Electricity Distribution

Annual Environment Report

2024/25

nationalgrid

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Foreword

Our business has entered an exciting and challenging new phase, as we expand and upgrade our networks to bring about a secure, affordable and clean energy future for our customers and communities.

Against this backdrop of unprecedented growth, we continue to work on reducing our own direct impact on the environment and remain focused on the core environmental commitments detailed in our RIIO-ED2 Environmental Action Plan.

This year, we have continued with actions to decarbonise our operations. We have delivered the first phase of lighting upgrades to improve energy efficiency in our buildings and progressed with the electrification of our light duty fleet.

Our Scope 1 and 2 emissions (business carbon footprint) have increased in the past year by 9.5 per cent, with the growth of our operational fleet and Sulphur Hexafluoride (SF_6) emissions being the main drivers. This highlights some of the challenges we will face to balance the pace of decarbonisation with increasing energy demand across our network and growing concern about affordability and security of supply.

Our performance in areas such as resource efficiency remains strong and we are on track to achieve our target of zero waste to landfill by 2028. We have also continued to develop our approach to nature so that we can deliver benefits for biodiversity through the management of our operational land.

In this, our second annual environment report of the ED2 regulatory period, we set out our progress against our core commitments and our approach to the challenges that remain, as we embed actions to reduce emissions and improve our environmental performance.

We are on track to achieve our target of zero waste to landfill by 2028

We have delivered the first phase of energy efficiency upgrades to our buildings and progressed with the electrification of our light duty fleet.

Yasharn Smith
Director of SHE and Operations Support
National Grid Electricity Distribution

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Highlights 2024/25

Business carbon footprint

- **9.4%** of light duty fleet vehicles are zero emissions
- **67%** of company cars are zero emissions vehicles
- **100%** of purchased electricity is certified renewable
- **18 sites** retrofitted with LED lighting

Managing our environmental impact

- **97%** of waste diverted from landfill
- **22** substation sites surveyed for biodiversity net gain
- **19.4 km** of fluid-filled cables decommissioned
- Passed **ISO14001** external audit

Environment and community

- **6 volunteering days** on habitat management projects with the Heart of England Forest
- **Over 750 volunteering hours** on community, conservation and tree planting projects
- **5 solar school installations** delivered

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Who we are and what we do

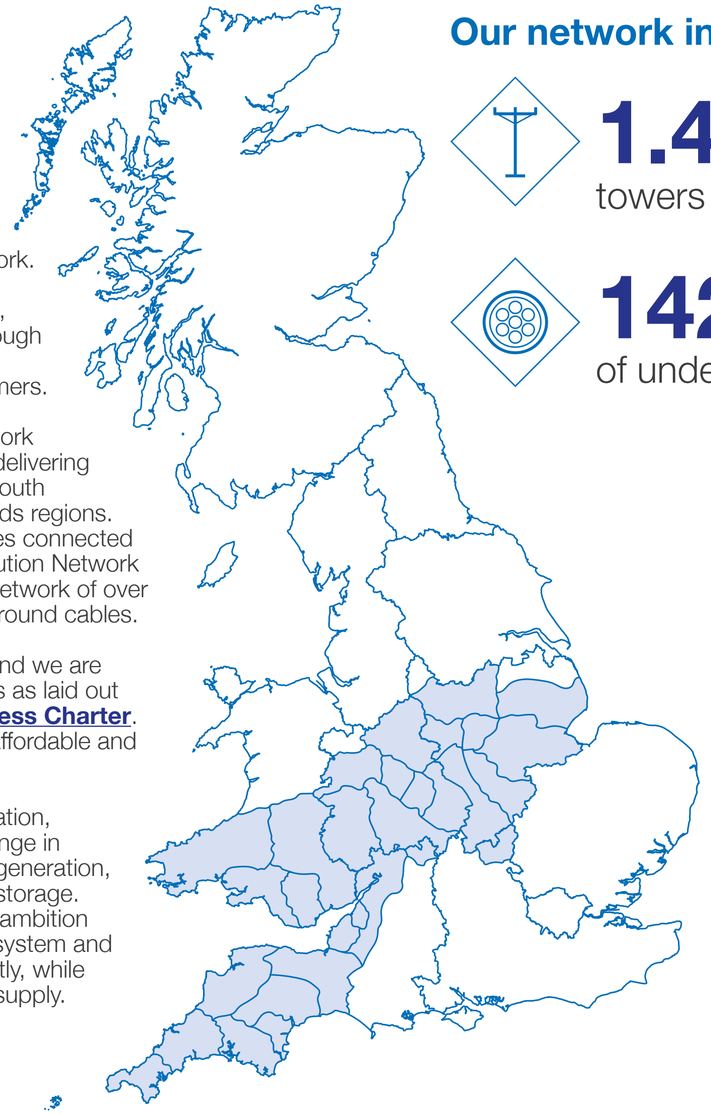
We are National Grid Electricity Distribution (NGED)

NGED is a distribution network and system operator and our distribution network connects customers to the National Grid electricity transmission network. We convert the high voltage electricity generated by large power generation sites, such as power stations, and delivered through the National Grid transmission network, to lower voltages that can be used by customers.

We are responsible for managing the network of poles, pylons, cables and substations, delivering power to homes and businesses across South Wales, South West, East and West Midlands regions. We serve 8.1 million homes and businesses connected to our network, and are the largest Distribution Network Operator in the UK by geography, with a network of over 230,000 km of overhead lines and underground cables.

Our parent company is National Grid plc and we are aligned to the commitments and ambitions as laid out in the **National Grid Responsible Business Charter**. Our aim is to be at the heart of a secure, affordable and clean energy future.

As the country drives towards decarbonisation, we are undergoing an unprecedented change in our industry, including a rise in renewable generation, electric vehicles, heat pumps and battery storage. We are committed to supporting the UK's ambition to achieve a fully decarbonised electricity system and our aim is to deliver transformation efficiently, while continuing to provide a resilient electricity supply.



Our network in numbers

1.4 million
towers and poles

75,000
substations

142,000km
of underground cables

88,000km
of overhead lines

Our main responsibilities to our customers

Keep the power flowing
by operating and protecting our assets

Maintain equipment
to ensure our network remains reliable

Fix the network
if equipment becomes faulty or damaged

Connect customers
by using existing capacity, upgrading or building new networks

Operate a smart system
by managing two-way power flows and flexibility services

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About this report

This Annual Environment Report provides an update on progress towards achieving our core environmental commitments, as set out in our RIIO-ED2 Environmental Action Plan.

The information in this report follows the guidance issued by our regulator, Ofgem. We report on performance data for the financial year 1 April 2024 to 31 March 2025. Alongside this we have provided details of our approach to deliver against our core commitments and a summary of planned activities in these areas.

The key performance indicator tables in Appendix A provide the associated data for all available metrics for the first two years of the ED2 regulatory period.

Navigating this document

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Performance summary 2024/25 at a glance

RAG Status key

Red progress not on track, and ED2 target at risk
Amber progress is delayed but is likely to be achievable before the end of regulatory period
Green progress against the implementation milestones is on track

	10 	11 	12 	13 	14 	15 
Core Commitment	**Become a net zero organisation by 2043 in line with our validated 1.5ºC science-based target (SBT).**	**Avoid damage to the environment by reducing the volume of leakage from fluid filled cables by 50 per cent by 2028 and replacing the worst leaking circuits with non-oil alternatives putting NGED on target to remove all oil-filled cables by 2060.**	**Significantly reduce our impact on climate change by delivering a 20 per cent reduction in SF_6 losses and drive industry partners to develop technological alternatives to reduce overall volumes of SF_6 on the system.**	**Significantly reduce the environmental impact of our operations by achieving zero waste to landfill by 2028 (excluding hazardous waste) and delivering an overall 30 per cent reduction in tonnage of waste produced.**	**Improve visual amenity by removing at least 50km of overhead lines in Areas of Outstanding Natural Beauty and National Parks.**	**Achieve a 10 per cent net gain in biodiversity (in line with nationally recognised assessment tools) for new major projects and for selected primary and grid substation sites.**
Benefits/ outcomes	◆ Lower greenhouse gas emissions ◆ Reduced environmental impact from operations	◆ Reduced environmental impact from operations ◆ Removal of potentially harmful pollutants from the environment	◆ Lower greenhouse gas emissions ◆ Reduced environmental impact from operations	◆ Increased resource efficiency ◆ Reduced environmental impact from operations	◆ Increased amenity value	◆ Healthier, more stable and sustainable ecosystems ◆ Lower greenhouse gas emissions
Comments	In 2024/25 scope 1 and 2 emissions (excluding losses) were 8 per cent below our 2019/20 baseline. This represents a 9.5 per cent increase from the previous year and is over the annual reduction target set by our net zero 2043 trajectory. An increase in SF_6 fugitive emissions and growth in operational road fleet have been the main drivers of this increase. We continue to take action to decarbonise our fleet and address SF_6 leaks, as detailed in the relevant sections of this report. We anticipate that sustained action will enable us to progress towards our RIIO-ED2 target.	Fluid-Filled Cable leaks were above target for the year. This performance was impacted by a small number of cable leaks which were challenging to locate and rectify in the East and West Midlands. Our cable replacement programme is in progress and further targeted action is planned to deliver the outcomes of this commitment by the end of RIIO-ED2.	Overall performance is above target, with a reported leak rate of 0.44 per cent against a target of 0.41 per cent for this period. SF_6 leaks from live apparatus and leaks discovered at the time of asset disposal are reported. Increases in reported leak volumes are sensitive to the type and volumes of asset disposal completed during the period and the availability of spares to conduct repairs. We aim to take action to detect and rectify leaks at the earliest opportunity, and have put plans in place to target assets which are associated with high SF_6 losses.	Performance on zero waste to landfill is on track, with just 2.93 per cent of waste arising going to landfill against a target of 7.57 per cent. The total tonnage of waste generated in 2024/25 equates to 2.69 tonnes per £M of turnover – compared to our baseline of 2.95 tonnes per £M turnover. We are on track to meet our longer-term target of achieving a 30 per cent reduction in total waste produced over the RIIO-ED2 period.	In 2024/25 we have undergrounded 2.72 km of overhead lines within National Parks and AONBs (now referred to as National Landscapes) bringing our total for the ED2 period to date to 7.07 km. We have worked with regional steering groups to identify a pipeline of 35 schemes to replace overhead lines with underground cables. Pending steering group approvals, delivery of these projects will enable us to fulfill our target for RIIO-ED2.	In 2024/25 nine projects fell under the biodiversity net gain statutory requirements in England and all of these achieved a minimum 10 per cent net gain through a combination of onsite and offsite biodiversity delivery. Going beyond our statutory requirements, we have undertaken biodiversity baseline surveys at 22 substation sites across our four licence areas. This baseline data will support our strategy of targeted net gain delivery on selected operational land for the remainder of RIIO-ED2.

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Net zero carbon emissions

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Business carbon footprint

Our Business Carbon Footprint (BCF) accounts for the impact that our operational activities have on the environment in terms of associated greenhouse gas (GHG) emissions. Reducing our carbon footprint is a priority area from our environmental action plan and we have set ambitious targets for improvement.

To decarbonise our own operations, we have set a Science-Based Target (SBT) in line with keeping global warming to 1.5 degrees. Our commitment is to become a net zero organisation by 2043 for scope 1 and 2 emissions (including network losses). This target pre-dates NGED joining National Grid Group plc and supports the achievement of our group-wide target of net zero by 2050.

To track progress, we have established a pathway with annual targets for each year of RIIO-ED2. Our performance to date is detailed in the following sections.

We report our BCF in accordance with the Greenhouse Gas Protocol, which defines emissions into three categories or scopes.

Scope 1
Direct GHG emissions occurring at sources owned or controlled by NGED.

This includes gas use in our buildings, fuel used in operational transport, fuel used in generators and the release of fugitive emissions (SF_6) from network equipment.

Scope 2
Indirect GHG emissions from the generation of purchased electricity in our buildings and distribution line losses.

Line losses are included in our Science-Based Target (SBT) but are shown separately when reporting our business carbon footprint.

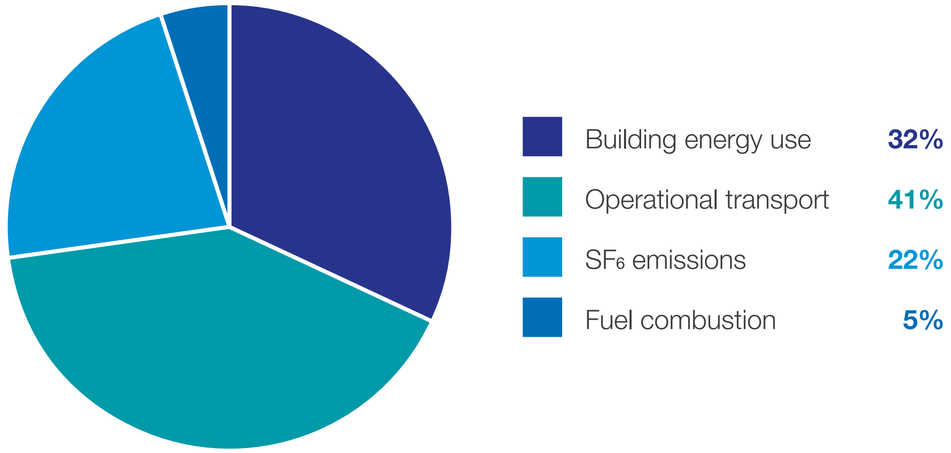
Scope 3
All other indirect GHG emissions that occur within the company value chain.

Core Commitment
Become a net zero organisation by 2043 in line with our validated 1.5ºC science-based target (SBT)

Figure 1: Scope 1, 2 and 3 emissions sources

Scope 1 Direct GHG emissions	Scope 2 Indirect GHG emissions	Scope 3 Indirect GHG emissions
• SF_6 leaks from network equipment • Fuel use in operational transport • Fuel use in generators and plant • Gas use in buildings	• Line losses • Purchased electricity use in buildings	• Purchased good and services • Capital goods • Waste generated in operations

Figure 2: Scope 1 and 2 emissions (excluding losses)



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Business carbon footprint

2024/25 performance

Total scope 1 and 2 emissions (excluding losses) were 50,613 tCO_2e in 2024/25, an 8 per cent reduction from our 2019/20 baseline. This represents a 9.5 per cent increase from the previous year and is over the annual reduction target set by our net zero 2043 trajectory (figure 3). Emissions from line losses also increased by 4 per cent from 2023/24 to 2024/25.

