

# Annual Environmental Report

2024-2025



Our consistently strong environmental performance, combined with our commitment to supporting decarbonisation, reflects our unwavering dedication to our region, the environment, and the communities we serve.



# Contents

## ▶ Part 1 Introduction



▶ Introduction	4
▶ A word from our Director of Engineering, Mark Nicholson	6
▶ Purpose of this report	7
▶ Executive summary	8

## ▶ Part 2 Business carbon footprint



▶ Business carbon footprint (BCF)	12
▶ Sulphur hexafluoride (SF <sub>6</sub> ) and other insulation and interruption gases (IIGs)	18
▶ Electricity distribution losses	21
▶ Embodied carbon	22
▶ Supply chain management	23

## ▶ Part 3 Environmental protection



▶ Sustainable resource use and waste	25
▶ Visual amenity	27
▶ Noise pollution	29
▶ Polychlorinated biphenyls (PCBs)	30
▶ Biodiversity and natural capital	31
▶ Fluid-filled cables	32
▶ Annex A	33

# Part 1 Introduction

We are responsible for managing the network that delivers electricity from power stations and smaller generators to 3.9 million homes and businesses across the Northeast, Yorkshire and northern Lincolnshire.

# Introduction

## About us

We are Northern Powergrid. We are responsible for managing the network that delivers electricity from power stations and smaller generators to 3.9 million homes and businesses across the Northeast, Yorkshire, and northern Lincolnshire. Operating 24/7, 365 days a year, we ensure electricity reaches you safely, wherever and whenever you need it. If your power is interrupted, we are the ones who will respond, day or night, to restore it.

Our infrastructure includes over 63,000 substations, and more than 98,000 kilometres of overhead power lines and underground cables, spanning approximately 25,000 square kilometres.

This report reviews our environmental performance against the goals we set for the five-year period from 1 April 2023 to 31 March 2028 (ED2). Our business plan, shaped by extensive stakeholder engagement, emphasises the importance of decarbonisation for our region.

As well as addressing our own environmental impact, we must play a leading role in helping the UK meet its clean energy transition and net zero targets and enable a just transition for our customers and communities. We are therefore making a significant investment in digitalisation, smart grid solutions and increasing network capacity to support the shift to clean energy and the growth of low-carbon technologies.

As part of our business plan, we have embarked on a transition to expand our capabilities and become a local optimiser of the energy system. We have a key role to play in facilitating regional decarbonisation by fulfilling the functions of Distribution System Operation (DSO). The shift to a low-carbon economy, driven by new technologies and digitalisation, is changing the way energy is produced and consumed. As an electricity infrastructure provider, we must ensure our network can safely and reliably adapt to these changes while maintaining the high standards of service our customers expect.



**3.9m**

Number of homes and businesses we deliver electricity to



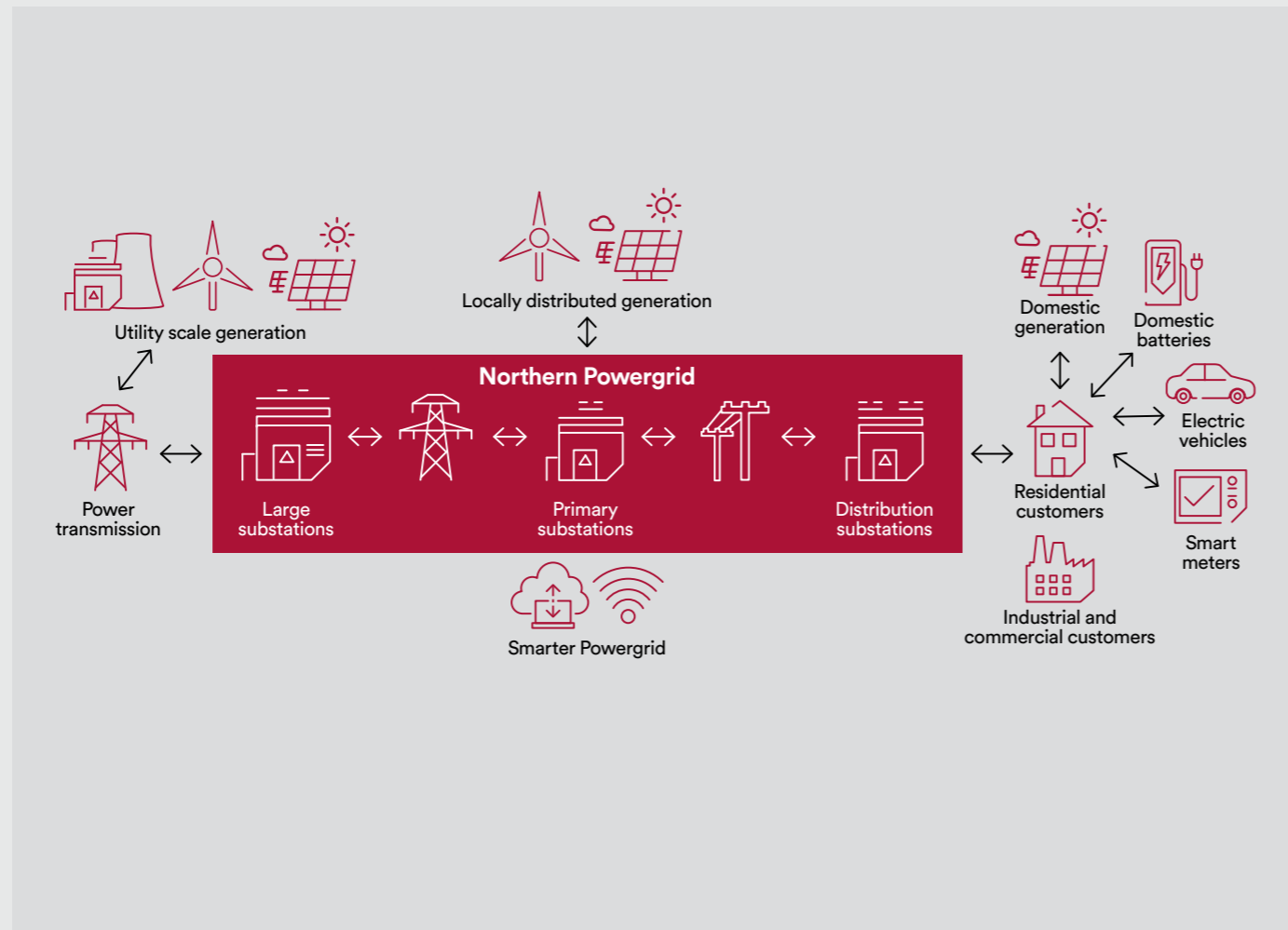
**98,000km**

Distance of overhead power lines and underground cables



# Introduction

Where we fit in the electricity industry



# Introduction



**Mark Nicholson,**  
Director of Engineering

## A word from our Director of Engineering, Mark Nicholson

As we close out the second year of ED2, I'm pleased to share this update on our progress against our ED2 Environmental Action Plan, which sets out an ambitious programme of outcomes for our customers.

At Northern Powergrid, we remain dedicated to minimising carbon emissions, pollution, and waste through strategic investment, operational excellence, and close collaboration with our partners and supply chain. We actively seek opportunities to enhance the local environments where we operate and embrace innovative technologies and practices to fulfil our environmental commitments.

Electricity distribution is a cornerstone of the UK's transition to net zero, and we're proud to be at the forefront. The Clean Power 2030 plan, published by the Department for Energy Security and Net Zero (DESNZ), sets out a bold vision for a fully clean electricity system by 2030. At Northern Powergrid, we're ready to meet this challenge, aligning our environmental strategy with the government's accelerated ambitions.

Our vision is to build a sustainable, resilient electricity network that enables the widespread adoption of low-carbon technologies and supports the UK's decarbonisation efforts. In the face of the climate emergency, carbon reduction remains a top priority for our customers and stakeholders. Through extensive engagement, we've listened closely to their concerns and are firmly on track to deliver the targets set out in our environmental plan.

This report showcases the areas where we're delivering beyond expectations, as well as those that require further attention and where corrective actions are actively being pursued. I'm deeply proud of the dedication my colleagues show every day in protecting the environment, cutting emissions, and driving our region's progress towards net zero. With this collective effort, I'm confident we'll continue to meet the challenge head-on.

“

Our consistently strong environmental performance and our commitment to enabling decarbonisation demonstrate our steadfast dedication to our region, our environment, and the communities we serve.

# Introduction

## Purpose of this report

Environmental Respect is one of six core guiding principles for all Berkshire Hathaway Energy companies, including Northern Powergrid.



### Environmental Respect

We are committed to using natural resources wisely and protecting our environment for the benefit of future generations. Our Environmental RESPECT Policy details this commitment in the areas of Responsibility, Efficiency, Stewardship, Performance, Evaluation, Communication and Training.

We understand the broader impact our activities can have on the communities where our customers live and work-communities we're part of ourselves.

We believe the trust placed in us by customers, stakeholders, regulators, industry partners, and special interest groups is something to be actively nurtured. This report demonstrates how we translate our commitments into meaningful action, offering a transparent account of our progress across the key environmental impact areas outlined in our Environmental Action Plan.

### Environmental Action Plan –impact areas

Business carbon footprint	Environmental protection
Scope 1 and 2 emissions	Resource use and waste
Sulphur hexafluoride (SF <sub>6</sub> )	Biodiversity
Losses	Fluid-filled cables
Scope 3 emissions	Noise pollution
Embodied carbon	PCBs
	Visual amenity
Supply chain management	

The key performance indicator information included in Annex A to this report gives a detailed account of performance in the second year of ED2. The data presented in Annex A is the best available information at the time of publication.

The information presented in this report meets the guidance issued by our regulator, Ofgem. The structure of the report is also consistent with Ofgem requirements to aid comparison and cross-referencing between Distribution Network Operator (DNO) companies.

If you have any views or additional questions, please get in touch at:

[engage@northernpowergrid.com](mailto:engage@northernpowergrid.com)



# Executive summary

## \*RAG status

- Favourable to target
- Within 10% of target
- Adverse to target by more than 10%

Our environmental performance in 2024/25 is shaped by two key factors: our efforts to reduce our own environmental impact, and our broader role in supporting the region's transition to net zero in a way that fosters inclusive growth and prosperity. This report evaluates our environmental performance both through measurable outcomes, tracked against our key performance indicators, and through our contribution to delivering a sustainable path to net zero that thoughtfully balances social, economic, and environmental considerations.

This creates some inevitable challenges. For example, in the second year of ED2, electricity distribution losses remain higher than desired. However, the Clean Power 2030 plan, published by DESNZ in December 2024, sets out an ambitious vision for a fully clean electricity system by 2030. Electricity distribution networks are central to achieving this goal. When viewed through a whole-system lens, the increase in distribution losses can be seen as a positive indicator of progress. The expansion of the grid, growth in connections, greater availability of green energy, and rising consumer adoption of low-carbon technologies all contribute to this shift. Ultimately, decarbonising the grid, reducing the carbon intensity of electricity distribution, is a critical enabler of the journey to net zero.

Another example is considering the impact of our decarbonisation work on local nature. Where we build new infrastructure and equipment to reduce carbon emissions, we must also take proactive steps to minimise our impact on nature, aiming not only to deliver biodiversity net gain but to actively enhance local habitats that are essential for sustaining life.

Key measures	ED2 performance			Comments	*RAG
	Units	Targets	Actual		
<b>Outputs</b>					
Business carbon footprint	tCO <sub>2</sub> e	13,150	<b>13,309</b>	Slightly adverse to target due to increased fugitive emissions losses	<span style="color: green;">●</span>
Buildings energy usage	tCO <sub>2</sub> e	6,120	<b>5,890</b>	4% favourable to target	<span style="color: green;">●</span>
Operational transport	tCO <sub>2</sub> e	3,650	<b>4,079</b>	Slightly adverse to target due to vehicle charging infrastructure challenges and availability of low emission vehicles	<span style="color: yellow;">●</span>
Fugitive emissions	tCO <sub>2</sub> e	1,100	<b>3,338</b>	SF <sub>6</sub> losses are primarily associated with 66kV assets. Loss reduction is a priority area with several interventions in flight	<span style="color: red;">●</span>
SF <sub>6</sub> lost	kg	47.2	<b>142</b>		<span style="color: red;">●</span>
Science-based target scope 1 and 2 emissions (excluding losses)	tCO <sub>2</sub> e	10,610	<b>13,307</b>	Adverse to target due to SF <sub>6</sub> losses and operational transport emissions. Electricity distribution losses remain higher than target due to the expansion of the grid and public uptake of low-carbon technologies	<span style="color: red;">●</span>
Science-based target scope 1 and 2 emissions (including losses)	tCO <sub>2</sub> e	445,120	<b>481,208</b>		<span style="color: yellow;">●</span>
Responsible Procurement Charter	%	90%	<b>90%</b>	Target met	<span style="color: green;">●</span>
Waste – diversion from landfill	%	84%	<b>99%</b>	Data based on waste produced directly by Northern Powergrid and is an average of non hazardous and hazardous waste	<span style="color: green;">●</span>
Waste – recycled and re-used materials	%	80%	<b>54%</b>		<span style="color: red;">●</span>
Overhead lines removed from National Landscapes And National Parks	km	20	<b>18.48</b>	On track to meet target in ED2	<span style="color: green;">●</span>
Noise pollution – interventions	Count	12	<b>2</b>	On track and all substantiated incidents resolved	<span style="color: green;">●</span>
Biodiversity – improvement/facilitated on site	Count	80	<b>20</b>	On track to meet target in ED2. We are actively progressing a range of improvement projects aimed at bringing this measure back on track and strengthening our overall performance in this area	<span style="color: red;">●</span>
Oil/fluid lost	Litres	25,700	<b>28,428</b>	Although slightly off track, this is a continued area of focus for Northern Powergrid. On track to meet target in ED2	<span style="color: yellow;">●</span>
<b>Indicative inputs</b>					
Losses – low-loss (LV and HV) cable	km	1,360	<b>168</b>	Below target but recoverable in remaining ED2 period	<span style="color: red;">●</span>
FFC – replacement	km	16	<b>4.5</b>	Below target but recoverable in remaining ED2 period	<span style="color: red;">●</span>
FFC – dosing (PFT)	km	106.8	<b>20.4</b>	Below target but recoverable in remaining ED2 period	<span style="color: red;">●</span>
PCB – pole-mounted transformers	Count	5,532	<b>5,027</b>	Number of assets PCB contaminated or statistically likely to be contaminated. This data is a snapshot in time. The data is revised on a frequent basis as the statistical cohort model is updated with PCB results	<span style="color: green;">●</span>
PCB – ground-mounted transformers	Count	311	<b>336</b>		<span style="color: green;">●</span>

# Executive summary

## Summary of key measures

### Business carbon footprint



**15%**

We are committed to reduce SF<sub>6</sub> emissions by 15 per cent between 2023 and 2028

As shown in the summary table, our overall business carbon footprint is currently performing slightly below the in-year target set out in our Environmental Action Plan. The main contributors to our scope 1 and 2 emissions (excluding electricity distribution losses) are business transport, sulphur hexafluoride (SF<sub>6</sub>) losses, and building energy consumption. This report outlines the programmes and interventions we have in place to drive improvements.



