nationalgrid

Our Reporting Methodology

2023/24

Overview

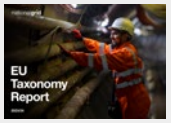
This document explains the definitions, scope and calculation methodology for preparing and assuring the key performance metrics and disclosures reported within the 2023/24 Responsible Business Report (RBR), GRI index and our KPI disclosure tables in Excel (Excel Data Book), all available on our website:

Further reading
2023/24 Responsible Business Report

Further reading
GRI index

Further reading
Excel disclosure tables

Please note that the basis of reporting for the EU Taxonomy, Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB) are maintained within the respective reports and are therefore outside the scope of this document. For more details, please refer to the following:



Further reading
EU Taxonomy Report

Further reading
SASB Report

Foundations of reporting

Scope of reporting

Our Responsible Business Report (RBR) covers all parts of our business operations globally. Where possible, our UK and US businesses report in line with the financial year (1 April to 31 March). During this reporting cycle, the US environmental metrics have moved from calendar year to financial year. There was not a significant difference between calendar year and financial year figures, therefore comparators have not been restated and US environmental data within our baseline and prior periods are for the year ended 31 December. The relevant metric section of this document includes information such as the following:

- Any exceptions to the financial year reporting basis
- Key estimates used
- Changes in reporting methodology
- Exclusion of specific sites, operations or subsidiaries from the scope of certain metrics, with clear justification

Joint ventures that do not fall under National Grid's operational control have been excluded from this report.

Acquisitions, mergers and disposals

For newly acquired businesses and new operations, our policy is to include these within the metric reporting of our RBR as soon as practically possible and, ideally, no later than the reporting period after the first full financial year of ownership. Therefore, depending on the timing of acquisition and commencement of operations, this could be up to two years following the event, at the latest.

Newly sold or disposed operations will be removed from our reporting from the start of the reporting year that they leave the Group. This is because post National Grid ownership ceasing, we may not have access to an entity's data, for reporting, control and assurance purposes.

Refer to the 'Changes to global operations' section opposite for more details on changes relevant to the scope. Any additional exceptions to how acquisitions and disposals are handled within our reporting will be clearly stated and explained within the relevant metric section of this document.

Changes to global operations

The main changes to our global operations within the last two years are as follows:

- The sale of our Rhode Island electricity and gas business, NECO, was finalised in May 2022. In line with our policy, NECO data has not been included in our 2022/23 and 2023/24 RBR metrics.
- The sale of our majority interest (60%) in our UK gas transmission and metering business (NGG) and the sale of an additional (20%) stake, were finalised in January 2023 and July 2023 respectively. In line with our policy, NGG data has not been included in our 2022/23 and 2023/24 RBR metrics.
- North Sea Link (NSL), our subsea interconnector linking the electricity systems of the UK and Norway, became operational in October 2021. However, the maintenance contract sat with Hitachi for one year since operations began and was handed over to National Grid in October 2022. In line with our policy, we excluded NSL data in the 2022/23 RBR as we gained operational control in October 2022. NSL is included in all our key performance metrics within our 2023/24 RBR.
- Viking Link (VL), our subsea interconnector linking the electricity systems of the UK and Denmark, became operational in December 2023. In line with our policy, VL will be included in our key performance metrics within our 2024/25 RBR, with the exception of 'Interconnector Capacity'.

Assurance

All metrics reported within the RBR data tables are subject to our internal quality control review and approval processes. Further to this, we have commissioned PricewaterhouseCoopers LLP (PwC) to provide independent limited assurance (ISAE 3000 and 3410) over our most material RBR metrics. PwC's Assurance Opinion for our 2023/24 RBR can be found on our website.

All reported RBR metrics that have not been covered by PwC are in scope for second line assurance, by our internal risk and controls team.

Overview continued

Recalculation policy

We recognise that at times it may be necessary to restate historical data to ensure our reporting remains accurate, consistent and relevant. Reasons for restatement may include structural changes in our operations, including from acquisitions, mergers and disposals (previously referred to); improvements in data accuracy and calculation methodologies; material changes to relevant policies; and material changes in our non-financial reporting. To determine whether we need to restate historical data, we examine both qualitative and quantitative impacts, applying an appropriate materiality threshold that aligns to regulatory guidance.

Greenhouse gas (GHG) emissions

National Grid follows the GHG Protocol. In accordance with the GHG Protocol, there are certain situations that may trigger a recalculation of the base-year emissions. Those situations include the following:

- Structural changes in the reporting organisation, which may include acquisitions, mergers and disposals
- Changes in calculation methodology or improvements in the accuracy of emission factors or data monitoring
- Discovery of significant errors or several cumulative errors that are collectively significant

In line with GHG Protocol and Science Based Targets initiative (SBTi) requirements, if the cumulative effect of any of the situations above equals or exceeds a significance threshold of 5% of total corporate GHG base-year emissions, a base-year recalculation will be triggered. A base-year recalculation where changes represent less than 5% of base-year emissions may also be carried out at National Grid's discretion. If a GHG base-year recalculation is triggered, any relevant environmental data linked to our GHG emissions reporting will be restated for the baseline year and intervening years. Where prior year GHG data has been restated, this will be clearly identified and explained within the RBR.

Other sustainability metrics

National Grid aims to ensure that our reported sustainability data, which relies on various input sources, including third-party information, is collated, and calculated in an accurate manner. For metrics that track our performance against our stated Responsible Business Charter (RBC) Commitments, where there has been a significant change in calculation methodology year on year, or the discovery of significant errors or several cumulative errors which materially (5% or greater) change the prior year(s) reported number (or baseline where relevant), this will be restated and explained in the RBR. If a recalculation is triggered, reporting will be restated for the baseline year (if applicable) and intervening years. A restatement may also be carried out at National Grid's discretion even if it is non-material or for metrics that do not directly relate to our RBC Commitments, if it would improve the accuracy, consistency and relevance of the reported information.

Reporting standards

In addition to reporting KPIs to measure our progress against our RBC targets, we have also produced reporting to align with a number of established sustainability reporting standards frameworks. Details of these have been described below:

Global Reporting Initiative (GRI)

Our 2023/24 RBR has been prepared in accordance with the GRI Standards. Further details on the requirements and our disclosures can be found in our GRI index.

Further reading
GRI index

Other reporting disclosures

Separate to the RBR, and therefore this document, we have prepared the sustainability reporting disclosures described below:

Task Force on Climate-Related Financial Disclosures (TCFD)

We have prepared our seventh consecutive TCFD report in full compliance with FCA listing rule (LR) 9.8.6R(b), which describes our climate change-related governance, strategy, risk management and metrics and targets, including details of our short-, medium- and long-term risks and opportunities. This disclosure can be found in our Annual Report and Accounts (ARA).

Further reading
Annual Report and Accounts

EU Taxonomy

We have published our third EU Taxonomy disclosure in accordance with the EU-developed classification system which establishes the percentage of Group turnover, operating expenditure and capital expenditure that can be defined as green in relation to climate change mitigation- and adaptation-aligned activities.

Further reading
EU Taxonomy Report

Sustainability Accounting and Standards Board (SASB)

We have prepared separate disclosures in accordance with the SASB utilities sub-sector standards. Further details on the requirements and our disclosures can be found in our SASB Report.

Further reading
SASB Report

Basis of reporting – RBR metrics

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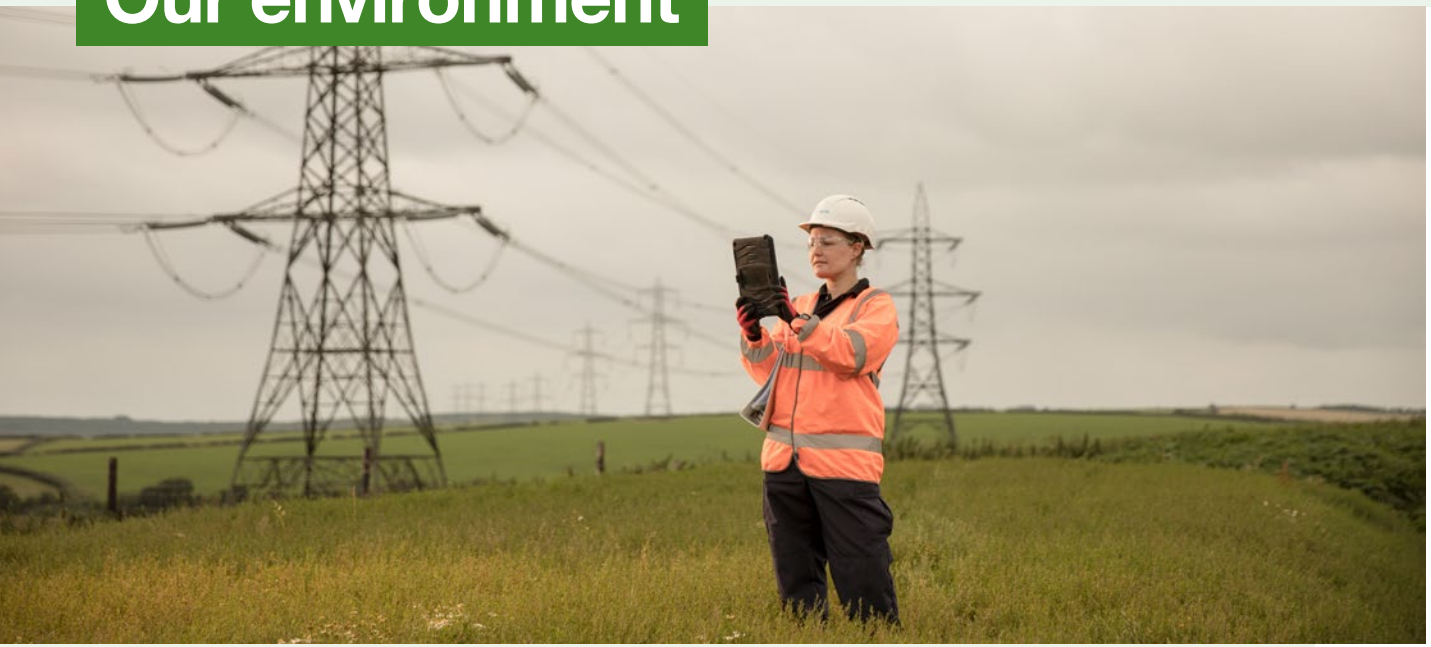
Our environment



In this section

1.1 Scope 1 and 2 greenhouse gas emissions

The reporting of National Grid's total carbon emissions in our Annual Report and Accounts (ARA) is a legal requirement under The Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013.

Our Scope 1 and Scope 2 emissions are calculated and reported in line with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (Revised)[1] and the GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard [2]. National Grid includes all the seven Kyoto GHG gases in its Scope 1 and Scope 2 inventory. These GHGs are currently: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3), and make up the tonnes of carbon dioxide equivalent (tCO_2e). The Global Warming Potential (GWP) factors[3] used in this reporting period are from Assessment Report (AR)-5, unless otherwise stated in the methodology. Refer to Section 1.1.3 below for more information on our application.

1.1.1 Metrics

We record our Scope 1 and Scope 2 emissions ($ktCO_2e$) for each of our business units and report a consolidated total. The data we report is as follows:

- Scope 1 total emissions ($ktCO_2e$)
  - Fossil Fuel Generation
  - Natural gas emissions from fugitive and venting
  - SF_6 emissions
- Scope 2 total market-based emissions ($ktCO_2e$)
- Scope 2 total location-based emissions ($ktCO_2e$)
  - Electricity line losses

Our environment continued

The additional metrics also covered by this methodology are as follows:

- Total global Scope 1 and 2 emissions in tCO_2e per million £ of revenue (tCO_2e/£m) – mathematical calculation to divide the total Scope 1 and 2 location-based emissions figure by total Group revenue. The external revenue figure of £19,850 million for 2023/24 is taken from our Group consolidated financial statements (per ARA note 3 within our consolidated accounts).
- Carbon intensity of our generation (tCO_2e/MWh) – we used the Scope 1 emissions (tCO_2e) from (1) gas and fuel powered electricity generation on Long Island under the Long Island Power Authority (LIPA) agreement, (2) US wind-powered electricity generation and (3) US solar-powered electricity generation as the numerator, and the MWh of gross electricity from the same US Generation businesses as the denominator, to calculate the tCO_2e/MWh, using the relevant emission conversion factors.
- Carbon intensity of our combined generation and sold electricity (tCO_2e/MWh) – is a mathematical calculation to sum our gross electricity generation emissions in tCO_2e and sold electricity emissions in tCO_2e and then divide by the sum of the total gross electricity generation energy (MWh) and sold electric energy (MWh).

1.1.2 Definitions

Scope 1 emissions are direct emissions from the operational activities of National Grid.

Scope 2 emissions are indirect emissions from the energy purchased and consumed by National Grid (including electricity system losses on the National Grid transmissions and distribution lines). Scope 2 emissions are reported on a market basis and location basis, and line losses make up the vast majority. The sources of conversion factors are set out in Table 2.

Location-based reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data). Market-based reflects emissions from electricity that companies have purposefully chosen (or their lack of choice). It derives emission factors from contractual instruments, which include any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation carbon intensity. For purchase and consumption from renewable energy sources (RES) this is usually a zero-carbon intensity/emission factor.

Our environment continued

1.1.3 Scope

The operational control principle, as set out by the GHG Protocol, is applied across all our emissions and environment metrics. All operations where National Grid has 100% of operational control, and the full authority to introduce and implement its operating policies, are included within the reported metrics, unless stated otherwise.

Table 1 presents the scope in terms of emissions sources included for Scope 1 and 2 emissions reporting.

Table 1: Scope of National Grid's Scope 1 and 2 emissions sources and business included

Emissions scope	Scope – emissions sources for inventory	Metrics included	Scope by region
Scope 1	Electricity generation on Long Island under the LIPA agreement from fossil fuels	• Total energy consumed – US Generation data • Carbon intensity of our generation metric – Carbon Disclosure Project (CDP) • Scope 1 emissions	US
	Fugitive and vented release of natural gas from our gas pipeline systems and Liquefied Natural Gas (LNG) facilities	• Scope 1 emissions	UK, US
	Sulphur Hexafluoride (SF_6) fugitive release from our electric assets	• SF_6 emissions • Scope 1 emissions	UK, US
	Fleet vehicles fuel consumption	• Total transport consumption • Scope 1 emissions	UK, US
	Company car emissions where vehicle is used for business travel	• Total transport consumption • Scope 1 emissions	UK
	Company-owned helicopters	• Total transport consumption • Scope 1 emissions	UK, US
	Energy consumption at our facilities/sites	• Total fuel consumption from non-renewable sources • Total operational consumption • Total heating consumption • Scope 1 emissions	UK, US
	Additional fuel combustion activities	• Scope 1 emissions	UK, US
Scope 2	Line losses from our electricity transmission and distribution lines and our interconnectors	• Scope 2 location-based emissions • Scope 2 market-based emissions	UK, US
	Electricity consumption at our facilities	• Total electricity consumption • Scope 2 location-based emissions • Scope 2 market-based emissions	UK, US
	Heat consumption at our facilities	• Total heating consumption • Scope 2 location-based emissions • Scope 2 market-based emissions	UK, US

For 2023/24 reporting, both UK and US emissions are reported in line with the financial year (1 April to 31 March), other than the exceptions noted in the detailed calculation methodology below.

