.

We plan to offer this support by using the following methods:

1. **Community Workshops**

   These sessions will enable community members to explore different routes that can address their community priorities and develop project ideas.

2. **Project Planning & Feasibility Assistance**

   We will provide project planning and feasibility support to enable communities to take their project ideas forward. Our experts will help guide the eligible communities through the feasibility assessment process to help them gather data, assess viability, and develop formal project plans.

3. **Funding Support**

   Projects funded through our Community Benefit funds will have to be aligned to the local community priorities and demonstrate that they will be creating social value by delivering social, economic and/or environmental benefits. We anticipate that projects will fall into one of the project categories listed below, however, this is not an exhaustive list. Each project seeking funding will be considered on its own merits, against the eligibility criteria and being able to demonstrate alignment to local community priorities.

Internal Use

Decarbonisation and energy efficiency projects	Social and economic development projects	Environmental projects
• Energy efficiency improvements in buildings, with a focus on domestic or community owned buildings • Low and zero emission renewable heating systems • Micro- to small-scale renewable power generation with a focus on domestic or community owned buildings • Electric vehicle and e-bike transport and infrastructure	• Skills development, training and employability • Alleviating poverty and fuel poverty • Improving wellbeing and quality of life • Public participation in science, arts, sport	• Creating or improving community gardens, ponds, community open space and woodland • Improving biodiversity • Footpath, path, bridleway and cycle-path improvements • Projects that improve public access to land • Nature reserves and habitat creation or conservation

FIGURE 30 - EXAMPLES OF PROJECTS ELIGIBLE FOR COMMUNITY BENEFIT FUNDING

Empowering communities to tackle climate and biodiversity crises

One of the areas our Community Benefit Funding will support is enabling communities to develop and take action to tackle the climate and biodiversity crises. Our Transmission Community Benefits Team will work closely with our Sustainability Team to identify community led plans and opportunities for biodiversity, natural capital, climate change resilience and carbon offsetting. We will work with communities to help them turn their plans into actions through our workshops and project planning assistance to equip them with the skills and knowledge they need to deliver these environmental initiatives.

There are clear synergies between our aspiration to be a sustainable network business and the aspirations of communities to improve their social, environmental and economic sustainability. This section ties our **Climate Action**, **Action for Nature, Climate Resilience** and **Community Benefits** together, providing examples of where benefits and funding to communities could be maximised.

Natural Capital: We will carry out natural capital assessments on all new Transmission construction projects likely to impact ecosystem services and ensure we leave a positive legacy for our communities by delivering natural capital enhancement. (Please see Ecosystem services - nature's benefits | NatureScot for explanation of Natural Capital and ecosystem services).

Climate Resilience: The regulating ecosystem services related to flood management and erosion control are two priority areas for us, both for the resilience of our network and the resilience of our communities. Our plans for RIIO-T3 include catchment area nature-based solutions for climate resilience, this includes an investment of C£3m to deliver five pilot

Internal Use

projects. We will target areas where our assets are at the greatest risk, taking a proactive approach to resilience. We will work with Adaptation Scotland and place-based Climate Change Adaptation Groups to ensure these adaptation projects not only reduce the risks to our network but to the surrounding communities. Climate change is a real concern for communities vulnerable to climate change risks. The November 2023 Climate Change Committee Report *Adapting to Climate Change - progress in Scotland* highlighted "Public engagement around adaptation in Scotland is high but has not consistently led to individuals taking action to prepare. Most respondents to a 2021 survey had personal experience of extreme weather events (86%) and agreed that Scotland needed to adapt to climate change impacts immediately (78%)."

Biodiversity: Our Sustainable Business Strategy targets Nature Positive for our direct impacts by 2030. One of the actions we will take to achieve this is to deliver at least 10% Biodiversity Net Gain on projects subject to planning consent. (See section 5 Action for Nature). We will restore biodiversity on site as far as possible, however, with limited land holdings associated with our assets we need to deliver net gain offsite through collaboration partnerships. In addition, we will develop our **carbon offsetting** approach to ensure we can compensate residual emissions in a way which maximises benefit to nature and our local communities.

There are several ways we can maximise benefits to nature and our communities through our RIIO-T3 EAP investment for Climate Action and Action for Nature and the Community Benefits fund, for example:

- Where communities have a range of priorities there is an opportunity to deliver community plans for nature through our RIIO-T3 investment detailed in the areas above, Community Benefits Fund can then be focused on other priority areas.
- The nature partnerships developed to deliver our Biodiversity Net Gain commitments may highlight strategic regional opportunities for community led nature restoration and regeneration projects at scale, for which they may wish to apply for Community Benefit Funding.
- Communities may decide capacity/ capability/ skills development in nature regeneration is an area of focus for Community Benefit Funding, enabling the community to develop and deliver nature projects, opening up income streams from carbon offsetting or biodiversity units to increase economic sustainability in the area.

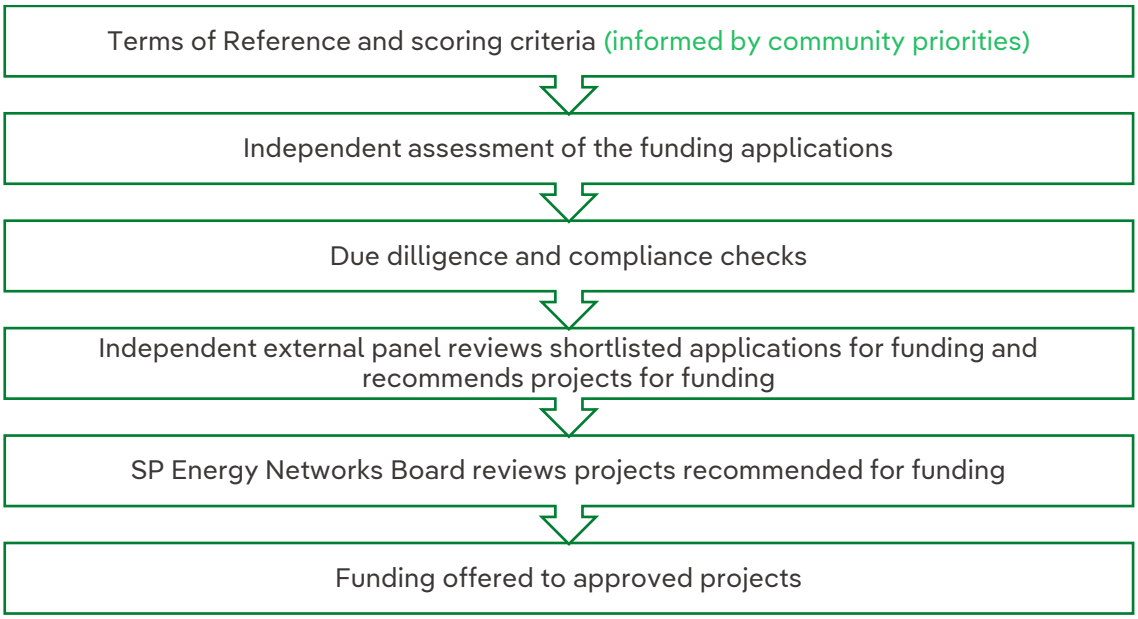
Internal Use

Governance

Community Benefit funds are a powerful tool for driving positive change and fostering sustainable development. To maximise impact of funding, we are committed to fair and clear governance.