**4%**

We outperformed on our energy use target by 4 per cent

### SF<sub>6</sub> losses

Although SF<sub>6</sub> losses account for less than one per cent of the total SF<sub>6</sub> contained within our assets, we recognise that performance in this area has declined and requires focused improvement. Reducing SF<sub>6</sub> losses is a priority, and our approach includes targeted operational interventions, the adoption of innovative solutions, and close collaboration with our supply chain, all of which are key to driving improved performance.



**6%**

We outperformed on our energy use target by 6%

### Energy use

We continue to enhance the energy efficiency of our offices and depots through our property portfolio improvement strategy, with recent work commencing at our Northeast head office. In addition, we are planning to install photovoltaic (PV) solutions at several substations to help reduce on-site energy consumption and support our wider sustainability goals.

### Business transport

Electrification of our operational vehicle fleet remains a key area of interest for our customers and stakeholders. To support this transition, we continue to invest in enhancing charging infrastructure across our operational sites and at colleagues' homes. In parallel, we are working closely with suppliers to identify and procure the most suitable vehicle types, ensuring we maintain service continuity through our fleet transition.

### Scope 3 and our supply chain

We recognise the importance of expanding emissions reporting across our supply chain and have already made meaningful progress in understanding our scope 3 emissions. For the second consecutive year, we've partnered with the Supply Chain Sustainability School to support this work. Our suppliers play a vital role in helping us meet our environmental targets. To that end, we're pleased that 90 per cent of our suppliers to date have signed up to our Responsible Procurement Charter, which outlines the standards we expect from our partners.

# Executive summary

## Summary of key measures

### Environmental protection



**99%**  
of waste diverted  
from landfill

#### Sustainable resource use and waste

Our waste performance, reflecting the waste generated by Northern Powergrid, has exceeded our target for waste diverted from landfill. The next key step is to focus on reducing waste generation itself, which will achieve through collaboration with our supply chain.



**£0.8m**  
Spent improving visual amenity  
in designated areas

#### Visual amenity

We remain on track to meet our target for enhancing visual amenity within the National Parks and National Landscapes across our operating region. In 2024/25, we've invested £0.8 million to install 18.48km of underground cable, helping to preserve and improve the natural beauty of these protected areas.

#### Noise pollution

We are again excelling in noise pollution interventions with only two substantiated incidents in year, both of which have been resolved for the customer.

#### Polychlorinated biphenyls (PCB)

Our PCB replacement programme has seen significant progress this year and continues to accelerate as we approach the compliance deadline of 31 December 2025. We are actively collaborating with the Energy Networks Association (ENA) and other Distribution Network Operations (DNOs) to contribute to the PCB statistical cohort model, which helps ensure each transformer is accurately categorised and appropriately managed.

#### Biodiversity and natural capital

The number of biodiversity initiatives undertaken this year is lower than forecast. However, we are actively progressing a range of improvement projects aimed at bringing this measure back on track and strengthening our overall performance in this area.

#### Fluid-filled cables

2024/25 fluid-filled cable performance has been affected by a small number of higher volume leaks, resulting in a less favourable overall outcome. This remains a priority area, and we continue to advance our replacement programme. We've also maintained the use of perfluorocarbon tracer (PFT) dosing, an innovative technology that enables rapid and effective leak detection.

**For more detailed information on each of our environmental impact areas, including performance updates and the actions we are taking to ensure continuous improvement, please continue reading.**

# Part 2 Business carbon footprint

We are committed to minimising the impacts our activities have on the environment.



# Business carbon footprint (BCF)

In the context of responding to the climate crisis and the UK's net zero commitment, carbon reduction continues to be a clear priority for Northern Powergrid and our stakeholders. This section outlines the actions we are taking to reduce carbon emissions across our business operations, including those within our supply chain.

Our BCF represents the total greenhouse gas (GHG) emissions generated directly and indirectly by Northern Powergrid. It serves as a critical baseline from which our carbon reduction targets are established. For ED2, our targets, outlined in the Environmental Action Plan, are based on the methodology provided by the Science-Based Targets Initiative (SBTi). Targets are considered 'science-based' when they align with the latest climate science and support the goals of the Paris Agreement, specifically limiting global warming to 1.5°C above pre-industrial levels to mitigate the most severe impacts of climate change.

We report our BCF in accordance with the Greenhouse Gas Protocol and the requirements of Streamlined Energy and Carbon Reporting. We also hold ISO14064 certification for our greenhouse gas emissions reporting, which is audited on an annual basis to ensure compliance.

The Greenhouse Gas Protocol categorises the emissions that make up a BCF into three scopes:

## Scope 1

Direct GHG occurring from sources owned or controlled by Northern Powergrid.

## Scope 2

Indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by Northern Powergrid.

## Scope 3

All other indirect emissions that occur across our value chain. Scope 3 emissions are a consequence of the activities of a company in its upstream and downstream supply chain.

The following sections provide an update on our current scope 1, 2 and 3 emissions status and reduction pathways.



# Business carbon footprint (BCF)

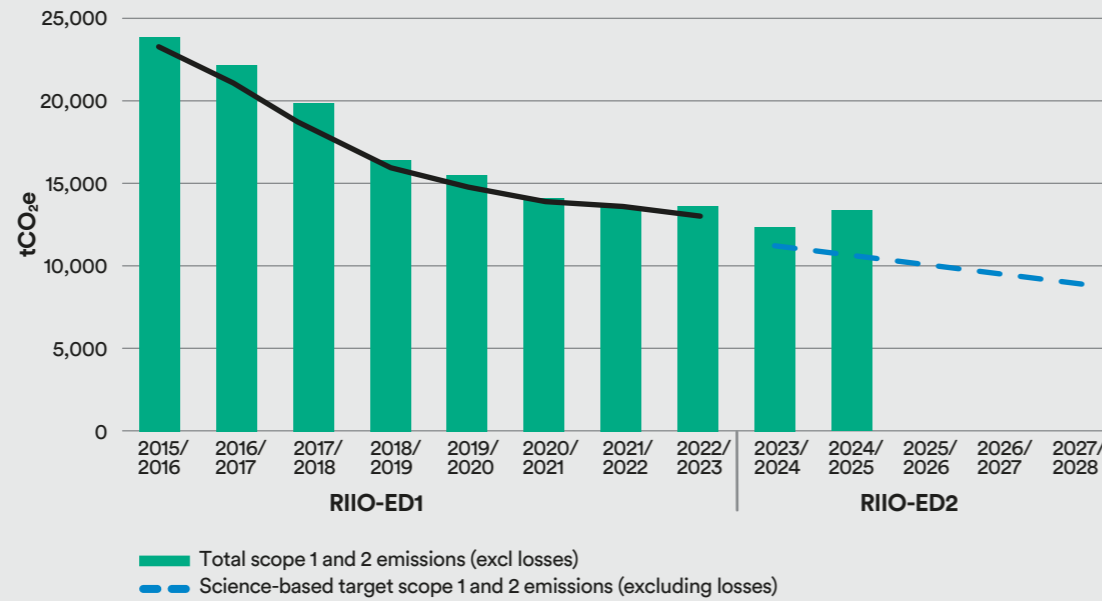
## Scope 1 and 2 emissions

As illustrated in the chart, the overall trend shows a continued reduction in our scope 1 and 2 emissions throughout ED1 and into ED2. However, total scope 1 and 2 emissions (excluding losses) for 2024/25 were 13,309tCO<sub>2</sub>e – an increase of 7.5 per cent compared to the previous year.

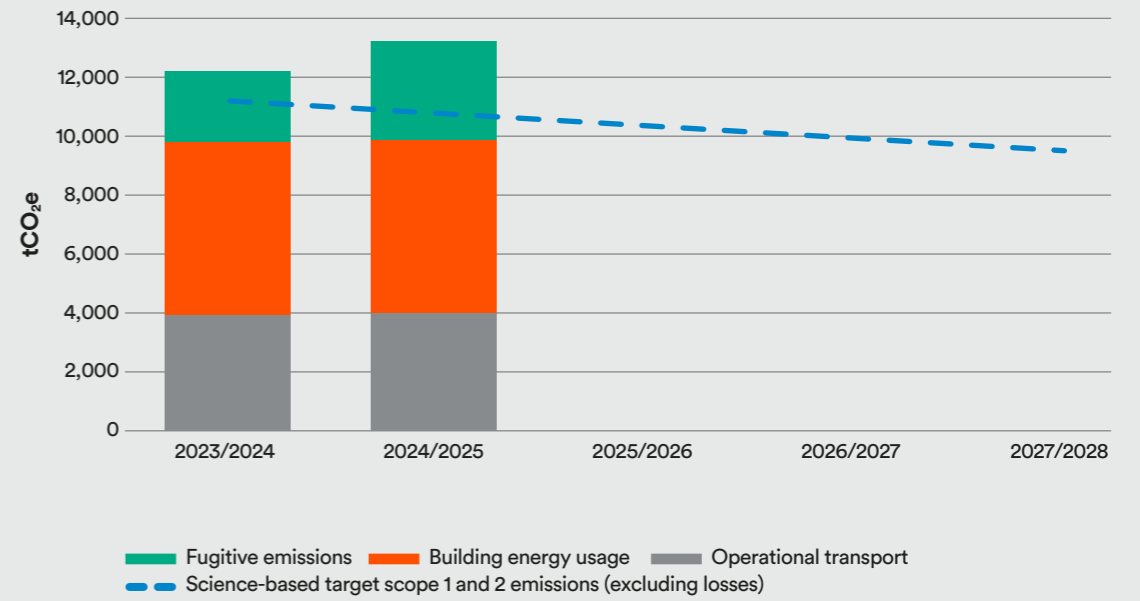
This section provides a summary of our scope 1 and 2 performance for 2024/25, with further detail on contributing factors and the actions we are taking to improve performance outlined in the relevant sections of this report.

The split of our BCF scope 1 and 2 emissions for 2023/24 is shown below:

Total scope 1 and 2 emissions (excl losses), ED1 and ED2



Scope 1 and scope 2 emissions sources (excluding losses) tCO<sub>2</sub>e



# Business carbon footprint (BCF)

## Fugitive emissions

Fugitive emissions are unintentional and undesirable losses of the greenhouse gas, sulphur hexafluoride, through leakage from our assets. Sulphur hexafluoride (SF<sub>6</sub>) is used in the electricity industry to keep networks running safely and reliably. In common with other network operators, we use SF<sub>6</sub> as an insulator in high voltage electrical equipment and it is a significant contributor to our carbon footprint.

In 2024/25, 142kg of SF<sub>6</sub> was emitted by our network and is an increase of 27 per cent on

the previous year's performance. Further details on this Environmental Impact Area and what we are doing to manage fugitive losses can be found in the sulphur hexafluoride (SF<sub>6</sub>) section of this report.

## Building energy use

Substation electricity use represents 70 per cent of the total energy used in our buildings and substations. Electricity supplies to substations are unmetered and are therefore estimated using the calculation methodology approved

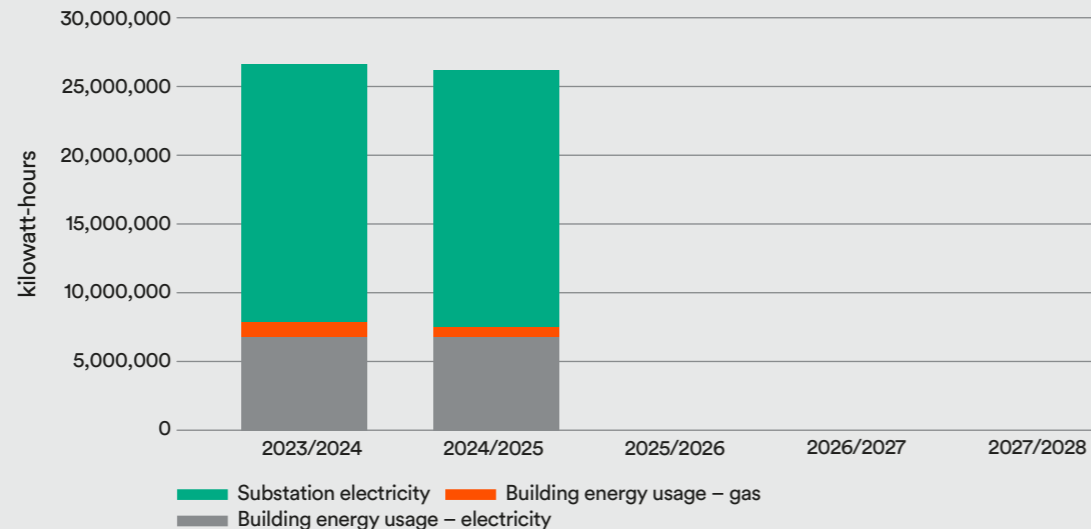
by Ofgem. The kilowatt-hour values given below for building energy use (gas and electricity) converts to 5,890tCO<sub>2</sub>e which is significantly lower than the target we set out in our Environmental Action Plan of 6,120tCO<sub>2</sub>e.

## Energy efficiency schemes at offices, depots and substations

Throughout 2024/25, we have been in the planning phase for a number of initiatives aimed at improving energy efficiency across our offices, depots, and substations. While the benefits of these projects have not yet been realised within the year, they will continue into

the remainder of ED2 and are expected to deliver significant energy savings. These initiatives include the installation of green energy solutions at our sites and the deployment of energy management systems at substations. Progress has also been made on refurbishment plans for several of our larger office locations, with a focus on integrating low-energy fittings, enhanced insulation, and efficient heating and cooling systems.

## Energy consumption at licensee buildings and substations



# Business carbon footprint (BCF)

## Operational transport

### EV charging and the electric fleet

We know that the use of electric vehicles is of particular interest to our customers and stakeholders. Diesel use within our operational fleet remains a significant contributor to our business carbon footprint, generating 4,079tCO<sub>2</sub>e in 2024/25, equivalent to 30 per cent of our total scope 1 and 2 emissions (excluding electrical losses). To address this, we have set fleet decarbonisation targets within our ED2 Environmental Action Plan (EAP), committing to a reduction in operational transport emissions of approximately 33 per cent (measured in tCO<sub>2</sub>e) over the ED2 period.

One way to achieve this reduction is to replace approximately 40 per cent of our 850 commercial vehicles with ultra low and zero emission vehicles (ULEVs/ZEVs) by the end of ED2 in 2028. This equates to the replacement of approx. 350 diesel vehicles with battery electric vehicles (BEVs), and plug-in hybrid vehicles (PHEVs).