In this report we have restated our Scope 1 and 2 emissions total for 2023/24 due to improved data capture. This represents an increase in emissions from those previously reported and details of this are provided in Appendix A.

In 2024/25 we have seen increases across the majority of emissions sources except combustion, the most significant increase being a 38 per cent rise in Sulphur Hexafluoride (SF_6) fugitive emissions (figure 4). Performance in SF_6 leak reduction varies between our licence areas and we provide further details on what we are doing to manage fugitive emissions and the challenges we face in the SF_6 section of this report.

The remainder of this section details actions taken during 2024/25 to address emissions in the other principal contributors to our business carbon footprint – Building energy use and Operational Transport.

Click here to read **our KPI Tables**

Figure 3: Total scope 1 and 2 emissions (excluding line losses)

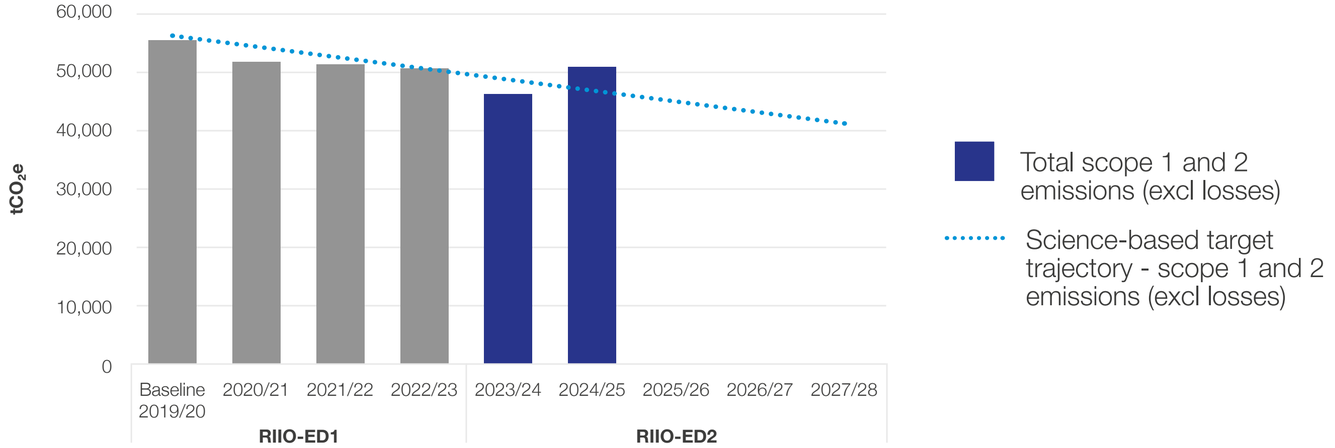
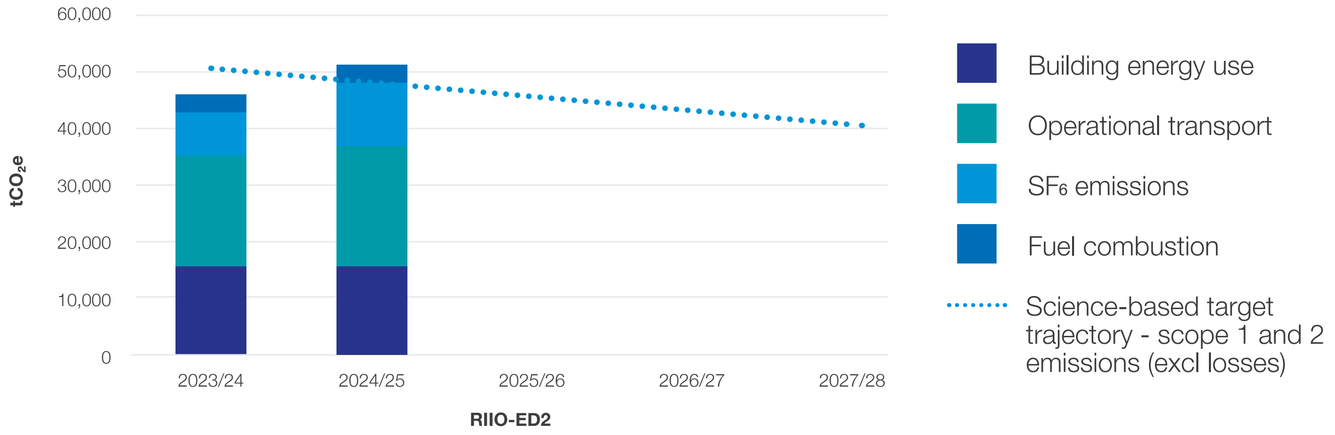


Figure 4: Scope 1 and 2 emissions sources (excluding line losses)



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Business carbon footprint

Building energy use

Building energy use accounts for 32 per cent of our business carbon footprint. Offices and depot sites account for just over a quarter of this energy consumption and the largest proportion (67 per cent) is from substation electricity use. In 2024/25, substation electricity use was 13 per cent lower than our baseline in 2019/20, while building electricity use has only marginally decreased over this period and rose by 5 per cent on the previous year.

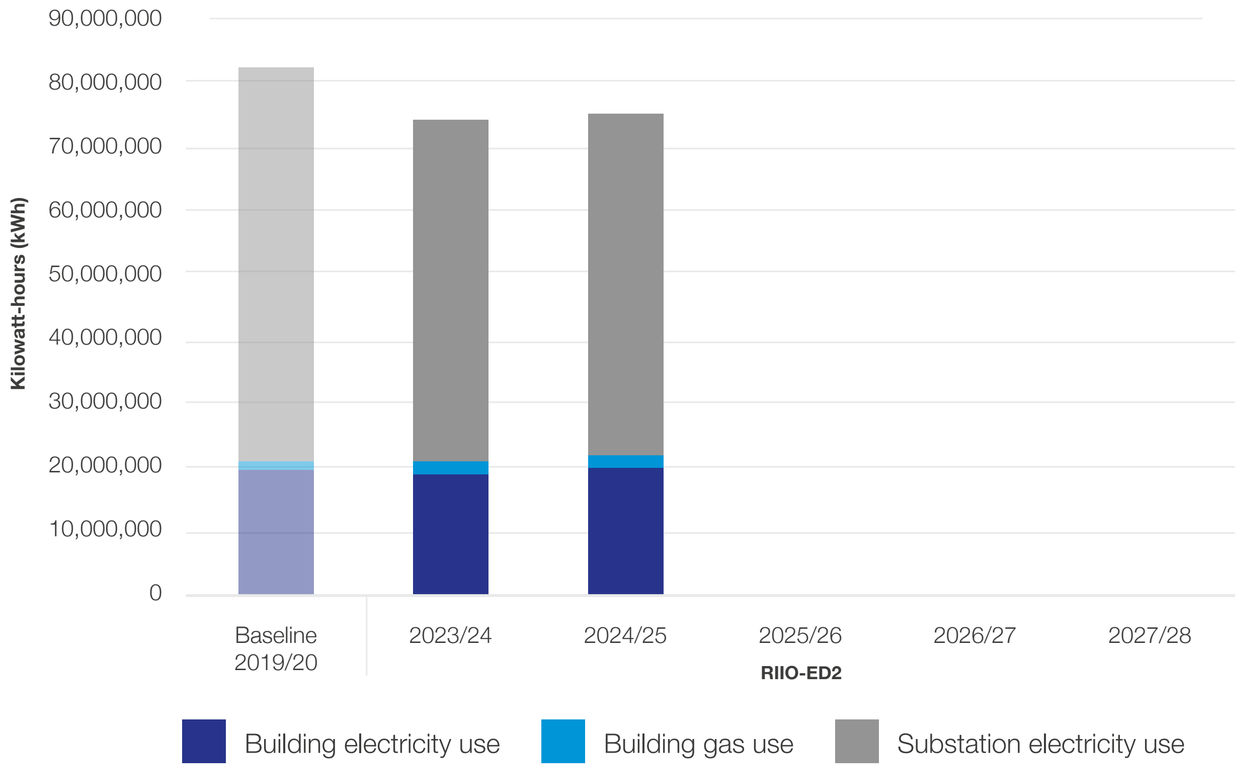
During 2024/25 we progressed the planning stage of replacement depots in Exeter and Torquay, and the refurbishment of a further two depots and two new garages in Exeter and Plymouth. Construction is due to complete on two of these sites in 2025/26 and the remainder within the ED2 period. These buildings are designed to achieve an Energy Performance Certificate A+ rating and incorporate the use of Solar PV systems to supply their regulated energy demand throughout the year.

Elsewhere in the portfolio we are implementing projects to improve the energy efficiency of our depots and offices. Examples include roof replacement projects at Stoke which commenced in January 2025 and a further project planned for Avonbank to commence in June 2025.

These projects will enhance the thermal performance of these large non-operational sites. We have also completed the first phase of an initiative to replace all existing fluorescent light fittings with new LED fittings (including external lighting) across the non-operational portfolio. This work was completed on 18 sites in 2024/25. A second and final phase is planned for 2025/26.

All the electricity consumed in our offices and depots is sourced through a Power Purchase Agreement to ensure we buy 100 per cent renewable energy.

Figure 5: Energy consumption (kWh) at buildings and substations



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Business carbon footprint

Operational transport

Operational transport accounts for 41 per cent of our business carbon footprint, 94 per cent of which is attributed to road vehicles. Overall emissions from operational road vehicles in 2024/25 increased by 6.5 per cent compared to the previous year, this represents a 2 per cent reduction on our 2019/20 baseline. Over the reporting period the size of our light duty fleet increased by 344 to a total of 3902 vehicles due to changing operational requirements.

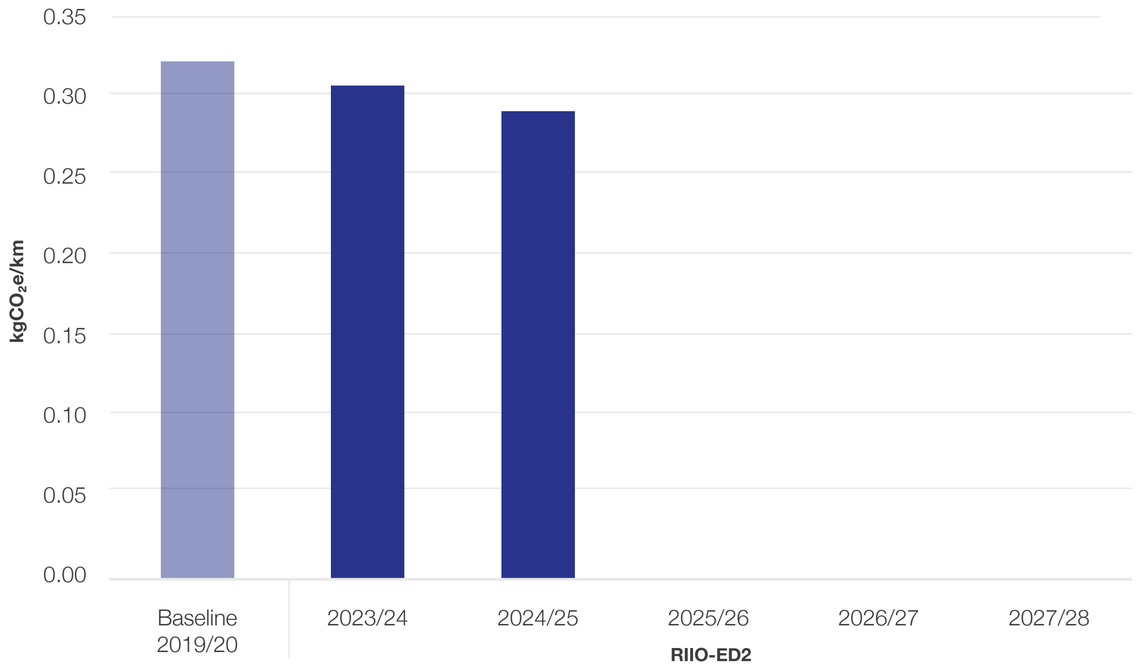
In total in 2024/25 we added 121 more EVs to our fleet bringing the total number of EVs to 366, representing 9.4 per cent of light duty vehicles. Alongside this we have continued to introduce new initiatives to improve efficiency for ICE (internal combustion engine) vehicles.

Over 80 per cent of our fleet are large panel vans, 4x4's, heavy goods vehicles (HGVs) and specialist vehicles. This presents a challenge as in some cases there are no suitable battery alternatives available and in others, EV options may not meet the operational demands of the role. For our 4x4 vehicles we have worked closely with manufacturers for a number of years to enable the development, trial and launch of a suitable specialist All-wheel drive (AWD) EV car derived van for certain roles (see case study).

Alongside our progress in transitioning the fleet to EVs, we continue to work to improve the efficiency and sustainability of ICE vehicles on our fleet. The emissions intensity of an operational kilometre has improved by 10 per cent since 2019/20 (see figure 6). ICE vehicles are replaced on a 7-year cycle, which enables the replacement of older Euro 4/5 category with the newer Euro 6/6+ lower emission vehicles. We have also started the roll out of portable Lithium Power Supply (LPS) Units for AWD vehicles to reduce idling when working on site. The portable power supply unit avoids the need to run the engine to support the power demands of auxiliary lights, ancillary equipment and charging for power tools.

Additionally, at our Boston depot we have been trialling the use of Hydrotreated Vegetable Oil (HVO) as a lower carbon alternative to traditional diesel fuel. The trial ran throughout 2024/25 and will be evaluated to determine the costs and benefits of a wider roll-out.