Drawing from our extensive experience with the Green Economy Fund and Net Zero Fund, we crafted a governance framework that centres around transparency, independent decision-making and equitable distribution of resources. This framework is not just a set of rules; it's a promise to our communities that every decision is made with their best interests in mind. The figure below illustrates the process.

TABLE 40- COMMUNITY BENEFIT FUNDING GOVERNANCE PROCESS



Independent funding reviews are central to our process, preventing conflicts of interest and ensuring funds meet community needs. The Fund Administrator will carry out independent assessments of the funding applications against the fund's criteria. Additionally, an independent panel of external experts with diverse expertise will be formed. This panel will review and recommend shortlisted projects for funding.

We remain committed to independent decision making and will apply these principles to all funding decisions. Community panels will have advisory and observational role, while SPEN's board will review funding recommendations to ensure compliance with regulatory requirements. The same independent decision-making principles will apply to smaller initiatives, with micro-grant processes detailed in our operational plans for local funds. However, the governance process for micro-grants will be simplified to minimise administrative burden and accelerate the grant award process.

Internal Use

Independent reviews and recommendations are vital for maintaining the integrity of the fund providing:

1. Transparency: An independent administrator conducts the initial evaluation of applications and provides feedback to all applicants, ensuring a transparent process.

2. Impartiality: As independent bodies, the administrator and the external panel of experts conduct impartial project assessments - ensuring that all applications are judged fairly, based on their merits.

3. Quality Assurance: Independent scrutiny guarantees that only projects meeting the highest standards are selected, ensuring quality outcomes for the community.

Transparency and fairness are essential if we are to build trust in the communities the funding seeks to serve. The independent administrator's role is critical, providing unbiased evaluation and diligent monitoring of each project. This level of scrutiny is our commitment to maintaining the highest standards of governance and delivering outcomes that are fair, transparent, and, most importantly, beneficial to the communities we serve.

Assessing impact of Community Benefit Funding

Ensuring that community benefit funding really makes a difference is our mission. Comprehensive monitoring and evaluation are crucial to guarantee that the support we provide translates into sustainable and meaningful improvements in people's lives.

Projects must demonstrate that they are creating benefits for their community and align with local community priorities or local community action plans. These benefits should enhance the social, economic, and environmental wellbeing of the community and provide long-term advantages. We expect projects to focus on specific objectives aligned to community priorities like:

- Reduction in households' or community's energy costs
- Improving air quality and reducing GHG emissions
- Protection and regeneration of the local environment
- Job Creation
- Developing the local economy and skills improvement
- Supporting consumers and communities in vulnerable circumstances

This list is not exhaustive, and we will remain flexible in our approach, recognising that each community has a unique set of needs and priorities.

Internal Use

While we understand that reporting requirements can seem daunting for small volunteer-run organisations, we are required to report funding outcomes as a regulated business. Therefore, we will request funded projects provide quantifiable reporting for the agreed milestones. To ensure they are equipped with the right skills and knowledge to understand reporting requirements, we will provide guidance and support whilst customising our approach to capture metrics and outcomes relevant to each project.

It's not just about crunching numbers; we want to capture stories of change. That is why we will track various qualitative and quantitative metrics - from the environmental wins like CO_2 reductions; economic benefits like cost savings or job creation, to social advancements such as boosted community capacity and enhanced quality of life. The Case Study below highlights Green Economy Fund outcomes and the tracking and dashboard methodology which we continue to use to demonstrate success.

From the get-go, we'll embed SROI into our processes. By requesting projected benefits at the application stage, we will be able to evaluate the potential impact of projects and use this insight to guide our decision-making. It doesn't end with the application assessments - through consistent tracking, we will be able to witness the impact of projects across their entire lifecycle and evaluate the outcomes.

Our approach to monitoring and evaluating our community benefit funding activities is our commitment to ensuring that the awarded funding delivers a long-lasting positive impact.

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Case Study: Assessing the socio-economic impact of the Green Economy Fund

Our Green Economy Fund (GEF) was a pioneering initiative, run from 2018 to 2021, aimed at accelerating Scotland's journey towards a greener and more sustainable future. The assessment of the fund's impact was critical to ensuring that the projects delivered tangible benefits.

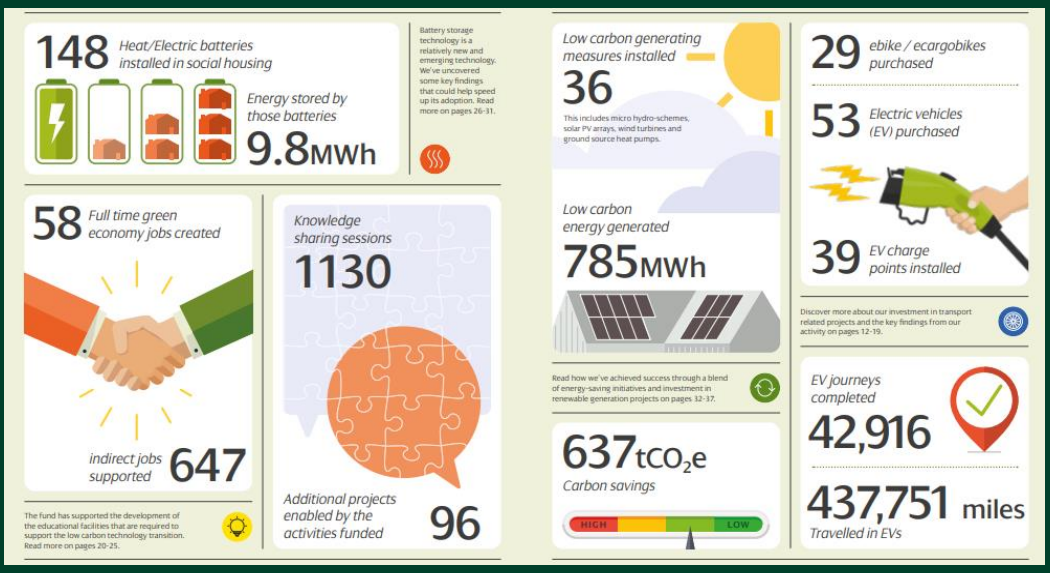
The GEF's approach to impact assessment was rooted in a comprehensive and multi-faceted methodology involving a combination of quantitative and qualitative analyses to measure the outcomes of the funded projects.