**40%**

Percentage of our 850 vehicles to be replaced with ULEVs and ZEVs

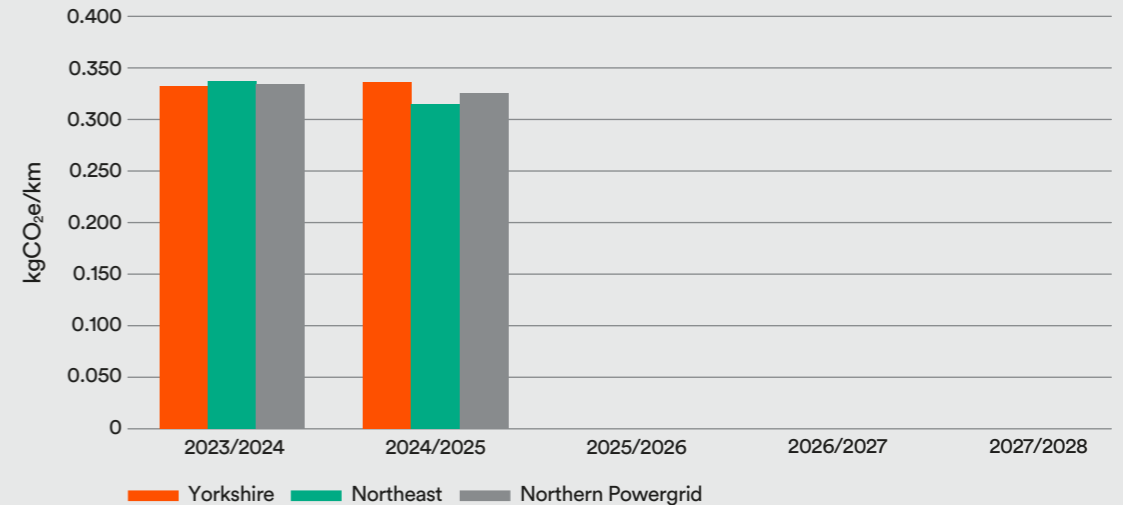
Wherever possible, BEVs are the preferred vehicle replacement within the ED2 period as they maximise the reduction of tCO<sub>2</sub>e emissions; however, there are challenges to this transition due to limitations to payload, range and towing capabilities of currently available BEVs, meaning that other vehicle types still need to be considered.

Our commercial vehicles include Utility AWD (all-wheel drive); specialist vehicles, such as MEWPs (mobile elevating work platforms); and HGVs (heavy goods vehicles), which may not have suitable battery alternatives within the ED2 period. Therefore, we will initially prioritise replacing our commercial van fleet vehicles with ULEVs and ZEVs.

As outlined in last year's report, a key early step in our transition involves tendering for the installation of suitable EV charging points, both at home and on-site, to expand our workplace charging infrastructure. Throughout 2024/25, working closely with our procurement team, we have identified appropriate locations for these installations. Deployment will continue across the remainder of ED2, strengthening our overall charging capability.

Renewable energy technologies, such as solar panels and battery energy storage systems, can help support energy consumption and manage peak demand on the distribution network. While we remain committed to expanding our own EV charging infrastructure, reliance on the public charging network will still be necessary. The presence of a robust and accessible charging network across our regions is a key enabler for the adoption of low-emission vehicles and is essential to their successful integration.

## CO<sub>2</sub>e intensity of an operational km travelled



Alongside this, we continue to engage with vehicle manufacturers to explore viable options that meet our operational requirements.

We have also continued to explore additional ways of reducing vehicle emissions by examining technologies such as hydrogen fuel cells and using alternative, renewable fuels as a replacement for diesel within the existing fleet during the transition to ZEVs. Hydrotreated vegetable oil (HVO) is considered a low-carbon renewable fuel, delivering a CO<sub>2</sub>e reduction of approximately 90 per cent when compared to diesel. HVO is fully substitutable for diesel in any quantity, can be interchanged without modification and without the need to drain tanks. Use of HVO is particularly relevant to

larger or more specialist vehicles where there is currently no ULEV or ZEV alternative. However, it can also be utilised within any existing diesel vehicle in the fleet to achieve a significant reduction in GHG emissions. In 2024/25, we successfully installed a HVO tank at one of our operational depots, enabling refuelling of our larger fleet vehicles with this lower-carbon alternative. Following the success of this trial, we now plan to roll out similar installations at several additional sites across our region, maximising the associated carbon emissions reductions.

# Business carbon footprint (BCF)

## Scope 3 emissions

Scope 3 emissions encompass all indirect emissions arising from both upstream and downstream activities associated with our operations. Tackling these emissions is a substantial challenge and forms a critical part of our journey to net zero. It requires close collaboration between Northern Powergrid and our supply chain partners.

We recognise the importance of enhancing our scope 3 emissions reporting throughout ED2. This includes developing a robust methodology for calculating emissions, implementing a reduction strategy, and identifying actionable steps to drive down emissions over time. We are also committed to working collaboratively across the industry, via the Energy Networks Association Carbon Working Group, to support this effort.

In 2024/25, we have taken the following steps:

- **Monitored supply chain performance** against our Responsible Procurement Charter, as detailed in the Supply Chain Management section of this report.
- **Advanced our scope 3 reporting methodology**, incorporating both actual data and spend-based assessments across relevant categories.
- **Continued measuring emissions** linked to supply chain fuel usage and Northern Powergrid business mileage.
- **Strengthened our partnership** with the Supply Chain Sustainability School to foster learning and collaboration. For the second consecutive year, we have requested scope 3 data from our supply chain via the school's carbon calculator tool, enabling early-stage trend analysis.

— **Reviewed data accuracy**, recognising that the reliability of scope 3 reporting depends on how emissions are apportioned. This review is ongoing to ensure improved data quality and consistency.

### Partnering with the Supply Chain Sustainability School

We continue to collaborate with the Supply Chain Sustainability School, and for the second consecutive year, scope 3 emissions have been reported using the school's carbon calculator. This tool supports our suppliers in calculating their greenhouse gas (GHG) emissions and provides Northern Powergrid with visibility of the emissions embedded within our supply chain. Developed in partnership with industry, the calculator offers a standardised and consistent approach to recording scope 3 emissions across relevant categories.

We also maintain close engagement with other Distribution Network Operations (DNOs) to share expertise, align methodologies, and promote consistency across the sector. As more suppliers begin to provide increasingly detailed emissions data throughout ED2, we will gain a clearer understanding of scope 3 emissions trends, enabling us to identify and implement targeted reduction strategies.

Over the past two years, we have collected scope 3 emissions data from a prioritised group of supply chain partners.

This data is categorised as follows:

Category	Data sources
Company transport	Mileage data from trackers, mileage claims for expenses
Fossil fuels	Fuel bills, fuel expense claims
Fugitive emissions	Incident reports for any fugitive emissions leaks. These will be stored company records
Electricity	Electricity bill or electric meter reads
Materials	Records of materials purchased to process into manufactured materials
Third party transport	Expense claims for fuel, rail & air travel, employee transport survey
Waste	Waste management company report and waste disposal invoices
Water	Water bill or water meter readings

# Business carbon footprint (BCF)

## Northern Powergrid business travel

Our business travel scope 3 emissions are broken down as shown.

Business travel equates to just over 2,400tCO<sub>2</sub>e. Our hybrid working model continues to support the reduction of business travel, with rail travel encouraged wherever feasible to further minimise emissions.

We are also developing a methodology to calculate scope 3 commuter emissions and are adopting a spend-based approach to estimate emissions from supply chain activities not currently captured through the Supply Chain Sustainability School's carbon calculator.

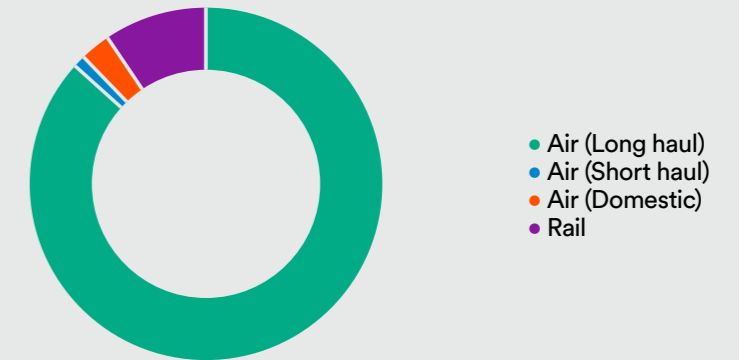
In summary, scope 3 emissions remain a key area of focus. As we progress through ED2, our reporting will continue to evolve and expand, driven by ongoing collaboration with our supply chain partners and improvements in data quality and coverage.



Business car use – tCO<sub>2</sub>e



Business air and train – tCO<sub>2</sub>e



# Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs)

Sulphur hexafluoride (SF<sub>6</sub>) has been widely used across various industries for many years. Within the energy sector, it serves as a highly effective insulating gas in high-voltage electrical equipment. However, SF<sub>6</sub> is also a potent greenhouse gas, with one tonne having the equivalent global warming potential of 23,500 tonnes of CO<sub>2</sub>.

At Northern Powergrid, we have a strong track record of deploying innovative technologies and are proactively supporting the development of effective and reliable alternatives to SF<sub>6</sub>, including conducting trials of alternative gas solutions. However, at present, few substitutes offer both the technical performance and economic viability required for widespread adoption. As a result, we anticipate continued use of SF<sub>6</sub> until suitable alternatives become available.

The nature of SF<sub>6</sub> means it's essential we keep the amount that leaks out of our equipment to an absolute minimum. We monitor all SF<sub>6</sub> losses on a daily basis by measuring how much we have injected back into the equipment to replace gas which has leaked into the atmosphere. We report our SF<sub>6</sub> gas losses as one of our environmental key performance indicators.

The total amount of SF<sub>6</sub> on our network is 34,426kg. In 2024/25, 142kg of SF<sub>6</sub> was emitted, 125.5kg of which was within the Yorkshire and north Lincolnshire licence area operating region.



**<1%**

SF<sub>6</sub> losses are less than one per cent of the total amount of SF<sub>6</sub> contained in our assets

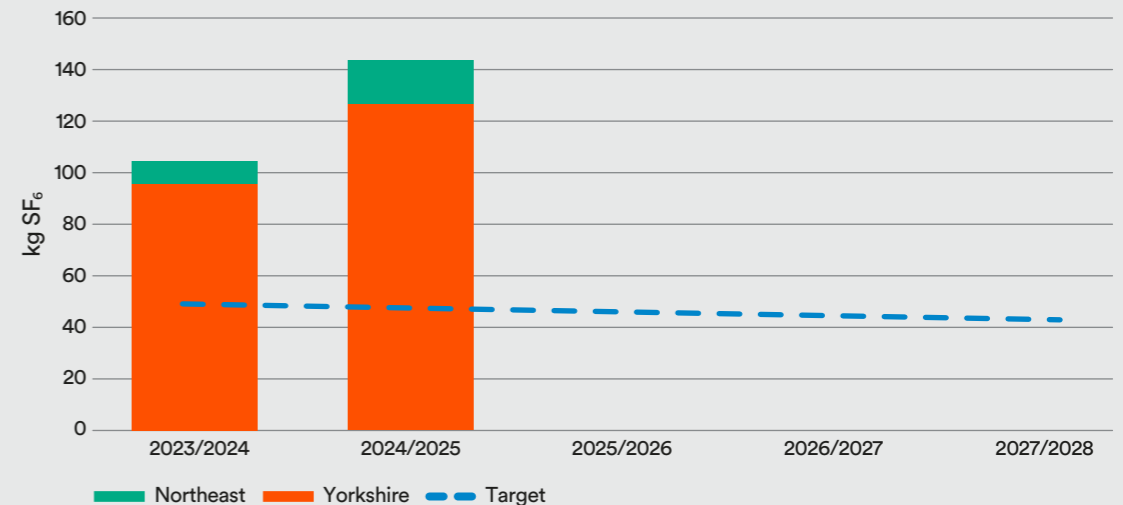
Although SF<sub>6</sub> losses are less than one per cent of the total amount of SF<sub>6</sub> contained in our assets, we acknowledge that performance has deteriorated and requires improvement.

SF<sub>6</sub> losses are primarily associated with 66kV asset base with some 60 per cent of all losses attributable to these assets. Northern Powergrid owns and operates some two thirds of all 66kV circuit breaker assets in Great Britain (GB). The majority of losses on these assets are concentrated in our Yorkshire licence area.

Historically, a significant number of early-model outdoor 66kV SF<sub>6</sub> circuit breakers were installed within our Yorkshire licence area. At the time of installation, these assets represented industry-leading technology. The recommended configuration for these breakers was as part of air-insulated switchgear (AIS) substations, mounted on steel structures within outdoor fenced compounds. However, prolonged exposure to environmental conditions has led to minor corrosion in some areas, which can allow moisture ingress, ultimately resulting in the leakage of insulating gas. Approximately 30 per cent of total losses are linked to one such site where we are planning a comprehensive asset replacement project estimated to cost over £8 million.

One notable development has been the emergence of SF<sub>6</sub> leaks in equipment installed and commissioned on our 132kV and 66kV networks within the last 10–15 years. We are actively investigating this issue to better understand the underlying causes. This may result in changes to our asset management regime for these asset types and potentially early life planned refurbishment.

Sulphur hexafluoride (SF<sub>6</sub>) actual by licence area vs overall target



We continue to enhance our operational procedures and response for managing SF<sub>6</sub> leaks. When a leak is detected, either through remote pressure alarms or on-site inspections, we schedule maintenance and repair activities. If the issue persists and cannot be resolved through these interventions, we proceed with equipment replacement to prevent further emissions. Additionally, we have invested in infrared camera technology capable of detecting SF<sub>6</sub> leaks, allowing for rapid and precise identification of leak sources.

Many of the repairs we identify at leak locations require intervention from the original equipment manufacturer (OEM), which introduces lead times for scheduling specialist resources. Once on site, these specialists assess the materials needed to

carry out the repair, but we are increasingly facing extended lead times for certain components. Extended resolution times have a direct impact on our performance in this area and therefore we continue to work with our supply chain to improve this.

### Asset interventions

During 2024/25, our interventions have included a full asset overhaul at one site, seal replacements at another, and the degassing of a circuit breaker that was contributing to significant SF<sub>6</sub> losses. These targeted actions have successfully reduced overall emissions and improved performance in this area.

# Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs)

## Supply chain interventions

We continue to work closely with the equipment manufacturer to accelerate response times, ensuring that required parts are sourced promptly and installed efficiently to resolve leaks. This is particularly important in cases where persistent low-level leaks are present, as timely intervention helps prevent further deterioration and environmental impact.

When our supply chain partners decommission equipment containing SF<sub>6</sub>, they are required to follow a detailed work instruction and method statement. This guidance outlines all necessary equipment, health and safety considerations, and a step-by-step process for safe decontamination. As part of the procedure, the pressure within the switchgear is recorded, and the gas is extracted until a negative or consistently low pressure is achieved, ensuring that no SF<sub>6</sub> is released into the atmosphere.

## Innovative interventions

As well as ensuring that our current operational interventions on legacy SF<sub>6</sub> assets are safe and robust, we continue to work with equipment manufacturers and other DNOs through the ENA to trial and embrace innovative new SF<sub>6</sub>-free technologies. As reported last year, we have successfully installed SF<sub>6</sub>-free equipment at our Kirkstall B 132kV Grid Supply Point substation.

## Molton metal manipulation technique

Building on successful trials, we have continued to deploy an innovative leak-sealing technique that uses molten metal manipulation. This approach offers a rapidly deployable solution for sealing or mitigating SF<sub>6</sub> leaks.

## Industry collaboration

We also take a collaborative approach, working with other DNOs and the Energy Networks Association (ENA) on SF<sub>6</sub> losses. It is a top priority of the ENA Environment and Sustainability Committee and has an associated working group focusing on this issue. We play an active role in both groups and will continue to contribute and share intel around our approach and innovative trials. We also liaise with National Grid to understand the solutions that they have implemented to manage and resolve leaks. These measures range from preventative measures (coatings and seals) to reactive measures (leak sealing, e.g. molton metal manipulation technique and alternative gasket materials). We assess the suitability and benefits of these measures and adopt them, where appropriate, for use on our network.