Figure 6: CO_2e intensity of an operational km travelled



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Case Study
Innovating for the transition to EV

In 2024/25, we introduced 26 All-wheel drive (AWD) electric vehicles to the fleet for use by our telecoms and field operations teams.

This result represents the culmination of two years of collaboration with our supply chain partners Skoda and Strongs Plastic Products Ltd to develop and trial an EV alternative, that would meet our operational requirements.

In 2022/23 we spear-headed the conversion of the Skoda Kodiaq car into a car-derived commercial van, this development laid the ground work for a move to an EV alternative of the same vehicle type when this became available in 2024. In 2024, we trialled the Skoda Enyaq demonstration car to test its range and payload suitability before agreeing the conversion of this vehicle for use in our fleet.

This purpose-built conversion has been successfully deployed for use by telecoms and field operations teams with a range of approximately 300 miles and it is now being marketed to other customers. Working with our supply chain to introduce more options for EV AWD alternatives will continue to be a focus for 2025/26.

Skoda Enyaq AWD used by telecoms teams and technicians

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Sulphur hexafluoride (SF_6)

Core Commitment
Significantly reduce our impact on climate change by delivering a 20% reduction in SF_6 losses and drive industry partners to develop technological alternatives to reduce overall volumes of SF_6 on the system.

Sulphur hexafluoride (SF_6) has been utilised for many years for its excellent insulating properties in switchgear. SF_6 containing equipment experience leaks and whilst low in volume, due to its high global warming potential (23,500 times that of carbon dioxide[1]), these account for approximately 22 per cent of our business carbon footprint (excluding losses).

The EU is implementing regulations to phase out SF_6 in new switchgear, with bans starting in 2026 for medium voltage and gradually extending to higher voltages. The industry is responding by developing alternatives to SF_6, including alternative gases, gas mixes and vacuum technologies.

Whilst these technologies develop, our overall bank of SF_6-containing assets will continue to increase as assets reach end-of-life and need replacement. In the medium term, with the transition to SF_6 alternatives, we can expect the removal of apparatus from the network to drive an increase in reported leakages (previously undetected). Together these trends mean progress against our target will not be linear.

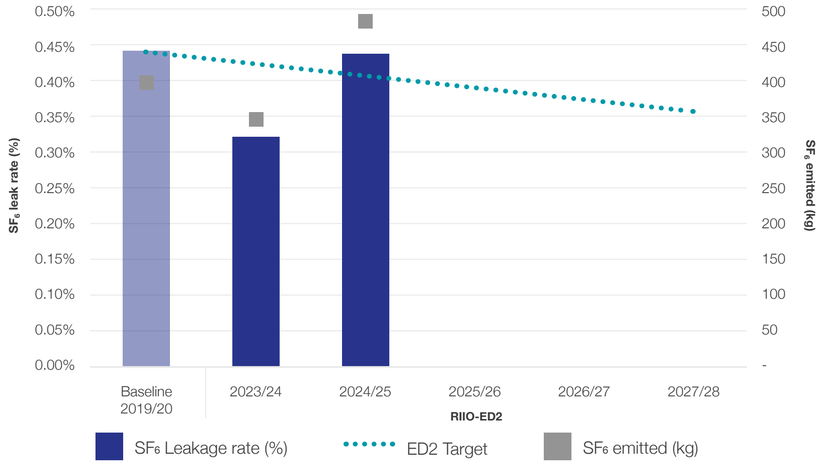
2024/25 performance

As the size of our SF_6 bank varies over time, our ED2 target is based on leakage as a percentage of the total bank and we aim to reduce the leakage rate by 20 per cent by the end of ED2.

In 2024/25, the rate of SF_6 leakage from the network has increased from the previous year and we are over our target for this period.

Our overall performance is 0.44 per cent, equivalent to our 2019/20 baseline. Performance varies between regions and the East Midlands and South West areas both met their target for 2024/25.

Figure 7: SF_6 leakage rate (%) and total SF_6 emitted (kg)



Our data reflects both top-ups made where leaks are identified in live apparatus and measurements of SF_6 recovered during disposal of assets removed from the network (compared to the original gas volume of the equipment), which enables us to calculate SF_6 leakage.

Since our baseline was established, we have driven significant improvements in reporting due to new asset disposal contracts for SF_6 and greater oversight and controls on reporting from local teams.

In 2024/25, total SF_6 emitted increased to 478kg from 345kg the previous year.

In the West Midlands this trend was driven by higher scrappage volumes, and the type (with higher SF_6 volume) and age of switchgear at the time of scrapping.

In South Wales, where top-ups were highest, approximately half of total leakage relates to top-ups which occurred at nine circuit breakers, one of which has been taken off the network, and a repair plan has been put in place for the others.

[1] Department for Energy Security and Net Zero; Greenhouse gas reporting: Conversion Factors 2024

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Sulphur hexafluoride (SF_6)

Our approach

We have over 67,000 SF_6 containing assets on our network. The SF_6 gas is typically distributed through a number of compartments and the quantity of gas varies from 1kg to 210kg depending on the equipment type and manufacturer.

Action to detect and rectify SF_6 leaks at the earliest opportunity is a key part of our strategy. Where leaks are detected, if necessary we will replace equipment, however equipment repairs are also a cost effective and viable option in some cases, helping to avoid disruption to the network. This involves active engagement with the manufacturers, particularly where leaks have been detected on assets which contain a large volume of SF_6; to identify the leak, source spares and conduct repairs.

We continue to work at an industry level across multiple suppliers and at all voltage levels to progress viable alternatives to SF_6. We have already standardised the use of non-SF_6 132kV live tank circuit breakers with 6 units installed and activated between April 2023 and March 2025, saving on average the use of 10kg of SF_6 per unit over its lifetime. We expect to be able to implement further non-SF_6 apparatus over the coming years.

There is also work underway to standardise the use of recycled SF_6 in all new SF_6 132kV apparatus and we are working with manufacturers to implement this wherever possible.

Looking ahead

Although SF_6 is present in sealed apparatus, all gas compartments have an inherent design leak-rate, which will only be realised at the time of scrappage or top-up.

We want to investigate the inherent design leak-rate of our equipment types to understand the impact on our reporting of SF_6 leakage, and guide our strategy in addressing leaking assets. Working with manufacturers we are also considering how to build capacity to identify and verify leak locations to reduce response times and improving supplies of spares.

In 2025/26, we will progress a number of pilot projects for non-SF_6 equipment types and following completion of trial installations expect to standardise the use of non-SF_6 33kV pole mounted circuit breakers.

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Electricity distribution losses

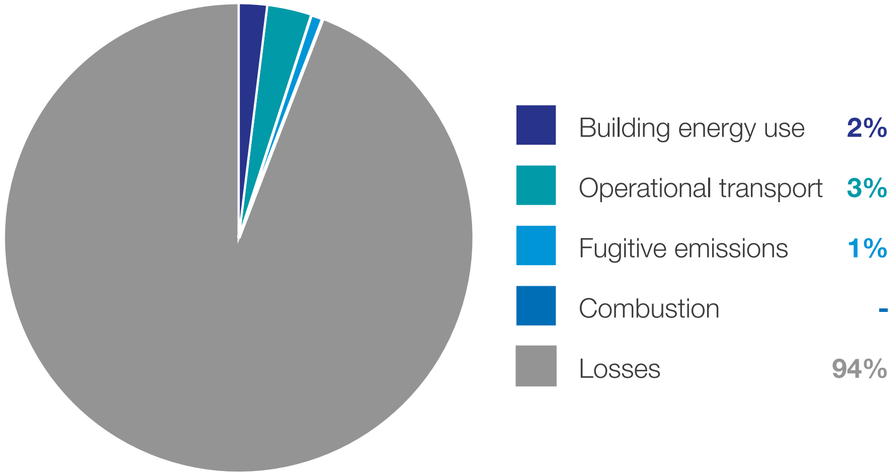
Line losses are the difference between the electrical energy that is input into the electricity network, compared to the electrical energy that reaches the consumer. This difference arises when electrical current travels on the distribution network, some energy is dissipated in the form of heat and is 'lost' due to the electrical resistance in network lines and equipment.

Distribution losses are largely outside of our control; however, they represent energy which might otherwise have been used elsewhere and by implementing a Losses Strategy we take a proactive approach to manage losses and minimise them where possible.

The greenhouse gas emissions associated with losses form part of our scope 1 and 2 emissions (figure 7) and are the biggest single contributor.

The actions we are taking to manage losses have a relatively small impact on our overall emissions, reducing emissions from losses is largely dependent on the falling carbon intensity of electricity.

Figure 7: Scope 1 and 2 emissions breakdown (%) including losses



The decarbonisation of the electricity system and associated increase in distributed generation and low carbon technologies will have an impact on our losses.

Over the next decade, forecasts show our actual losses will increase significantly as the network grows and demand for electricity increases.

In the medium term however as we approach 2030, the falling carbon intensity of electricity will outweigh the growth in network losses and our emissions will fall.

2024/25 performance

In 2024/25, line losses and their associated emissions increased by 4 per cent on the previous year.

	Baseline 19/20	23/24	24/25	% Year on Year change
Annual losses (GWh)	3,807	3,780	3,949	+4%
CO_2e emissions (tonnes)	973,064	782,803	817,738	+4%

Through monitoring trends over the past two decades, we have noticed an upward pressure on losses in recent years. This trend is thought to be linked to the increase in embedded generation on the network.

This means we see more power flowing at lower voltages where losses are typically greater and power travelling further on the distribution network, due to a mismatch between times of peak generation and consumer demand.

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Electricity distribution losses

Our approach

We continue to implement our Losses Strategy and take direct action to manage losses on the network. This strategy is wide ranging and encompasses data analysis, research, policy development, dissemination and training, and stakeholder engagement on managing losses.

On policy development, we have established guidance for the specification of minimum cable and transformer sizes in internal network design standards with the objective of minimising losses.

Additionally, we are reviewing these standards with a view to increasing minimum sizes of cables and transformers unless it can be shown, through cost benefit analysis, that a smaller size is appropriate. Further engineering policy changes to increase minimum cable size in high voltage wires with the aim of improving thermal performance and resilience will also deliver benefits for reduced losses.

Compared to 2015, the procurement of the smallest size of underground cable (95mm^2) has fallen by almost 500km a year. Use of smaller cables continues only for minor works, with losses savings realised year-on-year through the use of higher minimum cable sizes.

For transformers, which exhibit fixed losses that increase with size, the decision to up-size needs to take account of the loading, as it is recognised that a very lightly loaded larger transformer could result in higher losses overall.

Looking ahead

We will continue to assess the scale of losses, improve our approach to forecasting and develop more sophisticated modelling techniques to better understand the impact of a more flexibly operated system.

More detailed data and modelling is required to fully understand the potential relationship between volumes of embedded renewable generation and an upward pressure on losses and therefore what mitigation might be possible.

Click here to read **our 2023 Losses Strategy**

Click here to read **our KPI Tables**

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Scope 3 emissions

We recognise our responsibility to reduce emissions across the value chain, working towards a more sustainable energy system.

Scope 3 emissions are indirect GHG emissions that occur in our value chain, outside of our direct operations. Measuring and addressing scope 3 emissions is part of our wider decarbonisation efforts and requires us to engage and influence our suppliers and stakeholders.

We are continuing to improve our data for reporting and aim to include business travel for the next reporting period.

Scope 3 emissions data

	2023/24 emission (tCO_2e)	2024/25 emission (tCO_2e)	Comments
Category 1 & 2 - Purchased Goods and Services & Capital Goods	500,272	579,299	Increase due to increased investment in infrastructure
Category 5 - Waste generated in operations (excluding waste water)	5,917	5,548	Decrease due to a reduction in the waste arising from our offices and depot sites.
Total	**506,189**	**584,847**	

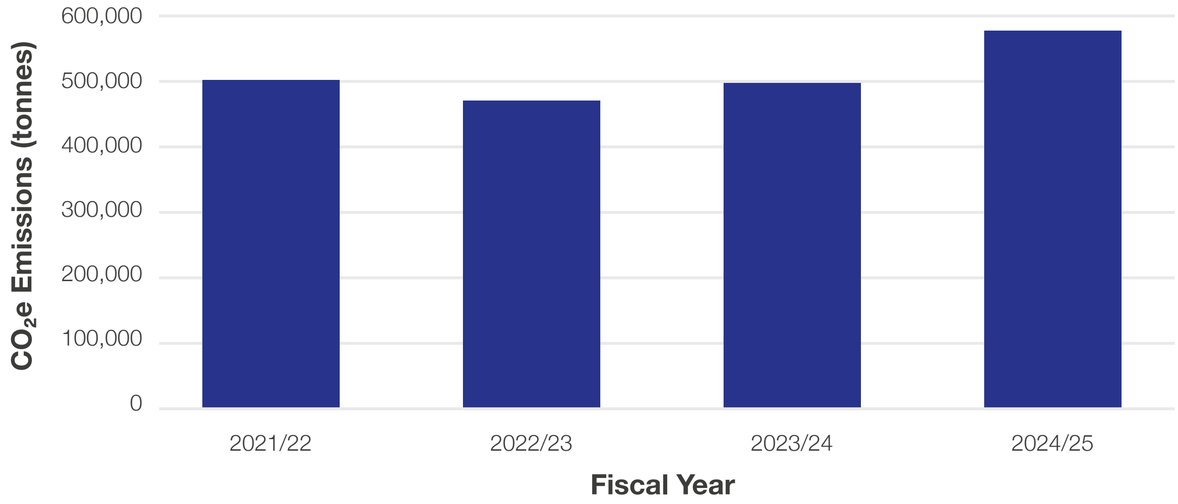
Using the categories outlined by the GHG Protocol, within Scope 3 our most material topics are:

- **Category 1** - Purchased Goods and Services
- **Category 2** - Capital Goods

We calculate our emissions in these categories using the Global Industry Classification Standard (GICS) emissions factors, using a spend based approach.