1.1.4 Calculation methodology

Annual Scope 1 and 2 location-based emissions data is added together from all business units to get the Group-level totals (in kilotonnes of CO_2e). See Table 2 for detail on how emissions relevant to each source in our emissions inventory are calculated.

Our environment continued

Table 2: Calculation methodology for Scope 1 and 2 emissions

Emissions scope	Emissions activities	Calculation methodology overview
Scope 1	**Electricity generation on Long Island under the LIPA agreement (Fossil Fuel Generation)**	**US gas and fuel-powered electricity generation:** CO_2 emissions tracked using the Continuous Emissions Monitoring System (CEMS) from the combustion of generation fuels. **US Tier 4 Stationary Combustion** • Description: Combustion turbines, reciprocating engines, tangentially fired steam-electric boilers and emergency generators across the US fuel generation portfolio using a mix of natural gas, residual fuel oil no. 6, and distillate fuel nos. 1 and 2. • Emission factor: The Code of Federal Regulations (CFR), Title 40, Chapter 1, Subchapter C, Part 98, Subpart C, Table C-2 Default CH_4 and N_2O Emission Factors for Various Types of Fuel[4]. • Year-end estimate: Combustion data is provided in US short tCO_2 on a financial year (FY) basis for EPA-verified sites and on a calendar year (CY) basis for non-EPA-verified sites. Since the non-EPA-verified sites contribute to an immaterial portion of overall tCO_2, total Tier 4 emissions are still considered to be in alignment with the financial year. The tCO_2 shall be converted from US short to metric tonnes of CO_2 and then from CO_2 to tCO_2e using ratio of tCO_2e to tCO_2, which is calculated from CY23 data. This estimate will provide the N_2O + CH_4 aspects of the combustion process. **US Tier 2 Stationary Combustion Gas Fuel** • Description: Natural gas consumed by industrial boilers. At the major generation stations, each station has what is referred to as a 'house boiler'. These units, consuming natural gas, provide building heating when the generating unit boilers are not firing. • Emission factors: The CFR, Title 40, Chapter 1, Subchapter C, Part 98, Subpart C, Table C–1 Default CO_2 Emission Factors and High Heat Values for Various Types of Fuel and Table C-2 Default CH_4 and N_2O Emission Factors for Various Types of Fuel. • Tier 2 emissions will be reported on a calendar year basis due to availability of relevant information. **US Generation Mains Fugitive EDG** • Description: Fugitive emissions across EF Barrett, Northport and Port Jefferson based upon the mileage of protected steel pipeline that delivers the fuel to the power plant. • Emission factor: EPA U.S. Inventory of GHG Emissions and Sinks – Annex 3.6: Methodology for Estimating CH_4, CO_2, and N_2O Emissions from Natural Gas Systems (Tables 3.6-2 and 3.6-12)[15].
	Fugitive and vented release of natural gas from our gas pipeline systems and LNG facilities	**UK Grain LNG Facility:** Volume of natural gas vented. Emissions calculated using the following formula: kg methane vented × AR5 GWP of Methane (CH_4). **UK Fugitive and Venting Emissions** • Description: Venting of compressors at Grain LNG can be process or safety venting. • Conversion factor: Intergovernmental Panel on Climate Change (IPCC) GWP AR5 for Methane (CH_4)[3]. **US Fugitive and Venting Emissions:** Fugitive emissions from US Gas Distribution are estimated using approved EPA methodologies. **US Gas Distribution Mains and Services** • Description: Mileage of mains by pipe type and count of services by pipe type. • Emission factor: EPA US Inventory of GHG Emissions and Sinks – Annex 3.6: Methodology for Estimating CH_4 and CO_2 Emissions from Natural Gas Systems (Tables 3.6-2 and 3.6-12). • Data is compiled in the annual Department of Transportation (DOT) Distribution Report extracted from the internal system in February. There is a negligible difference in miles of distribution mains and services replaced from February to March due to an annual construction stoppage during peak heating season, when mains and services are not being replaced except for very minimal reactive work. **US Gas Transmission Pipelines** • Description: Miles of transmission pipelines. Values extracted from mapping software and collated into the annual DOT Transmission reports by Gas Asset Engineers. • Emission Factor: EPA US Inventory of GHG Emissions and Sinks – Annex 3.6: Methodology for Estimating CH_4 and CO_2 Emissions from Natural Gas Systems (Tables 3.6-2 and 3.6-12). • Data Collection Frequency: Annually. The extract is conducted at the end of February. There is a negligible difference between a late February extract and a late March extract. The February – March timeframe is not in construction season and it is the peak of heating season, so mains are not being replaced except for very minimal reactive work. Additionally, the updates made by mapping are minimal in a four-week window. The data correction and cleansing is also a process that occurs over about two weeks after the extract to ensure accuracy. Any data that would be required for the end of March would have to be extracted around mid-March, therefore the differences would be extremely small.

Our environment continued

Table 2: Calculation methodology for Scope 1 and 2 emissions continued

Emissions scope	Emissions activities	Calculation methodology overview
Scope 1 continued	**Fugitive and vented release of natural gas from our gas pipeline systems and LNG facilities** continued	**US Gas Distribution Meters** • Description: Count of assets. • Emission factor: EPA US Inventory of GHG Emissions and Sinks – Annex 3.6: Methodology for Estimating CH_4 and CO_2 Emissions from Natural Gas Systems (Tables 3.6-2 and 3.6-12). **US Gas Distribution Stations** • Description: Count by Station Type and Equipment Survey. • Emission factor: EPA US Inventory of GHG Emissions and Sinks – Annex 3.6: Methodology for Estimating CH_4 and CO_2 Emissions from Natural Gas Systems (Tables 3.6-2 and 3.6-12) and Subpart W methodology-based leak surveys. **US Gas Distribution Pneumatic and Non-Routine Venting** • Description: Count of pneumatic assets and total system mileage. • Emission factor: EPA US Inventory of GHG Emissions and Sinks – Annex 3.6: Methodology for Estimating CH_4 and CO_2 Emissions from Natural Gas Systems (Tables 3.6-2 and 3.6-12); Title 40, Code of Federal Regulations Equations W-35 and W-36 to Subpart W of Part 98. • Data is compiled in the annual DOT Transmission Report extracted from the internal system in February. There is a negligible difference in miles of transmission miles replaced from February to March due to an annual construction stoppage during peak heating season. **US Gas Distribution Fugitive Emissions Compressors and Other Fugitive Emissions (from Mains and Services)** • Description: Count of compressor assets and miles of main and count of service pipes (of pipe types not covered under Distribution Mains or Services). • Emission factor: EPA US Inventory of GHG Emissions and Sinks – Annex 3.6: Methodology for Estimating CH_4 and CO_2 Emissions from Natural Gas Systems (Tables 3.6-2 and 3.6-12). **US Gas Distribution LNG Venting** • Description: Volume of gas standard cubic feet (scf) vented from LNG facilities. Based on hours tanks were vented, times LNG pump blew/cooled down and times LNG truck was offloaded. • Emission factor: Title 40, Code of Federal Regulations Equations W-35 and W-36 to Subpart W of Part 98.
	Fugitive SF_6 emissions from our electric equipment	**UK Transmission and Distribution Systems (including interconnectors):** Mass of SF_6 (kg) measured from SF_6 cylinders used to top up equipment as well as any losses arising from equipment failure or replacement × AR5 GWP of SF_6. **US Transmission and Distribution Systems:** EPA Mass balance approach (40 CFR 98.303), which considers changes in inventory, purchases and sales, and change in nameplate capacity of equipment. Mass of SF_6 (lbs) × GWP of SF_6. A reasonable estimate of GHG emissions for the fourth fiscal quarter is used due to availability of actual reported data. Estimates are based on equipment top-up SF_6 volumes. **UK and US Fugitive SF_6 Emissions** • Description: SF_6 leakage from switch gear in the electrical system. • Conversion factor: IPCC GWP AR5 for SF_6.
	Fleet vehicles fuel consumption	**UK:** Fuel purchased is recorded by volume. The associated emissions are calculated by multiplying this volume by the relevant carbon conversion factor. Department for Environment, Food & Rural Affairs (DEFRA)/Department for Business, Energy & Industrial Strategy (BEIS)[5] conversion factors applied for petrol, diesel and aviation fuel. **UK Mobile Combustion** • Description: UK fleet combustion by fuel volume (litres), mostly through aggregating fuel cards and fuel dispensed data. • Emission factor: UK government conversion factors for company reporting of GHG emissions – Fuels > Volume – Petrol and Diesel (Biofuel Blend)[5]. **US:** Fuel used for fleet is recorded on a fleet services system and converted to $ktCO_2e$ using EPA conversion factors. **US Mobile Combustion** • Description: US fleet combustion by fuel volume (US gallons) and mileage driven, mostly through aggregating fuel cards data from fleet management systems. Excludes short-term rentals, as these are included in Scope 3. • Emission factor: EPA GHG Emission Factors Hub – Table 2: Mobile Combustion CO_2, Table 3: Mobile Combustion CH_4 and N_2O for On-Road Gasoline Vehicles, Table 4: Mobile Combustion CH_4 and N_2O for On-Road Diesel and Alternative Fuel Vehicles and Table 5: Mobile Combustion CH_4 and N_2O for Non-Road Vehicles[15].
	Company car emissions for business mileage	**UK only:** The business policies that underpin the company car emissions activity differ between the UK and the US, and as a result, we have direct influence over UK company car emissions. US company car activities have been considered under Scope 3 Category 7 employee commuting. **UK Mobile Combustion by Distance** • Description: Mobile combustion by distance covers all cars (company and own use business) whose mileage is claimed through the UK mileage expenses system and payroll mileage claims. • Emission factor: UK government conversion factors for company reporting of GHG emissions – Passenger vehicles category.

Our environment continued

Table 2: Calculation methodology for Scope 1 and 2 emissions continued

Emissions scope	Emissions activities	Calculation methodology overview
Scope 1 continued	**Company-owned helicopters and airplane**	**UK and US owned aviation:** Used primarily for aerial surveillance of our electricity lines. **UK Mobile Combustion by Volume Aviation** • Description: UK helicopter combustion by fuel volume (litres) for aerial surveillance of electricity lines, including external charter and testing. • Emission factor: UK government conversion factors for company reporting of GHG emissions – Fuels > Volume – Aviation Turbine. **US Mobile Combustion by Volume Aviation** • Description: US aviation gasoline fuel volume (US gallons) for helicopter and airplane use. • Emission factor: EPA GHG Emission Factors Hub – Table 2: Mobile Combustion CO_2 and Table 5: Mobile Combustion CH_4 and N_2O for Non-Road Vehicles.

	Energy consumption at our facilities	**UK property:** Utility energy in the form of gas is contract metered by suppliers.
		UK Stationary Combustion by Energy Utility Contracted
		• Description: We employ an energy management organisation to manage utilities. Gas invoices for UK buildings are contract metered, and consumption is taken from these invoices.
		• Emission factor: UK government conversion factors for company reporting of GHG emissions > Fuels > Gaseous Fuels – Natural Gas kWh Gross Calorific Value (CV).
		US: Energy consumption obtained from vendor invoices and using industry-standard methodologies to estimate where measured data is not available.
		US Tier 1 Stationary Combustion Liquid Fuel
		• Description: Volume of propane and distillate fuel oil no. 2 fuel (US gallons) combusted at facilities in New England and New York (excluding operational sites such as electric substations or LNG facilities), which is often a de minimis quantity.
		• Emission factor: EPA GHG Emission Factors Hub – Table 1: Stationary Combustion.
		US Tier 1 Stationary Combustion Gas Fuel
		• Description: Therms of natural gas fuel combusted for energy at facilities in New England, New York and Washington DC (excluding operational sites such as electric substations or LNG facilities). Where we are billed by a supplier for our gas consumption, the amount is extracted from those utility bills. At the few sites where measured data is not available, the square footage of the National Grid occupied space is measured, type of site identified, and a gas consumption per square footage emission factor is utilised from the Energy Information Administration (EIA) Commercial Buildings Energy Consumption Survey.
		• Emission factor: EPA GHG Emission Factors Hub – Table 1: Stationary Combustion.
		• Year-end estimate: A reasonable estimate is used to calculate GHG emissions for the last quarter of the fiscal year, due to availability of utility bill data. The estimates are based on historical data using and an industry standard approach. The estimate is performed by Canopy, a software solution managed by our facilities contractor. Estimates, referred as accruals, can only occur on accounts that have at least one invoice. When new invoices are loaded, auto-accruals will be automatically refreshed to reflect any new data that has arrived.
		  • If invoiced data exists for the previous month, Canopy uses the pro-rated daily rate (cost or consumption) and multiplies that by the days to accrue for that month.
		  • If invoiced data does not exist for the previous month, then Canopy will use the prorated daily rate for the same month previous year multiplied by the days to accrue for that month.
		  • If neither of the above exist, Canopy will use the most recent invoice received for that account (or meter) and apply that pro-rated daily rate multiplied by the days to accrue for that month.
		  • If an account or meter does not follow a calendar month, any accruals will consider the daily rate of any invoices overlapping in that calendar month.
		Global HFC Emissions (HVAC systems)
		• Description: National Grid includes an annual emission of 10,000 tCO_2e from heating, ventilation and air conditioning (HVAC) systems and the related emissions. HVAC systems use Hydrofluro Carbons (HFCs) due to their refrigeration properties. HFCs are one of the GHGs (or GHG groups). National Grid commissioned United Research Services to undertake a survey in 2012 (as part of our initial total global inventory definitions) of its HVAC equipment and the GHG emissions are based upon an assumption that we release 100% of the HFCs from each of our HVAC units in all our global operations, per year. This is an overestimation as HVAC systems are more efficient in terms of leakage of HFCs.
		• Emission factor: No emission factor as the estimation metric is already tCO_2e.

Our environment continued

Table 2: Calculation methodology for Scope 1 and 2 emissions continued

Emissions scope	Emissions activities	Calculation methodology overview
Scope 1 continued	**Additional fuel combustion activities**	Energy consumption obtained from vendor invoices and using industry-standard methodologies to estimate where measured data is not available. **UK** **UK Fuel Combustion – Mobile Generators** • Description: Volume of diesel/gas oil (litres) in mobile generator use: backup generators and small plant equipment consolidated using purchased record volumes. • Emission factor: UK government conversion factors for company reporting of GHG emissions > Fuels > Combination of liquid fuels. **UK Onsite Fuel** • Description: Volume of diesel fuel (litres) used at sites for site machinery and backup diesel generators. • Emission factor: UK government conversion factors for company reporting of greenhouse gas emissions/fuels/liquid fuels/diesel (100% mineral diesel)/litres. **UK DEFRA Stationary Combustion by Energy – Grain LNG** • Description: Grain LNG import and storage facility uses compressors to move the facility gas and these compressors are gas turbine compressors. Volumes of gas (SCM) that fuel the compressors at each of the three phases are recorded in gas volumes. This can then be converted to energy using a CV as energy per unit volume, and then further to CO_2e by means of an emission factor (EF) as CO_2e per unit energy. • Emission factor: Phase specific CV – Volume to Energy Conversion MJ/SCM and Phase Specific Emission Factor – Energy to CO_2e units tCO_2e/TJ. **US** **US Tier 1 Stationary Combustion Gas Fuel** • Description: Volume of gas (Mscf) fuel consumed by line heaters and standby generators. • Emission factor: EPA GHG Emission Factors Hub – Table 1: Stationary Combustion. **LNG Tier 3 Stationary Combustion Gas Fuel** • Description: Volume of natural gas (scf) consumed by boilers/heaters, vaporisers, backup generators and other assets in the operation of the LNG business. • Emission factor: EPA GHG Emission Factors Hub – Table 1: Stationary Combustion. **US Tier 1 Stationary Combustion Liquid Fuel (Nantucket Generators)** • Description: Volume of petroleum distillate fuel oil no. 2 (US gallons) consumed by backup generators on the island of Nantucket. • Emission factor: EPA GHG Emission Factors Hub – Table 1: Stationary Combustion. **US Renewables Onsite Maintenance Vehicle Fuel** • Description: Diesel and gasoline used at wind and solar sites for tractors, mowers and Utility Terrain Vehicles (UTVs). • Emission factor: EPA GHG Emission Factors Hub/Table 2: Mobile Combustion CO_2 – Diesel and Gasoline/Table 5: Mobile Combustion CH_4 and N_2O for Non-Road Vehicles/Gallons of diesel and gasoline consumed.

