nationalgrid

National Grid FY22: Our Reporting Methodology

PRINCIPAL PARTNER
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DELIVERING THE GLASGOW CLIMATE PACT

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Introduction

About this document

This document explains the definitions, scope, and calculation methodology for preparing and verifying the key performance metrics and disclosures reported within the 2021/22 Responsible Business Report ("RBR"), the 2021/22 EU Taxonomy, GRI and SASB Disclosure Document ("Disclosure Document") and the EU Taxonomy, RBR and SASB data disclosure tables ("Disclosure Tables"), all available on our website[1]:

- 2021/22 Responsible Business Report:
  - National Grid Green Financing Report on pages 55-57.
  - National Grid Data Tables on pages 62-64
  - WPD Data Tables on pages 65-66.
- 2021/22 Disclosure Document:
  - Sustainability Accounting Standards Board Metrics ("SASB") on pages 46 and 50.

NB: The Disclosure Document includes the full basis of preparation for the EU Taxonomy disclosure. The Global Reporting Index (GRI) disclosure predominantly includes metrics reported in the RBR and hence already defined under the RBR section of this document.

Foundations of reporting

Scope of reporting

Our Responsible Business Report covers all parts of our business operations globally with the exception of WPD who was acquired during the year (see Acquisitions, Mergers and Disposals below). As our UK business reports in line with a financial year (1 April – 31 March) and US business on a calendar year basis (1 January – 31 December), our metrics have been calculated on this basis, unless stated otherwise. All metrics include the results of the company and its subsidiaries. We have excluded data for all joint ventures, but for the following exceptions:

- Emerald Energy Joint Venture ("Emerald") data has been included on the basis that we own at least a 50% stake, and we have operational control of the entity, in line with the Greenhouse Gases (GHG) protocol definition[2].
- Joint venture interconnectors data has been included in the "Interconnector Reliability – % availability" metric.

Where specific sites, operations or subsidiaries have been excluded from the scope of certain metrics, a clear statement and justification has been made within the relevant metric section of this document.

Acquisitions, Mergers and Disposals

For newly acquired businesses and new operations, our policy is to include these within the metric reporting of our sustainability reporting as soon as practically possible, and, 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.

We have excluded all WPD data from National Grid's RBR metrics, as it was acquired in June 2021. However, for transparency, we have included a separate WPD disclosure in the RBR, and its associated Reporting Methodology summary is included in a separate section within this document. We aim to fully integrate WPD data into our 2022/23 sustainability reporting (i.e. including the RBR and reporting against other relevant reporting frameworks).

For EU Taxonomy Reporting, we have included WPD in the KPI reporting for this year. This is in line with the Regulation and ensures where relevant, the KPI's can be reconciled to the equivalent IFRS financial statement line item. This is the only area of our sustainability reporting where WPD information has been consolidated into National Grid reporting for the current year.

Newly sold or disposed operations will be removed from our reporting from the date at which they leave the Group. This means that data for The Narragansett Electricity Company (NECO), and the UK Gas Transmission Business (NGG) which includes Metering and National Grid Gas Holdings (NGGH), whose sales have been agreed but not finalised are included within our 2021/22 sustainability reporting. For IFRS reporting, they are separately presented as Assets Held for Sale on the Balance Sheet and for NGG only, within discontinued operations in the Income Statement for 2021/22.

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.

Assurance

All metrics reported within the RBR data tables (both National Grid and WPD) 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 over our most material National Grid and WPD RBR metrics and also over our Green Financing Reporting. Their Assurance Opinion for our 2021/22 RBR can be found on our website[1].

[1] https://www.nationalgrid.com/responsibility/responsible-business-report
[2] https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf

Introduction continued

Changes to global operations

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

- the acquisition of Western Power Distribution (WPD) in the UK in June 2021. WPD metrics have not been integrated with NG metrics (outside of EU Taxonomy KPI reporting as noted above) and have been disclosed separately in this year's RBR;
- the sale of NGG and NECO, both of which have yet to be finalised. Whilst they are being treated as held for sale at the year-end date in the Annual Reports & Accounts, they have been included in our RBR metrics this year;
- the 100% acquisition of National Grid Renewables in July 2019. We have integrated National Grid Renewables in our metrics this year;
- IFA2, an electrical interconnector between the British and French transmission systems is not yet included within our relevant environmental metrics but has been included within all other metrics. We are in the process of setting up robust data collection and reporting processes for IFA2 operations and aim to include its complete contributions in all our key performance metrics within our 2022/23 RBR; and
- North Sea Link (NSL), our subsea interconnector linking the electricity systems of the UK and Norway, became operational in October 2021. Similar to IFA2, we have excluded NSL data in this year's RBR, but will aim to include its complete contributions in all our key performance metrics within our 2022/23 RBR.

Reporting Standards

Global Reporting Initiative (GRI)

Our 2021/22 Responsible Business Report has been prepared in accordance with the GRI Standards (Core option). Further details on the requirements and our disclosures can be found in our 2021/22 GRI Index.