Over half of the emissions in these categories come from construction, engineering and electrical components/equipment and as we improve and increase investment in our distribution network infrastructure, we expect our scope 3 emissions to increase in the short term. This is the case for year 2024/25 where we saw a 16 per cent increase in category 1 and 2 scope 3 emissions compared to 2023/24. It is important to note that where our scope 3 emissions rise, due to increased investment in network infrastructure, this investment is required to support the decarbonisation of the electricity system and therefore delivers a net-positive impact on system wide emissions.

Figure 8: Purchased Goods and Services and Capital Goods (Cat 1&2 combined) Scope 3 emissions (tonnes CO_2e)



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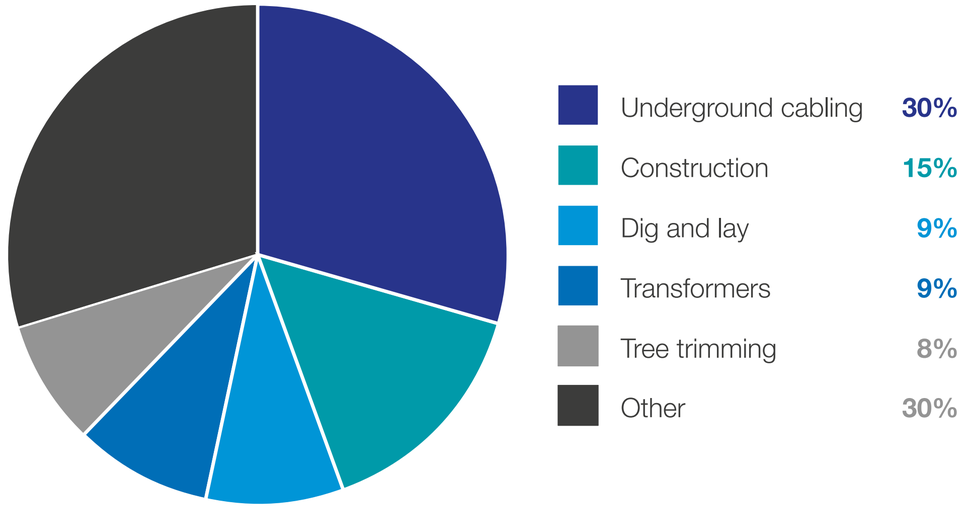
Scope 3 emissions

In 2023/24 we engaged with a consultant to perform a deep dive analysis into our highest emitting categories of spend by recalculating the emissions related to these categories on an activity-basis instead.

To do this, physical data was collected from our suppliers and used to calculate the emissions of the top five purchased goods and services categories, representing 70 per cent of emissions by spend.

These high emitting categories were underground cabling (30 per cent), construction (15 per cent), dig and lay (9 per cent), transformers (9 per cent) and tree trimming (8 per cent).

Figure 9: GHG emissions breakdown for top five purchased good and services categories



Going forward we will look to target these high emitting categories and continue to map the emissions within our supply chain. We hope to work closely with our suppliers to identify potential emission saving projects over the coming years.

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Embodied carbon

Embodied carbon is the carbon footprint of a material, product or an activity. The measurement of embodied carbon takes into account how much greenhouse gas is released throughout the supply chain of a product or service and is often measured over the entire life cycle.

Working alongside colleagues in our innovation team we have developed the ALPACA - Approach for Long-term Planning Accounting for Carbon Assessment (ALPACA) Tool.

The ALPACA Tool allows us to:

- monitor and report the carbon impact of activities, and proactively manage these impacts from project planning to project completion
- support the identification of relevant Scope 3 emissions and improve data quality and coverage and establish a clearer understanding of whole life carbon impact
- report embodied carbon emissions across an entire project life cycle.

Prior to trialling the tool more widely, an internal review and appraisal was undertaken in 2024 to assess its continued suitability and appropriateness for our activities and future carbon reporting requirements. A further phase of development will be the trialling of the tool on live projects with the goal of establishing a consistent approach to monitor and report embodied carbon associated with our network activities.

To support this, we will continue to work collaboratively with other DNOs via the Energy Networks Association Carbon Working Group. The ALPACA Tool and other bespoke embodied carbon tools have been shared and discussed as part of the ENA Working Group.

Going forward a key output of the Group is to establish and agree a common set of carbon factors which can be applied to the various reporting tools being used by individual DNOs, thus ensuring consistent and reliable reporting on embodied carbon in the future.

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Supply chain management

We are committed to being a responsible business and over the course of RIIO-ED2 we have pledged to work closely with our suppliers, partners and manufacturers in order to improve environmental and sustainability performance throughout our supply chain.

Our Responsible Business Charter (RBC) articulates what 'responsibility' means for us at National Grid. Accordingly, we expect all our suppliers to support our RBC commitments and actively work towards making a positive impact on environmental factors, especially those linked to our operations.

To help ensure this, we abide by the Group wide target of 80 per cent of UK suppliers to commit to setting a formal Science Based Target (SBT) with the top 80 per cent of UK suppliers by emissions to have formally committed to set a Science Based Target by 2025/26.

Supplier Code of Conduct

In April 2024, the National Grid Supplier Code of Conduct (CoC) was published. The CoC sets the expectations, values, and fundamental principles which we expect our suppliers to extend into their business and supply chain. The CoC is integrated into the new supplier process, with suppliers expected to accept as part of their onboarding.

For existing suppliers, the CoC will be re-issued on an annual basis, starting in August 2025, with all suppliers on the National Grid Critical Supplier List expected to confirm compliance.

In addition to guidance around people, customers and communities, environment and responsible business fundamentals, the CoC requires suppliers to disclose ESG (Environmental, Social and Governance) data and have in place or work toward an environmental management system that is aligned to the requirements set out in recognised standards such as ISO14001. With most contracts, except for minor works, stating certification to ISO14001 is a pre-requisite for bidders to be considered.

As part of the process for tendering and awarding contracts, every tender questionnaire has a detailed and comprehensive sustainability section, and as a result, the responses provide a holistic view of sustainability performance from bidders.

This improves our ability to demand better sustainability and environmental performance from prospective bidders.

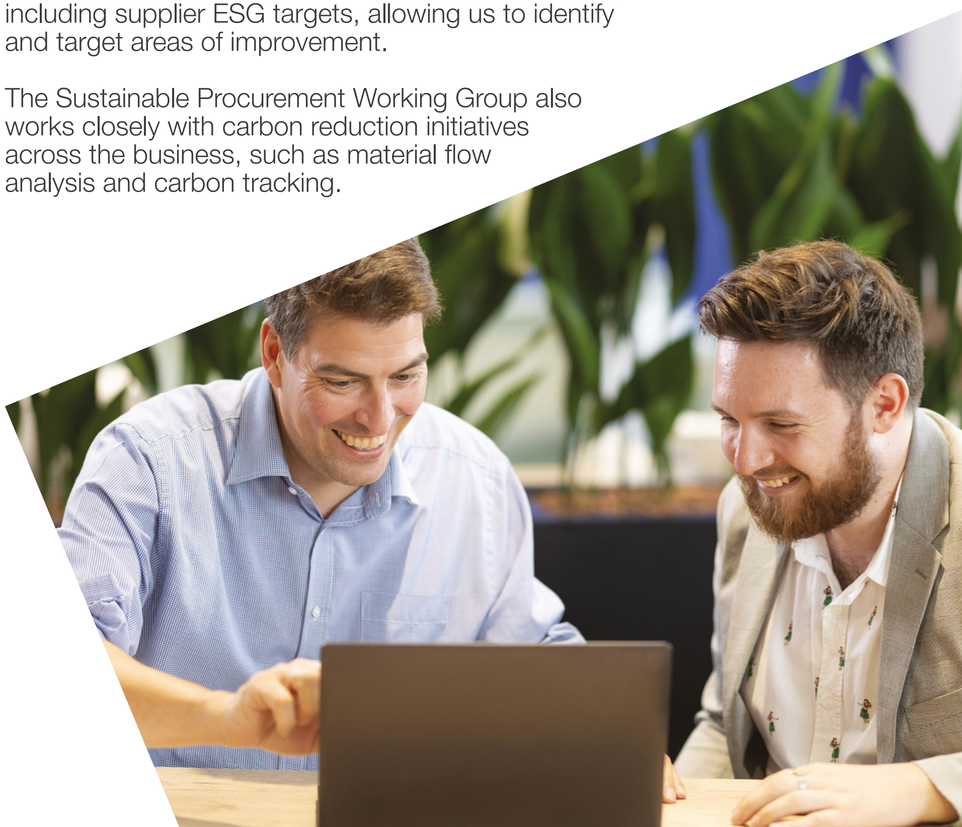
Sustainable Procurement Working Group

We have continued our work as part of the National Grid Sustainable Procurement Working Group, which provides a coordinated approach to sustainability in the supply chain.

The focus has been the development of a Sustainable Procurement Strategy to reduce supply chain carbon emissions while prioritising other sustainability aspects, including waste management, biodiversity, and human rights.

This strategy aligns with the RBC and includes the use of tools to monitor supplier sustainability performance, including supplier ESG targets, allowing us to identify and target areas of improvement.

The Sustainable Procurement Working Group also works closely with carbon reduction initiatives across the business, such as material flow analysis and carbon tracking.



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Case Study
Reducing packaging waste in our operations

In line with our ED2 commitments, we have been working with our supply chain to reduce single use plastic packaging and promote circular economy principles.

This topic is discussed at contract review meetings and has resulted in a number of innovations to reduce waste. The latest project, launched in February 2025, aimed to reduce plastic packaging on ring main units which are stored at our two plant centres. The ring main units (RMUs) are supplied in a protective plastic bag which is needed to keep components of the RMU dry. This results in the handling of approximately 700 large single-use plastic bags a year from this equipment type.

Working with our supplier Schneider electric and their sustainability team we have trialled a reusable protection solution to replace the plastic bags. This has involved the development of a bespoke waterproof shield which is designed to cover the areas of the equipment that need waterproof protection. As many of the units are stored outside, testing the waterproof protection provided by the new shield was an important part of trials.

The shields can be removed when the ring main units are deployed and are returned to the supplier for reuse in future deliveries. This approach also has the benefit of reducing handling time for packaging waste which needs collecting and bailing before removal offsite.

Having successfully completed its trials the initiative will be rolled out across both plant centres in 2025/26.

RMU supplied with reusable waterproof cover

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Managing our environmental impact

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Sustainable resource use and waste

Core Commitment
Reduce the environmental impact of our operations by achieving zero waste to landfill by 2028 (excluding hazardous waste) and delivering an overall 30% reduction in tonnage of waste produced per £M of turnover.

Our focus remains on driving down the amount of waste from our operations which is sent to landfill and working with our supply chain to reduce the overall amount of waste produced.

We continue to work closely with the waste contractors in all four of our licence areas to ensure that wherever possible waste streams are diverted from landfill, and that the principles of the waste hierarchy are applied.

2024/25 performance

In 2024/25, our diversion of waste from landfill has reduced for a second consecutive year. Just 2.93 per cent of our total waste was sent for disposal to landfill, our target for the year was 7.57 per cent therefore we remain on track to achieve zero waste to landfill (excluding hazardous compliance waste) by the end of RIIO-ED2. In 3 of 4 of our licence areas our landfill diversion rates are greater than 99 per cent.

In the South West, we have seen an improvement on the previous year and this is our focus area for improving overall performance and overcoming some of the challenges associated with waste management infrastructure in this region. The absolute tonnage of waste we produced during 2024/25 was 4,979 tonnes, a reduction of 399 tonnes compared to 2023/24.

We have a target to reduce by 30 per cent the tonnage of waste produced per £M of turnover.

We calculate tonnage of waste as a proportion of annual turnover to account for the fact that the tonnage of waste produced annually will vary dependent on the amount of work being carried out.

In 2024/25, we produced 2.69 tonnes of waste per £M of turnover compared to our 2019/20 baseline of 2.95 tonnes per £M turnover.

Our ED2 target for 2024/25 was 2.60 tonnes per £M of turnover and therefore we are on track to achieve our 30 per cent reduction in tonnage of waste per £M of turnover by the end of RIIO-ED2 (see figure 12).