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Table 2: Calculation methodology for Scope 1 and 2 emissions continued

Emissions scope	Emissions activities	Calculation methodology overview

Scope 2	**Line losses from our electricity transmission, distribution and interconnectors**	When electrical currents travel on a network, there is an inherent resistance as the lines are not 100% conductive. Some energy is dissipated in the form of heat, and is 'lost' due to the electrical resistance in the network. This energy is known as line losses.
		The calculation methodology for line losses from our electricity transmission, distribution and interconnector lines requires the use of estimates across our relevant business units when calculating energy/electricity losses (kWh). Multiple sources of information input into the calculations, which vary in frequency and level of detail, therefore estimates are required where actual losses data is unavailable. Key estimates are used to calculate National Grid's apportionment of total system or shared lines losses, and carbon intensity of international imports. Our underlying methodology for these estimates has remained consistent with the prior year.
		In some instances, where final settled metering data is not available, estimates for these periods have been made based on historical trends or other assessments.
		UK
		UK Electricity Transmission Line Losses
		• Description: Electricity System Operator (ESO) calculates energy losses on the GB Transmission network by Transmission Owner. This is multiplied by the DEFRA/BEIS published carbon intensity of electricity factor. Energy losses (kWh) × electricity carbon intensity factor (gCO_2e/kWh).
		• Emission factor: Government conversion factors for company reporting of GHG emissions > UK Electricity – Electricity generated, Electricity: UK $kgCO_2e$.
		UK Electricity Distribution Line Losses
		• Description: Distribution System Operator (DSO) calculates energy losses on our UK Distribution Network/Licence Areas owned by UK Electricity Distribution (ED). This is multiplied by the DEFRA/BEIS published carbon intensity of electricity factor. Energy losses (kWh) × electricity carbon intensity factor (gCO_2e/kWh).
		• Emission factor: Government conversion factors for company reporting of GHG emissions > UK Electricity – Electricity generated, Electricity: UK $kgCO_2e$.
		UK Interconnectors Line Losses
		• Scope:
		  • IFA: Great Britain – France
		  • IFA2: Great Britain – France
		  • NSL: Great Britain – Norway
		• Description: Losses and their associated carbon emissions are calculated by taking the average intensity per hour of the exporting market multiplied by the energy losses per hour on the interconnector for both imports and exports. The hourly figures are aggregated together to give the total carbon from line losses for the time period required.
		• Emission factor: Unlike the Electricity Transmission (ET) systems that have multiple connection points, interconnectors only have two. Therefore, the losses information is available on a more granular hourly basis from the generation intensity in the originating country (dependent on whether it is a GB export or import) over that time period. This results in more accurate measurement and accounting methodology.
		US
		US Electricity Transmission and Distribution Line Losses
		• Description: Calculated energy losses on the US Transmission and Distribution networks in New England and New York. This is multiplied by the published EPA eGrid factors for the relevant region. Electricity losses (kWh) × eGrid/2204.62 (conversion from lbs to metric tonnes).
		• Emission factor: EPA GHG Emission Factors Hub – Table 6: Electricity.

Our environment continued

Table 2: Calculation methodology for Scope 1 and 2 emissions continued

Emissions scope	Emissions activities	Calculation methodology overview

Scope 2 continued	**Electricity consumption at our facilities**	Electricity consumption is multiplied by DEFRA/BEIS and EPA emissions intensity of electricity factors. Consumption sourced from bills or meters when available; otherwise, the square footage of the National Grid occupied space is measured, type of site identified and an electricity consumption per square footage emission factor utilised.
		UK
		UK DEFRA Electricity Consumption Utility Contracted
		• Description: We employ energy management organisations to manage utilities. Electricity invoices for UK buildings are contract metered and so consumption is taken from these invoices.
		• Emission factor: UK government conversion factors for company reporting of GHG emissions > UK Electricity – Electricity generated, Electricity: UK $kgCO_2e$.[5]
		UK DEFRA Electricity Consumption Utility Contracted – Grain LNG
		• Description: Our Grain LNG facility produces nitrogen on site that is used as ballast for the LNG prior to entering the UK Gas Transmission System. LNG can come from sources where the gas is 'rich' and therefore does not meet UK gas quality specifications, hence the ballast of nitrogen. To produce and store nitrogen (in liquid tanks) requires a large amount of energy.
		Emission factor: UK government conversion factors for company reporting of GHG emissions > UK Electricity – Electricity generated, Electricity: UK $kgCO_2e$.
		UK DEFRA Electricity Consumption Unmetered supply
		• Description: For some of our electricity sites e.g. substations, we have consumption that is not metered. The consumption for the sites is based upon modelled consumption valuation methods.
		• Emission factor: UK government conversion factors for company reporting of GHG emissions > UK Electricity – Electricity generated, Electricity: UK $kgCO_2e$.
		US
		Energy consumed (kWh) multiplied by the published EPA eGrid factors for the relevant region. Electricity consumption (kWh) × eGrid/2204.62 (conversion from lbs to metric tonnes).
		US Office Electricity Consumption
		• Description: Electricity consumed at the National Grid US facilities in New England, New York and Washington DC (excluding operational sites such as electric substations or LNG facilities). Where buildings have electricity bills or meters, the electricity consumption is collated from the bills or meters. Where bills or meters are not available, the square footage of the National Grid occupied space is measured, type of site identified and an electricity consumption per square footage emission factor is utilised from the EIA Commercial Buildings Energy Consumption Survey.
		• Emission factor: EPA GHG Emission Factors Hub – Table 6: Electricity.[4]
		• Year-end estimate: A reasonable estimate of GHG emissions for the last quarter of the fiscal year is used due to availability of utility bill data. The estimate is based on historical data using an industry standard approach. The estimate is performed by Canopy, a software solution managed by our facilities contractor. Estimates, referred to as accruals, can only occur on accounts that have at least one invoice. When new invoices are loaded, auto-accruals will be automatically refreshed to reflect any new data that has arrived.
		  • If invoiced data exists for the previous month, Canopy uses the pro-rated daily rate (cost or consumption) and multiplies that by the days to accrue for that month.
		  • If invoiced data does not exist for the previous month, then Canopy will use the prorated daily rate for the same month of the previous year multiplied by the days to accrue for that month.
		  • If neither of the above exist, Canopy will use the most recent invoice received for that account (or meter) and apply that pro-rated daily rate multiplied by the days to accrue for that month.
		  • If an account or meter does not follow a calendar month, any accruals will consider the daily rate of any invoices overlapping in that calendar month.
		LNG Electricity Consumption
		• Description: Electricity consumed at the LNG plants.
		• Emission factor: EPA GHG Emission Factors Hub – Table 6: Electricity.
		US Renewables Electricity Consumption
		• Description: Electricity consumed at our US renewables generation sites.
		• Emission factor: EPA GHG Emission Factors Hub – Table 6: Electricity.

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1.2 Scope 3 greenhouse gas emissions

Our Scope 3 emissions are calculated and reported in line with the GHG Protocol Corporate Accounting and Reporting Standard (Revised)[1], the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard[6] and the Technical Guidance for Calculating Scope 3 Emissions: Supplement to the Corporate Value Chain (Scope 3) Accounting and Reporting Standard[7]. National Grid includes all seven Kyoto GHG gases in its Scope 3 inventory. These GHGs are currently: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). The GWP factors used in this reporting period are from the IPCC Fifth Assessment Report (AR)-5 unless otherwise stated in the methodology.

1.2.1 Metrics

The following Scope 3 categories are reported by National Grid in our total value chain figures, and are included in our current SBTi target boundary, representing approximately 99% of our Scope 3 emissions:

- National Grid total Scope 3 emissions ($ktCO_2e$):
  - Cat. 1 Cat. 2 (Purchased Goods and Services + Capital goods) emissions ($ktCO_2e$)
  - Cat. 3 (Fuel and Energy Related Activities Not Included in Scope 1 or Scope 2) emissions ($ktCO_2e$)
  - Cat. 5 (Waste Generated in Operations) emissions ($ktCO_2e$)
  - Cat. 6 (Business Travel) emissions ($ktCO_2e$)
  - Cat. 7 (Employee Commuting) emissions ($ktCO_2e$)
  - Cat. 11 (Use of Sold Products) emissions ($ktCO_2e$)

There is one additional metric that is separately disclosed, as a subset of Scope 3 Category 6 Business travel:

- GHG emissions from air travel ($ktCO_2e$)

The following Scope 3 category is not included in National Grid's current SBTi target boundary. This decision is based on the assessment that Category 15 emissions are not material to the overall Scope 3 emissions of our organisation. By excluding this category, we can focus our resources and efforts on addressing the most significant emission sources within our Scope 3 emissions. We will provide additional information on Cat. 15 emissions in our 2024 CDP response, using estimated emission calculations:

- Cat. 15 (Investments) emissions ($ktCO_2e$)

1.2.2 Definitions

Scope 3 emissions are defined as all indirect emissions, not included in Scope 2, that occur in the value chain of the reporting company, including both upstream and downstream emissions. We report Scope 3 emissions across six categories within our current SBTi target boundary as defined by the GHG Protocol (see Table 3 below).

1.2.3 Scope

National Grid applies the operational control principle to determine operations that are in scope for emissions and environmental reporting. See section 1.1.3 for further detail. For the purposes of reporting on our Scope 3 emissions, NGV operations are reported within our UK figures and US figures, where relevant.

Table 3 below presents the scope in terms of emissions sources included within each Scope 3 category.

New sources added within our Scope 3 emissions include Well-to-Tank under Category 3. Well-to-Tank covers upstream emissions associated with purchased fuels and electricity. Well-to-Tank emissions have been included in our 2018/19 baseline emissions and intervening years as per the recalculation policy.

Scope 3 emissions from Cat. 1 + Cat. 2, 3 and 11 makes up >99% of our total Scope 3 emissions and are therefore included within scope for external assurance. Other Scope 3 emissions are currently excluded from independent assurance as these do not contribute materially to our total Scope 3 emissions.

Both UK and US emissions are reported in line with the financial year (1 April to 31 March).

Table 3: Scope of National Grid's SBTi target boundary Scope 3 emission sources by category and business included

Scope 3 emissions category (cat)	Scope – emission sources for inventory	Scope by region
Cat. 1 + Cat. 2 (Purchased Goods and Services + Capital Goods)	Includes all products and services and capital goods purchased by National Grid Procurement, from stationery to construction products.	UK, US
Cat. 3 (Fuel and Energy Related Activities)	Includes any emissions associated with the 'generation of purchased electricity that is sold to end users' by National Grid to its customers in the US only. This is calculated from metered supply and regional emission factors. This category also includes Well-to-Tank (WTT) upstream emissions of purchased fuels and electricity. These are upstream emissions associated with extraction, refining and transportation of the raw fuel sources to an organisation, prior to their combustion. WTT emissions are calculated using BEIS and IEA emission factors.	US, UK
Cat. 5 (Waste Generated in Operations)	Includes all waste generated from our operations, including office waste, operational waste and construction waste by National Grid field operations. In some cases, where waste stream classification is unknown, the waste emissions are estimated using an average emission factor.	UK, US
Cat. 6 (Business Travel) Including Air Travel	Includes employee business travel, not in National Grid owned vehicles (air travel, hire cars, personal cars, taxis and rail travel). Business travel not recorded in our systems (e.g. not expensed) is not included, however, policies are in place to minimise this.	UK, US
Cat. 7 (Employee Commuting)	Includes emissions based on commuting distances of our employees to their offices and includes travel types such as bus, car and train.	UK, US
Cat. 11 (Use of Sold Products)	This includes any emissions associated with the use of gas sold by National Grid to its customers.	US

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1.2.4 Calculation methodology

Annual Scope 3 emissions data across all categories reported is summed to get the Group-level total (in kilotonnes of CO_2e). See Table 4 below for detail on how emissions in each category are calculated.

Table 4: Calculation methodology for National Grid's SBTi target boundary Scope 3 emissions by category

Scope 3 emissions category	Calculation method
Cat. 1 + Cat. 2 (Purchased Goods and Services + Capital Goods)	Global annual spend on purchased goods and services and capital goods multiplied by Resilience database factors for emissions based on $USD spend. To ensure accuracy and avoid double-counting, a filter is applied to remove cash payments to vendors that are already included within Scope 1, Scope 2 or other Scope 3 categories of the GHG protocol. Resilience, a specialised climate analytics company uses technology pioneered by the Centre for Risk Studies at the University of Cambridge Judge Business School and we use their global emissions factors that are estimated at a Global Industry Classification Standard (GICS) industry level. Spend data is extracted from a Power BI Data Visualisation tool. **Global** • Description: Spend categories applied to each spend line were analysed and refined using GICS industrial classification. Each spend line (excluding VAT) on the financial ledger is assigned to a spend category using utility vendor database (UVDB) information. Each spend category has then been allocated a Resilience emission factor. The spend is in $ as the Resilience factors are in $kgCO_2e/\$$. Where a spend type cannot be mapped to a spend category to employ the specific Resilience factor then a weighted average factor is used. • Emission factor: Resilience Spend Category $kgCO_2e/\$$, Spend to Spend Category mapping, GBP to USD where applicable.
Cat. 3 (Fuel and Energy Related Activities)	Extraction, production and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in Scope 1 or Scope 2. Includes emissions associated with the lifecycle emissions of electricity sold by National Grid to customers in the US and upstream WTT emissions (excluding combustion). Emissions from electricity sold are calculated from metered supply and US regional emission factors. WTT emissions are calculated from existing emission activities using BEIS and IEA emission factors. Sold electricity is representative of our US business only where we sell energy direct to consumers. Disclosure is not applicable to our UK business as transmission only (not customer facing). **US Sold Electricity** • Description: Emissions associated with the generation of purchased electricity that is sold to end customers by National Grid. Data on customer consumption is pulled from the Customer Service System (CSS). The data is inputted into Volume Analysis reports and Full Service (National Grid Customers) consumption data is pulled for this calculation. Regional emission grid factors applicable to the customer's location are applied to convert from energy (kWh) to tCO_2e. • Emission factor: EPA GHG Emission Factors Hub – Table 6: Electricity. **WTT** • Description: Upstream emissions of purchased fuels (extraction, production and transportation of fuels consumed by the National Grid) and upstream emissions of purchased electricity (extraction, production, and transportation of fuels consumed in the generation of electricity, steam, heating and cooling consumed by the National Grid), including electricity purchased on behalf of National Grid's customers. Emissions calculated for electricity, transport and fuel lifecycles using measured units from existing Scope 1, 2 and Scope 3 emission activities. **UK** • Emission factor: UK government conversion factors for company reporting of GHG emissions > WTT-Fuels > various factors and WTT- UK & overseas electricity > WTT- UK electricity (generation) > Electricity: UK. **US** • Emission factor: UK government conversion factors for company reporting of GHG emissions > WTT-Fuels > various factors and IEA Life Cycle Upstream Emission Factors 2023 (Pilot Edition) > Fuel-cycle factors > US and lifecycle T&D factors > United States. IEA factors based on AR4[8].
Cat. 5 (Waste Generated in Operations)	Includes waste generated from our UK and US operations including office waste, operational waste and construction waste. The emissions are calculated from the measured units of each waste type multiplied by EPA GHG Emission Factors Hub/DEFRA/BEIS factors for each waste type. An average emission factor is used where details of the Scope 3 waste stream are not available. **UK** • Description: National Grid has a number of contracts with waste collection organisations covering the UK businesses, which provide data in volume or mass of waste. • Emission factor: For waste in mass, BEIS factors > waste disposal (42 waste classes and seven disposal methods for each class ~300 factors depending on waste type and disposal)/volume > mass conversion source. **US** • Description: There are two categories of waste types, hazardous waste and non-hazardous, with several waste streams (i.e. oil, cardboard, electronics, etc.) from the US business areas (Gas Distribution, Electricity Transmission and Distribution, Shared Services) and NGV GenCo Generation and NG renewables. The waste quantities are measured in differing metrics dependent upon the waste stream. Where the waste disposal method is identified as recycled, landfill or other (i.e. incineration or treatment), each waste stream is collated into total waste quantity for that stream (N.B. reuse is considered to have zero associated emissions). The waste quantity per stream is then converted from the measured unit into 'short ton of material', whereby the EPA emission factor can then be applied, as the EPA emission factors (for each waste category) are provided in metric tons CO_2e/short ton material. • Emission factor: EPA GHG Emission Factors Hub – Table 9: Scope 3 Category 5: Waste Generated in Operations and Category 12: End-of-Life Treatment of Sold Products. Note that Emissions Factor Hub – Table 9 is based on AR4.