Sustainability Accounting Standards Board (SASB)

We have prepared separate disclosures in accordance with the Sustainability Accounting Standards Board (SASB) utilities sub-sector standards. Further details on the requirements and our disclosures can be found in our 2021/22 SASB Index.

EU Taxonomy for Sustainable Activities

We have prepared separate disclosures in accordance with the EU Taxonomy Delegated Acts. Further details on the requirements, disclosures and KPI calculations can be found in our 2021/22 RBR, the Disclosure Document and the Disclosure Tables.

National Grid Green Financing Methodology

National Grid Green Financing Methodology 05

National Grid Green Financing Methodology continued

Renewable Energy

Additional capacity of renewable energy generation connected to the systems (MW)

New England

For New England, additional capacity of renewable energy generation connected to the grid (MW) represents the additional installed capacity connected to our transmission and distribution systems, and therefore enabled by our Eligible Green Projects. This is calculated as the sum of the actual capacity connected to our systems.

National Grid Renewables

The additional capacity reflects the total renewable energy generation built by Emerald Energy joint venture (see Green Bond disclosure in the RBR for more details) during the allocation period, and subsequently connected to the grid (MW).

Estimated tCO_2e emissions avoided (tCO_2e)

New England

Estimated tCO_2e avoided represents the tCO_2e savings from the additional installed capacity of renewable energy connected to our systems compared to the amount of CO_2 that would have been emitted by a generation plant of average carbon intensity. This is calculated as:

i) the sum of the energy generation produced from completion to 31 March 2021 for the actual capacity connected to our systems (MWh),

ii) multiplied by the relevant carbon intensity factor (see "Sources").

For transmission and distribution projects, the Renewable Energy category includes a percentage of our capital expenditure that is deemed to contribute to maintaining, integrating and enhancing the capacity of renewable energy ("the Green Ratio").

For eligible capital expenditure (as described above) which does not represent 100% renewable energy, estimated tCO_2e avoided is calculated as the annual tCO_2e savings from having a share equivalent to the Green Ratio, or 35% of the reported customer load (MWh) from connected renewables generation compared to the amount of tCO_2e that would have been emitted if the average production mix – and the relevant carbon intensity factor for the applicable State – had been used.

National Grid Renewables and Emerald Energy Joint Venture

For the acquisition and subsequent capital contributions into National Grid Renewables and Emerald Energy JV, estimated tCO_2e avoided represents the tCO_2e savings from the additional installed capacity of renewable energy compared to the amount of tCO_2 that would have been emitted by a generation plant of average carbon intensity. This is calculated as:

i) the sum of the energy generation produced from completion to 31 March 2021 for the actual capacity (MWh),

ii) multiplied by the relevant carbon intensity factor (see "Sources").

Interconnectors

For the IFA interconnector project, estimated tCO_2e avoided represents the tCO_2e savings from the average carbon intensity of France compared to the amount of CO_2 that would have been emitted in the UK based on average carbon intensity. This is calculated as:

i) the difference between the UK average carbon intensity and the average carbon intensity of the respective EU country (see "Sources"),

ii) multiplied by the actual interconnector flow in GWh.

Energy efficiency

Estimated energy savings (MWh)

Estimated energy savings (MWh) are relevant only to the Smart Meter project. This is calculated as:

i) the assumed percentage annual savings based on regulator estimates (see "Sources"),

ii) multiplied by the total number of meters fitted, representing the number of households,

iii) multiplied by the average household energy usage based on government estimates (see "Sources").

Sources

New England

- Carbon Intensity of electricity generated (average carbon intensity): Source: https://www.epa.gov/egrid

National Grid Ventures (NGV)

- Carbon Intensity factors of Great Britain generation: Sources: https://carbonintensity.org.uk and https://data.nationalgrideso.com/carbon-intensity1/historic-generation-mix/r/historic_gb_generation_mix
- Carbon Intensity Factors (France) Data Sources – Carbon intensity index per fuel from RTE: Source: https://www.rte-france.com/en/eco2mix/co2-emissions
- The EPA's Greenhouse Gas Equivalencies Calculator uses the Avoided Emissions and generation Tool (AVERT) U.S. national weighted average CO_2 marginal emission rate to convert reductions of kilowatt-hours into avoided units of carbon dioxide emissions. We have applied their latest emissions factor for electricity reductions which uses 2019 data of 7.09x10-4 metric tons of CO_2/kWh. Source: Greenhouse Gases Equivalencies Calculator – Calculations and References | US EPA. Confirmation that this is still the latest revised figure: Source Greenhouse Gas Equivalencies Calculator – Revision History | US EPA
- UK regulator estimate of Smart Meter savings: Source: https://www.ofgem.gov.uk/publications/consumer-bulletin-getting-smart-preparing-change
- UK government estimate of average household energy consumption: Source: https://www.gov.uk/government/statistics/energy-consumption-in-the-uk-2020

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1. Environment

1.1 – Scope 1 and Scope 2 greenhouse gas emissions

The reporting of National Grid's total carbon emissions in our Annual Report and Accounts 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)[3] and the GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard[4]. Refer to Scope below for more information on our application.