Quantitatively, the GEF employed metrics such as carbon emission reductions, number of jobs created, and additional funding leveraged. For instance, the projects collectively achieved a reduction of 637 tonnes of CO2, created 58 new jobs, and supported additional 647 indirect jobs.

Qualitatively, the GEF utilised feedback from project participants and stakeholders to gauge the social impact. This included assessing improvements in community engagement, educational outreach, and workforce development. The qualitative data provided a nuanced understanding of the fund's influence on community well-being and capacity building.

The GEF's application and selection process also played a crucial role in assessing impact. Projects were chosen based on their potential to deliver maximum positive impact and demonstrate various aspects of the green economy. A rigorous application assessment ensured that only the most promising and impactful projects received funding.

Throughout the fund's operation, ongoing monitoring and reporting mechanisms were in place to track progress and outcomes. Benefits delivered by funded projects were captured and shared with stakeholders using dashboards like the one below.



The GEF's impact assessment was a testament to the fund's commitment to transparency and accountability. By employing a robust methodology, we ensured that each project contributed to Scotland's green ambitions. The GEF final report provides a detailed account of these assessment methods and the resulting impacts, offering valuable insights for future funding initiatives.

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9. Keeping Us on Track

Our strategy to be a sustainable networks business is built on collaboration, driven by knowledge and data and governed by stringent internal processes and external standards. It is built upon our key sustainability principles: to be Ambitious, Sustainable, Resilient, Trusted, Inclusive, Transparent, Collaborative, Innovative and Just.

9.1. How We Did in RIIO-T2: Keeping Us on Track

Environmental Management System

Our Environmental Management System (EMS) has been certified to the relevant International Standard, ISO14001:2015, for over a decade and environmental controls are therefore embedded in our business processes. The Plan Do Check Act continuous improvement cycle upon which the Standard is based ensures that we continuously review our environmental impacts, ensuring compliance with environmental legislation and prioritising the most significant impacts for action to reduce. External certification gives us confidence that our internal systems are to the required standard and that we continue to meet the Standard's requirements for legal compliance and continual improvement.

Data and Reporting

Throughout RIIO-T2 we have been working to improve the quality and completeness of our environmental data. In our T2 Environmental Action Plan (EAP) we have a specific commitment to "improve environmental data collected and analysed at all stages of the asset lifecycle..." Some of these improvements can be tracked through the commentary provided within our annual Regulatory Reporting Pack (RRP) returns and Annual Environmental Report (AER).

We achieved the Planet Mark certification for our 2023/24 carbon footprint and have successfully retained this certification for eight consecutive years, demonstrating ongoing data accuracy and delivery of carbon reduction. The Planet Mark ™ Code of Practice adheres to the highest of recognised standards and is administered by an independent Advisory Panel composed of leading academic and industry experts. Planet Mark ™ is partnered with Cool Earth, the award-winning charity that works to halt rainforest destruction in Central Peru. Please see below the Planet Mark Certification for Year 8.

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FIGURE 31 – PLANET MARK CERTIFICATION FOR YEAR 8

During 2023 we performed a sustainability due diligence and double materiality review in line with European Sustainability Reporting Standards guidance and in conjunction with our parent company Iberdrola SA. This aims to assess our sustainability-related operational impact and financial materiality allowing us to implement mitigation, set objectives and measure performance against these.

We also continued to progress production of our SPEN Data and Reporting Strategy working with our Centre of Excellence team to develop a digitalisation roadmap to improve the collection, quality and reporting of sustainability data.

As well as the Business Carbon Footprint data that we report annually to OFGEM through the RRP process, we also collect data on a range of other environmental and social impacts, including environmental incidents and pollution prevention measures, waste (from our depots and disposed of by contractors on our behalf) and environmental training of both staff and contractors. We report all our environmental data to our parent company for inclusion in the annual Iberdrola Sustainability Report. The related performance metrics are identified in each of the above sections, as relevant.

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Training

During RIIO-T2, 75% of staff completed an environmental training programme – this is detailed in Section 5.6.1.

We are recognised as Gold Level members of the Supply Chain Sustainability School (figure 32). We achieved this level during RIIO-T2 and must continue to keep up the required level of activity to maintain it. This recognises our commitment to upskilling our colleagues and increasing sustainability literacy across business by engaging with the training and events.

FIGURE 32 – GOLD MEMBERSHIP BADGE FOR THE SUPPLY CHAIN SUSTAINABILITY SCHOOL

Staff Personal Goals

An organisation such as SP Energy Networks, which seeks to be a leading Sustainable Networks Business, must have environmental considerations embedded in its business processes and culture. Environmental issues must be managed at the front end and as part of line management roles and responsibilities and be lead from the top of the organisation. An important element of this is to clarify and document environmental responsibilities for all employees. As a result, all staff, up to and including our CEO, have environmental and/or sustainability objectives within their annual goals.

Stakeholder Engagement and Collaboration

In 2017 we established our Sustainability Stakeholder Working Group (SSWG) which meets bi-annually for an in person workshop at Scottish Power HQ, and brings together our key environmental sustainability stakeholders including the Scottish Environment Protection Agency (SEPA), Nature Scot, Sniffer, Built Environment -Smarter Transformation (BE-ST), the Scottish Government, the Scottish Wildlife Trust, Keep Scotland Beautiful, the Sustainable

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Scotland Network, Zero Waste Scotland and Universities. This group provides considerable input into our Sustainable Business Strategy and our price controls business planning processes. The SSWG provided multiple rounds of feedback on environmental commitments and the content of this Environmental Action Plan, ensuring that our targets were as ambitious as possible.

FIGURE 33 – MEETING OF THE SSWG

RIIO-T2 brought a significant increase in collaboration between the three UK Electricity Transmission Network operators to develop and deliver sustainability ambitions. In 2022 a joint TO sustainability collaboration group was launched, initially meeting virtually, and evolving to meet in person three times a year. The working group has representation from across the TOs' sustainability teams and was established to discuss best practice, common challenges and opportunities for collaboration.