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Scope 3 emissions category	Calculation method
Cat. 6 (Business Travel)	Includes US and UK employee business travel (air travel, hire cars, personal cars used for company business, etc.) but excludes National Grid company vehicles, as this is included in Scope 1. Business travel that is not recorded in our systems (e.g., not expensed) is not included; however, policies are in place to minimise this. For each travel type, we collect travel data either in our own systems or our travel management suppliers provide the travel data and multiply by regional (US/UK) EPA or DEFRA/BEIS emission factors. *GHG Emissions from Air Travel represents a subsection of business travel, covering business travel by air.* **UK Business Travel – Personal car/Rail/Air/Hire car/Chauffeur/Sea travel/Freighted goods** • Description: Most National Grid employees use a system where employees can book a range of travel options, using third-party travel providers. The distance (km) from the travel provider's report is multiplied by the emission factor. For UK ED, a separate, more manual expenses process is followed, but the calculation methodology is the same. • Emission factor: Government conversion factors for company reporting of GHG emissions > Business Travel – Land > Rail/Air/Passenger vehicles/Ferry average passenger/Freighted goods For Air travel BEIS/DEFRA 2022 factors for April – May 2023 and BEIS/DEFRA 2023 factors for June – March 2024). **US Business Travel – Personal car/Rail/Air/Hire car** • Description: National Grid has a Travel Hub where employees can book a range of travel options. It uses a third-party Omega (US)/Agiito/Capital Travel provider through which these bookings can be made. Data such as length and type of travel are recorded and provided on a monthly basis. Distances are multiplied by the appropriate EPA emission factors to compute the emissions. Travel not booked through the system such as personal car, short-distance rail and some hire cars are expensed in Concur and emissions calculated based on reported distance or cost using Carbonfund's spend to mileage calculator. Amtrak rail travel booked through the Travel Hub and also expensed in Concur overlap, but the overlapping spend is not removed. • Emission factor: EPA GHG Emission Factors Hub – Table 10: Scope 3 Category 6: Business Travel and Category 7: Employee Commuting.

Cat. 7 (Employee Commuting)	Includes emissions based on commuting distances of our employees to their offices and includes travel types such as bus, car and train.
	• Description: We currently use survey results that polled daily commute behaviours (frequency and miles travelled) and travel methods (e.g. car, train, bus, etc.) amongst a sample of employees (in August 2023). Each method's one-way mileage is then:
	  • multiplied by the number of months worked per year (factoring in average time off), average commuting days per month, one-way commuting distance, two (to account for a round trip), and divided by the number of commuters (including the employee) to account for carpooling, resulting in an average annual mileage per employee by travel mode;
	  • multiplied by the count of employees to obtain total annual mileage for National Grid commuting by transport mode; and
	  • multiplied by the relevant UK government conversion factors/EPA Emissions Factors Hub emission factor (the use of 'regional' emission factors in line with the Protocol) for the transport type and reporting year.
	• Emission factor: UK government conversion factors for company reporting of GHG emissions > Business Travel – Land > Bus/Car/Rail; EPA GHG Emission Factors Hub – Table 10: Scope 3 Category 6: Business Travel and Category 7: Employee Commuting.
	With the new survey reflecting the latest commuting habits (including hybrid and fully remote), building occupancy measures are no longer included in the calculation.

Cat. 11 (Use of Sold Products)	This includes any emissions associated with the use (combustion) of gas sold by National Grid to its customers in the US. **US Sold Gas** • Description: Emissions associated with combustion of natural gas consumed by National Grid customers. Data on customer consumption is pulled from billing systems reports (MicroStrategy/CRIS Mainframe- CRIS Companies; PageCenter, CSS Companies) and Special Ledger reports. The data is inputted into Volume Analysis reports and Full Service (National Grid Customers) consumption data is pulled for this calculation. The calculation involves conversion from energy (dekatherms) to tCO_2e. • Emission factor: EPA GHG Emission Factors Hub – Table 1: Stationary Combustion.

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1.2.5 National Grid's excluded Scope 3 emission sources and calculation methodology

National Grid's current SBTi target boundary does not include Scope 3 category 15 emissions. This exclusion is based on the assessment that these emissions are not significant in relation to our overall Scope 3 emissions.

Table 5: National Grid's excluded Scope 3 emission sources and calculation methodology

Scope 3 emissions category (cat)	Scope 3 categories not included in National Grid's current SBTi target boundary	Scope by region

Cat. 15 (Investments)	This includes the emissions (on an average financial/tCOe-based EEIO) from our partially owned subsidiaries, associates and UK, US joint ventures where our ownership investment is below 50% and we do not have operational control, not otherwise captured under Scope 1 or 2.
	• Description: Using our companies list held by General Counsel and Company Secretariat we identify:
	  • the sectors the investee company operates in – to define the appropriate CO_2e/E/$ revenue EEIO
	  • the revenue of the investee company
	  • the proportional share of equity in the investee
	Emission factor: EEIO Spend Category $kgCO_2e$/$, Spend to Spend Category mapping, GBP to USD where applicable.
		UK, US

All other Scope 3 categories (4, 8, 9, 10, 12, 13 and 14) are not currently applicable or are immaterial to National Grid.

Category 2 (Capital Goods):
National Grid does not report Category 2 (Capital Goods) GHG emissions separately from Category 1 (Purchased Goods and Services). Our procurement system does not directly distinguish between operating and capital expenditures, that fully align with our financial reporting practices and policies. Therefore, we consolidate Category 1 and Category 2 emissions together in our reporting within our reported Cat. 1 + Cat.2 (Purchased Goods and Services + Capital Goods) emissions.

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1.3 Third-party sold gas

Our Science Based Targets (SBTs) include additional emission sources that are outside of the GHG Protocol's guidance.

1.3.1 Metric

The additional emission metric that we reporting is Third-party sold gas.

1.3.2 Definition

This additional metric, while similar to Scope 3 emissions in that they occur in our value chain, take place outside of our organisational boundary.

1.3.3 Scope

Third-party sold gas are downstream emissions associated with the combustion of natural gas delivered through our network but sold by a company other than National Grid. This differs from Scope 3 Cat. 11 GHG Protocol guidance, which otherwise advises to consider only the end use of goods sold by the reporting company itself. This is a US-only emission sources and is reported in line with the financial year (1 April to 31 March).

1.3.4 Calculation methodology

Annual emissions data is summed to get the Group-level total (in kilotonnes of CO_2e). See Table 6 for detail on how emissions are calculated.

1.4 Air quality – emissions from stationary sources

National Grid is required to monitor and report air emissions to regulatory bodies in both the UK Environment Agency (EA) and US Environmental Protection Agency (EPA) on an annual basis. As such, our air emissions reporting is carried out in line with the monitoring approaches and methodologies specified and approved by these regulators.

1.4.1 Metrics

Air emissions from stationary sources, including Nitrogen Oxide (NOx), Sulphur Oxide (SOx) and Particulate Matter (PM). The metrics we report are as follows:

- NOx emissions (metric tonnes)
- SOx emissions (metric tonnes)
- PM emissions (metric tonnes)

1.4.2 Definitions

NOx, SOx and PM are air polluting gases released from combustion processes. Stationary sources of NOx, SOx and PM include the burning of natural gas and fuel oil to generate electricity (US Generation) and submerged combustion vaporisers (SCV) at Grain LNG.

1.4.3 Scope

NOx, SOx, and PM emissions from stationary sources include, in the UK, Grain LNG, and in the US, GenCo.

Our Grain LNG business is included and only NOx emissions from this site are reported. NOx emissions from Grain LNG are included for Phase 1 (emissions from four SCVs, and Phases 2 and 3 (emissions from another six vaporisers and four SCVs respectively). SOx and PM emissions are not monitored at our Grain LNG as the site is under the threshold required for regulatory reporting. Our air emissions reporting covers stationary sources (as defined above). Other sources may include air emissions from backup generators, small domestic boilers and process gas boilers on sites and from mobile sources (e.g. from our fleet). Air emissions from these potential sources are considered to be immaterial and are currently not monitored or included in our reporting. The following gases are included within our NOx, SOx and PM reporting:

- NOx – NO_2, NO
- SOx – SO_2
- PM – PM10, PM2.5

Only PM10 is measured and reported in the UK (reported as PM). In the US, PM10, PM2.5 and other particle sizes are measured, but reported as a consolidated PM amount.

For 2023/24 reporting for both UK and US, emissions are reported in line with the financial year (1 April to 31 March), other than the exceptions noted in the detailed calculation methodology that follows.

Table 6: Calculation methodology for Third-party sold gas

SBT emissions category	Calculation method
Third-party sold gas	• Description: Emissions associated with combustion of natural gas delivered through our network but consumed by non-National Grid customers. Data on non-customer consumption is pulled from billing systems reports (MicroStrategy/CRIS Mainframe-CRIS Companies; PageCenter, CSS Companies), Special Ledger reports and the gas SCADA (supervisory control and data acquisition) system. The data is reported uder EIA Forms 176 and 857 as well as being used for this calculation. The calculation involves conversion from energy (dekatherms) to tCO_2e. • Emission factor: EPA GHG Emission Factors Hub – Table 1: Stationary Combustion

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1.4.4 Calculation methodology

Annual NOx, SOx and PM emissions are added together from the relevant UK and US sites to get the Group-level total (in metric tonnes of each gas). See the Table 7 below for further information on how air emissions are calculated in each of our businesses:

Table 7: Calculation methodology for NOx, SOx and PM reporting across the Group

	GenCo	Grain LNG
NOx	Some units have CEMS which automatically log actual NOx emissions on an hourly basis. On units that do not have CEMS, NOx emissions are calculated by: NOx = fuel consumption × NOx emission factor. Fuel consumption is measured automatically by fuel meters or via fuel storage tank readings. The NOx emission factor is calculated from third-party stack testing.	For UK Grain LNG Phase 1, an average NOx emission rate is calculated via a timed spot sample to measure the kg of NOx per tonne of LNG throughput (measured quarterly). Data is extrapolated over the quarter to represent the LNG throughput of the SCV. Quarterly data is summed to calculate the annual NOx figure. For Phases 2 and 3, CEMS are used. NOx is monitored via a probe and data recorded in our Process History Database (PHD). NOx is calculated as CEMS hourly mean for each vaporiser (kg/hr of NOx) multiplied by the number of operational hours.
SOx	Calculated as oil consumption multiplied by the emission factor for SOx emissions from oil or SOx = gas consumption × emission factor for SOx emissions from gas, depending on fuel. Oil/gas consumption is measured by fuel meters. Data is fed into our Data Acquisition and Handling System (DAHS) or manually via fuel storage tank readings. The emission factor for natural gas is specified by the EPA. The emission factor for oil is calculated from the sulphur content (analysed prior to delivery) and an EPA equation.	n/a
PM	Particulate emissions from each stack are measured on each site periodically in accordance with our permit requirements. Measurements are taken by an independent third party and test reports provided to National Grid US for our reporting. According to 40 CFR Part 75 Table LM-4 – Identical Unit Testing Requirements, the number of emission tests required varies depending on the number of identical units in the Group. When multiple tests of the identical units are performed during the calendar year, the highest average EF from one of the stack report tests are used for the reporting year.	n/a

1.5 Electric vehicle fleet (light-duty only)

1.5.1 Metric

Percentage of National Grid's light-duty commercial vehicle fleet that are electric vehicles (EVs).

1.5.2 Definitions

EVs are powered 100% by electricity and produce zero carbon emissions at the tailpipe.

Light-duty vehicles (LDVs) are those with a gross weight of less than 3.85 metric tons (8,500 lbs) if located in the US, or equal to or less than 3.5 metric tons (7,716 lbs) if located in the UK.

1.5.3 Scope

All LDVs owned or financially leased by National Grid are included in this metric. Employees' vehicles, company cars, and vehicles heavier than the defined light-duty vehicle weight are excluded. The EV percentage of the light-duty vehicle fleet is reported on a FY basis, as at 31 March. The remainder of the year is not considered.

1.5.4 Calculation methodology

The UK and US LVD data and the UK and US EV LVD data is received from the fleet management teams.

The UK and US data is separately aggregated to then calculate the percentage of EV LDVs, total number of EV LDVs and total number of LDVs. The percentage that are EVs is then calculated as: (total number of EV LDVs/total number of LDVs) × 100.

The total light-duty vehicle fleet (LDF) size and the number that are EVs are continuously tracked in our fleet management systems.

Our environment continued

1.6 Total waste generated and breakdowns

We generate waste across a range of our activities and sources, including office and warehouse waste, vehicle maintenance, waste from distribution and transmission gas pipe and electricity line installations, repair and maintenance, capital construction project delivery and power generation. Waste is also generated by remediation of release incidents and legacy contaminated properties. The different categories of waste are summarised in the Metrics and Scope sections below.

Some waste produced is classed as 'hazardous waste'. This arises from the removal of contaminated land during commercial property activity and the disposal of oil and polychlorinated biphenyl (PCB) or lead-contaminated materials.

1.6.1 Metrics

Total waste generated in operations (tonnes), as well as the following breakdowns:

- Total waste generated (non-hazardous)
- Total waste generated (hazardous)
- Total waste reused and recycled

1.6.2 Definitions

Total waste involves the collection of data on the quantity, category and disposal method, in order to understand the organisation's value chain and, identify opportunities for waste prevention in the future.

Waste is any substance or object which the holder discards.