Overall, SF<sub>6</sub> emissions continue to represent a significant portion of our carbon footprint, and we remain committed to achieving a further 15 per cent reduction between 2023 and 2028. To meet this target, we will maintain a strong focus on leak monitoring, drive operational improvements and targeted interventions, and, critically, collaborate with industry partners and our supply chain to pursue innovative solutions that support our long-term transition toward an SF<sub>6</sub>-free network.



**15%**

We are committed to reduce SF<sub>6</sub> emissions by 15 per cent between 2023-2028

# Electricity distribution losses

Electricity distribution losses are the difference between the amount of energy entering the network from the National Grid and the amount of energy drawn out of it by our customers. No system can be 100 per cent efficient and losses are unavoidable in distributing electricity. The two main types of losses are:

- **technical losses**, the natural effect of network equipment heating up while transferring electricity, and
- **non-technical losses**, generally resulting from metering errors and theft.

In 2024/25, electricity distribution losses for Northern Powergrid totalled 2,260 GWh, or around 2.2 terawatt-hours (TWh). The associated carbon emissions, 467,901tCO<sub>2</sub>e, account for 97.2 per cent of our current scope 1 and 2 emissions. When viewed as a proportion of total energy entering the network, these losses equate to approximately 6 per cent. This ‘lost’ energy must still be generated, resulting in both financial and environmental impacts. While it is not possible to eliminate losses entirely, it is essential that they are kept as low as reasonably practicable. Encouragingly, our performance in 2024/25 reflects an improvement compared to the previous year, demonstrating progress in our efforts to reduce losses and associated emissions.

## How electrical losses are linked to decarbonisation

Our Losses Strategy details how there are some aspects of losses management that we can fully control and other aspects that we can only influence.

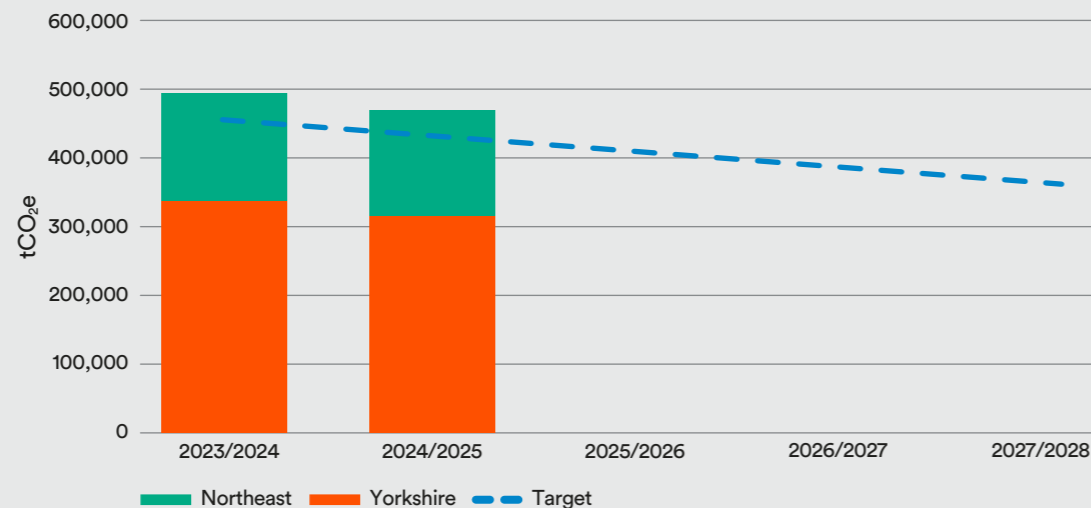
Volume of losses is dictated primarily by the loading of electricity placed upon network equipment and, to a lesser extent, by the characteristics of the network, meaning that losses are mainly determined by the energy requirements of our customers. In general, the higher the electricity loading, the higher the electrical losses.

Decarbonisation will result in a significant increase in network loading as customers switch from fossil fuels to electricity and low-carbon technologies. Given that the majority of our existing network will continue to operate well into the future, we anticipate that electrical losses will generally increase in line with demand. We will have the ability to directly control or influence only a small percentage of these losses, primarily when we make changes to our network and install new equipment.

The most economic and efficient manner of facilitating net zero will generally be to increase network utilisation which will create an increase in electrical losses. Network losses are therefore not something that we simply seek to minimise, but to better manage as part of a holistic asset management approach which will generally see losses increase in the coming decades, whilst emissions will ultimately tend to zero.

As the primary driver of any future change to the overall level of network losses is the changing energy needs of our customers, we have a significant opportunity to reduce losses by influencing customers to reduce their energy usage. We will work closely with our customers and stakeholders as part of our commitment to support communities to become more energy efficient. The actions we are taking to educate and inform customers about energy efficiency are detailed in the ‘Consumers and Network – Customer Service’ section of our 2023-28 business plan.

Distribution losses (tCO<sub>2</sub>e)



# Electricity distribution losses

## Our electrical losses interventions strategy

Our low-loss interventions come under two main categories: low-loss cable installation; and replacement of pre-1958 distribution transformers.

### Low-loss cables

We have embedded a low-loss policy in designing and operating our network. One of the key considerations is the size of the cable installed. The incremental cost of higher capacity (larger) cables was compared with the benefits of having bigger capacity, lower resistance cables – i.e. low-loss cables – to create the extra network capacity required to facilitate net zero and improve network performance while minimising associated losses.

To note, we have reported 168km of low-loss cable installation in 2024/25. The cable volumes (additions) were obtained from our Asset Register. The volumes reported represent an estimate based on actual year-to-date volumes, along with an uplift to account for completed schemes where asset records have not been recorded on to our asset systems. The estimate represents 50 per cent of the total reported volumes and the outturn is in line with figures provided in previous years.

### Replacement of pre-1958 distribution transformers

Our analysis shows that the costs associated with replacing a pre-1958 transformer with a more efficient modern transformer would be offset by future losses cost savings within ten years of its replacement. As a result, we are prioritising replacement of pre-1958 distribution transformers as part of our existing asset replacement work programmes. This supports our ongoing drive to reduce technical losses on the network and an approach to the targeted replacement of pre-1958 distribution transformers identified by other DNOs within their business plans.



## 168km

Length of low-loss cable installation  
in 2024/25

# Embodied carbon

Embodied carbon refers to all greenhouse gas emissions resulting from the extraction, manufacture, transportation, and assembly of materials, as well as the construction process itself. These emissions are classified as scope 3 and are closely aligned with our Responsible Procurement Charter, which is further detailed in the Supply Chain Management section of this report.

## Reducing embodied carbon in our non-operational buildings:

Our property strategy integrates sustainable practices throughout. We have a schedule for upgrading our non-operational sites, and each update is guided by a commitment to environmental responsibility.

During these upgrades, we carefully consider...



**Energy:** We adopt a fabric-first approach to maximise energy efficiency in our buildings. Our strategy is that buildings are heated and cooled using highly efficient systems and local electric water heaters supply hot water to ensure low-carbon, energy-conscious performance.



**Waste:** One effective way to reduce building-related waste is through future-proofing, which

extends the building's lifespan and reduces the need for future interventions. We are currently exploring future-proof technologies, such as photovoltaic (PV) solar panels, at several of our non-operational sites, with the intention of rolling out these solutions through the remainder of ED2.



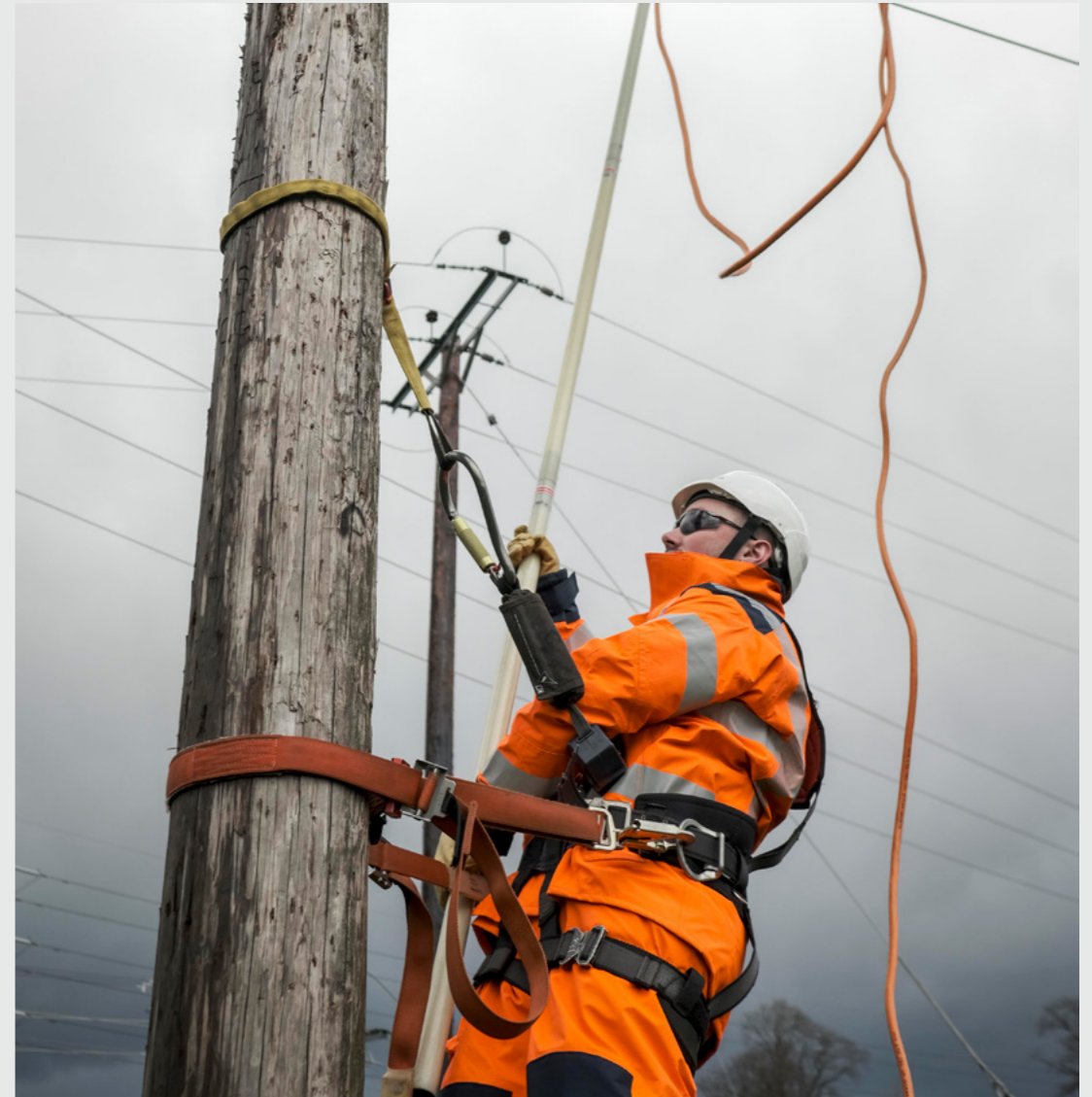
**Health and wellbeing:** Efficient heating and cooling systems deliver optimum indoor thermal comfort, supporting a healthier and more productive environment for employees.



**Land use and ecology:** As part of our upgrades to non-operational sites, we incorporate landscaping and planting to enhance biodiversity and deliver nature gains. These improvements also contribute to creating a healthier, more pleasant environment for staff.

## Industry collaboration

We are an active member of the newly established Energy Networks Association (ENA) Carbon Group, which is focused on developing a collaborative framework for managing whole life carbon emissions across the UK's electricity network. This includes the consistent measurement and reduction of embodied carbon.



# Supply chain management



90%

Percentage of suppliers that have signed up to Northern Powergrid's Responsible Procurement Charter

Our supply chain plays a vital role in helping us achieve our business objectives. We view our suppliers as an extension of Northern Powergrid and work collaboratively to support them in meeting the high standards we set for ourselves. As part of this commitment, we've invited suppliers to sign up to the Northern Powergrid Responsible Procurement Charter, achieving a 90 per cent participation rate, which meets the target outlined in our Environmental Action Plan. We also encourage suppliers to hold ISO 14001 certification or operate a robust environmental management system, with over 90 per cent now adopting one of these approaches.

As part of our Responsible Procurement Charter, we expect our suppliers to share our commitment to the environment by abiding by the letter and spirit of all environmental laws and regulations, as well as our policies and procedures related to pollution, waste disposal, emissions, and wildlife and habitat protection. Our suppliers are required to obtain and maintain all permits and registrations necessary to conduct their work. Suppliers are also expected to perform all work and maintain their equipment in a manner that avoids spills and releases to the environment and, if a spill or release does occur, to report those incidents in accordance with our policies.

We have set out a requirement for our suppliers to provide the following environmental metrics on an annual basis and will continue to work with them to help them provide the best available information under these categories:

- Emission reduction in the last three years
- Percentage of fleet vehicles that are ULEV/ZEV

- Percentage of office energy offset by low-carbon technologies
- Percentage of 'green' office supplies
- Waste reduction in last three years
- All applicable scope 3 emissions.

A portal is being launched to enable our suppliers to report data directly to us in the format we require. This will enable us to provide more detailed information in the next annual report.

## Supply chain scope 3 emissions

As highlighted in the business carbon footprint section, we are partnering with the Supply Chain Sustainability School and have implemented its carbon calculator tool. This application helps our suppliers quantify their greenhouse gas (GHG) emissions, giving Northern Powergrid greater insight into the carbon footprint embedded within our supply chain. We are currently working with our highest spend suppliers to support their onboarding to the school, enabling the collection of annual emissions data. To capture emissions across the broader supply chain, we are also developing a spend-based methodology for calculating scope 3 emissions. This approach will help us estimate carbon impacts where direct supplier data is not yet available.

# Part 3 Environmental protection

Our long-term goal is to enhance natural habitats across the regions we serve, promoting greater biodiversity and ecological resilience by increasing the diversity of species and ecosystems.



# Sustainable resource use and waste

Our stakeholders have expressed a clear expectation for us to reduce waste and improve how we manage waste generated by our suppliers. To support the transition to a circular economy, which prioritises sharing, leasing, reusing, repairing, refurbishing, and recycling materials for as long as possible, we will continue to strengthen our resource management processes throughout ED2 and beyond.

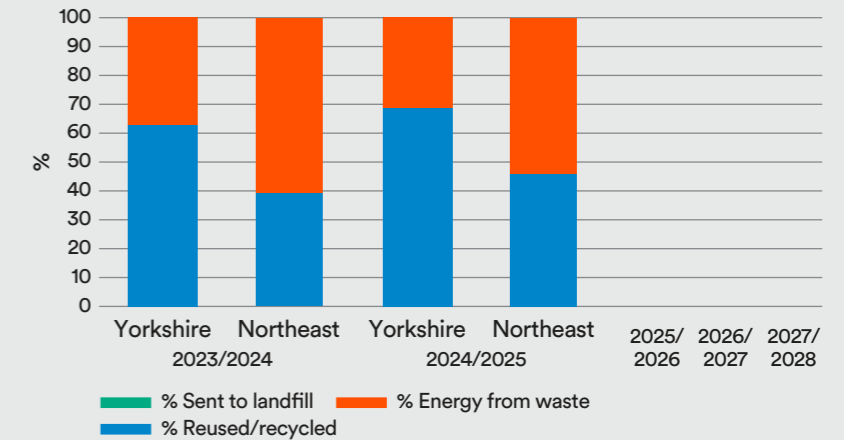
The waste data presented in Annex A is a summary of our Environment Agency (EA) waste returns, representing the waste produced directly by Northern Powergrid. The information comprises the disposal of the following waste types from our non-operational sites.