Figure 10: Percentage of waste to landfill

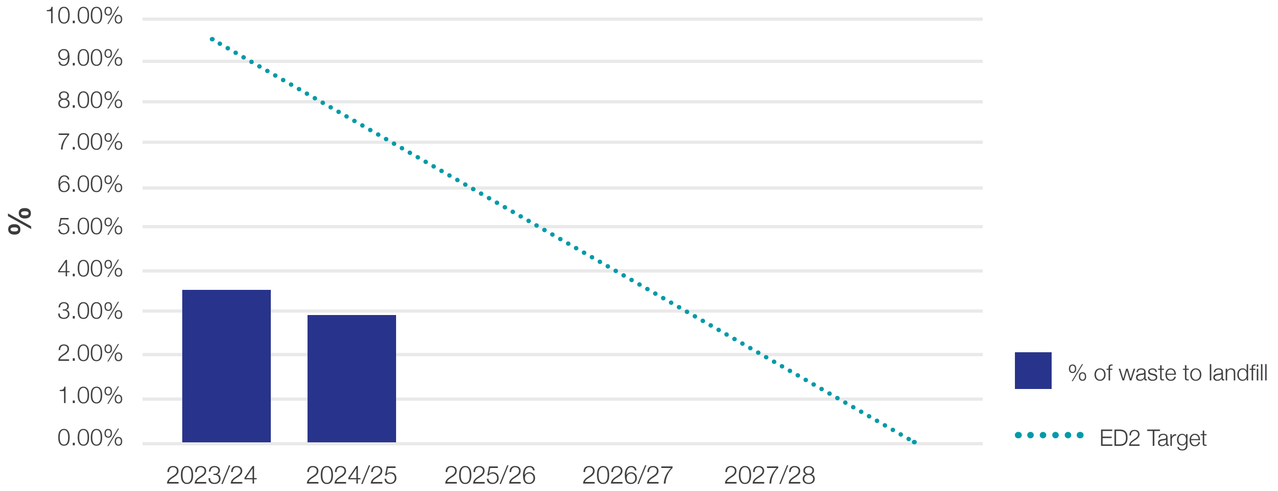

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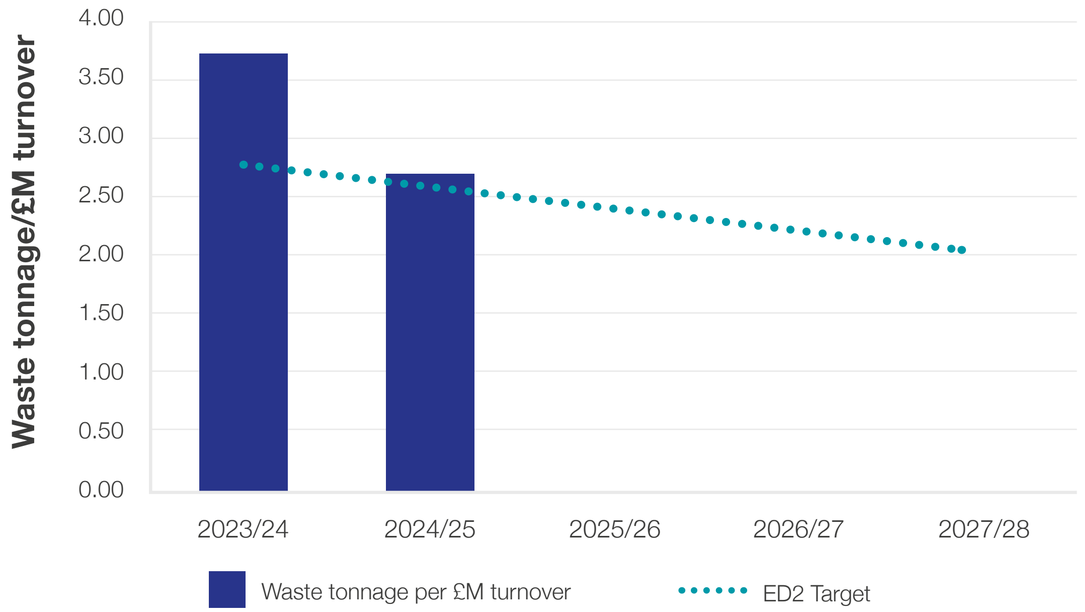
Figure 11: Total waste (tonnes) and total waste to landfill (tonnes) by region

Total Waste (tonnes)	2023/24	2024/25
West Midlands	1,504	1,243
East Midlands	1,547	1,406
South Wales	705	670
South West	1,622	1,661
NGED total	**5,378**	**4,979**

Total Landfill (tonnes)	2023/24	2024/25
West Midlands	2.29	0.10
East Midlands	0.84	0.52
South Wales	0.10	0.00
South West	181.75	145.17
NGED total	**184.97**	**145.79**

Figure 12: Tonnage of waste per £M turnover



Looking ahead

We will be reviewing how we organise our commercial waste management with a view to establishing a delivery partnership to operate commercial waste management across the whole of our business.

A delivery partnership approach will promote better waste management across our activities and help us to target improved recycling rates, continue to reduce waste disposed of to landfill and develop innovative solutions around the principles of a circular economy.

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Biodiversity

Core Commitment
Achieve a 10% net gain in biodiversity (in line with nationally recognised assessment tools) for new major projects and for selected primary and grid substation sites.

Our approach to nature aims to:

- address the biodiversity impacts of our construction projects; and
- enhance the biodiversity on land already in our portfolio, focusing on our operational estate in the form of substations.

In England, Biodiversity Net Gain (BNG) is a mandatory requirement for new developments (meeting the statutory threshold) that aims to ensure habitats for wildlife are left in a measurably better state than they were prior to the development. It requires developers to deliver a minimum of 10 per cent BNG, which can be achieved through habitat creation or enhancement directly on the development site, off-site on their own land or through the purchase of biodiversity units on the market. These options form a hierarchy of steps which must be followed to deliver BNG.

We use the Government's statutory Biodiversity Metric Tool to baseline habitat biodiversity for each development project, understand the impacts and design appropriate enhancement plans with our ecological consultants. This same tool is also used to create a baseline for other operational sites, allowing us to develop our approach to nature within our wider portfolio.

2024/25 performance

In 2024/25, nine projects in England fell under the BNG statutory requirements and all of these achieved a minimum 10 per cent net gain. To support us in meeting our BNG obligations we have employed a mixture of onsite and offsite approaches to securing biodiversity units.

Across the 22 substation sites where BNG baseline surveys have been completed, a total of 125 potential BNG units have been identified.

These BNG units vary significantly between sites, ranging from 0.79 to 17 units, predominantly due to the variation in type and quality of the existing habitat.

The highest scoring site was a mixture of grassland and broadleaved woodland that would benefit from more active management such as thinning and coppicing of trees.

For each of the surveyed sites, habitat management and monitoring plans have been produced and, working closely with grounds maintenance contractors, we are exploring how these could be integrated into routine maintenance work.

This is being trialled through our pilot project at Cheltenham substation.

Following our refined site selection methodology, we have identified 20 new sites for survey which (subject to desktop ecological appraisal) will be completed in Summer 2025.

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Our approach

Where BNG is required for new build or the expansion of existing substations, we apply the mitigation hierarchy, aiming to carry out the BNG mitigation on site rather than utilising off-site gains. This approach will help deliver our commitment to biodiversity by restoring nature on our own sites first. We have developed a technical standard to communicate these requirements to project teams and ensure consistency in our approach. Where we require off-site mitigation, we have been exploring the feasibility of utilising our own estate.

In the first year of ED2 we identified and prioritised 40 sites for surveys covering a range of different habitat types including woodland, grassland, scrub and brownfield sites. We set out our intention to implement biodiversity management plans on these sites and utilise a conservation covenant to secure the land for BNG units. These initial sites enabled us to develop our methodology for site selection to identify and prioritise sites which offer higher potential for BNG units. Our methodology involves checks on land ownership, site constraints related to electrical assets and apparatus, proximity to sites of conservation interest and use of mapping imagery to confirm habitat type. After this desktop feasibility study, we completed site surveys on 22 of the 40 initially identified sites between July and August 2024.

Our approach must also accommodate the demands of an expanding distribution network. On our operational land we must achieve a balance between allowing nature to thrive, adopting a management approach which is cost-effective, and not placing undue constraints on future operational needs. We continue to explore the feasibility of securing sites for BNG units through the use of a conservation covenant but are yet to implement this approach.

Looking ahead

We will continue to evolve our approach to nature and further our survey programme. We will test the feasibility of establishing a small number of high potential BNG sites that can provide a bank of BNG units for our projects to utilise as offsite mitigation.

The findings of our pilot project at Cheltenham will be used to recommend changes to existing management practices which we will work to embed into business as usual. We will also work towards establishing metrics for monitoring biodiversity across our wider portfolio.

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Case Study
Managing our land for biodiversity

Most of our primary substations contain large swathes of mown grass, and in 2024/25 we selected our Cheltenham substation for a habitat management pilot project.

Working with our maintenance contractor Hortech (now Nurture Landscapes) and Evidence Nature, an ecological consultant, the project has trialled different grassland management techniques and aimed to quantify any changes in biodiversity at the site. Insect and pollinator populations were surveyed by the ecologist and any changes tracked across time alongside the changes in vegetation, giving a clear indication of the benefits of each habitat type.

These studies have shaped our thinking about how we can move away from a traditional ‘grounds maintenance’ approach to one of ‘habitat management’.

We are now working with our grounds maintenance and vegetation management contractors to modify existing cutting regimes, reducing the frequency and intensity of grass cutting. The aim is to allow for the seeding of wildflowers for pollinating insects and development of scrub for birds.

Grassland management at substation sites

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Visual amenity

Core Commitment
Improve visual amenity by removing at least 50km of overhead lines in Areas of Outstanding Natural Beauty and National Parks.

While overhead lines are widely accepted as being part of the countryside, there are a number of protected landscapes across our geographical footprint where removing overhead lines and replacing them with underground cables would improve visual amenity.

2024/25 performance

During 2024/25 we have undergrounded 2.72 km of overhead lines within National Parks and AONBs (now referred to as National Landscapes).

This brings our total to date to 7.07 km, which is equivalent to 14 per cent of our overall target for RIIO-ED2 and therefore our progress against this commitment has been lower than anticipated.

Our approach

We coordinate the undergrounding of overhead lines with established steering groups consisting of representatives from National Landscapes and National Parks, who help us identify and prioritise where and when work will take place.

We provide information and appropriate assistance to relevant stakeholders to help them in scheme selection, including budget costing and feasibility assessments.

The acceptance and delivery of projects is dependent on the views of the steering group, and this can therefore impact delivery timescales. We have always been committed to working with the organisations responsible for National Parks and National Landscapes.

Looking ahead

We have an additional 35 schemes in the pipeline for delivery as a result of liaison with our steering groups.

These additional schemes will provide us with the ability to fulfill our target of undergrounding 50km during RIIO-ED2 and operational teams are confident that they have the capacity to deliver these schemes during the remainder of the price control period.

The acceptance and delivery of projects is dependent on the views of the steering group, and as a result timescales to deliver schemes can vary.

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Fluid-filled cables

Core Commitment
Avoid damage to the environment by reducing the volume of leakage from fluid filled cables by 50 per cent by 2028 and replacing the worst leaking circuits with non-oil alternatives putting NGED on target to remove all oil-filled cables by 2060.

Fluid-filled cables have been in operation in the UK since the late 1940s and the early days of the nationalised electricity industry.

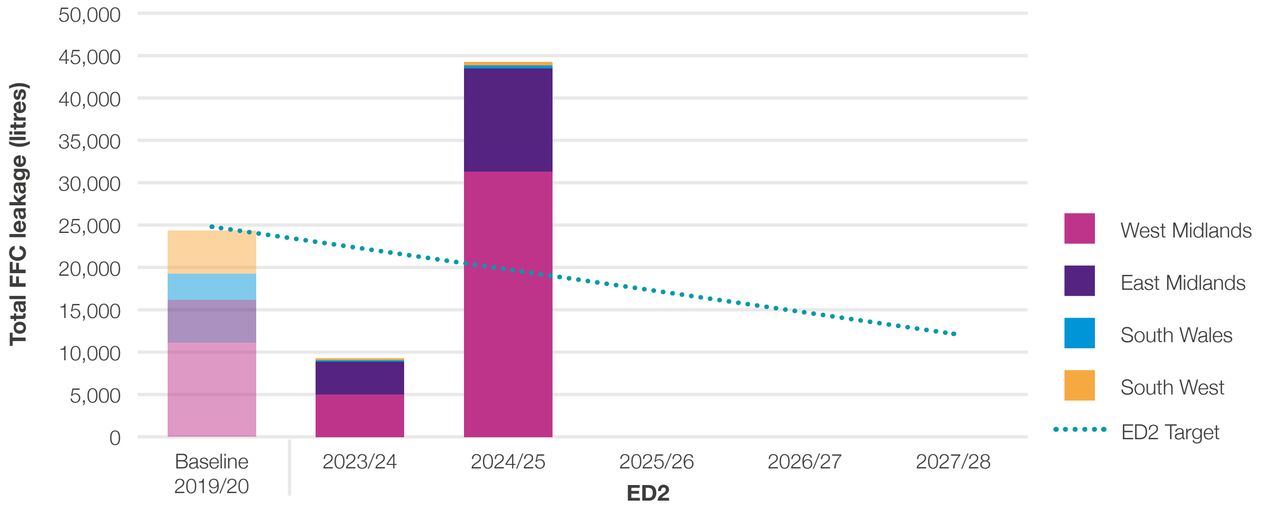
These underground electricity cables contain insulating fluid to provide an insulation medium and coolant as cables expand and contract under load. Over time, leaks can occur as the cable sheath deteriorates with age, at joint failures or as a result of third-party damage.

This creates an environmental impact as insulation fluid leaks into the ground, causing pollution and the risk of contamination of land and water bodies. Fluid-filled cables are no longer installed today, and when due for replacement this is done with modern cross-linked polyethylene alternatives.

2024/25 performance

In line with our commitment, we have an asset replacement delivery plan to decommission fluid-filled cables and address the worst leaking circuits. In 2024/25 we decommissioned 19.6km of fluid-filled cable taking our total to date in ED2 to 24.4km. We currently have 664km of fluid-filled cables in service and in 2024/25 the total volume of oil leaked from our network was 44,511 litres, which was above our target of 19,695 litres. This is in contrast to our performance in 2023/24 which was substantially below target.

Figure 13: Volume of FFC leakage (litres) by licence area



Our performance was impacted by leakage of cables in the West and East Midlands where we experienced a number of complex cable leaks in 2024/25.

Both the South Wales and South West have achieved targets and their leaks totalled less than 500 litres combined in 2024/25.

In the West Midlands approximately half of the total recorded leakage is attributed to a single circuit which had several leaks during 2024/25.

The location of the leak raised a number of challenges in terms site constraints, leading to a considerably longer repair time. Due to the recurrence of leaks on the circuit it has been included in the replacement programme with work commencing in March 2025.

In the East Midlands the most significant leak by volume occurred on a circuit where, despite the use of tracer, attempts to locate the issue have so far been unsuccessful. The occurrence of the leak is intermittent and is currently monitored through regular site visits.

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Our approach

There are a number of challenges with identifying the source of leaks from underground cables, replacing sections and decommissioning cable, alongside which environmental risks need to be proactively managed.

When a leak occurs, we respond to locate and repair the leak in line with the National Operating Code. We then work with stakeholders, environmental emergency response contractors and the Environment Agency to recover lost fluid and remediate any environmental damage. This work is overseen by specialists in our Environment Team. Details of any leaks are reported to the Environment Agency on a monthly basis and recorded in a central database.

To minimise the impact of FFC leaks we take a number of steps:

- Fluid levels in all our cables are monitored remotely, the loss of pressure triggering an alarm in our Control Centres. This enables us to react quickly to any leak event to repair the cable.
- Leaks are located quickly using a number of options, most commonly perfluorocarbon tracer (PFT). PFT is a non-hazardous chemical which is injected into fluid-filled cables. When it leaks from the cable, this can then be detected from above the ground.
- Cables with a history of high leak rates, or located in environmentally sensitive areas are prioritised for replacement.