1.6.3 Scope

All National Grid's businesses are included in the reporting of this metric with the exception of our UK interconnectors, Grain LNG and National Grid Electricity Distribution, which are out of scope for 2023/24 and prior periods, but will be incorporated into the scope in future years once a data collection process has been implemented.

Reasonable estimations are utilised for New England road spoils and a portion of our offices where needed, including National Grid Renewables.

Waste data will be representative of the financial year (1 April to 31 March) for the UK and US business.

1.6.4 Calculation methodology

Total Group data is accumulated from a number of different waste disposal vendors. The data may arrive in a number of formats, so it is centrally compiled and converted to metric tonnes. It is then aggregated into the waste type and disposal processes in scope to identify the total volume generated.

All data is cross-checked against the source data reports from the supplier/data provider and compared against the previous year's submission as part of an analytical review check.

Each breakdown is then accumulated by filtering the associated data for each heading.

1.7 Energy consumption

National Grid also reports energy-related consumption on an annual basis.

1.7.1 Metrics

The metrics that we report are as follows:

- Total energy consumption excluding fossil fuel generation and electricity system losses (GWh)
- Total electricity consumption (GWh)
- Total operational consumption (GWh)
- Total heating consumption (GWh)
- Total transport consumption (GWh)
- Total fuel consumption from non-renewable sources (GWh)
- Total fuel consumption from renewable sources (GWh)
- Total energy consumed – US Generation data (GWh)

1.7.2 Definitions

Energy-related consumption is reported in line with the definitions in the GRI Standard 302-1[9] for the following disclosures:

- Electricity consumption
- Heating consumption
- Fuel consumption from non-renewable sources (fuel distilled from petroleum or crude oil, natural gas, and fuels extracted from natural gas processing and petroleum refining)
- Fuel consumption from renewable sources (geothermal, wind, solar, hydro and biomass)

Given the nature of National Grid's business, National Grid reports additional total energy-related metrics to provide additional transparency:

- Operational consumption, to capture fuel use by equipment
- Transport consumption, to capture fuel use by our vehicle fleet

Furthermore, National Grid separately reports US Generation data because its energy consumption is an order of magnitude greater than the rest of the organisation's operational consumption. US Generation data includes the fuel energy used by the generation plant (gas and oil) minus the net self-supply electricity (i.e. the fuel energy used by the generation plant to produce the electricity that was exported to LIPA). In addition to energy consumed, we also separate out electricity system losses because these are line losses from our electricity transmission and distribution lines and our interconnectors.

Total energy consumption excluding fossil fuel generation and electricity system losses is therefore defined as:

Aggregation of electricity consumption + operational consumption + heating consumption + transport consumption

Fuel consumption from renewable sources is defined as:

- UK Renewable Generation Photovoltaic cells on our properties that we own and self operate (NGH and Eakring)
- UK ED Electricity Consumption with covering Energy Attribute Certificates (Office/Depots/Substations)
- US Renewables consumption – electricity consumed at our property sites (kWh) associated with purchased Renewable Energy Certificates (RECs) are considered consumed renewable energy, Taken as a percentage of total consumption, this represents US renewable energy consumption.

Fuel consumption from non-renewables is therefore defined as:

Total fuel consumption from non-renewables = Total energy consumption – total fuel consumption from renewable sources

Our environment continued

1.7.3 Scope

The operational control principle as set out by the GHG Protocol is applied across all our emissions and environment metrics. All operations where National Grid has 100% of operational control (including maintenance), and the full authority to introduce and implement its operating policies, are included within the reported metrics, unless otherwise stated.

Total energy consumption is determined by the activities already captured in National Grid's GHG reporting and described in section 1.1. Table 8 presents the scope in terms of the sources included for energy consumption reporting; relevant sources, systems used and data descriptions are the same as described above.

Table 8: Scope of National Grid's energy consumption sources and business included

Emissions scope	Scope – emissions sources for inventory	Energy consumption metrics calculated	Scope by region
Scope 1	Electricity generation on Long Island under the LIPA agreement	• Total energy consumed – US Generation data	US
	Fleet vehicles use	• Total transport consumption	UK, US
	Company car emissions where vehicle is used for business travel	• Total transport consumption	UK
	Company-owned helicopters	• Total fuel consumption from non-renewable sources • Total operational consumption	UK, US
	Additional fuel combustion activities	• Total operational consumption	UK, US
Scope 2	Electricity consumption at our facilities	• Total electricity consumption	UK, US
	Heat consumption at our facilities	• Total heating consumption	UK

1.7.4 Calculation methodologies

Consumption figures from the underlying sources are taken before multiplying by conversion factors and converted into units of energy (if measured unit is not already in energy, e.g. gallons of fuel consumed). Conversion factors used are listed in Table 9 below.

As inputs are taken from the underlying sources, any assumption or estimations stated in the earlier GHG reporting sections apply to the energy consumption metrics.

Table 9: Conversion factors used for energy-related consumption metrics

Unit conversions	Value	Source
BTU per kWh	3412	US Energy Information Administration[10]
MMBTU per BTU	0.000001	US Energy Information Administration[11]
kWh per therm	0.034121415	UK government[12]
BTU per gallon (CNG)	114105.6	US Department of Energy[13]
BTU per gallon (gasoline)	120214	US Energy Information Administration[14]
BTU per gallon (diesel)	137381	
MMBTU per standard cubic foot natural gas	0.001026	US Environmental Protection Agency[15]
MMBTU per gallon (distillate fuel oil no. 2)	0.138	
MMBTU per gallon (propane)	0.091	
Short ton per metric tonne	1.102311311	UK government[16]

Our environment continued

1.8 Flagship office energy consumption

1.8.1 Metric

Total energy consumed at flagship offices in each location:

- Office energy consumption – UK
- Office energy consumption – US

1.8.2 Definitions

Energy consumption refers to electricity, heating and cooling purchased or self-generated, along with total fuel consumed. National Grid's Workplace Experience and Property Serivces team in the UK and US are responsible for defining 'flagship offices' in their locations using their knowledge of the property portfolios and utility contracts. Flagship offices are defined separately and are as follows:

- UK: Property used primarily or in part as an office workspace and where National Grid are directly responsible for paying the energy provider. Solely operational facilities are excluded from this metric.
- US: Property used primarily as an office workspace. Solely operational facilities are excluded from this metric.

1.8.3 Scope

The scope of this metric includes a set list of flagship offices that have been identified for the US and UK (inclusive of UK ED), as described above. Both UK and US data are reported in line with the financial year, 1 April to 31 March.

1.8.4 Calculation methodology

National Grid's Workplace Experience and Property Services team provides the data to the Sustainability team in the US and UK separately. Sources of data for this metric vary between the UK and US, largely because there are instances where National Grid supplies the energy for many US sites.

UK

- Utility bills in most cases
- Direct meter data portals
- Manual site meter readings and fuel delivery notes

US

- Utility bills where energy is provided by another utility. Values are recorded from bills receive.
- Where National Grid is the utility, data from internal billing systems is utilised in most cases. There are a few instances where scanned bills are used instead because the usage data is not available in CSS.
- Landlords provide billing data for some locations and estimates of National Grid's proportion are based on the percentage of building area (square footage) National Grid occupies. This methodology is utilised for both electricity and gas where applicable.
- At the few sites at which measured data is not currently available, estimates are made based on the square footage of sites according to industry-standard methodologies. Each site is assigned an appropriate use type based on the categories of emission factors available. The emission factors are sourced from the EIA Commercial Buildings Energy Consumption Survey (CBECS).
- In cases where a site may lack data for a particular month, a value will be estimated based on historical data using an industry-specific approach. The estimate is performed by Canopy, a software solution managed by our facilities contractor JLL.
- Due to the availability of utility bills at the end of the reporting period, the calculations may include some reasonable estimates.

The two energy consumption metrics are aggregated at the end of the year to report against our group office energy consumption target. The data is presented in gigawatt hours (GWh).

1.9 Renewable electricity purchased

1.9.1 Metric

- % renewable electricity purchased – Total
- % renewable electricity purchased – UK
- % renewable electricity purchased – US

1.9.2 Definitions

Energy Attribute Certificates are contractual instruments (such as RECs, Renewable Energy Guarantees of Origin (REGOs) and Power Purchase Agreements (PPAs)) through which consumers of electricity can credibly claim the provenance of renewable energy consumption credentials. Electricity supplied is the total in-scope electricity supply contracts, measured in kWh.

1.9.3 Scope

Only electricity purchased is considered as part of this metric.

The percentage of electricity supplied with renewable energy attribute certificates is reported as at the financial year-end date, 31 March.

1.9.4 Calculation methodology

The total in-scope electricity purchased and consumed, and the total in-scope renewable supply contracts are aggregated by the UK and US. The US and UK totals are then combined to create the Group totals.

The percentage of electricity supplied from renewable tariffs is then calculated as: (Total electricity with Renewable Energy Attribute Certificates)/(Total electricity consumption) × 100.

1.10 New renewable energy connected in year to our electricity networks

1.10.1 Metric

This methodology covers the following metrics, measured in megawatts (MW):

- New renewable energy connected to US Distribution grid
- New renewable energy connected to US Transmission grid
- New renewable energy connected to UK Distribution grid
- New renewable energy connected to UK Transmission grid

1.10.2 Definitions

US and UK transmission and distribution grids refer to the ET and ED networks located in the US and UK.

Renewable energy is defined as energy from sources that are zero carbon and naturally replenishing, including solar, wind, hydropower and geothermal generation.

Connected refers to new connections that have occurred in the reporting year.

1.10.3 Scope

Renewables connected are measured by the capacity of the facilities connected to the grids.

Nuclear and biomass are not included in the scope of renewables connected.

Connections are counted from the 'in-service' date, when National Grid physically provides back-feed service to the facility; data included in annual reporting begins at the first point the renewable energy source is interconnected.

Hybrid battery site connections are not included.

Both UK and US data is reported in line with the financial year, 1 April to 31 March.

1.10.4 Calculation methodology

The data is collected and monitored continuously in the course of operations. Only the new annual connections made to each network within the reporting period are included and aggregated at the year end for the purpose of reporting.

Our environment continued

1.11 Interconnector capacity

1.11.1 Metric

The total capacity of our UK interconnectors, transmitting electricity to and from various countries in Europe.

1.11.2 Definitions

Capacity is the intended maximum, full-load and sustained output of National Grid's interconnectors, measured in GW.

Interconnectors are high-voltage cables that are used to connect the electricity systems of neighbouring countries.

1.11.3 Scope

All UK to Europe interconnectors in operation are in the metric and those under construction are excluded until they become operational. For 2023/24, these include the following:

- IFA (France) – Unincorporated joint venture – National Grid operational control
- IFA 2 (France) – Unincorporated joint venture – National Grid operational control
- NSL (Norway) – Unincorporated joint venture – National Grid operational control
- Viking Link (Denmark) – Unincorporated joint venture – National Grid operational control
- BritNed (The Netherlands) – Incorporated joint venture
- Nemo Link (Belgium) – Incorporated joint venture

Interconnector capacity is reported as at the financial year-end date, 31 March.

1.11.4 Calculation methodology

Construction specification documents are used to determine the capacity value for each interconnector. The capacity (GW) is calculated as follows:

$$\text{Total Interconnector Capacity} = \sum_{n=1}^{x} (\text{Interconnector Capacity, n})$$

x = (Number of NGV interconnectors commissioned)

The capacity data is collected and monitored in the course of normal operations. The capacity of each interconnector is aggregated at the year end for the purpose of reporting.

1.12 Renewable generation enabled by direct investment

1.12.1 Metric

Renewable energy in commercial operation and under construction within our renewables portfolio, in megawatts (MW).

1.12.2 Definitions

Renewable generation considers energy supplied to the grid (MW) through our onshore renewables joint venture (JV) portfolio, which develops, owns and operates large-scale renewable energy assets, including solar, onshore wind and battery storage across the US.

1.12.3 Scope

This metric represents total MW of renewable energy within the JV portfolio, either in commercial operation or currently under construction. This includes all projects and their associated MW which have obtained Final Investment Decision and are retained within the onshore renewables JV portfolio. This excludes any assets developed by National Grid which have been sold to third parties.

1.12.4 Calculation methodology

This metric sums the hourly generation data for the assets within our renewable portfolio over the financial year to give the total renewable generation from our direct investment.

1.13 Total water withdrawal/abstraction

1.13.1 Metric

Total gross water withdrawal from all key water sites, calculated prior to water discharges.

1.13.2 Definitions

Water withdrawal is the sum of all water drawn from the following sources: surface water, groundwater, seawater or third party, for any use, over the course of the financial year. It is reported in m^3.

1.13.3 Scope

UK: Water withdrawal and water withdrawn for Electricity Transmission cable cooling.

US: Water withdrawal, well extraction water and once-through seawater cooling water.

National Grid Renewables and National Grid Electricity Distribution are excluded from this metric, but make up an immaterial portion of our total water withdrawal/abstraction.

1.13.4 Calculation methodology

UK: Total metered water withdrawal volume (m^3) for each source is combined to calculate the total water withdrawal volume.

US: Total metered water withdrawal volume (gallons) for each source is combined to calculate the total water withdrawal volume then converted to m^3.

The estimation performed for a certain percentage of the US Facilities sites uses square footage per site and applies an average volume per square foot of water consumption.

Group: The UK and US volumes are added together in m^3.

Our environment continued

1.14 Total water discharged

1.14.1 Metric

Water discharged at National Grid sites.

1.14.2 Definitions

Water discharge is the sum of the effluents, used water and unused water released to surface water, groundwater, seawater or a third party, for which NG has no further use, over the course of the financial year. It is reported in m^3.

1.14.3 Scope

UK: Water discharged and water discharged for Electricity Transmission Cable Cooling.

US: Water discharged, wastewater from unit operations and once-through seawater.

National Grid Renewables and National Grid Electricity Distribution are excluded from this metric, but make up an immaterial portion of our total water discharged.

1.14.4 Calculation methodology

Total water discharged volume (m^3) for each source is combined to calculate the total water discharged volume.

As there is no metering of utility discharged volumes, it is assumed that all utility water discharged is equal to utility water withdrawal minus estimated water consumption.

1.15 Total water consumption

1.15.1 Metric

Total water consumption at National Grid sites.

1.15.2 Definitions

Water consumption is the sum of all water that has been withdrawn and incorporated into products; or generated as waste or has evaporated, transpired, or been consumed by employees, contractors or agency workers at our sites; or is polluted to the point of being unusable by other users, and is therefore not released back to surface water, groundwater, seawater or a third party over the course of the financial year.

1.15.3 Scope

UK: Consumption of third-party water.

US: Consumption of third-party water.

National Grid Renewables and National Grid Electricity Distribution are excluded from this metric but make up a tiny fraction of our total water discharged.

1.15.4 Calculation methodology

National Grid has developed an assumption of water consumption, as follows:

- The EPA has estimated that all people consume between 1 and 2 litres of water per day and 22% of office water is consumed through landscaping.
- Based on this information, we have assumed that 1.5 litres of water is consumed by each employee and 22% of the total utility water withdrawal is consumed through landscaping activities.
- To account for hybrid working, calculation (1) estimates water consumption during continued hybrid working conditions (based on the average occupancy survey), and calculation (2) assumes 100% of the employees are in the office.
- The water consumption percentage to be applied to utility water withdrawal is 22.3%, which is the average of calculations (1) and (2).

Total water consumption has therefore been estimated by multiplying the utility withdrawal volume by 22.3%.

Estimated water consumption across the UK and US offices is combined to calculate total water consumption.