We quickly recognised this was not sufficient to cover all topic areas in the depth required, resulting in the creation of virtual subgroups for the following topic areas: GHG emissions, nature, supply chain, circular economy, reporting, climate change resilience, social sustainability and RIIO-T3 development. These groups have successfully delivered joint outputs including a common methodology for calculating our supply chain scope 3 emissions and the development of a natural capital assessment tool.

In the past year we have agreed common RIIO-T3 Commitments where possible. This approach has multiple benefits, leveraging learning from each other's experience and strengths to develop ambitious commitments which are deliverable and represent value to the customer because duplication is avoided. This includes committing to common methodologies for carbon footprint and other metric calculations and reporting, as well as

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committing to 10% biodiversity net gain and the implementation of low-carbon sustainable materials and other solutions in construction.

In 2022, SP Energy Networks established the Independent Net Zero Advisory Council (INZAC), bringing together 15 external experts to provide challenge and specialist knowledge to both the distribution and the transmission sides of the business across Central and Southern Scotland, North Wales, Merseyside, Cheshire and North Shropshire. The INZAC has tested the quality and ambition of the RIIO-T3 Business Plan throughout development, as well as ensuring that consumers and stakeholders have been engaged with, while monitoring how that engagement has influenced the development of the Business Plan. A subset of the INZAC, made up of members with particular interest and expertise in sustainability issues, was involved in review of RIIO-T3 Sustainability Commitments and EAP drafts throughout the drafting process and provided much useful insight and comment.

FIGURE 34 – THE MEMBERS OF THE INZAC

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9.2. RIIO-T3 Commitments and Metrics: Keeping Us on Track

TABLE 41 – KEEPING US ON TRACK COMMITMENTS AND METRICS

Commitment	Metric
Continue to improve the accuracy of our data, aligning with evolving best practice and collaborating with other TOs to ensure a consistent approach.	Progress of Data Maturity Matrix Evolving recommendations from data verification audit
Collaborate with other TOs to create common reporting methodologies and align our reporting to internationally recognised sustainability reporting standards (GRI/ESRS).	Common Reporting Methodologies created Yes/No
Externally verify our annual sustainability data to ensure a high standard of data and reporting governance and transparency.	AER Verified

9.3. RIIO-T3: Investments and Benefits: Keeping Us on Track

To deliver our RIIO-T3 plans in this area:

- £0.3M for externally verified AER data
- £0.075M for annual publication of AER
- £0.15M Environmental Management framework
- £0.013M for ISO14001 certification
- £0.18M for Communications
- £0.02M for Development of Social Metrics with other TOs
- £0.6M for Sustainability Management Framework

New Roles

As a result of the substantial planned growth of our transmission network, there will be a proportionate increase in the volume of work required to deliver our increasingly ambitious sustainability Commitments. Due to this growth, we require a number of new Environmental Sustainability roles in our business to focus on delivery. These roles will be responsible for making sure all our operations, designs and projects meet environmental requirements, overseeing and/or co-ordinating delivery of improvements and providing support for the operational side of the business in terms of expertise. Most of these roles are embedded in the resources identified in the RIIO-T3 Business Plan Workforce Renewal Annex.

To allow the central sustainability team to provide the required support, we are proposing 3 additional roles:

- The significant increase in requirements to deliver Nature Positive actions will require additional internal resource to oversee the various regimes (positive effects for biodiversity, natural capital enhancement, compensatory planting and nature-based carbon offsetting and climate resilience). We propose a new central role to provide this oversight, co-ordination and external engagement.

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- Due to the significant new reporting and governance requirements, we are proposing to create a new role. A Sustainability Analyst to support with the proposed improvements in data quality and completeness and increased reporting and digitalisation requirements. The assurance and governance of Non-Financial Information (NFI) will significantly increase over the coming years as sustainability data is given the same credence as financial data. Therefore, we foresee the need for additional support in this area to develop and implement the data systems and processes required to ensure robust sustainability data and reporting.
- With the expanding Transmission network, additional support will be required from environmental management specialists and currently we do not have such a central resource dedicated to SPT Operations. We propose a third Environmental Specialist to join the existing team supporting the 3 SPEN Licences.

9.4. RIIO-T3: Keeping Us on Track Delivery

Environmental Management System

Our EMS forms the basis of our management of our environmental impacts, and we will continue to prioritise its continuous improvement and ongoing certification to ISO 14001:2015 as the foundation for environmental compliance. This continuous improvement is embedded into our business-as-usual activities, and therefore a standalone commitment in this area is not needed. Funding for external support to deliver environmental management activities is required to enable access to a wide range of specialisms that are not held in the business.

Data and Reporting

During RIIO-T2 and the RIIO-T3 business planning process we have collaborated with the other Transmission Owners over a wide aspect of elements, one of which being reporting. We recognise that we should align as many as our common reporting methodologies as possible, so that our businesses are more comparable and transparent. We are already aligned to the Global Reporting Initiative (GRI) but will need to ensure that we remain so throughout the price control and beyond, and we must also align to the European Sustainability Reporting Standards (ESRS).

Our common reporting methodologies will be detailed down to the actual calculation of each metric and will ensure that TO data is completely consistent and can be directly compared.

Commitment: Collaborate with other TOs to create common reporting methodologies and align our reporting to internationally recognised sustainability reporting standards (GRI/ESRS).

We will continue our work to improve the quality and completeness of environmental data, therefore in RIIO-T3 we have committed to go further and get all our data for the Annual Environmental Report (AER) externally verified to ensure a high standard of data and reporting governance and transparency. Currently only our Business Carbon Footprint data is verified by Planet Mark.

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Commitment: Externally verify our annual sustainability data to ensure a high standard of data and reporting governance and transparency.

We also have a Commitment on supply chain social metrics, more information on which can be found in our Sustainable Society section.

Develop common supply chain social sustainability metrics, tools and methodologies with other TOs.

Digitalisation of Our Systems and Data

We are entering the digital age, and it is important that we digitise our environmental and sustainability data as much as possible; for RIIO-T3 we aim to improve data collection, analysis and reporting by creating digital systems for:

Environmental Compliance

There are several key environmental compliance reports that need to be generated on a variety of schedules to meet both internal and external reporting needs, by digitising key environmental compliance data it will improve our compliance with environmental legislation as the scope and frequency of reporting is set to increase in RIIO-T3.

Biodiversity

Environmental legislation governing biodiversity is increasing rapidly as devolved governments recognise the biodiversity crisis. Work on the digitisation of underlying biodiversity data and development of biodiversity reporting has started in RIIO-T2. Continued investment in the RIIO-T3 period is required to enhance biodiversity information for decision making and for reporting as the compliance landscape changes.