99 per cent of directly generated waste is diverted from landfill and processed at energy recovery facilities or recycled. Despite this strong performance, our recycling rate remains below our desired target. Throughout 2025/26, we will focus on improving this by further developing waste segregation infrastructure across our offices, in alignment with circular economy principles and the waste hierarchy.

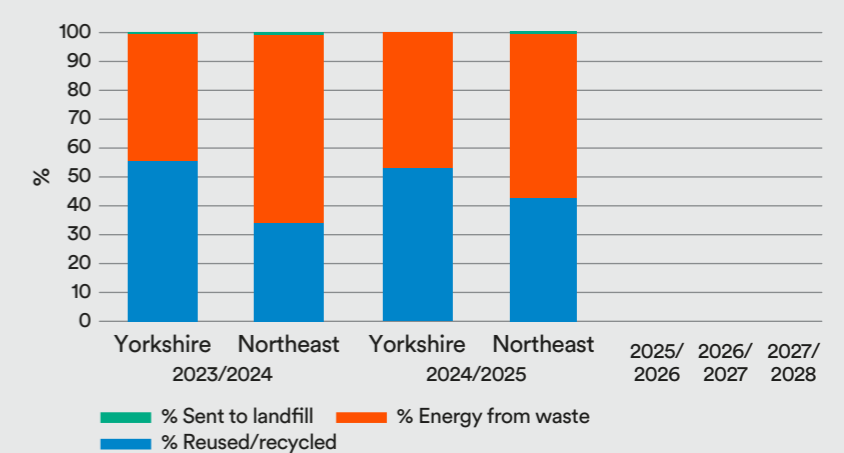
Waste type	Waste classification code*
Oil & PCBs	130301
Mineral oil	130306
Waste oil	130307
Insulating oils	130310
Packaging containing residues	150106
Oily rags	150202
Eqt & PCB oil	160209
Eqt & oil	160213
Eqt & SF <sub>6</sub>	160214
Mixed metal	160216
Fire extinguishers/aerosols	160504
Fire extinguishers	160505
Lead batteries	160601
Batteries (Ni Cd)	160602
Wood	170204
Steel & joints	170405
Cables & waste	170411
Asbestos	170601
Construction materials containing asbestos	170605
C&D waste (cont mercury)	170901
Flammable wastes	170903
Construction & demolition waste (non haz)	170904
Fluorescent tubes	200121
Eqt & CFCs	200123
Adhesives, paints & resins	200127
Batteries	200133
WEEE	200135
WEEE	200136
Wood	200138
General waste, office and C&D	200301

\*code as per technical guidance WM3

Hazardous/special waste destination



Non-hazardous/special waste destination



# Sustainable resource use and waste

In 2024/25, we advanced a number of key initiatives, including...

## **Simpler recycling compliance**

In line with the regulations introduced in England from 31 March 2025, we have implemented the required waste separation practices across our business. We ensure that all dry recyclables, including glass, paper, card, plastics, and metals, as well as food waste, are properly segregated and recycled, supporting both regulatory compliance and our commitment to sustainable resource management.

## **Transformer bund refurbishment programme**

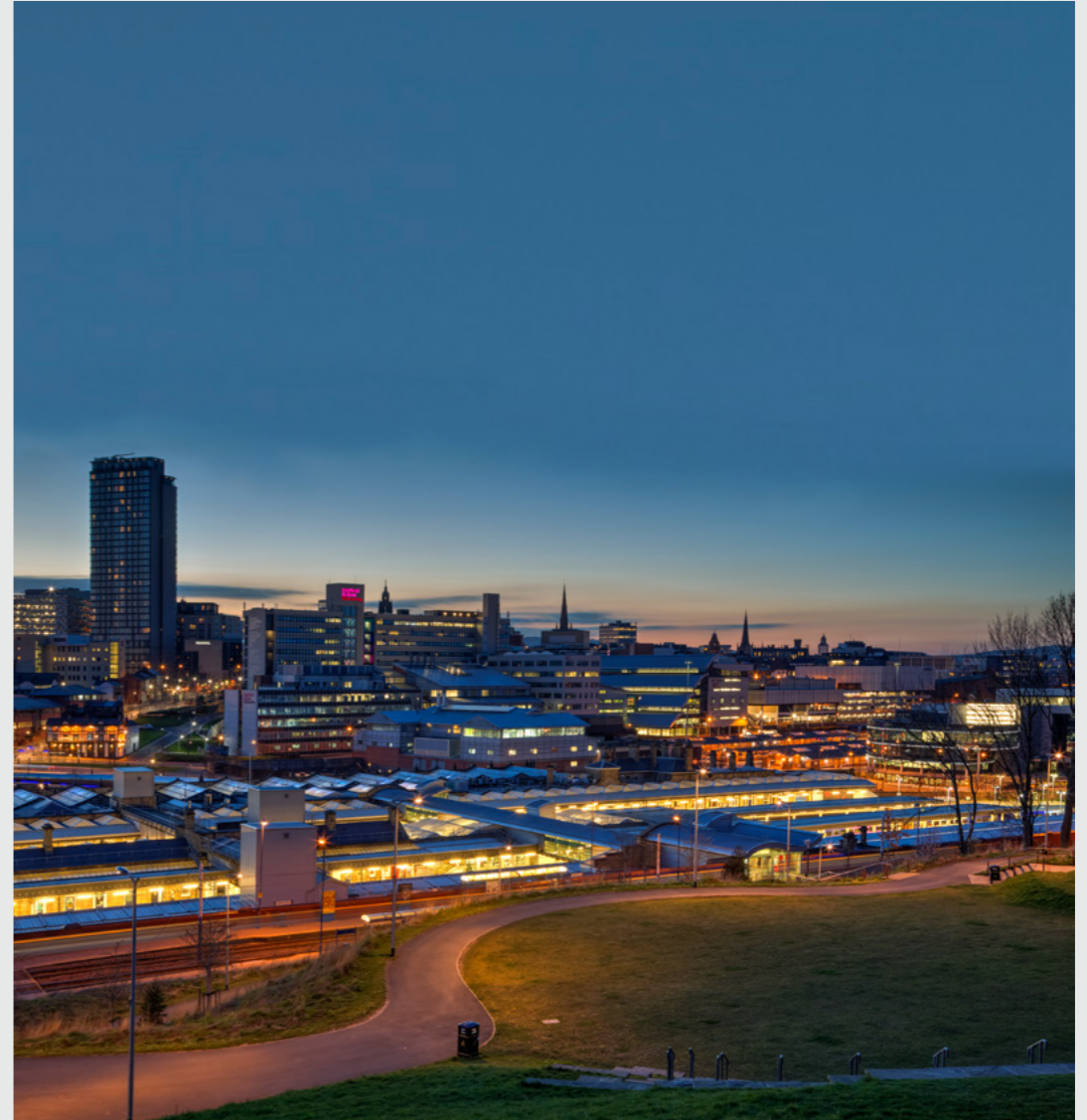
We have a planned programme of works, with mobilisation scheduled to begin by mid-September. The programme will cover 12 sites, with two sites in Yorkshire forecast for completion by the end of this year. The refurbishment of the remaining sites will be phased throughout 2026.

## **Street Works Protocol**

Effective from 1 October 2025, the new Street Works UK Material Classification Protocol introduces a standardised, risk-based approach for classifying waste from utility excavations. It aims to improve environmental protection, compliance, and waste traceability. Throughout 2024/25, we have worked closely with our supply chain partners to ensure readiness, establishing the necessary systems and delivering training to support full compliance with the new requirements.

## **Supply chain**

To reduce waste generation, we will continue working closely with our supply chain to promote the sustainable procurement and use of goods and services. This includes minimising packaging and prioritising sustainable alternative products and materials wherever feasible. We will also strengthen collaboration with our service partners to further minimise resource use.



# Visual amenity

Approximately one-third of our cable network consists of overhead lines. We engage with stakeholders to reduce their visual impact within National Parks and National Landscapes (formerly known as Areas of Outstanding Natural Beauty). These assets can affect both landscape character and biodiversity, and we have a statutory duty to protect and enhance the value of these designated areas.

Four National Parks and five National Landscapes fall partly or entirely within our licence areas. In response to stakeholder

feedback, we have established a dedicated programme to remove overhead lines and replace them with underground cables in these protected areas.

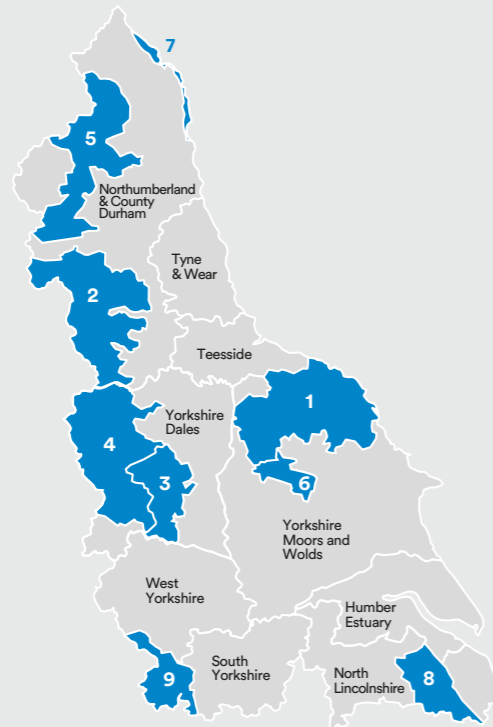
In 2024/25, we invested £0.8 million to remove 6.5km of overhead lines and install 11.9km of underground cables, delivering a total of 18.5km. While this was slightly below our annual target of 20km, the programme remains on track to meet the Environmental Action Plan commitments by the end of ED2.

## Stakeholder engagement and support

We work closely with stakeholders from each of the National Parks and National Landscapes so that together we can improve visual amenity for people who live in, and travel to, these beautiful areas. Our programme steering group, made up of stakeholder representatives and members of our design, wayleaves and delivery engineer teams, meets twice a year to identify and prioritise projects and discuss other issues, including policy development and publicity. We maintain day-to-day control over this work and provide regular feedback to stakeholders.

## Our strategy for project assessment and delivery, including analysis of costs and benefits

Our undergrounding programme is designed to meet the needs of representatives from the designated areas. We're aiming to make it easy for them to access the information and expertise they need to make an informed choice. We invite representatives from the designated areas to state their preference for underground schemes, in line with the jointly agreed Assessment and Stakeholder Participation Policy. The stakeholders draw up a priority list of potential projects, considering the characteristics of each site and the visual and environmental impact of the overhead line.



The lengths of overhead line within each area as of March 2025 are shown below:

Designated area	Length of overhead line (km) – March 2025	Visual amenity inside designated areas: Overhead line removed during year (km)	Visual amenity inside designated areas: Underground cables installed during year (km)	Visual amenity inside designated areas: Visual amenity expenditure (£m) on visual amenity inside designated areas
1 North Yorks Moors	1,096.8	–	–	0.03
2 North Pennines	695.69	–	–	–
3 Nidderdale	555.52	0.78	1.94	0.09
4 Yorkshire Dales	577.66	1.92	3.37	0.21
5 Northumberland	308.51	–	–	0
6 Howardian Hills	247.79	0.26	0.26	0
7 Northumberland Coast	78.05	–	–	0
8 Lincolnshire Wolds	404.86	3.56	6.4	0.53
9 Peak District	202.57	–	–	0.02
<b>Total</b>	<b>4,167.46</b>	<b>6.52</b>	<b>11.96</b>	<b>0.88</b>

Figure 1: Designated areas in our regions (National Parks and National Landscapes)

# Visual amenity

The visual amenity schemes and their progression status are given here. This shows that eight schemes have been completed, with many more in progress.

Designated area	Location	Length of line (km) for undergrounding	Stage in the process
Howardian Hills	York – Oswaldkirk	1.9	5 – Complete
	Welburn	0.7	
	<b>Howardian Hills Total</b>	<b>2.5</b>	
Lincolnshire Wolds	Louth, Hallington Station	0.0	Construction in progress
	Market Rasen, Claxby Village	5.2	2 – Proposed and awaiting land consents
	Market Rasen, Benniworth Donnington Road	4.8	5 – Complete
	Louth, Donnington Station	2.6	5 – Complete
	Louth, Goulceby Top	2.7	
	Market Rasen, Tealby Thorpe, Sixhills School	4.6	4 – Construction in Progress
	<b>Lincolnshire Wolds Total</b>	<b>19.9</b>	
Nidderdale AONB (NE)	Wath, Harrogate, Pie Gill Green Cottage	0.5	3 – Confirmed by stakeholder and ready to deliver
	<b>Nidderdale AONB (NE) Total</b>	<b>0.5</b>	
Nidderdale AONB (YE)	Nidderdale, Timble	1.4	5 – Complete
	Ilkley – Langbar – Beech House Spur	3.0	2 – Proposed and awaiting land consents
	Harrogate – Fewston Institute	1.3	4 – Construction in progress
	Skipton – Barden Reservoir	1.4	
	<b>Nidderdale AONB (YE) Total</b>	<b>7.1</b>	
North Pennines AONB	Rookhope Head	3.8	5 – Complete
	Allenheads South – Greenfield Quarry	2.5	
	<b>North Pennines AONB Total</b>	<b>6.2</b>	
North York Moors National Park	Nether Silton	0.7	5 – Complete
	Whitby, Kettleiness	0.5	
	Whitby, Goldsborough	0.3	3 – Confirmed by stakeholder and ready to deliver
	Scarborough, Staintondale & Staintondale North	1.0	2 – Proposed and awaiting land consents
	Thirsk, Hambleton Spring – Old Byland North	0.6	2 – Proposed and awaiting land consents
	Whitby, West Barnby South S/S	0.2	2 – Proposed and awaiting land consents
	Whitby, East Barnby S/S	0.8	2 – Proposed and awaiting land consents
	Whitby, Iburndale & Sleights Birch S/S's	0.7	2 – Proposed and awaiting land consents
	Helmsley, Carlton, Carlton Helmsley S/S	0.3	2 – Proposed and awaiting land consents
	Scarborough, Staintondale Quaker S/S	0.09	2 – Proposed and awaiting land consents
	Whitby, West Barnby S/S	0.3	3 – Confirmed by stakeholder and ready to deliver
	Whitby, Kildale Warren S/S	0.4	3 – Confirmed by stakeholder and ready to deliver
	Whitby, Sleights Church & Sleights South	0.7	2 – Proposed and awaiting land consents
	<b>North York Moors National Park Total</b>	<b>7.2</b>	