In cases where National Grid operates in a closed loop system, water consumption is estimated to equal zero, where withdrawal volume is equal to discharge.

1.16 Percentage of natural environment improved on the land we manage in the UK (cumulative)

1.16.1 Metric

Improve the natural environment by 10% on the land we manage in the UK, in NGET only.

1.16.2 Definitions

Improvement of natural environment is defined as an improvement in the natural capital value of the natural environment, compared with its baseline.

1.16.3 Scope

This metric and the baseline includes NGET only and does not currently include land across all of our UK businesses. NGED and NGV methodologies and baselines are being developed and will be reported against in the future.

The NGET scope applies to non-operational land. The biodiversity baseline for NGET was assessed at 1 April 2021. Each year, the cumulative percentage improvement against this baseline will be reported. The baseline for this metric is £281.6million (2020/21). Land which has been acquired or sold following 2021 is excluded from the baseline. This target applies to land owned by NGET where we own a freehold or a long leasehold (>21 years). It includes land which is subleased to others. Environmental value uplift associated with reaching the target at individual sites within the non-operational landholding will contribute to meeting the target as soon as contracts are secured to deliver the physical works or at an appropriate point that signifies a change in activity e.g. the point at which work begins at a site, the date at which a legal agreement is signed with a third party that obliges them to make changes/carry our works at a given site, or, the date when land management practices are formally changed and documented.

1.16.4 Calculation methodology

NGET developed a tool to measure the environmental and societal value of our land. The tool uses a 'natural capital' evaluation approach that monetises the 'ecosystem services' that are provided by our land. The natural capital value represented in the tool is estimated over 30 years, reflects the present value and uses a discount rate of 3.5%.

The calculation is derived from the following:

% of non-operational land enhanced = ((Sum of site interventions – sum of baselines)/NGET portfolio baseline) as at 31 March.

Our environment continued

1.17 Enrolled acres in US integrated vegetation management system (IVM) programmes

1.17.1 Metric

Number of acres enrolled in the IVM programme.

1.17.2 Definitions

IVM is defined as the practices of promoting desirable, stable, low-growing plant communities that will resist invasion by tall growing tree species through the use of appropriate, environmentally sound, and cost-effective control methods. IVM methods are proven to improve the environment around rights of way (ROWs) by avoiding excessive tree cutting, reducing risk of forest fires, decreasing invasives and increasing natural species diversity.

1.17.3 Scope

US businesses in NY and NE are included, but NGV US is excluded. Enrolled acres in IVM practices, including corridors where National Grid have electric transmission and sub-transmission lines on ROWs in New York and New England, excluding downstate New York. Electric transmission and sub-transmission have separate management processes so the IVM enrolled acres will be reported in categories and collated.

1.17.4 Calculation methodology

All enrolled acres in IVM will be collected and summed into an annual figure as at 31 March.

1.18 Enrolled acres in US nature-related projects

1.18.1 Metric

Acres of land we manage in the US enrolled nature-related projects.

1.18.2 Definitions

Nature-related projects refer to environmental projects which look to protect and enhance nature. The categories reported against are as follows:

- Wetland mitigation: wetland preservation under the environmental permits
- Vegetation enhancement or restoration: planting and enhancement of vegetated areas
- Rare, threatened, and endangered species protection: according to federal and state regulations

1.18.3 Scope

Businesses in NY and NE are included, but NGV US is excluded. Three categories were chosen based on evaluation of relevant environmental standards across the regions we operate in the US. These categories include wetland mitigation, vegetation enhancement or restoration, and rare, threatened and endangered species protection. Projects will be included if they are in the 'in operation' phase during the reporting timeframe.

Data is reported in line with the financial year, 1 April to 31 March.

1.18.4 Calculation methodology

The total area of land under nature-related projects in the three categories is aggregated in acres.

1.19 EU Taxonomy-aligned green capex as a percentage of total capex

Please refer to the **EU Taxonomy Report** for details of how Group green capex as a percentage of total capex is calculated.

1. https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf.
2. https://ghgprotocol.org/sites/default/files/ghgp/standards/Scope%202%20Guidance_Final_0.pdf.
3. Required gases and GWP values_0.pdf (ghgprotocol.org).
4. Code of Federal Regulations eCFR:Home.
5. Government conversion factors for company reporting of greenhouse gas emissions – GOV.UK (www.gov.uk).
6. Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf (ghgprotocol.org).
7. Scope3_Calculation_Guidance_0.pdf (ghgprotocol.org).
8. Life Cycle Upstream Emission Factors (Pilot Edition) – Data product – IEA.
9. gri-302-energy-2016.pdf (globalreporting.org).
10. Energy conversion calculators – U.S. Energy Information Administration (EIA).
11. Frequently Asked Questions (FAQs) – U.S. Energy Information Administration (EIA).
12. ghg-conversion-factors-2023-full-file-update.xlsx (live.com).
13. Alternative Fuels Data Center Fuel Properties Comparison (energy.gov).
14. British thermal units (Btu) – U.S. Energy Information Administration (EIA).
15. Emission Factors for Greenhouse Gas Inventories (epa.gov).
16. ghg-conversion-factors-2023-full-file-update.xlsx (live.com).

Our customers and communities

In this section

2.1 Contribution of NG UK's transmission and distribution costs to consumer bills

2.1.1 Metric

For the UK, we report National Grid's contribution to customer bills:

- UK National Grid transmission element of the average domestic consumer bill (£)
- UK National Grid distribution element of the average domestic consumer bill (£)

2.1.2 Definitions

UK average domestic bill is the average gas/electric bill for non-business customers in the UK. The National Grid element is the portion of the average UK domestic bill associated with the transmission and distribution costs for the electricity attributable to National Grid.

2.1.3 Scope

This metric includes bill impact data for UK ET and ESO (UK Transmission Costs) and UK ED (UK Distribution costs). It does not include the impact of external ESO costs, as these costs are a pass-through cost managed on behalf of the industry, rather than being an internal ESO cost.

National Grid UK does not directly charge consumers; therefore, the metric approximates the network charges proportion of the Energy Supplier bills. It excludes the proportion of our revenues that are charged to other parties, e.g. costs levied on companies entering energy into the network. These costs are excluded because there is no clear approach identified to estimate how much of those costs contribute to household bills. This metric is reported in line with the financial year, 1 April to 31 March.

2.1.4 Calculation methodology

The costs are identified from the charges set by National Grid for Energy Suppliers.

For UK ET, the portion of the average Transmission Use of System Charges (TNUoS) tariff for the relevant year, attributable to UK ET, is derived from the charges published by the ESO[17]. This tariff is then multiplied by an estimate of the proportion of annual consumption that takes place during peak times to estimate charges per customer. The charge to customer is scaled up by the average loss adjustment factor as published by Ofgem[18] to account for losses and then multiplied by the average domestic demand, also published by Ofgem[19], to determine an average cost to UK households.

For UK ED, Distribution Connection and Use of System Charges (DCUSA) provide the allowed revenues for distribution system in schedules 16, 17, 18 and 32. The calculation for charges is set out in the Common Distribution Charging Methodology (CDCM) and EHV Distribution Charging Methodology (EDCM)[20] based on the voltage at which users were connected. This is converted into the percentage of a customer's bill by taking the average domestic consumer's bill as defined by Ofgem.

The ESO Internal Revenue is identified from the Price Control Financial Model, as published by Ofgem. This is divided by the total annual demand, as published by the ESO[21], to estimate an average tariff charged by the ESO. That charge to customer is scaled up by the average loss adjustment factor as published by Ofgem[22] to account for losses and then multiplied by the average domestic demand, also published by Ofgem[23], to determine an average cost to UK households.

The average costs of UK ET and ESO are summed for UK Transmission. UK ED is standalone for UK Distribution.

Our customers and communities continued

2.2 Average energy bill charged to US households

2.2.1 Metric

Average cost per US household. This metric separates the costs to electricity and gas customers as well as low-income and other customers due to the distinct characteristics of these consumer groups.

2.2.2 Definitions

Average US electricity customer bill is the average total bill charged to all National Grid US residential electricity customers, excluding those who participated in a low-income programme[24].

Average US gas customer bill is the average total bill charged to all National Grid US residential gas customers, excluding customers who participated in a low-income programme.

Average low-income (only) electricity customer bill is the average total bill charged to National Grid US residential electricity customers who have participated in a low-income programme.

Average low-income (only) gas customer bill is the average total bill charged to National Grid US residential gas customers who have participated in a low-income programme.

The metrics represent the total bill charged to National Grid customers, including taxes and fees (the 'fully loaded bill total').

2.2.3 Scope

The metrics combine the tariff charges managed under all National Grid US rate plans, as listed below.

New York Public Service Commission:

- Niagara Mohawk (NMPC): upstate, electricity[25]
- Niagara Mohawk (NMPC): upstate, gas
- KeySpan Energy Delivery New York (KEDNY): downstate
- KeySpan Energy Delivery Long Island (KEDLI): downstate

Massachusetts Department of Public Utilities:

- Massachusetts Electric (MECO)
- Nantucket Electric (NANT)
- Massachusetts Gas (MA Gas)

The metrics only include residential customers who have received a service from National Grid for 12 consecutive months as at the reporting date.

All metrics exclude customers who received a temporary credit or charge on their bill that was in addition to tariff rates (a 'rider').

Average low-income customer bill metrics only include residential customers who have participated in a low-income programme for 12 consecutive months.

The metrics do not include adjustments made to bills after the reporting date.

This metric is reported in line with the financial year, 1 April to 31 March.

2.2.4 Calculation methodology

For customer accounts that meet the respective metric definitions, the total of the last 12 consecutive bills is identified from the billing system.

An arithmetic average is then calculated by: (Total charged to customers ($))/(Total number of customers). This equation is adapted to reflect each respective metric in terms of the product sold (gas or electricity) and customer group (average or low income).

2.3 Number of young people provided with access to skills development

2.3.1 Metric

Total people provided with access to skills development since 1 October 2020 (towards our target of developing skills for the future, with a focus on disadvantaged communities, providing access to skills and employment opportunities for 45,000 people by 2030).

Total people provided with access to skills development in the financial year, 1 April to 31 March.

2.3.2 Definitions

Skills development: Programmes operated by National Grid intended to meaningfully upskill participants. The programmes are not restricted to STEM (Science, Technology, Engineering and Mathematics) skills, however, STEM skills are expected to make up the majority of our programmes.

Participant: a participant comes from one of the disadvantaged communities we serve[26], and the majority are under 25.

2.3.3 Scope

This metric includes all participants who have accessed our skills development programmes. Data is based on hours recorded via internal reporting systems or as reported by our charity partners as relevant.

This metric is reported in line with the financial year, 1 April to 31 March, and cumulatively by summing all data from 1 April 2020 to the relevant year-end date.

2.3.4 Calculation methodology

Participants on our skills development programmes are initially recorded within the respective systems of our skills development programmes. On an annual basis, the data is collated and summed to the total annual unique participants on our skills development programmes.

The total annual participants in our skills development programmes are added to the total participants previously reported since 1 October 2020 to calculate the cumulative participants on our skills development programmes.

Our customers and communities continued

2.4 Number of qualifying volunteering hours

2.4.1 Metric

Total qualifying volunteering hours completed on behalf of National Grid since 1 April 2020 (targeting 500,000 employee volunteering hours through to 2030).

Total qualifying volunteering hours completed on behalf of National Grid in the financial year, 1 April to 31 March.

2.4.2 Definitions

Volunteering hours: Any time spent volunteering on behalf of National Grid (including any preparation work required).

2.4.3 Scope

This metric includes all National Grid employees and those working on behalf of National Grid.

Data is based on hours recorded via internal reporting systems.

This metric is reported in line with the financial year, 1 April to 31 March.

2.4.4 Calculation methodology

Volunteering hours are initially recorded by those overseeing the activities or by individual employees via daily timesheeting. On an annual basis, the data is collated to sum the total annual volunteering hours, with relevant data reviews and sense checks performed as appropriate.

The total annual volunteering hours are added to the total hours reported for each financial year since 1 April 2020 to calculate the cumulative volunteering hours.

2.5 Customer Trust Survey (US)

2.5.1 Metric

Percentage of survey respondents who trust National Grid to provide the advice needed to make good energy decisions.

2.5.2 Definitions

Survey: supported by a third-party research provider, National Grid continuously surveys its US-based residential customers via an online 'Brand Image and Relationship' survey. The survey asks customers 'Considering everything you may know about National Grid, how much do you trust National Grid to provide you the advice you need to make good energy decisions?'.

Respondents: Residential customers who submit a response to National Grid's online survey.

Trust: Respondents score National Grid on a 1 – 10 point scale, where 1 is 'Do not trust advice at all' and 10 is 'Trust advice completely'. Respondents who answer 8, 9 or 10 are considered to 'trust National Grid's advice'.

2.5.3 Scope

The metric considers US residential customers only and excludes customers for whom National Grid does not have an email address. Data is collected by a third-party research vendor and reported to National Grid on a monthly basis.

This metric is reported in line with the financial year, 1 April to 31 March.

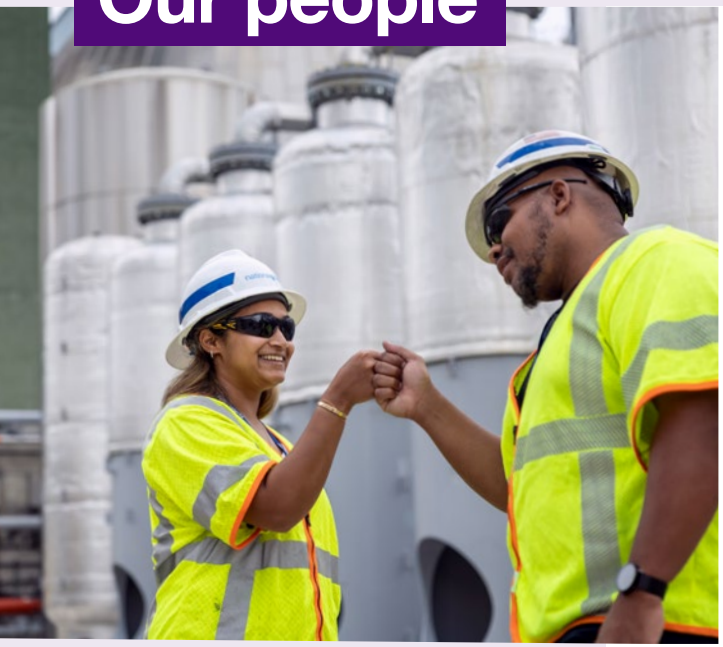
2.5.4 Calculation methodology

For each of National Grid's US markets, the percentage of respondents who trust National Grid is calculated as: total respondents who answer 8 – 10 in the survey question/total survey respondents.

Overall results are then weighted by market, based on the proportion of customers in each market that make up National Grid's total US residential customer base.

17. Source: https://www.nationalgrideso.com/document/235056/download.
18. Source: https://www.ofgem.gov.uk/publications/default-tariff-cap-level-1-april-2023-30-june-2023.
19. Source: https://www.ofgem.gov.uk/system/files/docs/2019/10/tdcvs_2019_open_letter_0.pdf.
20. Source: https://www.nationalgrid.co.uk/downloads/643/west4754-distribution-charging-overview-c-hr.pdf.
21. Source: https://www.nationalgrideso.com/industry-information/charging/balancing-services-use-system-bsuos-charges.
22. Source: https://www.ofgem.gov.uk/publications/default-tariff-cap-level-1-april-2023-30-june-2023.
23. Source: https://www.ofgem.gov.uk/system/files/docs/2019/10/tdcvs_2019_open_letter_0.pdf.
24. Low-income customers are defined as those who qualify for the Low Income Home Energy Assistance Program (LIHEAP), https://www.acf.hhs.gov/ocs/low-income-home-energy-assistance-program-liheap.
25. Both transmission and distribution, excluding stranded costs.
26. Lower income communities based upon UK ONS and US Census data.