Greenhouse Gas Emissions

To reduce our greenhouse gas emissions and meet our Net Zero GHG targets we must be able to accurately collect, analyse, monitor and report this data, demonstrate a year-on-year reduction and feed into business decisions relating to designing, building and operating our network.

Scope 1 & 2 calculations are relatively mature, however the gathering of data for analysis and reporting purposes is still very manual and disparate.

Scope 3 can be estimated from a mixture of financial data, scope 1 & 2 data and other manually gathered data from across the business. It is a manual process, but the underlying data is well known and relatively accessible.

It is currently not possible to estimate Scope 3 emissions to any level of accuracy as we are using financial proxies. The proposed digital investment for RIIO-T3 will look to address these gaps by looking at using embodied carbon data from our carbon management process to replace spend factors, thus allowing any carbon reductions achieved to be recognised in the data.

Resource Use and Waste Management

We have made a commitment in the circular economy section to *Recycle or reuse 100% of our waste by 2030 (excluding 'compliance waste').* Digitising the collection, reporting and

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monitoring of data related to waste management and resource use will be critical in achieving these commitments.

More information on each of the environmental sustainability digitisation investments in RIIO-T3 can be found the Digitalisation Strategy and Action Plan annex.

Communications

We believe that environmental and sustainability considerations should be at the forefront of our employees' and contractors' minds, as health and safety is, however we are aware this requires a culture change in our business.

During RIIO-T2 we have made good progress in this area and during 2023-2024 we launched the Year of Sustainability communications campaign throughout SPEN. Each month was dedicated to a different area of sustainability and included various knowledge sharing opportunities, case studies, workshops and challenges to help prepare our workforce towards a sustainable future.

The feedback for this campaign was very positive and engagement with sustainability areas grew throughout the business, however there is still a lot of work to be done to continue that culture change. We therefore are requesting a small increase in our communications budget to allow us to run more campaigns and workshops throughout the business to drive change, and we will investigate how we can best measure how embedded sustainability is in our culture.

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10. Appendices

10.1. RIIO-T3 EAP Commitments

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TABLE 42 – FULL LIST OF RIIO-T3 ENVIRONMENTAL COMMITMENTS AND ASSOCIATED BASELINE EXPECTATIONS AND METRICS

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
Climate Action	Deliver economically efficient actions to reduce our scope 1, 2 and 3 Greenhouse Gas (GHG) emissions in line with our Net Zero GHG target	yes	commit to efficient and economic actions to reduce their controllable BCF in RIIO-3 Where BCF targets are being developed or reviewed, we expect networks to work alongside their ISG to suggest Science-Based Targets in alignment with the Science-Based Target Initiative (SBTi) methodology.	We will adopt Science-Based Targets for Scopes 1&2 and Scope 3 carbon reduction. We will identify, and subsequently monitor, metrics to track progress towards our science-based carbon reduction targets.	Costs embedded in commitments below	N/A	tCO2e reduction
Climate Action	Reduce emissions from SF_6 leakage in line with the trajectory required to meet our Science-Based Target		adopt a target for SF_6 leakage reduction; and commit to reporting on total SF_6 leakage reduction rates using a common TOs methodology.	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	£5.42	7.6 Non-Load	Leakage in kg per year tCO2e

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
Climate Action	Install SF_6 free equipment in RIIO-T3. SF_6-filled equipment will only be installed if a viable SF_6-free solution is not available.	Yes, but wording slightly different between TOs	Strategy implementation in RIIO-T3 to manage SF_6 on network. This should include economic and efficient actions to reduce leakage rates and, economic and efficient SF_6 asset replacement;	We will use alternatives to SF_6 insulating gas for all new installed circuit-breakers and GIS installations where there are technically feasible market-ready solutions.	£5.09	7.6 Non-Load	Number of SF_6 assets
Climate Action	Decarbonise our fleet* by 2030 - electrifying 100% of feasible vehicles and implementing lower carbon alternatives for all other vehicles (where an electric alternative is not feasible for operational or technological reasons) **Fleet is estimated to increase by 50% and will include additional cars, vans and 4x4s*			We aim to decarbonise our operational fleet by replacing 100% of our 72 cars and vans with electric alternatives by the end of RIIO-T2. *	£3.21	9.1 Non Op Capex	Number and % of EVs Number and % of other low carbon vehicles

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
Climate Action	Reduce emissions from substation buildings' energy consumption by 3,488 MWh/annum by undertaking works at 31 substations			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.	£7.34	7.6 Non-Load	MWh Reduced
Climate Action	Reduce impacts relating to depot buildings' construction and operation by applying a best practice sustainability standard for the new Depot to be provided during T3.				£1.84	9.1 Non Op Capex	MWh Reduced tCO2e saved

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
Climate Action	Reduce losses on the network by an estimated 4,781 MWh thereby limiting losses to a lower level than would otherwise be the case		TOs should develop and commit to implementing a strategy to efficiently manage both technical and non-technical losses on the TOs network over the long term. This should include specific actions and performance measures to track the impact of actions in RIIO-T3	We will implement our RIIO-T2 Losses Reduction Strategy to reduce losses on the network by an estimated 14,500 MWh (circa 3% of 2018/19 losses), thereby limiting losses to a lower level than would otherwise be the case, where this is economic and provides benefit to customers.	-	7.5 Losses	MWh Avoided
Climate Action	Implement cost-effective sustainable materials and solutions in our construction programmes	Yes, but exact wording may differ			£5.67	8.12 Net Zero	Evidence of use of low carbon and more sustainable materials (case studies) Calculated reduction in tCO2e relative to the embodied carbon baseline

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
							% reused/recycled content of top 3 materials
Climate Action	In preparation for our Net Zero Greenhouse Gas (GHG) Target, we will offset emissions of 80,000tCO2e emissions in the RIIO-T3 period			Where a repair to a leaking asset proves ineffective and the asset requires to be replaced, we will offset the SF_6 emissions from that asset until its replacement via a Carbon Offsetting partner.	£3.59	8.12 Net Zero	tCO2e Offset
Climate Action	Achieve PAS2080 certification, validated by an external company by 2028	Yes		We will implement processes for carbon management in relevant business activities, aligned with PAS 2080 Carbon Management in Infrastructure.	£0.135	Indirect Opex	External Validation Certification