Designated area	Location	Length of line (km) for undergrounding	Stage in the process
Northumberland Coast National Landscape	Beadnell, Beadnell Harbour & Beadnell Chalets	0.6	3 – Confirmed by stakeholder and ready to deliver
	<b>Northumberland Coast National Landscape Total</b>	<b>0.6</b>	
Northumberland National Park	Carvoran – Thirlwell Castle	1.8	4 – Construction in progress
	Rochester	1.2	4 – Construction in progress
	Linhope	0.5	
	Tower Tie – Greencarts	1.4	3 – Confirmed by stakeholder and ready to deliver
	Greenwood	0.6	3 – Confirmed by stakeholder and ready to deliver
	Beggar Bog – Moss Kennels	0.8	3 – Confirmed by stakeholder and ready to deliver
	Shield Vallum – Milestone House	0.5	3 – Confirmed by stakeholder and ready to deliver
	Hareshaw Head – Hareshaw Cottages	3.3	3 – Confirmed by stakeholder and ready to deliver
	<b>Northumberland NP Total</b>	<b>10.1</b>	
	Peak District National Park	Peak District, Sheffield, Redmires Road	1.5
Sheffield, Bolsterstone		0.6	
Sheffield, Dunford Bridge		1.8	5 – Complete
<b>Peak District NP Total</b>		<b>4.0</b>	
Yorkshire Dales National Park	Hawes, Widdale Head – Widdale Head	2.4	2 – Proposed and awaiting land consents
	<b>Yorkshire Dales National Park Total</b>	<b>2.4</b>	
Yorkshire Dales National Park (NE)	Reeth North	0.8	3 – Confirmed by stakeholder and ready to deliver
	Gunnerside Radio & Gunnerside Dyke	0.8	3 – Confirmed by stakeholder and ready to deliver
	Leyburn, Thornton Rust	0.4	2 – Proposed and awaiting land consents
	Yorkshire Dales, Kilnsey Crag	2.6	
	Yorkshire Dales, Dribbles Bridge House	2.3	
	Yorkshire Dales, Hebden, Garnshaw Tee	1.9	5 – Complete
	Skipton – Halton Gill to Foxup	1.0	3 – Confirmed by stakeholder and ready to deliver
	<b>Yorkshire Dales NP (NE) Total</b>	<b>9.8</b>	
<b>GRAND TOTAL</b>	<b>69.8</b>		

# Noise pollution

Overhead lines and substation equipment can occasionally produce audible noise, contributing to local noise pollution. We remain committed to complying with noise and statutory nuisance legislation, and we respond promptly to all complaints to reduce, minimise, or eliminate noise from our assets. Each year, we receive a small number of noise-related complaints. Investigations often reveal that the perceived noise is influenced by other factors, such as reduced traffic levels or ambient background sounds; however, we take swift action to investigate those noise issues that we can address.

In 2024/25, we received 35 noise complaints from our customers, two of which led to Northern Powergrid taking action to resolve the issue for the customer. This is favourable to target as shown.

This is an ongoing process, some noise complaints from 2024/25 are still being investigated to find out what caused them. The figures shared here are a snapshot taken at the time of publishing. We'll continue to update noise complaint information each year in this report throughout ED2.

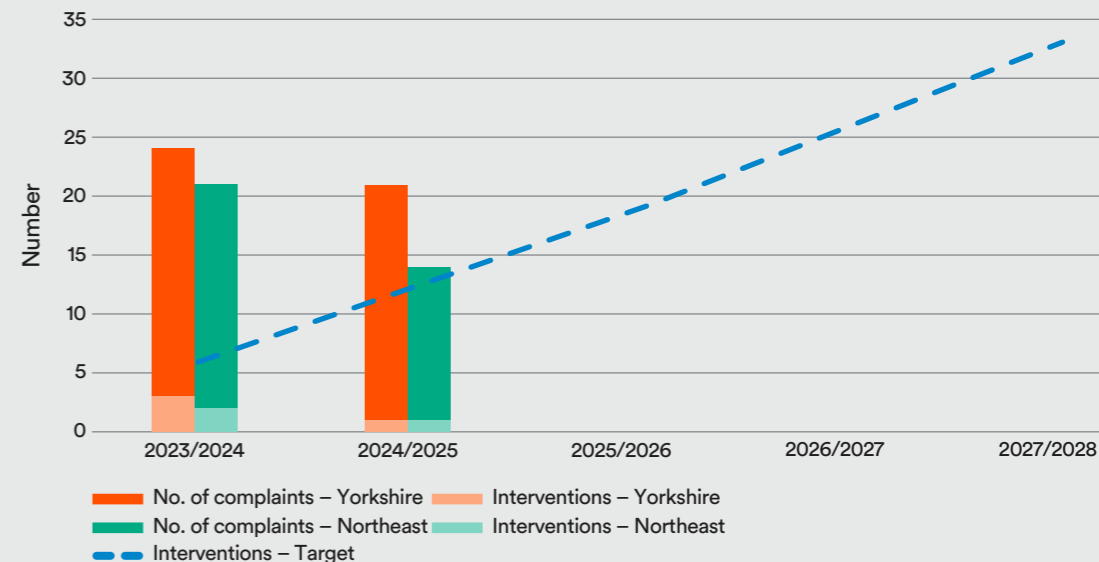
Of the two substantiated complaints from 2024/25, one was in the Yorkshire licence area and the other in the Northeast area.

In Yorkshire, a customer reported noise from one of our nearby assets in May 2024. After several site visits in different weather conditions, we found that strong winds caused a howling sound through the equipment. To fix this, we're relocating the asset away from the resident's home.

In the Northeast, a customer reported noise from a substation in March 2025. We've carried out a detailed investigation, working closely with the customer throughout. We are currently exploring solutions, including relocating and replacing the substation doors and adding soundproof lining. We'll continue to work with the customer until the issue is fully resolved.



## Noise complaints and interventions



# Polychlorinated biphenyls (PCBs)

Polychlorinated biphenyls (PCBs) are man-made chemicals that were used in many industrial and commercial products from 1929 until the late 1970s. They were valued for being fire resistant, having low electrical conductivity, a high resistance to thermal breakdown and a high degree of chemical stability. It is the thermal and chemical stability that made PCBs useful in industrial applications, however, these same properties mean they don't break down easily and can stay in the environment for a long time, posing potential risks to both human health and the environment.

PCBs are occasionally found in electrical transformers, which are important components in many different types of electrical circuits, from small-signal electronic circuits to the high-voltage power systems on our network.

Large transformers are usually filled with a special dielectric insulating fluid to help cool the equipment and prevent electrical faults. This fluid is often mineral oil. Although the transformers are not designed to contain PCBs, they occasionally became contaminated by the use of common filling equipment or maintenance filling with used or recycled oil. If the outer casing of a transformer is damaged, there's a risk that PCB-contaminated fluid could leak into the environment.



## 1,504

Number of pole-mounted transformers replaced as of March 2025

Under the latest UK PCB regulations, we are required to identify, remove, or remediate any non-compliant equipment by 31 December 2025.

The main assets that fall within the scope of the legislation are all pole-mounted (PM) and ground-mounted (GM) transformers that have been manufactured prior to 1987.

## Removal of PCB contaminated equipment

### Industry collaboration

As active members of the Energy Networks Association (ENA) PCB Strategy Group, we work closely with other Distribution Network Operations (DNO) and the Environment Agency on the Statistical Cohort Model. This model groups assets by type and manufacturer. Once enough sample results are collected from all participating DNOs, the model determines whether the entire group of assets can be confirmed as 'PCB-free' or if they require action due to contamination. This targeted approach means only a sample of equipment needs testing, helping avoid unnecessary replacements, reducing costs for customers, and still achieving the required environmental outcomes.

### Ground-mounted transformers

Throughout 2024/25 and continuing to date, we continue testing the insulating oil in ground-mounted transformers to check for the presence and levels of PCBs. Each type and model of transformer is grouped into a 'cohort' and tested to see if it's compliant (green), meaning no PCBs are found, or non-compliant (red), meaning PCBs are present. For non-compliant transformers, we take action by either replacing the oil or the entire asset.

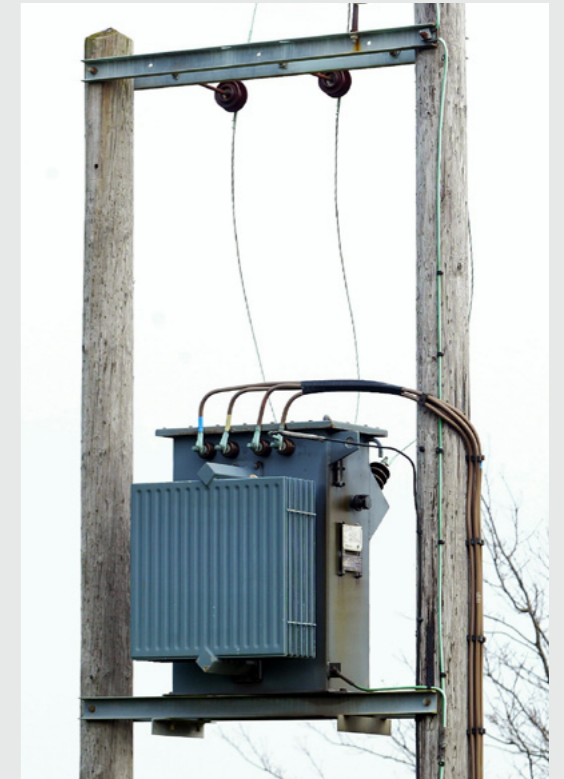
### Pole-mounted transformers

Pole-mounted transformers are not designed to be internally inspected and do not have valves from which an oil sample can be taken. As a result, Annex A shows 'N/A' for the number of these assets tested during the year. PCB content can only be sampled and determined when a pole-mounted transformer is decommissioned as part of the disposal process.

To overcome this limitation, each DNO contributes decommissioning data to the Statistical Cohort Model to determine which cohorts of pole-mounted transformer are compliant and which are not. This is an ongoing process whilst the amber cohort is sorted into the red (non-compliant) or green (compliant) groups. Contamination of pole-mounted transformers is being addressed through our asset replacement programme.

### PCB compliance programme

In 2024/25, we replaced 1,504 units as part of our PCB replacement programme. Activity has continued to accelerate throughout 2025 as we work towards meeting the regulatory deadline.



The data provided in Annex A is the best available information at the time of publishing and is a snapshot in time from March 2025. This is in line with our registration of PCB contaminated equipment with the Environment Agency. The number of units in the red, amber and green cohorts is revised on a frequent basis as the industry Statistical Cohort Model is updated with PCB results.

# Biodiversity and natural capital

Our long-term goal is to enhance natural habitats across the regions we serve, supporting greater biodiversity and ecological resilience. By doing so, we aim to increase natural capital, the stock of natural resources, and strengthen ecosystem services, which contribute to human wellbeing and quality of life. This section highlights our plans for this area. Please also refer to the Visual Amenity section of this report, which explains how the removal of overhead lines positively influences local ecosystems.

## Conservation mowing

Conservation mowing on our operational sites involves cutting grass only around pathways and borders, allowing the central areas to remain undisturbed and support thriving habitats for insects and birds. We have continued to apply this approach during 2024/25 at locations where it is both feasible and safe to do so.

## Links to social impact

Throughout 2024/25, we have also identified a number of sites where available land presents opportunities not only for enhancing biodiversity but also for delivering benefits to the communities we serve. Each location is being treated as an individual project, and we are currently exploring the most suitable initiatives for each to maximise both environmental and social impact.

Our social impact programme delivers tailored community benefits alongside major infrastructure works. We are committed to integrating social impact into 50 per cent of major investment schemes during ED2, with a focus on four key areas: biodiversity & access to nature, community resilience, green skills, and safety.

Within the biodiversity strand, we prioritise projects that align with the Lawton Principles of building habitats that are bigger, better, and more joined up. This year, we have moved to a model in which projects are co-designed with regional nature restoration charities to ensure impactful and strategically valuable projects. This approach supports our broader environmental goals, aligns with local nature recovery strategies, and reinforces our role as an Anchor Organisation committed to using our influence to positively affect the communities we serve.

By aligning infrastructure delivery with environmental and social outcomes, we hope that biodiversity improvement is not only a mitigation measure but a proactive investment in the health and resilience of the communities we serve.

Key Biodiversity Initiatives Delivered in 2023–25

- **Wardsend Cemetery & Country Park (Sheffield):** Restoration of woodland, heathland, and riverbank habitats through invasive species removal, improved access, and community engagement via events and educational visits.
- **Bowesfield Nature Reserve (Tees Valley):** Funding for habitat management and the Wilder Schools Project across seven primary schools, enhancing biodiversity and environmental literacy.
- **Sculcoates (Hull):** Tree planting near Newland St John School in collaboration with Hull City Council and Rewilding Youth, a programme supporting disadvantaged young people with green skills training.

- **Coppice Valley Primary School (Harrogate):** Creation of an urban orchard, accessible green space, and forest school to promote biodiversity and environmental education in a densely built environment. The green space is open to all local schools in the area, increasing community resilience and expanding the reach of the educational programmes.

These initiatives positively impact biodiversity by:

- restoring and protecting native habitats and species
- increasing ecological connectivity in urban and semi-urban areas
- supporting pollinators and wildlife through tree and wildflower planting
- educating future generations on environmental stewardship and green careers
- creating inclusive green spaces that improve ecosystem services and community wellbeing.

## Industry collaboration

We are actively collaborating with other Distribution Network Operations and the Energy Networks Association (ENA) through the newly established Nature Working Group. The group's primary focus is to build a shared understanding of Biodiversity Net Gain (BNG) and broader nature-related objectives, while promoting collaborative knowledge exchange on initiatives and best practices.

This area requires continued focus throughout the remainder of ED2 to ensure we meet the targets outlined in our Environmental Action Plan.



# Fluid-filled cables

Fluid-filled cables are part of our underground network of cables. They are managed and operated in line with the National Operating Code, which was published by the Environment Agency and the Energy Networks Association.

Fluid-filled cables have been used since the 1960s because the insulating fluid provides excellent electrical performance. However, due to the environmental risks associated with fluid leaks, no new fluid-filled cables are installed today.

Our approach to managing these cables compares well with other electricity Distribution Network Operations (DNOs) across the UK. However, our exposure remains relatively high as we operate the third longest fluid-filled cable network and hold the second highest volume of cable fluid among all DNOs.

We're actively addressing this through our fluid-filled cable replacement programme and by using innovative technologies that help quickly detect and locate leaks. As part of our Environmental Action Plan, we've committed to reduce fluid lost to ground and replace fluid-filled cable assets to remove leakage risk exposure.

## Managing fluid lost to the ground

Fluid lost to ground is one of the top concerns for stakeholders, particularly the Environment Agency, with the potential for fluid losses to result in contamination of water supplies and negative impacts to the wider environment. Losses can also lead to cable failure which could result in power cuts.

In 2024/25, our network experienced a total fluid loss of 28,428 litres, exceeding our target of 25,700 litres. To help reduce future losses, we remain committed to the following actions:

## Fluid-filled cable replacement programme

In 2024/25, we replaced 4.5km of fluid-filled cable, all within our Yorkshire licence area. While this was below our target, it resulted in the removal of nearly 12,000 litres of oil from the network. We remain committed to replacing high-risk cables to further reduce environmental impact and leakage risk throughout ED2. Longer term, we aim to remove all fluid-filled cables as we build additional network capacity for enabling the wider low carbon transition.