Our people



In this section

3.1 Diversity of the workforce, management and new talent

3.1.1 Metric

Percentage of gender and ethnic and racially diverse employees within our total workforce, management (Bands A – C) and new talent hires. The data we report is as follows:

- Percentage of ethnically and racially diverse employees in our total workforce
- Percentage of female employees in our total workforce
- Percentage of ethnically and racially diverse employees in management
- Percentage of female employees in management
- Percentage of ethnically and racially diverse employees in new talent
- Percentage of female employees in new talent hires, which comprises the following:
  - UK Graduate hires: percentage female
  - UK Graduate hires: percentage ethnically and racially diverse
  - UK Apprenticeship hires: percentage female
  - UK Apprenticeship hires: percentage ethnically and racially diverse
  - US Graduate hires: percentage female
  - US Graduate hires: percentage ethnically and racially diverse
  - US Internship hires: percentage female
  - US Internship hires: percentage ethnically and racially diverse

3.1.2 Definitions

Table 10 shows the groups that are defined as 'gender diverse' and 'ethnically and racially diverse' compared with 'non-diverse' in our UK and US businesses.

Gender diverse are colleagues who identify themselves as female when applying for a role at National Grid.

Ethnically and racially diverse colleagues are those who have self-declared their ethnicity/race. Gender is a mandatory and binary field and therefore the disclosure rate is 100%. Ethnicity/race is not a mandatory field and declaration rate is 90+%.

Our people continued

Table 10: National Grid gender diversity and ethnic and racial diversity employee classification in the UK and US. Used for our gender and ethnicity diversity of the workforce, management and new talent reporting.

Gender (UK and US)			
Male	non-diverse		
Female	diverse		
Ethnicity/Race (UK)		**Ethnicity/Race (US)**	
Any other	diverse	American Indian or Alaskan Native	diverse
Asian – Bangladeshi	diverse	Asian	diverse
Asian – Indian	diverse	Black	diverse
Asian – Pakistani	diverse	Hispanic or Latino	diverse
Asian – any other background	diverse	Native Hawaiian or Pacific Islander	diverse
Black – African	diverse	Prefer not to say	n/a
Black – Caribbean	diverse	Two or more Races	diverse
Black – any other background	diverse	White	non-diverse
Chinese	diverse	<null>	n/a
Gypsy or Irish Traveller	diverse		
Mixed – White and Black African	diverse		
Mixed – White and Black Caribbean	diverse		
Mixed – White and Asian	diverse		
Mixed – any other mixed background	diverse		
White – any other White	non-diverse		
White British/English/Scottish/Welsh/Northern Irish	non-diverse		
White Irish	non-diverse		
Prefer not to say	n/a		
<null>	n/a		

3.1.3 Scope

Includes the total National Grid workforce across all parts of the business:

- Management represents the senior/top levels of management, Directors, and Executives (Bands A – C). Note, all management in NGED is graded A and there is a mapping document for NGED employees to the bands.
- Total Workforce includes the total number of active, permanent employees (including those on short-long-term leave of absence). All union schemes and graduates are included, but interns and temporary employees are excluded.
- New Talent are hires in new talent programmes, which refers to all new graduates, interns, trainees, apprentices and Power Network Craft Assistants.

Ethnically and racially diverse employees are all those who have self-declared their ethnicity/race in the HR system. Individuals who have chosen not to declare their ethnicity/race are included in the baseline of our calculations.

To report on our total workforce and senior leadership group metrics in the Responsible Business Report, the number of employees at year end will be used (31 March). To report new talent hires, the number will be representative of the previous financial year (1 April to 31 March).

3.1.4 Calculation methodology

Data is extracted from our HR management systems (MyHub for Group and ResourceLink for NGED) and aggregated, and the following calculations are performed on the dataset to calculate this metric:

- Percentage of ethnic diversity in workforce = (Ethnic and racially diverse individuals in workforce)/(Employees in workforce)
- Percentage of female employees in workforce = (Female individuals in workforce)/(Employees in workforce)
- Percentage of ethnic and racial diversity in management group = (Ethnic and racially diverse individuals in Bands A – C)/(Employees in Bands A – C)
- Percentage of female employees in management group = (Female individuals in Bands A – C)/(Employees in Bands A – C)
- Percentage of ethnic and racial diversity in new talent = (Ethnic and racially diverse individuals in new talent hires)/(New talent hires) in previous financial year.
- Percentage of female employees in new talent = (Female individuals in new talent hires)/(New talent hires) in previous financial year.

3.2 ‘Safe to say’ score (from Grid:Voice)

3.2.1 Metric

‘Safe to say’ score as measured by National Grid’s annual Employee Engagement Survey, Grid:Voice.

3.2.2 Definitions

‘Safe to say’ score is a measure of how safe employees feel to say what they think, based on the average responses to the statement ‘Where I work, it is safe to say what I think’ in our Employee Engagement Survey.

Likert scale is a psychometric scale commonly involved in research that employs questionnaires. The Likert scale is a five (or seven) point scale which is used to allow the individual to express how much they agree or disagree with a particular statement.

3.2.3 Scope

All employees who are permanently employed as at 1 December of the relevant financial year are provided the survey. Employees’ ‘safe to say’ score is reported as the outcome of the survey completed in the relevant financial year, 1 April to 31 March.

3.2.4 Calculation methodology

Respondents answer the question on the Likert scale of Strongly agree to Strongly disagree. Favourable responses are Agree and Strongly agree.

The ‘safe to say’ score is calculated as the percentage of favourable responses to the survey statement. The score is calculated as: (total favourable responses/total responses) × 100.

3.3 Employee engagement score (from Grid:Voice)

3.3.1 Metric

Engagement index score, as measured by National Grid’s annual Employee Engagement Survey, Grid:Voice.

3.3.2 Definitions

Engagement index is a measure of how engaged our employees feel, based on the percentage of favourable responses to five questions repeated annually in our Employee Engagement Survey.

Likert scale is a psychometric scale commonly involved in research that employs questionnaires. The Likert scale is a five (or seven) point scale which is used to allow the individual to express how much they agree or disagree with a particular statement.

Our people continued

3.3.3 Scope

All employees who are permanently employed as at 1 December of the relevant financial year are provided the survey. Employee engagement score is reported as the outcome of the survey completed in the relevant financial year, 1 April to 31 March.

3.3.4 Calculation methodology

Respondents answer the questions on the Likert scale of Strongly agree to Strongly disagree. Favourable responses are Agree and Strongly agree, except one question, 'intent to stay at National Grid', where the favourable response is five years plus or until retirement.

The engagement score is calculated as the percentage of favourable responses to the questions identified. The score is calculated as: (Total favourable responses/Total responses) × 100.

3.4 Wellbeing index (employees)

3.4.1 Metric

Wellbeing index score, as measured by National Grid's annual Employee Engagement Survey, Grid:Voice.

3.4.2 Definitions

Wellbeing index is the overall score for the questions 'NG supports me in achieving a healthy work life balance', 'I know who I can turn to at work for support or advice', 'NG shows care and concern for its employees', 'If I have a health or wellbeing concern, I know how to access the support I need', 'My manager would be supportive if I had a physical health concern', 'My manager would be supportive if I had a mental health concern', 'My manager's actions and behaviours are consistent with promoting health and wellbeing at work', 'National Grid prioritises the health and wellbeing of colleagues' 'I feel able to take time off work when I am not well'.

Likert scale is a psychometric scale commonly involved in research that employs questionnaires. The Likert scale is a five (or seven) point scale which is used to allow the individual to express how much they agree or disagree with a particular statement.

3.4.3 Scope

All employees who are permanently employed as at 1 December of the relevant financial year are provided the survey. Employees' wellbeing index score is reported as the outcome of the survey completed in the relevant financial year, 1 April to 31 March.

3.4.4 Calculation methodology

Respondents answer the question on the Likert scale of Strongly agree to Strongly disagree. Favourable responses are Agree and Strongly agree.

The wellbeing index is calculated as the percentage of favourable responses to the survey statements. The score is calculated as: (Total favourable responses/Total responses) × 100.

3.5 UK gender pay gap

We prepare and report our UK gender pay gap disclosures in line with the approach defined by the Equality Act 2010 (Gender Pay Gap Information) Regulations 2017 and The Advisory, Conciliation and Arbitration Service (Acas) Managing Gender Pay Reporting Guide 2017 ('Acas guidance').

We publish our UK gender pay gap as part of our Annual Report and Accounts, Responsible Business Report and as a standalone report on our website. Our Gender Pay Gap Reporting Methodology document can also be accessed on our website. Our gender pay gap reporting is reported one year in arrears[27].

3.6 UK and US ethnicity pay gap

Where relevant, we prepare and report our ethnicity pay gap disclosures in line with the principles defined by the UK's Equality Act 2010 (Gender Pay Gap Information) Regulations 2017 (the 'legislation') and Acas guidance.

National Grid is not legally required to report our ethnicity pay gap but chooses to on a voluntary basis. Although the UK statutory gender pay gap methodology has been used as a basis for ethnicity pay gap reporting, some adaptations have been made to ensure its suitability for ethnicity pay gap reporting. Any variations from the UK gender pay gap methodology are explained below. Our ethnicity pay gap reporting is reported one year in arrears.

3.6.1 Metric

Our UK ethnicity pay gap reporting covers our total UK businesses only, representing our entire UK workforce (inclusive of all UK legal entities, regardless of headcount).

Our US ethnicity pay gap reporting covers our total US businesses only, representing our entire US workforce (inclusive of all US legal entities, regardless of headcount).

The metrics disclosed are listed below. Each metric is reported once to represent the total workforce:

- Mean UK ethnicity pay gap (%)
- Mean UK ethnicity bonus gap (%)
- Mean US ethnicity pay gap (%)
- Mean US ethnicity bonus gap (%)

3.6.2 Definitions

The ethnicity pay gap is an equality measure that shows the difference in average earnings between ethnic minority (or diverse) employees and those who are not. It is different from equal pay. The definitions for the key terms included as part of our gender pay gap calculations are as follows:

- Ethnic minority (or diverse) employees are those who identify themselves as being part of an ethnic minority group, which is self-declared by employees within our HR system.
- Employees who have not declared their ethnicity are excluded from the calculation.

For more granular definitions of the above terms used in gender pay gap and ethnicity pay gap calculations, please refer to the legislation and Acas guidance.

For the ethnicity pay gap (both UK and US), we do not report publicly on the percentage of ethnic minority employees receiving a bonus payment or the proportion of ethnic minority employees in each pay quartile of the organisation.

The groups presented in Table 11 are defined as 'diverse' and 'non-diverse' in terms of ethnicity, within our UK and US business.

Our people continued

Table 11: Ethnic diversity

Ethnicity/Race (UK and US)	
Any other	diverse
Asian – Bangladeshi	diverse
Asian – Indian	diverse
Asian – Pakistani	diverse
Asian – any other background	diverse
Black – African	diverse
Black – Caribbean	diverse
Black – any other background	diverse
Chinese	diverse
Gypsy or Irish Traveller	diverse
Mixed – White and Black African	diverse
Mixed – White and Black Caribbean	diverse
Mixed – White and Asian	diverse
Mixed – any other mixed background	diverse
White – any other White	non-diverse
White British/English/Scottish/Welsh/Northern Irish	non-diverse
White Irish	non-diverse
Prefer not to say/did not disclose	non-diverse
<null>	n/a

3.6.3 Scope

In terms of the time period in scope, our ethnicity pay gap disclosures are prepared on an annual basis using the snapshot date 5 April each year for base/ordinary pay, and for the 12-month period including that pay period and the 11 pay periods prior to that date for bonus pay.

The scope of National Grid UK legal entities is disclosed in National Grid's 2023/24 Annual Report and Accounts. All UK incorporated subsidiaries are included in the relevant statutory and total ethnicity pay gap calculations.

3.6.4 Calculation methodology

UK and US ethnicity pay gap metrics are calculated in accordance with the methodology set out in the legislation and Acas guidance, i.e. only ethnic minority employees replace female employees and non-ethnic minority employees replace male employees where considered in the guidance.

Our data is extracted from our source systems (Payroll and HR management systems) before being reconciled and prepared for calculations to ensure that only the relevant employees, wage types and bonus types are included.

3.7 US gender pay gap

Where relevant, we prepare and report our gender and ethnicity pay gap disclosures in line with the principles defined by the UK's Equality Act 2010 (Gender Pay Gap Information) Regulations 2017 ('the legislation') and Acas guidance.

National Grid is not legally required to report our US gender pay gap or ethnicity pay gap but chooses to on a voluntary basis. Although the UK statutory gender pay gap methodology has been used as a basis for US gender pay gap reporting and ethnicity pay gap reporting, some adaptations have been made to ensure its suitability for US gender pay gap and ethnicity pay gap reporting. Any variations from the UK gender pay gap methodology are explained below.

3.7.1 Metric

Our US gender pay gap covers our total US businesses only, representing our entire US workforce (inclusive of all US legal entities, regardless of headcount). The metrics disclosed are listed below. Each metric is reported once to represent the total US workforce:

- Mean gender pay gap (%)
- Mean gender bonus gap (%)

We do not report publicly on the percentage of female employees receiving a bonus payment, or the proportion of female employees in each pay quartile of the organisation.

3.7.2 Definitions

The gender pay gap is an equality measure that shows the difference in average earnings between female employees and those who are male. It is different from equal pay. The definitions for the key terms included as part of our gender pay gap calculations are as follows:

- Gender: All our gender pay gap data relies on our employees' classification of their own gender as male or female. This is a mandatory, binary field in our HR system and therefore National Grid has a gender disclosure rate of 100%.
- Relevant employee: Those who have a contract of employment with National Grid and were employed on the snapshot date 5 April. All bonus payments in the year from March to April will be included in the bonus pay gap calculation.
- Full pay relevant employee: Relevant employees excluding those paid less than their usual pay during the payroll period in which 5 April falls, as a result of being on leave. We consider an individual's usual pay to be 1/12th of their annual salary as at 5 April. These employees will be included in the calculation of the 'Base' pay gap.
- Relevant pay period/bonus pay period: The month of April is used to calculate hourly pay, which is then used to calculate the pay gap in accordance with the legislation. The relevant pay period for the purpose of calculating bonus pay is the 12-month period ending 5 April.

Our people continued

3.7.3 Scope

Our gender pay gap disclosures are prepared on an annual basis using the snapshot date of 5 April each year for base/ordinary pay, and for the 12-month period including that pay period and the 11 pay periods prior to that date for bonus pay.

The scope of National Grid US legal entities is disclosed in National Grid's Annual Report and Accounts. All US incorporated subsidiaries are included in the relevant statutory and total ethnicity pay gap calculations for all metrics.

3.7.4 Calculation methodology

US gender pay gap metrics are calculated in accordance with the methodology set out in legislation and Acas guidance.