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
Climate Action	Improve our carbon footprint reporting to cover whole life carbon associated with new projects	Yes	Commit to monitoring and reporting on embodied carbon in new projects;	We will collaborate with our supply chain and other Transmission Owners to drive scope 3 and embodied carbon footprint reductions.	Internally resourced	N/A	Embodied Carbon Emissions (tCO2e) Operational Carbon Emissions (tCO2e) End of Life Carbon Emissions (tCO2e))
Climate Action	Collaborate with other TOs to develop a methodology for calculating land use change emissions in line with best practice and also aim to start reporting against this during RIIO-T3				Internally resourced	N/A	Land use change emissions methodology created Yes/No
Action for Nature	Develop and implement five pilot climate resilience partnership projects using nature-based solutions to protect network assets.				£3.14	8.7 NOCs	Number of climate resilience partnership projects

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
Action for Nature	Provide at least 10% Biodiversity Net Gain (BNG) on projects subject to planning consent	yes		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'.	£4.03	8.7 NOCs	Biodiversity Units
Action for Nature	Deliver Natural Capital enhancement across projects with a measurable impact on ecosystems, achieved through local strategic nature partnerships.			We will pilot these biodiversity and natural capital assessment methodologies and associated tools on selected RIIO-T2 projects	Covered in above value	8.7 NOCs	Ecosystem services £ value
Action for Nature	Set targets by the middle of RIIO-T3 to reduce the impact on nature from our supply chain				Internally resourced	N/A	Target set by 2029 (Y/N)
Preventing Pollution	Replace 32.4km (28% of our inventory on the network) of our leakiest fluid filled cable (FFC), removing over 47,080				£47.54	7.6 Non-Load	km of UGC replaced

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
	litres of oil from our network.						
Preventing Pollution	Upgrade existing or install new bunds associated with 27 transformers to meet our current standard, using low carbon and sustainable alternatives to concrete where technically feasible.			We will deliver our RIIO-T2 programme of mitigation measures (oil containment) for pollution prevention, developed via a condition-based asset risk assessment process.	£7.43	7.6 Non-Load	No. of bunds installed or upgraded
Circular Economy	Achieve 30% recycled or reused content across our top three materials (by volume) by 2030		adopt a target for: recycled and reused materials as a percentage of total materials by at the latest 20XX	We will set targets for recycled/reused materials as a % of total input materials to be achieved by end RIIO-T2, 2030 and 2050.	Covered by carbon reduction £s	N/A	% of recycled/ reused content across concrete, steel and aggregates

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
Circular Economy	Fully align with circular economy standard BS8001.		update procurement processes to embed Circular Economy principles	We will embed circular economy principles where relevant throughout our business processes, considering whole life cycle environmental impacts.	Internally resourced	N/A	External validation of circular economy standard BS8001 progress
Circular Economy	Recycle or reuse 100% of all our waste by 2030 (excluding 'compliance waste')		adopt a target for zero waste to landfill by at the latest 20[XX] Commitments to reporting on actual waste to landfill, recycling and reuse as a percentage of total	We will divert 95% of our waste from landfill.	No additional funding required	N/A	% Waste Reused/Recycled (excluding compliance waste)

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
Supply Chain Sustainability	At least 80% of suppliers by value set Science-Based Targets (SBT) (or equivalent externally validated Greenhouse Gas (GHG) reduction target)	Yes	adopt high standards of environmental management in supplier code, including requirements for public disclosure of metrics and cascading code to their suppliers that are material to company's inputs;	We will target more than 80% of RIIO-T2 suppliers (by value) meeting these enhanced environmental standards.	New Supply Chain role (1 FTE)	FTE	% Transmission Suppliers have set validated targets
Supply Chain Sustainability	Our Supplier Code will be annually reviewed, increasing supplier sustainability standards over time, in line with our targets and goals. This Supplier Code will be published, and supplier compliance will be audited.			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.			Updated Supplier Code published annually % suppliers compliant with Supplier Code Number suppliers audited

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
Sustainable Society	Publish an annual Just Transition Report and review our Strategy every 3 years				£0.05	Indirect Opex	Just Transition report published annually. JT Strategy updated and published every three years.
Keeping Us on Track	Continue to improve the accuracy of our data, aligning with evolving best practice and collaborating with other TOs to ensure a consistent approach	yes		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.	Internally resourced Internally resourced	N/A	Progress of Data Maturity Matrix Evolving recommendations from data verification audit

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
Keeping Us on Track	Collaborate with other TOs to create common reporting methodologies and align our reporting to internationally recognised sustainability reporting standards (GRI/ESRS).		Report[ing] on total IIG leakage using a common TOs' methodology	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.	Internally resourced Internally resourced	N/A	Common Reporting Methodologies created Yes/No

Sustainability Priority Area	RIIO-T3 Commitment	Joint TO commitment	Ofgem Baseline Expectation	T2 Commitment	Costs over 5 yr RIIO-T3 (£m)	Cost table	Metrics
Keeping Us on Track	Develop common supply chain social sustainability metrics, tools and methodologies with other TOs	yes			£0.20	Indirect Opex	Common metrics developed and implemented
Keeping Us on Track	Independently assure our annual sustainability data to ensure a high standard of data and reporting governance and transparency.				£0.30	Indirect Opex	AER Verified

* Red text for RIIO-T2 Commitment indicates unlikely to be achieved by end RIIO-T2

10.2. Summary of Costs

TABLE 43 – SUMMARY OF ENVIRONMENTAL INITIATIVES AND RELATED COSTS

IMPACT AREA	DESCRIPTION OF COST	COST TABLE	COST (OVER 5 YEARS) (MILLIONS)	EAP PAGE/SECTION REFERENCE
Climate Action	Fleet decarbonisation	9.1 Non Op Capex	£3.21	4.2.3
Climate Action	SF_6 free assets	9.18 SF_6	£5.09	4.2.3
Climate Action	Substation Buildings Energy Use Refurbishment	7.6 Non-Load	£7.34	4.2.3
Climate Action	Depot Energy Use Refurbishment	9.1 Non Op Capex	£1.84	4.4.3
Climate Action	Losses Strategy	7.5 Losses	N/A (see Section 4.4.3)	4.2.3
Climate Action	Carbon UIOLI	8.12 Net Zero	£5.67	4.2.3
Climate Action	Carbon Offsetting	8.12 Net Zero	£3.59	4.2.3
Action for Nature	10% BNG on Projects	8.7 NOC	£4.03	5.2.3
Action for Nature	Climate Resilience Nature Based Solutions	8.7 NOC	£3.14	5.3.3
Action for Nature	External Management of BNG Projects	9.4 CAI	£2.4	5.2.3
Action for Nature	Environmental Civil Assets Maintenance	8.3 Maintenance and 8.4 Repairs	£4.71	5.5.5
Action for Nature	Bunding Replacement Programme	7.6 Non-Load	£7.43	5.6.4
Action for Nature	Fluid Filled Cables Replacement	7.6 Non-Load	£47.54	5.6.4
Action for Nature	Cable tagging	7.6 Non-Load	£2.23	5.6.4
Action for Nature	Land contamination remediation	8.7 NOC	£3.00	5.6.4
Action for Nature	Ecology Specialist Support	Indirect Opex	£0.50	5.6.4