Unfortunately, despite the use of modern technology and leak detection methods it is not always possible to locate and repair leaks as quickly as we'd like. Sometimes leak rates are so low that locating them with current technology is not possible. Sometimes leaks start and then stop before we can find them.

We continue to collaborate with other DNOs to innovate and improve location and repair technologies. An example of this industry innovation is the ongoing development of self-healing cable fluid. When cables are replaced, we are working to ensure they are removed from service and decommissioned in the most sustainable way possible.

Looking ahead

We will establish an internal FFC working group to improve performance in key areas such as identifying the worst performing circuits, monitoring replacement plans and understanding risks to sensitive environments.

This will also facilitate further collaboration via the Energy Networks Association FFC liaison group.

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Polychlorinated biphenyls (PCBs)

PCBs are an organic man-made chemical and part of a group known as Persistent Organic Pollutants (POPs). Due to their toxic properties, persistence in the environment and their ability to bio-accumulate, they pose risks to the environment and human health.

Between the 1930s and 1980s, PCBs were used widely in industrial and commercial applications including in electrical equipment such as capacitors and transformers. Some advantages included the quality of chemical stability, fire resistance and properties as good electrical insulators. Their use in production has been banned in the UK since 1987.

During their use in industry, some unintentional PCB contamination did occur and electrical insulating oil of transformers and other oil-filled assets are impacted. We have an obligation under the 2019 revisions to the PCB regulations to remove equipment containing more than 0.005 per cent by weight or total volume greater than 0.05dm^3 of PCBs, as soon as possible and no later than 31 December 2025. Where there is no evidence from testing or original manufacture documents, the regulations require equipment that pre-dates the 1987 ban to be assumed as contaminated by PCBs.

Since 2018 we have worked pro-actively with other Distribution Network Operators and the Energy Network Association (ENA) to tackle this industry wide challenge and develop an approach for targeted interventions. This approach aims to address the estimated 3 per cent of assets affected by PCB contamination, whilst mitigating the costs and risks associated with large-scale asset removals and replacement. Through this targeted approach we can mitigate supply interruptions for customers and environmental impacts associated with replacement of assets before end of life.

The ENA PCB Strategy Group, chaired by a member of the NGED Environment Team, has developed a statistical model utilising historic and new PCB test results.

It identifies assets that are most at risk of contamination and targets their testing or replacement. The work has also involved close collaboration with the UK's environmental regulators. This collaboration has led to the identification of tens of thousands of low-risk assets that can now continue to be utilised until the end of their useful life.

As we progress towards the PCB ban on 31st of December 2025, we are driving an ambitious work program with targeted oil testing of statistically important assets, both to obtain test data as quickly as possible and to minimise customer interruptions and lower costs from asset replacement.

We continue to work closely with DNOs and regulators, to review progress on a monthly basis. The ENA statistical model is updated each month with the latest test results, thereby giving our teams the most up to date information about which assets to target for testing.

To continue our progress, we have set up an internal working group with designated senior leads for PCB testing in each licence area. The group has formed to track progress with testing and deregulation of assets and ensure all areas are delivering this activity.

PCB summary 2024/25

4705 PCB oil tests
The testing of oil specifically carried out to determine levels of PCBs, where no PCBs were found or where the oil was changed to remove PCBs and allow the asset to be used until the end of its life.

217 asset changes
The wholesale replacement of assets that contain, or (where it is not possible to test) are suspected of containing polychlorinated biphenyls (PCBs).

92 oil changes
Assets with oil changes following PCB test contaminated result.

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Noise pollution

The power transformers on our network generate low-frequency noise, which is typically described as a continuous humming sound. This can be detected by the human ear and can be a source of noise pollution and potential nuisance where it impacts residential areas.

We typically receive noise complaints through our call centre or via local Environmental Health Officers (EHO). Each case is recorded and the local team will carry out initial investigations by visiting the substation and customer to check for 'normal' operation.

If it is felt that further investigation is required, the case is passed to a regional noise specialist who will liaise with the customer to take sample noise readings at the local substation and then overnight within the customer's premises to ascertain the nature and levels of the reported noise nuisance. Some people are much more susceptible than others and noise nuisance tends to be noticeable at night when the ambient noise levels can be at their lowest.

If transformer noise is present in the customer's property, the noise specialist will recommend possible remedial action to the local team to reduce the noise impact.

Examples of these interventions include, pads being placed under the transformer(s) to reduce noise transfer to the ground and surrounding structures, installing a noise wall or surround or, as a last resort, replacing the transformer for a lower noise unit.

In 2024/25 we received 57 noise complaints from our customers, of which 12 progressed beyond an initial investigation. This compares to 41 noise complaints in 2023/24. There were three live noise intervention projects in 2024/25, two of which commenced in a prior reporting period.

To continually improve our approach to noise management and complaint handling we are developing our procedures and providing guidance to colleagues attending noise complaint visits.

We have found that as land use changes around our existing infrastructure this can lead to noise complaints. To address this, we have delivered training to our teams of network planners to make them aware of typical scenarios where noise complaints arise and how these are handled.

The aim is to encourage a proactive approach to engaging with local planning authorities where new development is proposed in close proximity to existing substations. This enables appropriate noise mitigation to be included as part of the planning consent as a preventative measure.

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Environmental Management System

Since 2012, we have maintained certification to ISO14001, with re-certification visits every 3 years and annual surveillance audits undertaken by our external certification auditors.

In 2024/25, we again successfully underwent external ISO14001 and Energy & Utility (EU) Skills Permit Competence Management System (CMS) surveillance audits. The EU Skills CMS covers the oil related environmental permits in place for our operations and provides a means of demonstrating technical competence in the management of permitted activities.

The audits covered Head Office activity at Avonbank and a selection of our depots in the South West (Plymouth, Bodmin, Exeter and Redruth) and West Midlands (Hereford and Worcester) as well as the Huthwaite Plant Centre in the East Midlands.

These resulted in just one minor non-conformance relating to ISO14001 and a number of Opportunities for Improvement (OFI). The minor non-conformance was in relation to an instance of non-compliant material storage which was addressed and successfully closed out with our external auditors.

While ISO14001 has been well established within our business for many years, the EU Skills CMS management system was only recently introduced, following a move away from the previous competency management system.

The 2024/25 surveillance audit outcome continues to reflect our strong performance on permit management and compliance within permitted depots.

Further improvements to the CMS have progressed over the last twelve months in terms of widening the staff groups involved in permit management and compliance via face-to-face engagement and depot site visits.

Throughout 2024/25 environmental awareness training has been provided via formal training courses to our Apprentices, planners and graduates alongside presentations given at regional Safety, Health and Environment (SHE) Conferences and informal awareness sessions provided to the wider organisation.

We continue to review the company EMS and CMS and where appropriate make improvements to ensure that more of our management system is accessible to employees and remains fit for purpose.

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Environment and community

Wherever we have a presence, engaging locally with communities demonstrates our commitment to being a responsible business and delivering social, economic and environmental benefits.

Our engagement also gives local communities a voice on what matters to them and helps us to tailor our community investment efforts towards those who will benefit from our actions the most.

Heart of England Forest

The Heart of England Forest (HoEF) is a charity whose mission is to reverse woodland decline by creating a 30,000-acre forest through conversation and restoration of habitats primarily within the counties of Worcestershire and Warwickshire. In August 2023, we joined forces with HoEF in a long-term partnership, with the aim to establish and create a meaningful environmental project that demonstrates a proactive commitment to conservation and habitat restoration.

As part of this ongoing collaboration agreement, our direct support has enabled woodland creation and maintenance activity at the forest's newest `hub' The Lenches, covering 700 acres. The projects supported in 2024/25 include:

- woodland management at The Lenches to improve species diversity
- new equipment and installation of new stock fencing to support conservation grazing
- volunteering management to enable woodland creation and management activities
- biodiversity surveys and training of volunteers.

Additionally in 2024/25 our colleagues completed six volunteering days to support these projects.

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Employee Volunteering Programme

In April 2024, we launched the Employee Volunteering Programme (EVP), aimed at supporting charitable causes across our regions. The program provides staff with greater opportunities to share their skills, experience and time in their local area through volunteering and participation in community and charitable projects.

The types of activities eligible under the EVP include:

- supporting environmental sustainability through conservation or biodiversity projects
- boosting employability for people in under-represented communities
- using practical skills to help vulnerable customers
- initiatives that have a positive impact on physical and mental health.

Each member of staff can register for up to three working days each year and in 2024/25 we completed 10,033 volunteering hours supporting charities including Heart of England Forest, The Conservation Volunteers, Groundwork Wales, Your Park Bristol & Bath and various Wildlife Trusts.

The Conservation Volunteers

The Conservation Volunteers (TCV) is a national charity that connects people with nature across the country.

Its mission is to increase public access to green spaces, boosting mental and physical health alongside wellbeing, with projects ranging from habitat restoration to community gardening and environmental education.

In 2024/25, across 14 volunteering days, our teams undertook tasks including conservation, community support, and tree planting.

We also sponsored TCV's 'I Dig Trees' programme, supporting the planting of 10,000 trees across the Midlands.

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Community Matters Fund

The Community Matters Fund is an annual fund supporting grassroots groups and charities with £1m of shareholder-funding awarded in a number of themed phases each year.

The themes of the funding focus on societal need and previous themes have focused on fuel poverty, mental health and social isolation, holiday hunger, green spaces and biodiversity, and active communities.

In 2024/25 the following fund phases were carried out:

- **Phase 9 (Spring 2024)**
  STEM Educational Support, a £250,000 fund which supported 67 organisations with over 10,000 beneficiaries
- **Phase 10 (Summer 2024)**
  Skills & Employability, a £250,000 fund which supported 62 organisations with over 2,000 beneficiaries
- **Phase 11 (Winter 2024)**
  Fuel Poverty, a £500,000 fund which supported 117 organisations with over 27,000 beneficiaries

The Community Matters Fund will continue in 2025/26 with three further phases, including funding for projects helping people boost skills and employability, and funding to support community-based energy efficiency and sustainable transport initiatives.

Solar on schools project

In 2024/25, as part of our commitment to invest £2.7m in solar panels on schools by 2028, we funded the installation of solar panels at five schools.

In October 2024, Shireland Collegiate Academy in Sandwell received a grant of £25,000 towards their solar panel installation.

The system generates approximately 25 per cent of their electricity consumption, saving the school an estimated £300,000 over 25 years.

Alongside the solar panel installation, Sixth Form students at Shireland Collegiate Academy received renewable energy education sessions, covering the environmental impact of the solar panels, a drone workshop to see the installation process and an interview with the installers.

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Business carbon footprint Scope 1 & 2

Category	Sub-Category	Total Baseline Reduction Target tCO2e RIIO-ED2 2028	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Operational Transport	**Total**		tCO2e	**19,158.6**	**20,735.7**	-	-	-
	Road		tCO2e	18,378.6	19,569.4			
	Marine		tCO2e	-	-			
	Air		tCO2e	1,145.9	1,166.3			
Building Energy Usage	**Total**		tCO2e	**15,951.9**	**16,161.6**	-	-	-
	Electricity		tCO2e	3,930.2	4,116.4			
	Other fuels		tCO2e	-	-			
	Substation electricity		tCO2e	11,634.1	11,633.9			
	Gas		tCO2e	387.6	411.2			
Fuel Combustion	**Total**		tCO2e	**2,639.3**	**2,478.8**	-	-	-
	Diesel (excluding transport)		tCO2e	2,639.3	2,478.8			
	Diesel (embedded stations)		tCO2e	-	-			
	Other		tCO2e	-	-			
Fugitive Emissions	**Total**		tCO2e	**8,117.7**	**11,237.2**	-	-	-
	SF_6		tCO2e	8,117.7	11,237.2			
	Other IIG		tCO2e	-	-			
Total Scope 1 and 2 Emissions (Excluding Losses)		40,426.26	tCO2e	**46,235.9**	**50,613.4**	-	-	-
Electricity Distribution Losses			tCO2e	782,802.7	817,738.3			
Total Scope 1 and 2 Emissions (Including Losses)		460,802.16	tCO2e	**829,038.5**	**868,351.6**	-	-	-

Category			Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total Carbon offsets			tCO2e	-	-			

Total scope 1 and 2 emissions (excluding losses) has been revised for 2023/24 (from 45,584 tCO2e) due to improvements in data collation for fuel combustion, building electricity and operational transport (road). The RIIO-ED2 2028 reduction targets above have been restated from those reported in 2023/24, this is due to methodology improvements to our glidepaths which remain aligned to our long term SBT goal.