## Perfluorocarbon tracer (PFT)

PFT is a non-hazardous chemical which is injected into fluid-filled cables. When it leaks from the cable, this is easily detected from above the ground. This technique helps us to pinpoint the source of the leak quickly and therefore stop the oil from having a serious detrimental effect on the environment.

Although our original target was to inject 106km of cable during 2024/25, we completed 20.4km. We are actively reviewing our strategic approach and implementing new contractual arrangements to support delivery of this work, with the aim of recovering against our target across the remainder of ED2.

## Self-healing technology

In partnership with UK Power Networks (UKPN), Northern Powergrid is supporting the development of self-healing fluid. This is a product that exists in liquid form but reacts and hardens when exposed to oxygen. The joint innovation project is exploring the introduction of self-healing technology into fluid-filled cables. The trial has continued throughout 2024/25. While some challenges have arisen during testing, we remain committed to the project due to its potential for significant environmental benefits.



# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Business carbon footprint

#### Yorkshire

BCF scope 1 and 2	Category	Sub-category	Total baseline reduction target tCO <sub>2</sub> e RIIO-ED2 2028	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
	<b>Operational transport</b>	<b>Total</b>		tCO <sub>2</sub> e	<b>1,976.98</b>	<b>2,025.60</b>	-	-	-
		Road		tCO <sub>2</sub> e	1,976.98	2,025.60			
		Marine		tCO <sub>2</sub> e	-				
		Air		tCO <sub>2</sub> e	-				
	<b>Building energy usage</b>	<b>Total</b>		tCO <sub>2</sub> e	<b>3,293.20</b>	<b>3,251.10</b>	-	-	-
		Electricity		tCO <sub>2</sub> e	795.59	754.80			
		Other fuels		tCO <sub>2</sub> e	-				
		Substation electricity		tCO <sub>2</sub> e	2,475.07	2,479.00			
		Gas		tCO <sub>2</sub> e	22.55	17.20			
	<b>Fuel combustion</b>	<b>Total</b>		tCO <sub>2</sub> e	-	-	-	-	-
		Diesel (excluding transport)		tCO <sub>2</sub> e	-				
		Diesel (embedded stations)		tCO <sub>2</sub> e	-				
		Other		tCO <sub>2</sub> e	-				
	<b>Fugitive emissions</b>	<b>Total</b>		tCO <sub>2</sub> e	<b>2,233.44</b>	<b>2,949.30</b>	-	-	-
		SF <sub>6</sub>		tCO <sub>2</sub> e	2,233.44	2,949.30			
		Other IIG		tCO <sub>2</sub> e	-				
	<b>Total scope 1 and 2 emissions (excluding losses)</b>		See total for Northern Powergrid	tCO <sub>2</sub> e	<b>7,503.62</b>	<b>8,225.90</b>	-	-	-
	<b>Electricity distribution losses</b>			tCO <sub>2</sub> e	336,501.44	314,740.50			
	<b>Total scope 1 and 2 emissions (including losses)</b>		See total for Northern Powergrid	tCO <sub>2</sub> e	<b>344,005.06</b>	<b>322,966.40</b>	-	-	-
<b>Carbon offsets</b>	<b>Category</b>			<b>Units</b>	<b>2023/2024</b>	<b>2024/2025</b>	<b>2025/2026</b>	<b>2026/2027</b>	<b>2027/2028</b>
	Total carbon offsets			tCO <sub>2</sub> e	-				

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Business carbon footprint (continued)

#### Northeast

BCF scope 1 and 2	Category	Sub-category	Total baseline reduction target tCO <sub>2</sub> e RIIO-ED2 2028	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
	<b>Operational transport</b>	<b>Total</b>		tCO <sub>2</sub> e	<b>1,938.94</b>	<b>2,053.60</b>	-	-	-
		Road		tCO <sub>2</sub> e	1,938.94	2,053.60			
		Marine		tCO <sub>2</sub> e	-				
		Air		tCO <sub>2</sub> e	-				
	<b>Building energy usage</b>	<b>Total</b>		tCO <sub>2</sub> e	<b>2,659.82</b>	<b>2,638.50</b>	-	-	-
		Electricity		tCO <sub>2</sub> e	753.51	792.40			
		Other fuels		tCO <sub>2</sub> e	-				
		Substation electricity		tCO <sub>2</sub> e	1,732.82	1,735.60			
		Gas		tCO <sub>2</sub> e	173.49	110.50			
	<b>Fuel combustion</b>	<b>Total</b>		tCO <sub>2</sub> e	-	-	-	-	-
		Diesel (excluding transport)		tCO <sub>2</sub> e	-				
		Diesel (embedded stations)		tCO <sub>2</sub> e	-				
		Other		tCO <sub>2</sub> e	-				
	<b>Fugitive emissions</b>	<b>Total</b>		tCO <sub>2</sub> e	<b>204.45</b>	<b>388.90</b>	-	-	-
		SF <sub>6</sub>		tCO <sub>2</sub> e	204.45	388.90			
		Other IIG		tCO <sub>2</sub> e	-				
	<b>Total scope 1 and 2 emissions (excluding losses)</b>		See total for Northern Powergrid	tCO <sub>2</sub> e	<b>4,803.21</b>	<b>5,081.10</b>	-	-	-
	<b>Electricity distribution losses</b>			tCO <sub>2</sub> e	157,920.36	153,160.0			
	<b>Total scope 1 and 2 emissions (including losses)</b>		See total for Northern Powergrid	tCO <sub>2</sub> e	<b>162,723.57</b>	<b>158,241.90</b>	-	-	-
<b>Carbon offsets</b>	<b>Category</b>			<b>Units</b>	<b>2023/2024</b>	<b>2024/2025</b>	<b>2025/2026</b>	<b>2026/2027</b>	<b>2027/2028</b>
	Total carbon offsets			tCO <sub>2</sub> e	-				

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Business carbon footprint (continued)

#### Total

BCF scope 1 and 2	Category	Sub-category	Total baseline reduction target tCO <sub>2</sub> e RIIO-ED2 2028	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
	<b>Operational transport</b>	<b>Total</b>		tCO <sub>2</sub> e	<b>3,915.9</b>	<b>4,079.20</b>	-	-	-
		Road		tCO <sub>2</sub> e	3,915.9	4,079.20			
		Marine		tCO <sub>2</sub> e	-	-			
		Air		tCO <sub>2</sub> e	-	-			
	<b>Building energy usage</b>	<b>Total</b>		tCO <sub>2</sub> e	<b>5,953.0</b>	<b>5,889.60</b>	-	-	-
		Electricity		tCO <sub>2</sub> e	1,549.1	1,547.20			
		Other fuels		tCO <sub>2</sub> e	-	-			
		Substation electricity		tCO <sub>2</sub> e	4,207.9	4,214.60			
		Gas		tCO <sub>2</sub> e	196.0	127.80			
	<b>Fuel combustion</b>	<b>Total</b>		tCO <sub>2</sub> e	-	-	-	-	-
		Diesel (excluding transport)		tCO <sub>2</sub> e	-	-			
		Diesel (embedded stations)		tCO <sub>2</sub> e	-	-			
		Other		tCO <sub>2</sub> e	-	-			
	<b>Fugitive emissions</b>	<b>Total</b>		tCO <sub>2</sub> e	<b>2,437.9</b>	<b>3,338.20</b>	-	-	-
		Sf <sub>6</sub>		tCO <sub>2</sub> e	2,437.9	3,338.20			
		Other IIG		tCO <sub>2</sub> e	-	-			
	<b>Total scope 1 and 2 emissions (excluding losses)</b>		8,920.0	tCO <sub>2</sub> e	<b>12,306.8</b>	<b>13,307.00</b>	-	-	-
	<b>Electricity distribution losses</b>			tCO <sub>2</sub> e	494,421.8	467,901.30			
	<b>Total scope 1 and 2 emissions (including losses)</b>		<b>374,130.0</b>	tCO <sub>2</sub> e	<b>506,728.6</b>	<b>481,208.30</b>	-	-	-
<b>Carbon offsets</b>	<b>Category</b>			<b>Units</b>	<b>2023/2024</b>	<b>2024/2025</b>	<b>2025/2026</b>	<b>2026/2027</b>	<b>2027/2028</b>
	<b>Total carbon offsets</b>			tCO <sub>2</sub> e	-				

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs)

#### Yorkshire

Category	Voltage	Sub-category (where applicable)	Decarbonisation target & metric to end of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
<b>SF<sub>6</sub> bank</b>	<b>LV</b>	Total no. of assets containing SF <sub>6</sub>	<b>Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs)</b>	No. of assets	-					
		Total amount of SF <sub>6</sub> on network		kg	-					
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	-					
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-					
		% of assets containing SF <sub>6</sub> (% of bank)		%	-					
<b>SF<sub>6</sub> emissions</b>	<b>LV</b>	No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	-					
		Leakage (per annum)		kg	-					
		Leakage rate (% of bank)		15% across all assets by 2028	%	-				
		Interventions (per annum)		#	-					
		Impact of interventions		kg	-					

Category	Voltage	Sub-category (where applicable)	Decarbonisation target & metric to end of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	
<b>SF<sub>6</sub> bank</b>	<b>HV</b>	Total no. of assets containing SF <sub>6</sub>	<b>Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs)</b>	No. of assets	11,819	11,771				
		Total amount of SF <sub>6</sub> on network		kg	6,537	6,461				
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	280	68				
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-	-				
		% of assets containing SF <sub>6</sub> (% of bank)		%	31	30				
<b>SF<sub>6</sub> emissions</b>	<b>HV</b>	No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	279	324				
		Leakage (per annum)		kg	2.1	1.2				
		Leakage rate (% of bank)		15% across all assets by 2028	%	0.03	0.02			
		Interventions (per annum)		#	0	-				
		Impact of interventions		kg	0	-				

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs) (continued)

#### Yorkshire

Category	Voltage	Sub-category (where applicable)	Decarbonisation target & metric to end of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>SF<sub>6</sub> bank</b>	<b>EHV</b>	Total no. of assets containing SF <sub>6</sub>		No. of assets	613	579			
		Total amount of SF <sub>6</sub> on network		kg	6,341	3,870			
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	6	-			
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-	-			
		% of assets containing SF <sub>6</sub> (% of bank)		%	24	23			
		No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	5	21			
<b>SF<sub>6</sub> emissions</b>	<b>EHV</b>	Leakage (per annum)		kg	66.5	94.05			
		Leakage rate (% of bank)	15% across all assets by 2028	%	1.05	2.43			
		No. of SF <sub>6</sub> assets replaced (per annum)		#	-	-			
		Interventions (per annum)		#	1	2			
		Impact of interventions		kg	1.55	4			
Category	Voltage	Sub-category (where applicable)	Decarbonisation target & metric to end of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>SF<sub>6</sub> bank</b>	<b>132kV</b>	Total no. of assets containing SF <sub>6</sub>		No. of assets	385	376			
		Total amount of SF <sub>6</sub> on network		kg	7,508	7,743			
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	-	-			
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-	-			
		% of assets containing SF <sub>6</sub> (% of bank)		%	28	27			
		No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	2	2			
<b>SF<sub>6</sub> emissions</b>	<b>132kV</b>	Leakage (per annum)		kg	26.4	30.25			
		Leakage rate (% of bank)	15% across all assets by 2028	%	0.35	0.39			
		No. of SF <sub>6</sub> assets replaced (per annum)		#	-	0			
		Interventions (per annum)		#	1	1			
		Impact of interventions		kg	2.1	8			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs) (continued)

#### Yorkshire

Category	Voltage	Sub-category (where applicable)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>IIG name</b>	<b>LV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				
<b>IIG name</b>	<b>HV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				
<b>IIG name</b>	<b>EHV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				
<b>IIG name</b>	<b>132kV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs) (continued)

#### Northeast

Category	Voltage	Sub-category (where applicable)	Decarbonisation target & metric to end of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>SF<sub>6</sub> bank</b>	<b>LV</b>	Total no. of assets containing SF <sub>6</sub>		No. of assets	-				
		Total amount of SF <sub>6</sub> on network		kg	-				
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	-				
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-				
		% of assets containing SF <sub>6</sub> (% of bank)		%	-				
		No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	-				
<b>SF<sub>6</sub> emissions</b>	<b>LV</b>	Leakage (per annum)		kg	-				
		Leakage rate (% of bank)	15% across all assets by 2028	%	-				
		Interventions (per annum)		#	-				
		Impact of interventions		kg	-				
<hr/>									
Category	Voltage	Sub-category (where applicable)	Decarbonisation target & metric to end of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>SF<sub>6</sub> bank</b>	<b>HV</b>	Total no. of assets containing SF <sub>6</sub>		No. of assets	2,393	5,719			
		Total amount of SF <sub>6</sub> on network		kg	1,842	4,272			
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	11	30			
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-	0			
		% of assets containing SF <sub>6</sub> (% of bank)		%	11	26			
		No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	35	224			
<b>SF<sub>6</sub> emissions</b>	<b>HV</b>	Leakage (per annum)		kg	-	1.7			
		Leakage rate (% of bank)	15% across all assets by 2028	%	-	0			
		Interventions (per annum)		#	0	0			
		Impact of interventions		kg	0	0			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs) (continued)

#### Northeast

Category	Voltage	Sub-category (where applicable)	Decarbonisation target & metric to end of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>SF<sub>6</sub> bank</b>	<b>EHV</b>	Total no. of assets containing SF <sub>6</sub>		No. of assets	329	335			
		Total amount of SF <sub>6</sub> on network		kg	6,471	3,155			
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	39	0			
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-	-			
		% of assets containing SF <sub>6</sub> (% of bank)		%	14	14			
		No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	14	8			
<b>SF<sub>6</sub> emissions</b>	<b>EHV</b>	Leakage (per annum)		kg	6.4	9			
		Leakage rate (% of bank)	15% across all assets by 2028	%	0.10	0.29			
		No. of SF <sub>6</sub> assets replaced (per annum)		#	-	0			
		Interventions (per annum)		#	0	1			
		Impact of interventions		kg	0	1.3			
Category	Voltage	Sub-category (where applicable)	Decarbonisation target & metric to end of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>SF<sub>6</sub> bank</b>	<b>132kV</b>	Total no. of assets containing SF <sub>6</sub>		No. of assets	214	180			
		Total amount of SF <sub>6</sub> on network		kg	8,931	8,924			
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	-	0			
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-				
		% of assets containing SF <sub>6</sub> (% of bank)		%	34	28			
		No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	2	3			
<b>SF<sub>6</sub> emissions</b>	<b>132kV</b>	Leakage (per annum)		kg	2.3	5.85			
		Leakage rate (% of bank)	15% across all assets by 2028	%	0.03				
		No. of SF <sub>6</sub> assets replaced (per annum)		#	-	0			
		Interventions (per annum)		#	0	0			
		Impact of interventions		kg	0	0			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs) (continued)

#### Northeast

Category	Voltage	Sub-category (where applicable)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>IIG name</b>	<b>LV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				
<b>IIG name</b>	<b>HV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				
<b>IIG name</b>	<b>EHV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				
<b>IIG name</b>	<b>132kV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs) (continued)