Sustainable Society	Just Transition Report publication	Indirect Opex	£0.05	8.3
Sustainable Society	Third Party Assurance	Indirect Opex	£0.02	8.3
Sustainable Society	Net Zero Fund	8.12 Net Zero	£20.00	8.5.1
Keeping us On Track	Supply Chain Sustainability School Membership	Indirect Opex	£0.07	7.2.3
Keeping Us on Track	Development of social value metrics with other TOs	Indirect Opex	£0.02	9.3
Keeping us on track	Data Verification - Full AER data	Indirect Opex	£0.30	9.3
Keeping Us on Track	Annual Sustainability Reports AER	Indirect Opex	£0.075	9.3
Keeping Us on Track	Environmental Management Framework	Indirect Opex	£0.15	9.3
Keeping Us on Track	Communications	Indirect Opex	£0.18	9.3
Keeping Us on Track	ISO14001 Certification	Indirect Opex	£0.013	9.3
Keeping Us on Track	Sustainability Management Framework	Indirect Opex	£0.6	9.3

10.3. Resourcing – additional Full Time Equivalent roles

TABLE 44 – NEW SUSTAINABILITY ROLES IN RIIO-T3

IMPACT AREA	ROLE	DESCRIPTION OF ROLE	EAP PAGE/SECTION REFERENCE
Action for Nature	Nature Positive Lead	Business level co-ordination of delivery of biodiversity 'positive impacts', natural capital enhancement, nature-based carbon offsets and climate resilience and compensatory planting requirements	9.1.3
Keeping us on track	Sustainability Analyst	Data and Reporting Analyst	9.1.3

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Keeping us on track	Environmental Specialist SPT	Specialist to support the licence business with environmental management and compliance.	9.1.3

10.4. Glossary of Terms

ABBREVIATION	DEFINITION
Biodiversity Unit	A unit of measurement. Metrics assign all habitats a unit value according to their relative biodiversity value. Defra definition is Baseline biodiversity units = Distinctiveness x Condition x Significance x Connectivity x Area in hectares (or length in km)
Building Energy Use	Building energy use is classified into electricity use and gas use. Buildings electricity use emissions are the indirect emissions released from the generation of purchased electricity consumed in SPEN's operations. Building Gas use on the other hand are the direct emissions resulting from the combustion of natural gas for heat. Buildings gas use and buildings electricity use are categorised as Scope 1 and Scope 2 emissions respectively.
Bunds	Impermeable structure constructed below and around plant or tanks containing oil or other substances hazardous to the environment. Includes where necessary bund dewatering system with associated oily water / hydrocarbon treatment
Business Carbon Footprint (BCF)	Terminology used to describe our carbon footprint when including Scope 1 & 2 carbon emissions (excluding losses), business travel, and contractor emissions.
Capital Carbon	Analogous to capital cost and can be used to describe the carbon associated with creation, refurbishment and/or end of life treatment of an asset. Capital carbon of new projects includes embodied carbon of materials and equipment, in addition to transport and energy use in the construction of the asset and emissions associated with site waste.
Carbon	Used as shorthand for greenhouse gas emissions (see below)
Carbon Dioxide Equivalent (CO_2e)	A metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential, by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.
Carbon Footprint	Total greenhouse gas emissions caused directly and indirectly by a person, organisation, event, or product measured in Carbon Dioxide (CO_2). This also contains other

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	greenhouse gases (such as SF_6 below) converted into CO_2 equivalent.
Circular Economy	See Zero Waste (below)
Compliance Waste	Specific, potentially hazardous, waste that must be specially disposed of/handled separately for safety reasons
DNO	Abbreviation for District Network Operator, who is licensed by Ofgem to develop, operate, and maintain local electricity distribution network. There are 14 licensed distribution network operators (DNOs) in Britain owned by six different companies. Each DNO is responsible for a regional distribution services area.
Electric Arc Furnace (EAF)	An electric arc furnace (EAF) is a furnace that heats material by means of an electric arc, combined with the action of chemical power provided using oxygen and fuel.
Embodied Carbon	Embodied carbon is the total carbon generated to produce a built asset. This may refer to individual materials and components (e.g. concrete, switchgear etc) or may refer to the creation of an infrastructure asset as a whole.
Fuel Combustion	Includes emissions released because of fuel consumed to power backup generators. These fuels include diesel, liquefied petroleum gas (LPG), and HVO. They are categorised as Scope 1 emissions.
Fugitive Emissions	Includes emissions resulting from intentional or unintentional releases. Most of SPEN's fugitive emissions are because of SF_6 and other Interruption and Insulation Gas leaks from electrical assets. These are classified as Scope 1 emissions.
Greenhouse Gas Emissions (GHG)	Emissions from gases that absorb and emit radiant thermal, causing the greenhouse effect
Global Warming Potential	Global warming potential is the heat absorbed by any greenhouse gas in the atmosphere, as a multiple of the heat that would be absorbed by the same mass of carbon dioxide.
ISO14001	International Organisation for Standardisation 14001. Defines criteria and maps out a framework for companies to create an effective Environmental Management System.
Kilowatt-hour (kWh)	A unit of energy equivalent to one kilowatt (or 1000 watts) of power sustained for one hour. Kilowatt-hours are also the unit in which customer energy bills are expressed.
Load Projects	Projects which add capacity, connect generation, and demand or improve the operability of the network. For example, new substations, substation extensions or uprating overhead lines to increase the operating voltage.
Low Carbon Transition	The evolution from a fossil fuel powered economy to an economy based on renewable and low carbon energy use