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Sulphur hexafluoride (SF_6) and other insulation and interruption gases (IIGs)

East Midlands

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	LV	Total no. of assets containing SF_6		No. of Assets	0	0			
		Total amount of SF_6 on network		kg	0	0			
		No. of SF_6 assets replaced (per annum)		No. of Assets	0	0			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	0	0			
		No. of SF_6 assets installed (per annum)		No. of Assets	0	0			
SF_6 Emissions	LV	Leakage (per annum)		kg	0	0			
		Leakage rate (% of bank)		%	0	0			
		Interventions (per annum)		#	0	0			
		Impact of Interventions		kg	0	0			

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	HV	Total no. of assets containing SF_6		No. of Assets	20,886	21,290			
		Total amount of SF_6 on network		kg	17,412	17,858			
		No. of SF_6 assets replaced (per annum)		No. of Assets	168	204			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	55	56			
		No. of SF_6 assets installed (per annum)		No. of Assets	823	574			
SF_6 Emissions	HV	Leakage (per annum)		kg	33.27	69.62			
		Leakage rate (% of bank)		%	0.19	0.39			
		Interventions (per annum)		#	0	0			
		Impact of Interventions		kg	0.00	0.00			

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Sulphur hexafluoride (SF_6) and other insulation and interruption gases (IIGs) Continued

East Midlands

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	EHV	Total no. of assets containing SF_6		No. of Assets	1,661	1,742			
		Total amount of SF_6 on network		kg	7,860	8,245			
		No. of SF_6 assets replaced (per annum)		No. of Assets	35	37			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	90	91			
		No. of SF_6 assets installed (per annum)		No. of Assets	138	72			
SF_6 Emissions	EHV	Leakage (per annum)		kg	4.61	0.00			
		Leakage rate (% of bank)		%	0.06	0.00			
		No. of SF_6 assets replaced (per annum)		#	26	37			
		Interventions (per annum)		#	1	11			
		Impact of Interventions		kg	1.22	7.55			

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	132kV	Total no. of assets containing SF_6		No. of Assets	263	273			
		Total amount of SF_6 on network		kg	7901	8095			
		No. of SF_6 assets replaced (per annum)		No. of Assets	0	8			
		No. of SF_6 alternative assets (per annum)		No. of Assets	1	1			
		% of assets containing SF_6 (% of bank)		%	83	85			
		No. of SF_6 assets installed (per annum)		No. of Assets	14	7			
SF_6 Emissions	132kV	Leakage (per annum)		kg	6.95	11.76			
		Leakage rate (% of bank)		%	0.09	0.15			
		No. of SF_6 assets replaced (per annum)		#	0	8			
		Interventions (per annum)		#	2	0			
		Impact of Interventions		kg	1.39	0.00			

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Category	Voltage	Sub-Category (where applicable)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
IIG Name [DO NOT DELETE IF NOT USED]	LV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
IIG Name [DO NOT DELETE IF NOT USED]	HV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
IIG Name [DO NOT DELETE IF NOT USED]	EHV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
Clean Air (Nitrogen and Oxygen)	132kV	No of Assets with IIG	#	2	1			
		Amount of IIG	kg	2.40	1.20			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			

Explanatory notes:

- Reference to the bank relates to the total at that voltage.
- Target leakage rate is 0.33% across all assets/voltages combined by 2028.
- 66kV assets are included above in the 132kV table for completeness.
- Interventions have been restated for consistency between reporting periods.

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Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	LV	Total no. of assets containing SF_6		No. of Assets	0	0			
		Total amount of SF_6 on network		kg	0	0			
		No. of SF_6 assets replaced (per annum)		No. of Assets	0	0			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	0	0			
		No. of SF_6 assets installed (per annum)		No. of Assets	0	0			
SF_6 Emissions	LV	Leakage (per annum)		kg	0	0			
		Leakage rate (% of bank)		%	0	0			
		Interventions (per annum)		#	0	0			
		Impact of Interventions		kg	0	0			

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	HV	Total no. of assets containing SF_6		No. of Assets	17,764	18,376			
		Total amount of SF_6 on network		kg	17,403	17,835			
		No. of SF_6 assets replaced (per annum)		No. of Assets	166	145			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	53	54			
		No. of SF_6 assets installed (per annum)		No. of Assets	641	553			
SF_6 Emissions	HV	Leakage (per annum)		kg	69.36	123.01			
		Leakage rate (% of bank)		%	0.40	0.69			
		Interventions (per annum)		#	0	1			
		Impact of Interventions		kg	0.00	0.27			

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Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	EHV	Total no. of assets containing SF_6		No. of Assets	433	443			
		Total amount of SF_6 on network		kg	2,125	2,193			
		No. of SF_6 assets replaced (per annum)		No. of Assets	9	3			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	79	80			
		No. of SF_6 assets installed (per annum)		No. of Assets	17	13			
SF_6 Emissions	EHV	Leakage (per annum)		kg	5.70	7.06			
		Leakage rate (% of bank)		%	0.27	0.32			
		No. of SF_6 assets replaced (per annum)		#	8	3			
		Interventions (per annum)		#	0	0			
		Impact of Interventions		kg	0.00	0.00			

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	132kV	Total no. of assets containing SF_6		No. of Assets	381	390			
		Total amount of SF_6 on network		kg	11,329	11,573			
		No. of SF_6 assets replaced (per annum)		No. of Assets	0	3			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	82	83			
		No. of SF_6 assets installed (per annum)		No. of Assets	14	6			
SF_6 Emissions	132kV	Leakage (per annum)		kg	8.87	9.18			
		Leakage rate (% of bank)		%	0.08	0.08			
		No. of SF_6 assets replaced (per annum)		#	3	3			
		Interventions (per annum)		#	0	4			
		Impact of Interventions		kg	0	11.74			

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Category	Voltage	Sub-Category (where applicable)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
IIG Name [DO NOT DELETE IF NOT USED]	LV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
IIG Name [DO NOT DELETE IF NOT USED]	HV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
IIG Name [DO NOT DELETE IF NOT USED]	EHV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
IIG Name [DO NOT DELETE IF NOT USED]	132kV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			

Explanatory notes:

- Reference to the bank relates to the total at that voltage.
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SF_6 Bank	LV	Total no. of assets containing SF_6		No. of Assets	0	0			
		Total amount of SF_6 on network		kg	0	0			
		No. of SF_6 assets replaced (per annum)		No. of Assets	0	0			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	0	0			
		No. of SF_6 assets installed (per annum)		No. of Assets	0	0			
SF_6 Emissions	LV	Leakage (per annum)		kg	0	0			
		Leakage rate (% of bank)		%	0	0			
		Interventions (per annum)		#	0	0			
		Impact of Interventions		kg	0	0			

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	HV	Total no. of assets containing SF_6		No. of Assets	10,567	10,920			
		Total amount of SF_6 on network		kg	7,316	7,517			
		No. of SF_6 assets replaced (per annum)		No. of Assets	81	32			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	48	49			
		No. of SF_6 assets installed (per annum)		No. of Assets	484	322			
SF_6 Emissions	HV	Leakage (per annum)		kg	42.34	23.1			
		Leakage rate (% of bank)		%	0.58	0.31			
		Interventions (per annum)		#	2	0			
		Impact of Interventions		kg	0.94	0			

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Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	EHV	Total no. of assets containing SF_6		No. of Assets	1,365	1,350			
		Total amount of SF_6 on network		kg	5,661	5,866			
		No. of SF_6 assets replaced (per annum)		No. of Assets	16	44			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	87	89			
		No. of SF_6 assets installed (per annum)		No. of Assets	77	85			
SF_6 Emissions	EHV	Leakage (per annum)		kg	17.37	23.61			
		Leakage rate (% of bank)		%	0.31	0.40			
		No. of SF_6 assets replaced (per annum)		#	12	42			
		Interventions (per annum)		#	16	17			
		Impact of Interventions		kg	16.95	18.12			

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	132kV	Total no. of assets containing SF_6		No. of Assets	185	183			
		Total amount of SF_6 on network		kg	6,199	6,328			
		No. of SF_6 assets replaced (per annum)		No. of Assets	1	5			
		No. of SF_6 alternative assets (per annum)		No. of Assets	2	2			
		% of assets containing SF_6 (% of bank)		%	89	89			
		No. of SF_6 assets installed (per annum)		No. of Assets	7	5			
SF_6 Emissions	132kV	Leakage (per annum)		kg	11.66	57.03			
		Leakage rate (% of bank)		%	0.19	0.90			
		No. of SF_6 assets replaced (per annum)		#	1	5			
		Interventions (per annum)		#	4	1			
		Impact of Interventions		kg	6.10	0.80			

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Category	Voltage	Sub-Category (where applicable)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
IIG Name [DO NOT DELETE IF NOT USED]	LV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
IIG Name [DO NOT DELETE IF NOT USED]	HV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
IIG Name [DO NOT DELETE IF NOT USED]	EHV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
Clean Air (Nitrogen and Oxygen)	132kV	No of Assets with IIG	#	1	1			
		Amount of IIG	kg	1.2	1.2			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			

Explanatory notes:

- Reference to the bank relates to the total at that voltage.
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- 66kV assets are included above in the 132kV table for completeness.
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Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	LV	Total no. of assets containing SF_6		No. of Assets	0	0			
		Total amount of SF_6 on network		kg	0	0			
		No. of SF_6 assets replaced (per annum)		No. of Assets	0	0			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	0	0			
		No. of SF_6 assets installed (per annum)		No. of Assets	0	0			
SF_6 Emissions	LV	Leakage (per annum)		kg	0	0			
		Leakage rate (% of bank)		%	0	0			
		Interventions (per annum)		#	0	0			
		Impact of Interventions		kg	0	0			

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	HV	Total no. of assets containing SF_6		No. of Assets	10,815	11,034			
		Total amount of SF_6 on network		kg	8,807	8,853			
		No. of SF_6 assets replaced (per annum)		No. of Assets	151	149			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	62.32	63.37			
		No. of SF_6 assets installed (per annum)		No. of Assets	482	202			
SF_6 Emissions	HV	Leakage (per annum)		kg	55.94	50.85			
		Leakage rate (% of bank)		%	0.64	0.57			
		Interventions (per annum)		#	4	0			
		Impact of Interventions		kg	2.90	0			

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Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	EHV	Total no. of assets containing SF_6		No. of Assets	848	900			
		Total amount of SF_6 on network		kg	4,323	4,506			
		No. of SF_6 assets replaced (per annum)		No. of Assets	14	35			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	96	97			
		No. of SF_6 assets installed (per annum)		No. of Assets	32	40			
SF_6 Emissions	EHV	Leakage (per annum)		kg	9.15	12.63			
		Leakage rate (% of bank)		%	0.21	0.28			
		No. of SF_6 assets replaced (per annum)		#	13	31			
		Interventions (per annum)		#	12	12			
		Impact of Interventions		kg	28.69	12.57			

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	132kV	Total no. of assets containing SF_6		No. of Assets	336	341			
		Total amount of SF_6 on network		kg	8,405	8,467			
		No. of SF_6 assets replaced (per annum)		No. of Assets	2	3			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	1			
		% of assets containing SF_6 (% of bank)		%	99	97			
		No. of SF_6 assets installed (per annum)		No. of Assets	6	17			
SF_6 Emissions	132kV	Leakage (per annum)		kg	30.90	60.98			
		Leakage rate (% of bank)		%	0.37	0.72			
		No. of SF_6 assets replaced (per annum)		#	2	3			
		Interventions (per annum)		#	9	15			
		Impact of Interventions		kg	83.29	74.80			

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South Wales

Category	Voltage	Sub-Category (where applicable)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
IIG Name [DO NOT DELETE IF NOT USED]	LV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
IIG Name [DO NOT DELETE IF NOT USED]	HV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
IIG Name [DO NOT DELETE IF NOT USED]	EHV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
Clean Air (Nitrogen and Oxygen)	132kV	No of Assets with IIG	#	0	1			
		Amount of IIG	kg	0	1.2			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			

Explanatory notes:

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Sulphur hexafluoride (SF_6) and other insulation and interruption gases (IIGs)

NGED Total

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	LV	Total no. of assets containing SF_6		No. of Assets	0	0			
		Total amount of SF_6 on network		kg	0	0			
		No. of SF_6 assets replaced (per annum)		No. of Assets	0	0			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	0	0			
		No. of SF_6 assets installed (per annum)		No. of Assets	0	0			
SF_6 Emissions	LV	Leakage (per annum)		kg	0	0			
		Leakage rate (% of bank)		%	0	0			
		Interventions (per annum)		#	0	0			
		Impact of Interventions		kg	0	0			

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	HV	Total no. of assets containing SF_6		No. of Assets	60,032	61,620			
		Total amount of SF_6 on network		kg	50,939	52,063			
		No. of SF_6 assets replaced (per annum)		No. of Assets	566	530			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	55	56			
		No. of SF_6 assets installed (per annum)		No. of Assets	2,430	1,651			
SF_6 Emissions	HV	Leakage (per annum)		kg	201	267			
		Leakage rate (% of bank)		%	0.39	0.51			
		Interventions (per annum)		#	6	1			
		Impact of Interventions		kg	3.84	0.27			

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NGED Total

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	EHV	Total no. of assets containing SF_6		No. of Assets	4,307	4,435			
		Total amount of SF_6 on network		kg	19,969	20,810			
		No. of SF_6 assets replaced (per annum)		No. of Assets	74	119			
		No. of SF_6 alternative assets (per annum)		No. of Assets	0	0			
		% of assets containing SF_6 (% of bank)		%	88	89			
		No. of SF_6 assets installed (per annum)		No. of Assets	264	210			
SF_6 Emissions	EHV	Leakage (per annum)		kg	37	43			
		Leakage rate (% of bank)		%	0.18	0.21			
		No. of SF_6 assets replaced (per annum)		#	59	113			
		Interventions (per annum)		#	29	40			
		Impact of Interventions		kg	46.86	38.24			

Category	Voltage	Sub-Category (where applicable)	Decarbonisation Target & Metric to End of RIIO-ED2 (2028)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
SF_6 Bank	132kV	Total no. of assets containing SF_6		No. of Assets	1,165	1,187			
		Total amount of SF_6 on network		kg	33,834	34,463			
		No. of SF_6 assets replaced (per annum)		No. of Assets	3	19			
		No. of SF_6 alternative assets (per annum)		No. of Assets	3	4			
		% of assets containing SF_6 (% of bank)		%	88	89			
		No. of SF_6 assets installed (per annum)		No. of Assets	41	35			
SF_6 Emissions	132kV	Leakage (per annum)		kg	58	139			
		Leakage rate (% of bank)		%	0.17	0.40			
		No. of SF_6 assets replaced (per annum)		#	6	19			
		Interventions (per annum)		#	15	20			
		Impact of Interventions		kg	90.78	87.34			

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NGED Total

Category	Voltage	Sub-Category (where applicable)	Unit of Measure	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
IIG Name [DO NOT DELETE IF NOT USED]	LV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
IIG Name [DO NOT DELETE IF NOT USED]	HV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
IIG Name [DO NOT DELETE IF NOT USED]	EHV	No of Assets with IIG	#	0	0			
		Amount of IIG	kg	0	0			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			
Clean air (Nitrogen and Oxygen)	132kV	No of Assets with IIG	#	3	3			
		Amount of IIG	kg	3.60	3.60			
		Global Warming Potential of IIG	CO2 Comparison Constant	0	0			
		Leakage	kg	0	0			

Explanatory notes:

- Reference to the bank relates to the total at that voltage.
- Target leakage rate is 0.36% across all assets/voltages combined by 2028.
- 66kV assets are included above in the 132kV table for completeness.
- Interventions have been restated for consistency between reporting periods.