3.8 Total employee headcount and split

3.8.1 Metric

The employee headcount statistics we report are as follows:

- Total Employee Headcount (total group workforce)
- UK: full-time
- UK: part-time
- UK: female
- UK: male
- US: full-time
- US: part-time
- US: female
- US: male

3.8.2 Definitions

Total workforce refers to all permanent National Grid employees, regardless of pay grade and how long they have worked at National Grid. Included are those on parental leave or on short-term leave of absence, part-time workers, graduates and interns. Excluded are temporary employees, contingent workers, managed service providers, longer-term leave of absence and Non-executive Board members.

Headcount refers to number of permanent National Grid employees at each respective reporting year end (31 March).

Full-time employment is when an employee works the total number of hours considered by National Grid as full-time in a week. Any employee who works fewer hours than this amount is considered part-time.

3.8.3 Scope

Includes the total National Grid workforce across all parts of the business. The number of employees at each respective reporting year end is presented (31 March).

3.8.4 Calculation methodology

Data is extracted from our HR systems and the total number of employees in our workforce is calculated.

Data is extracted from our HR management systems and the headcount is calculated for each metric and divided by total number of employees in the workforce.

3.9 Temporary employees and agency workers

3.9.1 Metric

The headcount of our workforce by employment type is reported against the following categories:

- UK: regular employees
- UK: temporary employees
- UK: agency employees
- US: regular employees
- US: temporary employees
- US: agency employees

3.9.2 Definitions

Temporary employees are defined as interns/trainees and seasonal hires hired as temporary employees or hired for a specific duration of time.

Agency employees are defined as non-employees with vendors (Pontoon or UK Pertemps). This does not include managed service providers, consultants or other non-employees.

3.9.3 Scope

Temporary employees and agency employees, as defined above, are in scope.

3.9.4 Calculation methodology

We extract from our HR management systems, at 31 March, the headcount of permanent employees, temporary employees and agency employees. These are presented based on region by summing the headcounts across the appropriate business units.

3.10 Diversity of the Board and Group Executive

3.10.1 Metric

Diverse Board and Group Executive Committee members are individuals who have identified themselves as female, or as an ethnic minority. Individuals are only counted once if they are diverse based on multiple categories.

Board and Group Executive Committee refers to members as defined on the National Grid website who are active in the post at the financial year end (31 March).

3.10.2 Definitions

Diversity is defined as employees (Board members/Group Executives) who have identified themselves as female or from an ethnic minority.

Number or percentage of diverse (female or minority ethnic) individuals on the Board. 'Board' refers to members as defined on the Company website[28].

Number or percentage of diverse (female or minority ethnic) individuals on the Executive Committee. The Executive Committee refers to members as defined on the Company website[29].

Our people continued

3.10.3 Scope

Board and Group Executive Committee members can self-declare their diversity status (optional) in accordance with Table 12, within our HR systems.

All our gender data relies on our Board and Group Executive Committee members' classification of their own gender as male or female.

Employees including Group Executive Committee and Board members are not obliged to provide diversity information.

Data on both Executive Directors and Non-executive Directors is held in National Grid's HR record management systems. However, we may or may not hold complete diversity information on these individuals in our HR systems as we would with normal employees on our payroll, as independent directors on the Board are not considered employees.

In the instance that any diversity information is missing for the above individuals, our designated team would write to these individuals to invite them to declare their diversity status for use in our external diversity statistics.

We calculate the number of Board and Group Executive Committee members who fit within one of the diverse categories as per Table 12. If an individual fits more than one of these diverse categories, we would only count this individual once.

Diversity of the Board and Group Executive Committee is reported in the Responsible Business Report as at year end (31 March).

3.10.4 Calculation methodology

Data from National Grid's Group HR system and UK ED's separate HR system is consolidated.

The following calculation is performed on the dataset to calculate this metric:

Percentage diverse representation on the Board = (Number of diverse members on the Board)/(Total number of Board members).

Percentage diverse representation on the Group Executive Committee = (Number of diverse members on the Group Executive Committee)/(Total number of Group Executive Committee).

Table 12: National Grid's diverse and non-diverse employees on the Board and Group Executive Committee

Gender (UK and US)			
Male	non-diverse		
Female	diverse		
Ethnicity/Race (UK)		**Ethnicity/Race (US)**	
Any other	diverse	American Indian or Alaskan Native	diverse
Asian – Bangladeshi	diverse	Asian	diverse
Asian – Indian	diverse	Black or African American	diverse
Asian – Pakistani	diverse	Hispanic or Latino	diverse
Asian – any other background	diverse	Native Hawaiian or Pacific Islander	diverse
Black – African	diverse	Prefer not to say/ did not disclose	non-diverse
Black – Caribbean	diverse	Two or more Races	diverse
Black – any other background	diverse	White	non-diverse
Chinese	diverse	<null>	n/a
Gypsy or Irish Traveller	diverse		
Mixed – White and Black African	diverse		
Mixed – White and Black Caribbean	diverse		
Mixed – White and Asian	diverse		
Mixed – any other mixed background	diverse		
White – any other White	non-diverse		
White British/English/Scottish/ Welsh/Northern Irish	non-diverse		
White Irish	non-diverse		
Prefer not to say/did not disclose	non-diverse		
<null>	n/a		

Disability (UK)		**Disability (US)**	
Dyslexia	diverse	Yes	diverse
Hearing	diverse	No	non-diverse
Long-term health condition	diverse	Prefer not to say	n/a
Mental health	diverse	<null>	n/a
Mobility	diverse		
More than one	diverse		
Musculoskeletal	diverse		
No disability	non-diverse		
Other	diverse		
Other 'neurodiverse'	diverse		
Prefer not to say	n/a		
Speech	diverse		
Visual	diverse		
<null>	n/a		
Sexual orientation			
Heterosexual	non-diverse		
Gay	diverse		
Bisexual	diverse		
Lesbian	diverse		
I prefer to use my own term	diverse		
Prefer not to say	n/a		
<null>	n/a		

27. https://www.nationalgrid.com/careers/understanding-our-uk-gender-pay-gap-2023.
28. National Grid's Board | National Grid Group.
29. National Grid's Group Executive Committee | National Grid Group.

Responsible business fundamentals

In this section

4.1 Fatalities

4.1.1 Metric

Number of fatal injuries associated with work or activity undertaken by National Grid in the year.

4.1.2 Definitions

Fatal injuries are work-related injuries that directly result in death. Fatalities due to pre-existing conditions are not included unless where aggravated by a work related incident.

4.1.3 Scope

Employees, contractors and members of the public associated with National Grid activities.

We do not include member of the public fatalities relating to our installed and properly functioning assets, for example, if an individual trespasses on a National Grid asset and is fatally injured, or a road traffic accident occurs where the vehicle came in contact with an asset and there was a fatality.

This metric is reported in line with the financial year, 1 April to 31 March.

4.1.4 Calculation methodology

All fatalities in the reporting period are extracted from our incident management systems, reviewed internally and then summed to give a total figure.

4.2 Lost time injury frequency rate (LTIFR)

4.2.1 Metric

Total number of lost time incidents (LTIs) incurred as a portion of total hours worked by the workforce, multiplied by 100,000 to give a frequency rate which is per 100,000 hours worked.

4.2.2 Definitions

Lost time incidents are defined by National Grid as events which cause injury and a loss of time over the next shift or following day from when the incident occurred, consistent with the UK LTI definition. To be clear, this means that deferred lost time days or weeks after an incident is not included. In the UK weekends are included and in the US weekends are included if a doctors note covers the weekend.

4.2.3 Scope

Employees, contractors and agency staff are in scope.

Lost time injury figures are recorded, tracked and frequently reported in respective business units' incident management systems, which are then consolidated and reported via the Group's incident management systems.

This metric is reported in line with the financial year, 1 April to 31 March.

4.2.4 Calculation methodology

The total number of lost time incidents throughout the reporting period is calculated from our multiple incident management systems for the 12 months to 31 March, divided by total hours worked by the workforce and multiplied by 100,000.

4.3 Member of the public injuries as a result of National Grid work

4.3.1 Metric

Number of major injuries, to a member of the public, associated with work or activity undertaken by National Grid.

4.3.2 Definitions

Major injuries are injuries that are attributable to National Grid if National Grid operations or the failure of National Grid assets contributed to the incident.

4.3.3 Scope

Members of the public associated with National Grid activities. We do not include member of the public injuries or fatalities where they relate to an unauthorised infringement on our asset, for example, if an individual trespasses on a National Grid asset and is injured, or a road traffic accident where the vehicle came in contact with an asset and there was an injury.

This metric is reported in line with the financial year, 1 April to 31 March.

4.3.4 Calculation methodology

All injuries in the reporting period are extracted from our incident management systems, reviewed internally and then summed to give a total figure.

Responsible business fundamentals continued

4.4 Network reliability – percentage availability

4.4.1 Metric

The percentage availability of the following systems over the last year:

- US ET (%)
- US ED (%)
- UK ET (%)
- UK ED (%)

4.4.2 Definitions

For the UK:

- Potential energy: the maximum possible operational volume of our systems.
- Estimated unsupplied energy: the operational volume not delivered over the relevant period.
- Time in period: total minutes in financial year.
- The Customer Minutes Lost (excluding exceptions) data is based on planned and unplanned events and is calculated before exceptional events as finalised by Ofgem.

For the US:

- Time in period: total minutes in financial year.
- Total circuits: the total number of transmission lines in system.
- Total Duration of Circuit Outages: the accumulated duration of transmission outages sustained in the system for the financial year, in minutes.
- Total Customer Outage Duration: the accumulated customer hours impacted for the financial year.
- Total Customer Hours serviced: a product of total customer count and total hours in financial year.

4.4.3 Scope

US ET and ED availability includes major storm days[30].

Metrics are based on performance data recorded by the respective systems' operating systems.

In the UK and US, the metric is reported in line with the financial year, 1 April to 31 March.

4.4.4 Calculation methodology

For the system corresponding to the respective definition, actual availability for the last 12 months is identified. The percentage availability for the year is then calculated as follows:

- UK ET percentage availability = 1 – (Estimated unsupplied energy/ Potential energy) × 100.
- UK ED percentage availability = (Total minutes in a year – Total customer minutes lost)/Total minutes in a year × 100.
- US ET percentage availability = (Time in period × Total Circuits – Total Duration of Circuit Outages)/(Time in period × Total Circuits) × 100.
- US ED percentage availability = 1 – (Total Customer Outage Duration/Total Customer hours serviced) × 100.

4.5 Interconnector reliability – percentage availability

4.5.1 Metric

The percentage availability of the following systems over the 12 months to the year-end date:

- IFA Interconnector Availability (%)
- IFA2 Interconnector Availability (%)
- NSL Interconnector Availability (%)

4.5.2 Definitions

The 'Total Potential Capacity MWh' is the total energy that would be available for transmission if the interconnector operated at a nominal capacity continuously for the year.

The 'MWh unavailable' is the energy that was not available for transmission because of outages, calculated by multiplying the unavailable capacity by the duration of each outage.

4.5.3 Scope

As per our reporting boundaries, interconnectors included in these metrics are wholly owned by National Grid and where National Grid has operational controls and are fully operational for 12 months by the financial year-end date. Therefore, interconnectors BritNed and Nemo and Viking Link are excluded.

The metric is based on performance data recorded by the north (North Sea Link) and south (IFA 1&2) interconnector control centres and is based on the interconnectors operating at a nominal capacity continuously for the year.

The percentage availability considers planned and unplanned outages (or technical limitations), but not system operator restrictions/instructions or ancillary services.

The metric is reported in line with the financial year, 1 April to 31 March.

4.5.4 Calculation methodology

For the system corresponding to the respective definition, actual availability for the last 12 months is identified and is validated by the Operations Director. The calculation is verified by either the Director or an internal management accountant.

% Availability = ((Total Potential MWh – MWh Unavailable)/Total Potential MWh) × 100.

Responsible business fundamentals continued

4.6 Percentage of supplier payments paid to contractual term

4.6.1 Metric

Percentage of UK and US supplier payments made within the contractual term.

4.6.2 Definitions

Contractual term refers to the period between the date an invoice is received and when the invoice is due to be paid. Note, these vary across contracts/suppliers; the standard term is 42 days in the UK and 30 in the US.

4.6.3 Scope

Our reporting considers purchase order (PO) invoices that are paid over the course of the financial year.

If an invoice is reversed, cancelled or paid outside of the purchase order process (non-standard payments), it is excluded from the calculation.

Supplier invoice data is continuously monitored and tracked via our financial management systems.

This metric is reported in line with the financial year, 1 April to 31 March.

4.6.4 Calculation methodology

The metric is calculated based on the volume of invoices settled in the year as follows: (Total invoices paid within the contractual payment terms)/(Total invoices paid within the reporting time period) × 100.

If suppliers' contractual terms are not defined, or vary between invoices, a judgement is made as to the primary over-riding payment term to utilise for this metric.

4.7 Investment by NG Partners (NGP)

4.7.1 Metric

Annual investment by NGP (£), that supports our Responsible Business Pillars.

4.7.2 Definitions

NGP refers to National Grid Partners, our dedicated corporate innovation and investment function.

4.7.3 Scope

All NGP investments are evaluated by finance as to whether it supports our Responsible Business Pillars, as per the Responsible Business Charter. If an investment does not support a Responsible Business Pillar, it will be excluded. This is reviewed on a monthly basis by the NGV CFO.

Data on amounts invested is continuously tracked and updated as new investments are made and a report is generated on a monthly basis. The annual investment by NGP (£) is approved on an annual basis by NGV CFO. Investments are recorded on a cost basis.

This metric is reported in line with the financial year, 1 April to 31 March.

4.7.4 Calculation methodology

All Investment by NGP (£), that supports our Responsible Business Pillars.

4.8 Percentage of employees to have undertaken Ethics and Anti-Bribery and Corruption training

4.8.1 Metric

Percentage of total employee headcount (as per 3.8) who have completed our Ethics training.

Percentage of employee headcount (as per 3.8) who have completed our Anti-Bribery and Corruption training.

4.8.2 Definitions

Ethics training is an online training course intended to inform and educate attendees around National Grid's Code of Ethics.

Anti-Bribery and Corruption training is an online training course intended to inform and educate attendees about fraud, bribery and corruption.

4.8.3 Scope

The courses are mandatory for all UK and US employees and UK contractors with a National Grid email address, who are assigned to a learning account on the HR management system, where completion is tracked. In the US, unionised employees receive training online or via supervisor-led sessions.

These metrics exclude UK ED employees with the exception of secondees from UK ED to other business units within the Group. UK ED does not have access to the learning platform. We are working to integrate UK ED into next year's figures and working with UK ED IT for an IT solution.

This training excludes joint ventures and US contractors.

Employee headcount as at the reporting date are included in these metrics. The status of employees who have completed the training is continuously monitored through our HR management system.

Both training courses are refreshed every three years. Ethics training is refreshed in accordance with when the Code of Ethics is refreshed, in line with our policy. The metric is calculated based on completion of the most recent and current training course available. Completion of previous training courses is not included in the measurement of this metric. Anti-Fraud and Bribery training was refreshed in 2023.

The percentage of employees who have completed Ethics and Anti-Bribery and Corruption training is reported as at the relevant financial year end date, 31 March.

4.8.4 Calculation methodology

We assess the percentage of current employees who have completed the Ethics and Anti-Bribery and Corruption training within the last 3 years of the 31 March close date compared with all employees.

The percentage of employees to have completed the training is auto-calculated as: (Total number of employees to have completed the training/employee headcount) × 100.

30. Major storms are defined by respective US states.

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