#### Total

Category	Voltage	Sub-category (where applicable)	Decarbonisation target & metric to end of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>SF<sub>6</sub> bank</b>	<b>LV</b>	Total no. of assets containing SF <sub>6</sub>		No. of assets	-	-			
		Total amount of SF <sub>6</sub> on network		kg	-	-			
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	-	-			
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-	-			
		% of assets containing SF <sub>6</sub> (% of bank)		%	-	-			
		No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	-	-			
<b>SF<sub>6</sub> emissions</b>	<b>LV</b>	Leakage (per annum)		kg	-	-			
		Leakage rate (% of bank)	15% across all assets by 2028	%	-	-			
		Interventions (per annum)		#	-	-			
		Impact of interventions		kg	-	-			
Category	Voltage	Sub-category (where applicable)	Decarbonisation target & metric to end of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>SF<sub>6</sub> bank</b>	<b>HV</b>	Total no. of assets containing SF <sub>6</sub>		No. of assets	14,212	17,490			
		Total amount of SF <sub>6</sub> on network		kg	8,379	10,733			
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	291	90			
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-	-			
		% of assets containing SF <sub>6</sub> (% of bank)		%	23	29			
		No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	314	548			
<b>SF<sub>6</sub> emissions</b>	<b>HV</b>	Leakage (per annum)		kg	2.1	2.9			
		Leakage rate (% of bank)	15% across all assets by 2028	%	0.03	0.03			
		Interventions (per annum)		#	-	-			
		Impact of interventions		kg	-	-			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs) (continued)

#### Total

Category	Voltage	Sub-category (where applicable)	Decarbonisation target & metric to end of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>SF<sub>6</sub> bank</b>	<b>EHV</b>	Total no. of assets containing SF <sub>6</sub>		No. of assets	942	914			
		Total amount of SF <sub>6</sub> on network		kg	12,812	7,025			
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	45	-			
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-				
		% of assets containing SF <sub>6</sub> (% of bank)		%	19	19			
		No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	19	29			
<b>SF<sub>6</sub> emissions</b>	<b>EHV</b>	Leakage (per annum)		kg	72.9	103.05			
		Leakage rate (% of bank)	15% across all assets by 2028	%	0.57	1.47			
		No. of SF <sub>6</sub> assets replaced (per annum)		#	-	-			
		Interventions (per annum)		#	1	3			
		Impact of interventions		kg	1.55	5.3			
Category	Voltage	Sub-category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>SF<sub>6</sub> bank</b>	<b>132kV</b>	Total no. of assets containing SF <sub>6</sub>		No. of assets	599	556			
		Total amount of SF <sub>6</sub> on network		kg	16,439	16,667			
		No. of SF <sub>6</sub> assets replaced (per annum)		No. of assets	-	-			
		No. of SF <sub>6</sub> alternative assets (per annum)		No. of assets	-				
		% of assets containing SF <sub>6</sub> (% of bank)		%	30	27			
		No. of SF <sub>6</sub> assets installed (per annum)		No. of assets	4	5			
<b>SF<sub>6</sub> emissions</b>	<b>132kV</b>	Leakage (per annum)		kg	28.7	36.1			
		Leakage rate (% of bank)	15% across all assets by 2028	%	0.17	0.22			
		No. of SF <sub>6</sub> assets replaced (per annum)		#	-	-			
		Interventions (per annum)		#	1	1			
		Impact of interventions		kg	2.1	8			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sulphur hexafluoride (SF<sub>6</sub>) and other insulation and interruption gases (IIGs) (continued)

#### Total

Category	Voltage	Sub-category (where applicable)	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
<b>IIG name</b>	<b>LV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				
<b>IIG name</b>	<b>HV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				
<b>IIG name</b>	<b>EHV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				
<b>IIG name</b>	<b>132kV</b>	No. of assets with IIG	#	-				
		Amount of IIG	kg	-				
		Global warming potential of IIG	CO <sub>2</sub> comparison constant	-				
		Leakage	kg	-				

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Electricity distribution losses

#### Yorkshire

	Target RII02-ED2 2028	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Annual losses		GWh	1,625.09	1,520.12			
Share of total electricity distributed		%	8.36	15.53			
Carbon equivalent		tCO <sub>2</sub> e	336,501	314,740			
Annual interventions completed		#	147	97			
Impact of interventions (per annum)		MWh	-	-			
Impact of interventions (per annum)		tCO <sub>2</sub> e	-	-			

#### Interventions – Description

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
OPPORTUNISTIC: Northern Powergrid Yorkshire low-loss HV cable	#	75	50			
OPPORTUNISTIC: Northern Powergrid Yorkshire low-loss LV cable	#	70	42			
PROACTIVE: Northern Powergrid Yorkshire pre-1958 ground-mounted transformer replacement	#	1	6			

#### Interventions – Description

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
OPPORTUNISTIC: Northern Powergrid Yorkshire low-loss HV cable	MWh	-				
OPPORTUNISTIC: Northern Powergrid Yorkshire low-loss LV cable	MWh	-				
PROACTIVE: Northern Powergrid Yorkshire pre-1958 ground-mounted transformer replacement	MWh	-				

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Electricity distribution losses (continued)

#### Northeast

	Target RII02-ED2 2028	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Annual losses		GWh	762.65*	739.73			
Share of total electricity distributed		%	6.15	11.40			
Carbon equivalent		tCO <sub>2</sub> e	157,920	153,161			
Annual interventions completed		#	125	77			
Impact of interventions (per annum)		MWh	-	-			
Impact of interventions (per annum)		tCO <sub>2</sub> e	-	-			

#### Interventions – Description

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
OPPORTUNISTIC: Northern Powergrid Yorkshire low-loss HV cable	#	77	51.20			
OPPORTUNISTIC: Northern Powergrid Yorkshire low-loss LV cable	#	48	25.60			
PROACTIVE: Northern Powergrid Yorkshire pre-1958 ground-mounted transformer replacement	#	0	0.00			

#### Interventions – Description

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
OPPORTUNISTIC: Northern Powergrid Yorkshire low-loss HV cable	MWh	-				
OPPORTUNISTIC: Northern Powergrid Yorkshire low-loss LV cable	MWh	-				
PROACTIVE: Northern Powergrid Yorkshire pre-1958 ground-mounted transformer replacement	MWh	-				

#### Total

	Target RII02-ED2 2028	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Annual losses	-	GWh	2,387.74*	2,259.85			
Share of total electricity distributed	-	%	7.26	13.46			
Carbon equivalent	457,610	tCO <sub>2</sub> e	494,422	467,901			
Annual interventions completed	-	#	271	174			
Impact of interventions (per annum)	-	MWh	-	-			
Impact of interventions (per annum)	-	tCO <sub>2</sub> e	-	-			

\*A calculation error was discovered whilst completing the 2024/25 NE losses entry. The 2023/24 NE annual losses has been corrected.

# Annex A

## Key performance indicators (KPI) table

Please note, we are not able to provide a split of this data by licence area.

### Supply chain management

#### Yorkshire

	Units	Target RIIQ2-ED2 2028	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Percentage of suppliers meeting licensee's supplier code	Cumulative % by annual spend	90	-	-			

#### Northeast

	Units	Target RIIQ2-ED2 2028	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Percentage of suppliers meeting licensee's supplier code	Cumulative % by annual spend	90	-	-			

#### Total

	Units	Target RIIQ2-ED2 2028	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Percentage of suppliers meeting licensee's supplier code	Cumulative % by annual spend	90	89	90			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sustainable resource use and waste

#### Yorkshire

Waste destination – Non hazardous/non special category	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total waste produced directly by licensee	Tonnes	361.83	329.16			
Reused/recycled	%	55.52	52.78			
Energy from waste	%	43.77	47.22			
Sent to landfill	%	0.72	0.00			
Other	%	-	-			
Waste diverted from landfill (excluding compliance waste)	%	-	-			

Waste destination – Hazardous/special	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total waste produced directly by licensee	Tonnes	707.90	564.45			
Reused/recycled	%	62.96	69.03			
Energy from waste	%	36.86	30.93			
Sent to landfill	%	0.19	0.04			
Other	%	-	-			
Waste diverted from landfill (excluding compliance waste)	%	-	-			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sustainable resource use and waste (continued)

#### Northeast

Waste destination – Non hazardous/non special category	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total waste produced directly by licensee	Tonnes	202.93	167.65			
Reused/recycled	%	33.97	42.81			
Energy from waste	%	64.92	56.25			
Sent to landfill	%	2.24	0.93			
Other	%	-	-			
Waste diverted from landfill (excluding compliance waste)	%	-	-			

Waste destination – Hazardous/special	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total waste produced directly by licensee	Tonnes	375.86	433.83			
Reused/recycled	%	39.18	46.10			
Energy from waste	%	60.81	53.91			
Sent to landfill	%	0.01	0.00			
Other	%	-	-			
Waste diverted from landfill (excluding compliance waste)	%	-	-			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Sustainable resource use and waste (continued)

#### Total

Waste destination – Non hazardous/non special category	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total waste produced directly by licensee	Tonnes	564.77	496.81			
Reused/recycled	%	47.78	49.42			
Energy from waste	%	51.37	50.27			
Sent to landfill	%	0.86	0.32			
Other	%	-	-			
Waste diverted from landfill (excluding compliance waste)	%	-	-			

Waste destination – Hazardous/special	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total waste produced directly by licensee	Tonnes	1083.76	998.28			
Reused/recycled	%	54.71	59.06			
Energy from waste	%	45.16	40.92			
Sent to landfill	%	0.13	0.02			
Other	%	-	-			
Waste diverted from landfill (excluding compliance waste)	%	-	-			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Visual amenity

#### Yorkshire

Visual amenity scheme	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Removal of overhead lines (due to a visual amenity scheme)	km	15.24	17.96			
No. of amenity schemes	#	2	3			
Other (if applicable)		-	-			

#### Northeast

Visual amenity scheme	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Removal of overhead lines (due to a visual amenity scheme)	km	1.20	0.52			
No. of amenity schemes	#	4	1			
Other (if applicable)		-	-			

#### Total

Visual amenity scheme	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Removal of overhead lines (due to a visual amenity scheme)	km	16.44	18.48			
No. of amenity schemes	#	6	-			
Other (if applicable)		-	-			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Noise pollution

#### Yorkshire

Noise	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of complaints received	#	24	21			
No. of complaints leading to intervention	#	3	1			

#### Northeast

Noise	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of complaints received	#	21	14			
No. of complaints leading to intervention	#	2	1			

#### Total

Noise	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of complaints received	#	45	35			
No. of complaints leading to intervention	#	5	2			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Polychlorinated biphenyls (PCBs)

#### Yorkshire

##### PCBs – Pole-mounted transformers

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or statistically likely to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#	2,888	2,675			
No. of assets PCB negative or statistically likely to be negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#	5,235	4,744			
No. of asset replacements due to known or statistically likely PCB contamination	#	947	655			
No. of assets tested to confirm levels of PCB contamination	#	N/A	N/A			

##### PCBs – Ground-mounted transformers

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or statistically likely to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#	419	327			
No. of assets PCB negative or statistically likely to be negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#	-	92			
No. of asset replacements due to known or statistically likely PCB contamination	#	-	-			
No. of assets remediated due to known or suspected PCB contamination	#	-	6			
No. of assets tested to confirm levels of PCB contamination	#	-	236			

##### PCBs – Other assets

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or statistically likely to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#	-	-			
No. of assets PCB negative or statistically likely to be negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#	-	-			
No. of asset replacements due to known or statistically likely PCB contamination	#	-	-			
No. of assets remediated due to known or suspected PCB contamination	#	-	-			
No. of assets tested to confirm levels of PCB contamination	#	-	-			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Polychlorinated biphenyls (PCBs) (continued)

#### Northeast

##### PCBs – Pole-mounted transformers

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or statistically likely to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#	3,524	2,352			
No. of assets PCB negative or statistically likely to be negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#	2,819	3,191			
No. of asset replacements due to known or statistically likely PCB contamination	#	1,329	849			
No. of assets tested to confirm levels of PCB contamination	#	N/A	N/A			

##### PCBs – Ground-mounted transformers

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or statistically likely to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#	10	9			
No. of assets PCB negative or statistically likely to be negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#	-	1			
No. of asset replacements due to known or statistically likely PCB contamination	#	-	-			
No. of assets remediated due to known or suspected PCB contamination	#	-	-			
No. of assets tested to confirm levels of PCB contamination	#	-	7			

##### PCBs – Other assets

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or statistically likely to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#	12	133			
No. of assets PCB negative or statistically likely to be negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#	-	-			
No. of asset replacements due to known or statistically likely PCB contamination	#	-	-			
No. of assets remediated due to known or suspected PCB contamination	#	-	-			
No. of assets tested to confirm levels of PCB contamination	#	-	-			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Polychlorinated biphenyls (PCBs) (continued)

#### Total

#### PCBs – Pole-mounted transformers

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or statistically likely to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#	6,412	5,027			
No. of assets PCB negative or statistically likely to be negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#	8,054	7,935			
No. of asset replacements due to known or statistically likely PCB contamination	#	2,276	1,504			
No. of assets tested to confirm levels of PCB contamination	#	N/A	N/A			

#### PCBs – Ground-mounted transformers

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or statistically likely to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#	429	336			
No. of assets PCB negative or statistically likely to be negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#	-	93			
No. of asset replacements due to known or statistically likely PCB contamination	#	-	-			
No. of assets remediated due to known or suspected PCB contamination	#	-	6			
No. of assets tested to confirm levels of PCB contamination	#	-	243			

#### PCBs – Other assets

	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or statistically likely to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#	12	133			
No. of assets PCB negative or statistically likely to be negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#	-	-			
No. of asset replacements due to known or statistically likely PCB contamination	#	-	-			
No. of assets remediated due to known or suspected PCB contamination	#	-	-			
No. of assets tested to confirm levels of PCB contamination	#	-	-			

# Annex A

## Key performance indicators (KPI) table

The data provided in this section is the best available information at the time of publication.

### Fluid-filled cables

#### Yorkshire

Fluid-filled cables oil loss	Sub category	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
	FFC in service	km	318.9	314.4			
	Oil in service	Litres	790,536.5	780,014.1			
	Cable oil top up	Litres	18,375.0	25,570.0			
	Fluid used to top up cables as a percentage of volume in service	%	2	3			
	Removal of FFC	km	5.7	4.5			
	Leak reduction	Litres	14,130.0	11,287.3			
	Oil recovered	Litres	5,867.0	3,981.0			

#### Northeast

Fluid-filled cables oil loss	Sub category	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
	FFC in service	km	431.1	431.1			
	Oil in service	Litres	1,170,566.3	1,170,566.3			
	Cable oil top up	Litres	9,183.0	7,943.0			
	Fluid used to top up cables as a percentage of volume in service	%	1	1			
	Removal of FFC	km	9.8	0.0			
	Leak reduction	Litres	26,611.5	0.0			
	Oil recovered	Litres	785.0	1,104.0			

#### Total

Fluid-filled cables oil loss	Sub category	Units	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
	FFC in service	km	750.0	745.4			
	Oil in service	Litres	1,961,102.9	1,950,580.4			
	Cable oil top up	Litres	27,558.0	33,513.0			
	Fluid used to top up cables as a percentage of volume in service	%	3	4			
	Removal of FFC	km	15.5	4.5			
	Leak reduction	Litres	40,497.1	11,903.4			
	Oil recovered	Litres	6,652.0	5,085.0			