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	that therefore has a minimal output of greenhouse gas emissions.
Megawatt-hour (MWh)	A unit of energy equivalent to one megawatt (or 1,000,000 watts) of power sustained for one hour.
Natural Capital	Natural capital can be defined as the world's stocks of natural assets which include geology, soil, air, water, and all living things. It is from this natural capital that humans derive a wide range of services often called ecosystem services, which make human life possible.
Net Zero	Achieving a scale of value-chain emission reductions consistent with the depth of abatement achieved in pathways that limit warming to 1.5°C with no or limited overshoot and; Neutralising the impact of any source of residual emissions that remains unfeasible to be eliminated by permanently removing an equivalent amount of atmospheric carbon dioxide'
NGO	Abbreviation for non-governmental organisation, an organisation that tries to achieve social or political aims but is not controlled by a government.
Non-Load Projects	Projects which are not adding new capacity, for example, the refurbishment of overhead lines.
Operational Carbon	Carbon associated with the operation of an asset over the asset lifecycle
Operational Transport	Includes emissions resulting from the use of fossil fuels or electricity to power company owned or controlled mobile combustion vehicles. This includes the emissions generated by vehicles such as cars, 4x4s, small vans, large vans, and HGVs. Emissions from fossil fuel powered vehicles are classified as Scope 1 emissions. However, their electric vehicle alternatives are classified as Scope 2 emissions.
Pending Issuance Units	A "promise to deliver" carbon offsetting through investment in partnership projects to create native woodlands.
Polychlorinated Biphenyls (PCBs)	PCBs are a group of synthetic chemicals with good dielectric properties and low flammability used to insulate oil in electrical apparatus such as transformers, liquid filled cables, high and low voltage capacitors, switches etc., manufactured prior to 1987. PCBs are a threat to the environment because of their toxicity, persistence and tendency to bio-accumulate have been linked with harmful effects such as liver damage and a reduced ability to fight infection.
RIIO-ED1	Abbreviation for Revenue = Incentives + Innovation + Outputs for Electricity Distribution 1. RIIO ED1 is the price control framework set by out Regulator Ofgem, that sets the outputs that the 14 DNOs need to deliver for their customers and the associated revenues the DNOs are allowed to collect for the eight-year period from 1 April 2015 to March 2023.

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RIIO-ED2	Abbreviation for Revenue = Incentives + Innovation + Outputs for Electricity Distribution 2. RIIO ED2 is the price control framework set by out Regulator Ofgem, that sets the outputs that the 14 DNOs need to deliver for their customers and the associated revenues the DNOs are allowed to collect for the five-year period from 1 April 2023 to 31 March 2028.
RIIO-T1	Abbreviation for Revenue = Incentives + Innovation + Outputs for Transmission 1. RIIO T1 is the price control framework set by out Regulator Ofgem, that sets out what the 3 TOs are expected to deliver and details the regulatory framework that supports both effective and efficient delivery for energy customers over the eight years from 1 April 2013 to 31 March 2021.
Science-Based Targets	Targets adopted by companies to reduce Greenhouse Gas emissions that are calculated in line with the methodology laid out by the Science-Based Targets Initiative, in line with one of the reduction trajectories featured in the Paris Agreement.
Scope 1 Carbon Emissions	Direct GHG emissions – from sources owned or controlled by the company
Scope 2 Carbon Emissions	Indirect carbon emissions from the generation of purchased electricity, steam, heating and cooling consumed. For electricity network companies, network losses are included in Scope 2.
Scope 3 Carbon Emissions	All other indirect emissions that occur within the value chain.
Scope 3 Emission Categories	All emissions categories as per the GHG Scope 3 Calculation Guidance
Scope 3 Category 1	In the context of SPEN, category 1 emissions include all upstream emissions directly relating to the services provided in the production and installation of all materials and equipment purchased by SPEN during the reporting period. These services are provided either at our offices, depots, or construction sites. Examples of these includes emissions associated with installation of asset, specialised construction works and other personal services.
Scope 3 Category 2	Includes all upstream (i.e., cradle-to-gate) emissions from the production of materials and equipment acquired by SPEN in the reporting period.
Scope 3 Category 3	Includes emissions related to the production of fuels and energy and is distinct from fuel and energy emissions through the consumption of fuel used, which is included in Scope 1 (direct emissions from fuel consumed) and Scope 2 (indirect consumption of fuel through the use of electricity). The majority of emissions is associated with the production of gas within the UK electricity grid – and is primarily associated with

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	losses on our network. It is expected that this will decrease as we continue to enable renewable electricity to be connected, thus supporting the decarbonisation of the UK electricity mix.
Scope 3 Category 4	Includes all emissions associated with transporting and distributing materials and equipment to and from our offices, depots and construction sites.
Scope 3 Category 5	Includes emissions associated with waste generated through our operations – including waste from offices, depots and from our construction sites.
Scope 3 Category 6	Includes all emissions indirectly associated with vehicles not owned by SPT. This includes train travel and air travel. It is distinct from Scope 1 which is fuel directly consumed by vehicles owned or controlled by SPEN.
Scope 3 Category 7	Includes all emissions indirectly associated with staff travelling to their place of work. This is distinct from Operational Travel as it includes an estimation of transport from their homes to their worksite only.
SF_6	Abbreviation for Sulphur Hexafluoride, the most carbon intensive greenhouse gas in the world, used extensively as an electrical insulator since the 1980s when the industry moved away from using oil in mass quantities for safety reasons. Use of SF_6 prevents fire/explosion from catastrophic failure of plant and reduces the risk of oil pollution incidents on out network but has a global warming potential 23,500 times that of carbon dioxide.
SPEN	Abbreviation for ScottishPower Energy Networks, holder of the SPT, SPD, and SPM licences awarded by Ofgem, the regulator of the gas and electricity sector.
SPT	Abbreviation for ScottishPower Transmission, a wholly owned subsidiary of SP Energy Network responsible for the transmission of electricity in central and southern Scotland (132 kV and upwards).
SSWG	Abbreviation for Stakeholder Sustainability Working Group, formed by SPEN in 2017 comprising of invited SPEN stakeholders and SPEN representatives to guide SPEN.
Sustainable Networks Business	SPEN has identified this as managing out triple bottom line – a process to manage out financial, social and environmental risks, obligations and opportunities. These three impacts are sometimes referred to profits, people, and planet.
System Losses	This is also referred to as transmission and distribution losses. For this report, System losses focuses specifically on the indirect emissions incurred as a result of electricity lost on the network when it is transmitted from independent power generators or the grid to where it will be distributed to end-consumers. Emissions from system losses are classified as

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	Scope 2 emissions and represents one of the largest sources of GHG emissions for SPEN.
tCO_2e	tonnes (t) of carbon dioxide (CO_2) equivalent (e)
TNO	Abbreviation for Transmission Network Operator, permitted to develop, operate, and maintain a high voltage system within their own distinct onshore transmission areas. These are National Grid Electricity Transmission plc (NGET) for England and Wales, ScottishPower Transmission Limited for southern Scotland and Scottish Hydro Electric Transmission plc for northern Scotland and the Scottish Islands groups.
Whole Life Carbon	Sum of GHG emissions from all stages of the life cycle of a product or asset
Zero Waste	An alternative to the traditional linear economy (make, use, dispose), in which resources are kept in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life as opposed to sending to landfill.

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