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Losses and Interventions

Losses

Description	Target RIIO2-ED2 2028	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Annual Losses	2,009	GWh	3,780	3,949			
Share of Total Electricity Distributed	25%	%	25%	25%			
Carbon Equivalent	416,014	tCO2e	782,803	817,738			
Annual Interventions completed		#					
Impact of Interventions (per annum)		MWh	-809	-753			
Impact of Interventions (per annum)		tCO2e	-168	-156			

Interventions

Description		Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Cable LV Uprate 95mm² to 185mm²		km	296	298			
Cable 11kV Uprate 95mm² to 185mm²		km	175	180			
Transformers - Pre 1958 GMT sole EM		#	46	1			

2023/24 interventions restated for methodology consistency with 2024/25

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Supply chain management

	Unit	Target by end of RIIO-2 ED2 2028	2023/24	2024/25	2025/26	2026/27	2027/28
Percentage of suppliers meeting licensees supplier code	Cumulative % by Annual Spend	80%	25%	-			

Performance in 2023/24 was based on an estimate under a previous supplier code. A new supplier code was launched in 2024/25 and due to the planned timing of data collation this metric will next be reported in 2025/26.

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Resource use and waste

East Midlands

Waste Destination - Non Hazardous/Non Special	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total Waste Produced directly by Licencee	Tonnes	1321.08	1,306.7			
% Reused/Recycled	%	35.24	32.3			
% Energy from Waste	%	64.76	67.7			
% Sent to Landfill	%	0	0			
% Other	%	0	0			
% of Waste Diverted from Landfill (excluding compliance waste)	%	100	100			

Waste Destination - Hazardous/Special	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total Waste Produced directly by Licencee	Tonnes	225.8	99.1			
% Reused/Recycled	%	12.1	46.7			
% Energy from Waste	%	87.4	53			
% Sent to Landfill	%	0.5	0.5			
% Other	%	0	0			
% of Waste Diverted from Landfill (excluding compliance waste)	%	99.5	99.5			

West Midlands

Waste Destination - Non Hazardous/Non Special	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total Waste Produced directly by Licencee	Tonnes	1338.9	1191.7			
% Reused/Recycled	%	22.2	21.8			
% Energy from Waste	%	77.8	78.2			
% Sent to Landfill	%	0	0			
% Other	%	0	0			
% of Waste Diverted from Landfill (excluding compliance waste)	%	100	100			

Waste Destination - Hazardous/Special	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total Waste Produced directly by Licencee	Tonnes	165.1	51.0			
% Reused/Recycled	%	8.1	67.8			
% Energy from Waste	%	90.6	32.0			
% Sent to Landfill	%	1.4	0.2			
% Other	%	0	0			
% of Waste Diverted from Landfill (excluding compliance waste)	%	98.6	99.8			

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Resource use and waste

South West

Waste Destination - Non Hazardous/Non Special	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total Waste Produced directly by Licencee	Tonnes	1308.6	1286.0			
% Reused/Recycled	%	26.5	24.0			
% Energy from Waste	%	56.8	62.2			
% Sent to Landfill	%	13.8	11.2			
% Other	%	2.9	2.6			
% of Waste Diverted from Landfill (excluding compliance waste)	%	86.2	88.8			

Waste Destination - Hazardous/Special	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total Waste Produced directly by Licencee	Tonnes	313.4	374.7			
% Reused/Recycled	%	0	0			
% Energy from Waste	%	99.6	99.7			
% Sent to Landfill	%	0	0.3			
% Other	%	0	0			
% of Waste Diverted from Landfill (excluding compliance waste)	%	99.6	99.7			

South Wales

Waste Destination - Non Hazardous/Non Special	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total Waste Produced directly by Licencee	Tonnes	565.2	586.7			
% Reused/Recycled	%	26.6	24.6			
% Energy from Waste	%	73.4	75.4			
% Sent to Landfill	%	0	0			
% Other	%	0	0			
% of Waste Diverted from Landfill (excluding compliance waste)	%	100	100			

Waste Destination - Hazardous/Special	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total Waste Produced directly by Licencee	Tonnes	140.2	82.8			
% Reused/Recycled	%	13.6	58.8			
% Energy from Waste	%	86.3	41.2			
% Sent to Landfill	%	0.1	0			
% Other	%	0	0			
% of Waste Diverted from Landfill (excluding compliance waste)	%	99.9	100			

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Resource use and waste

NGED Total

Waste Destination - Non Hazardous/Non Special	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total Waste Produced directly by Licencee	Tonnes	4533.8	4371.1			
% Reused/Recycled	%	27.8	26.0			
% Energy from Waste	%	67.4	70.0			
% Sent to Landfill	%	4.0	3.3			
% Other	%	0.8	0.8			
% of Waste Diverted from Landfill (excluding compliance waste)	%	96.0	96.7			

Waste Destination - Hazardous/Special	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Total Waste Produced directly by Licencee	Tonnes	844.6	607.6			
% Reused/Recycled	%	7.1	21.3			
% Energy from Waste	%	92.4	78.4			
% Sent to Landfill	%	0.5	0.3			
% Other	%	0	0			
% of Waste Diverted from Landfill (excluding compliance waste)	%	99.5	99.7			

Some 2023/24 figures vary from those previously published due to data corrections, variations have not had a material impact on totals or performance.

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Visual Amenity

East Midlands

Visual Amenity Scheme	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Removal of overhead lines (due to a visual amenity scheme)	Tonnes	0.82	0.92			
No. of Amenity Schemes	%	1	1			
Other (if applicable)	%					

South West

Visual Amenity Scheme	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Removal of overhead lines (due to a visual amenity scheme)	Tonnes	2.05	0.43			
No. of Amenity Schemes	%	1	1			
Other (if applicable)	%					

West Midlands

Visual Amenity Scheme	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Removal of overhead lines (due to a visual amenity scheme)	Tonnes	1.48	0.00			
No. of Amenity Schemes	%	2	-			
Other (if applicable)	%					

South Wales

Visual Amenity Scheme	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Removal of overhead lines (due to a visual amenity scheme)	Tonnes	0.00	1.37			
No. of Amenity Schemes	%	-	1			
Other (if applicable)	%					

NGED Total

Visual Amenity Scheme	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
Removal of overhead lines (due to a visual amenity scheme)	Tonnes	4.35	2.72			
No. of Amenity Schemes	%	4	3			
Other (if applicable)	%					

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Noise Pollution

East Midlands

Noise	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No of Complaints Received	#	6	9			
No of Complaints Leading to Intervention	#	3	0			

South West

Noise	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No of Complaints Received	#	21	22			
No of Complaints Leading to Intervention	#	1	0			

West Midlands

Noise	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No of Complaints Received	#	8	12			
No of Complaints Leading to Intervention	#	0	0			

South Wales

Noise	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No of Complaints Received	#	6	14			
No of Complaints Leading to Intervention	#	0	0			

NGED Total

Noise	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No of Complaints Received	#	41	57			
No of Complaints Leading to Intervention	#	4	0			

Explanatory note:

- Interventions are reported upon at the point of completion. There were 3 intervention projects live in 2024/25.
- 2023/24 interventions data revised for methodology consistency with 2024/25 data.

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Fluid Filled Cables (FFC)

East Midlands

Sub Category	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
FFC in service	km	254	242			
Oil in Service	Litres	521,667	570,477			
Cable Oil Top Up	Litres	4,076	12,728			
Fluid Used to Top Up Cables as a percentage of volume in service	%	1%	2%			
Removal of FFC	km	0	11.9			
Leak Reduction	Litres	1237	-			
Oil Recovered	Litres	295	1042			

West Midlands

Sub Category	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
FFC in service	km	260	253			
Oil in Service	Litres	670,785	661,881			
Cable Oil Top Up	Litres	4,888	31,323			
Fluid Used to Top Up Cables as a percentage of volume in service	%	1%	5%			
Removal of FFC	km	3.4	7.4			
Leak Reduction	Litres	6,308	-			
Oil Recovered	Litres	195	1,888			

South West

Sub Category	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
FFC in service	km	111	111			
Oil in Service	Litres	273,595	273,595			
Cable Oil Top Up	Litres	237	430			
Fluid Used to Top Up Cables as a percentage of volume in service	%	0%	0%			
Removal of FFC	km	1.3	0.0			
Leak Reduction	Litres	4,878	4,685			
Oil Recovered	Litres	60	-			

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Fluid Filled Cables (FFC) Continued

South Wales

Sub Category	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
FFC in service	km	58	58			
Oil in Service	Litres	197,103	197,103			
Cable Oil Top Up	Litres	100	30			
Fluid Used to Top Up Cables as a percentage of volume in service	%	0%	0%			
Removal of FFC	km	0	0			
Leak Reduction	Litres	2,895	2,965			
Oil Recovered	Litres	-	-			

NGED Total

Sub Category	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
FFC in service	km	683	664			
Oil in Service	Litres	1,663,150	1,703,056			
Cable Oil Top Up	Litres	9,301	44,511			
Fluid Used to Top Up Cables as a percentage of volume in service	%	1%	3%			
Removal of FFC	km	4.7	19.4			
Leak Reduction	Litres	15,318	-			
Oil Recovered	Litres	550	2,930			

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PCBs

East Midlands

PCBs - Pole Mounted Transformers	Unit	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)	#		1061			
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)	#		4504			
No. of asset replacements due to known or statistically likely PCB contamination	#		30			
No. of assets tested to confirm levels of PCB contamination	#		477			

PCBs - Ground Mounted Transformers	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or suspected to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#		8			
No. of assets PCB negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#		48			
No. of asset replacements due to known or suspected PCB contamination	#		14			
No. of assets remediated due to known or suspected PCB contamination	#		63			
No. of assets tested to confirm levels of PCB contamination	#		56			

PCBs - Other assets	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or suspected to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#		2			
No. of assets PCB negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#		133			
No. of asset replacements due to known or suspected PCB contamination	#		25			
No. of assets remediated due to known or suspected PCB contamination	#		2			
No. of assets tested to confirm levels of PCB contamination	#		135			

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PCBs Continued

West Midlands

PCBs - Pole Mounted Transformers	Unit	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)	#		2084			
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)	#		8572			
No. of asset replacements due to known or statistically likely PCB contamination	#		32			
No. of assets tested to confirm levels of PCB contamination	#		1473			

PCBs - Ground Mounted Transformers	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or suspected to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#		35			
No. of assets PCB negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#		958			
No. of asset replacements due to known or suspected PCB contamination	#		4			
No. of assets remediated due to known or suspected PCB contamination	#		8			
No. of assets tested to confirm levels of PCB contamination	#		993			

PCBs - Other assets	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or suspected to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#		1			
No. of assets PCB negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#		155			
No. of asset replacements due to known or suspected PCB contamination	#		36			
No. of assets remediated due to known or suspected PCB contamination	#		0			
No. of assets tested to confirm levels of PCB contamination	#		156			

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PCBs Continued

South West

PCBs - Pole Mounted Transformers	Unit	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)	#		1606			
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)	#		8921			
No. of asset replacements due to known or statistically likely PCB contamination	#		5			
No. of assets tested to confirm levels of PCB contamination	#		346			

PCBs - Ground Mounted Transformers	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or suspected to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#		15			
No. of assets PCB negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#		241			
No. of asset replacements due to known or suspected PCB contamination	#		6			
No. of assets remediated due to known or suspected PCB contamination	#		12			
No. of assets tested to confirm levels of PCB contamination	#		256			

PCBs - Other assets	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or suspected to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#		0			
No. of assets PCB negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#		11			
No. of asset replacements due to known or suspected PCB contamination	#		5			
No. of assets remediated due to known or suspected PCB contamination	#		0			
No. of assets tested to confirm levels of PCB contamination	#		11			

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PCBs Continued

South Wales

PCBs - Pole Mounted Transformers	Unit	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)	#		504			
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)	#		4284			
No. of asset replacements due to known or statistically likely PCB contamination	#		17			
No. of assets tested to confirm levels of PCB contamination	#		742			

PCBs - Ground Mounted Transformers	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or suspected to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#		0			
No. of assets PCB negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#		39			
No. of asset replacements due to known or suspected PCB contamination	#		11			
No. of assets remediated due to known or suspected PCB contamination	#		7			
No. of assets tested to confirm levels of PCB contamination	#		39			

PCBs - Other assets	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or suspected to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#		2			
No. of assets PCB negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#		19			
No. of asset replacements due to known or suspected PCB contamination	#		32			
No. of assets remediated due to known or suspected PCB contamination	#		0			
No. of assets tested to confirm levels of PCB contamination	#		21			

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NGED Total

PCBs - Pole Mounted Transformers	Unit	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)	#	9,512	5,255			
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)	#	22,632	26,281			
No. of asset replacements due to known or statistically likely PCB contamination	#	69	84			
No. of assets tested to confirm levels of PCB contamination	#	514	3,303			

PCBs - Ground Mounted Transformers	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or suspected to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#	72	58			
No. of assets PCB negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#	974	1,286			
No. of asset replacements due to known or suspected PCB contamination	#	27	35			
No. of assets remediated due to known or suspected PCB contamination	#	71	90			
No. of assets tested to confirm levels of PCB contamination	#	1,046	1,344			

PCBs - Other assets	Unit	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
No. of assets PCB contaminated or suspected to be contaminated (i.e. no. remaining on PCB register held with environmental regulator)	#	7	5			
No. of assets PCB negative (i.e. no. that can be removed from PCB register held with environmental regulator)	#	225	318			
No. of asset replacements due to known or suspected PCB contamination	#	81	98			
No. of assets remediated due to known or suspected PCB contamination	#	0	2			
No. of assets tested to confirm levels of PCB contamination	#	232	323			

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October 2025. BLU29552/PR