1.1.1 – Metric

We report our Scope 1 and Scope 2 emissions (in $ktCO_2e$) separately from each of our business units, as well as a consolidated total. The data we report is:

- Scope 1 emissions ($ktCO_2e$)
- Scope 2 Location-based emissions ($ktCO_2e$)
- Scope 2 Market-based emissions ($ktCO_2e$)

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 (including electricity system losses consumption) by National Grid. 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 below.

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. BritNed and Nemo interconnector operations are incorporated joint ventures where we do not have operational control and are therefore excluded.

Table 1, right, 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	Scope by region
Scope 1	Long Island Power Authority (LIPA) electricity generation	US
	Leaks and venting from our gas transmission and distribution systems and LNG facilities	UK, US
	SF_6 leaks from our electric equipment	UK, US
	Fleet vehicles use	UK, US
	Company car emissions where vehicle is used for business travel	UK, US
	Gas-fired compressor use	UK
	Energy consumption at our facilities	UK, US
Scope 2	Line losses from our electricity transmission and distribution lines	UK, US
	Use of electric drive compressors in our gas business	UK
	Energy consumption at our facilities	UK, US

UK emissions are reported in line with the financial year (1 April to 31 March) and US emissions are reported in line with the calendar year (1 January to 31 December). This reflects the regulatory reporting requirements and processes for the US.

[3] https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf
[4] https://ghgprotocol.org/sites/default/files/ghgp/standards/Scope%202%20Guidance_Final_0.pdf

National Grid RBR Data Tables continued

1. Environment continued

1.1.4 – Calculation methodology

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

Table 2: Calculation methodology for Scope 1 and 2 emissions

Emissions scope	Emissions sources for inventory	Calculation methodology
Scope 1	Long Island Power Authority (LIPA) electricity generation	CO_2 emissions tracked using the Continuous Emissions Monitoring System (CEMS).
	Leaks and venting from our gas transmission and distribution systems and LNG facilities	**UK:** Volume of natural gas vented is recorded at individual sites. Emissions calculated using the following formula: kg gas vented x Gas Transmission (GT) conversion factor x GWP of CH4. The GT conversion factor is based on gas composition of the entire network. **US:** Emissions from methane leakage are estimated using approved Environment Protection Agency (EPA) methodology.
	SF_6 leaks from our electric equipment	See Section 3.3.
	Fleet vehicles use	**UK:** Fuel purchased is recorded by volume. Emissions calculated via: Litres of fuel x carbon conversion factor. DEFRA/BEIS conversion factors applied for petrol and diesel. **US:** Fuel utilised for fleet are recorded on a fleet services system and converted to $kTCO_2e$ using EPA conversion factors.
	Company car emissions where vehicle is used for business travel	Miles travelled are captured through our expenses recording systems in both UK and US. Emissions calculated via: Miles travelled x carbon conversion factor. DEFRA/BEIS conversion factors are applied by fuel type.
	Company owned plane and helicopter	The volume (gallons) of fuel used is recorded internally by the Aviation Process and Performance team. Jet fuel is converted to CO_2e using emission factors from the US EPA Emission Factor Hub.
	Gas-fired compressor use	Volume of gas combustion is tracked at all our compressor sites. Emissions calculation is: Volume of gas x natural gas combustion factor.
	Energy consumption at our facilities	Gas consumption measured by volume. Volume of gas x natural gas combustion factor.
Scope 2	Line losses from our electricity transmission and distribution lines	**UK:** ESO calculate energy losses on the GB Transmission network by Transmission Owner. This is multiplied by the DEFRA/BEIS published carbon intensity of electricity factor. kWh x electricity carbon intensity factor (gCO_2e / kWh) **US:** Energy losses on the US Transmission and Distribution networks multiplied by the published EPA e-Grid factors for the relevant region. Electricity losses kWh x eGRID/2204.62 (conversion from lbs to grams)
	Use of electric drive compressors in our gas business	Electricity consumption multiplied by DEFRA/BEIS carbon conversion factor for electricity intensity.
	Energy consumption at our facilities	Electricity consumption multiplied by DEFRA/BEIS and EPA carbon intensity of electricity factors.

National Grid RBR Data Tables continued

1. Environment continued

1.2 – Scope 3 greenhouse gas emissions

Our Scope 3 emissions are calculated and reported in line with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (Revised)[6], the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard[5] and the Technical Guidance for Calculating Scope 3 Emissions: Supplement to the Corporate Value Chain (Scope 3) Accounting and Reporting Standard[6].

1.2.1 – Metric

The scope 3 emissions categories we report are:

- Cat. 1 (Purchased Goods and Services) emissions ($ktCO_2e$)
- Cat. 3 (Fuel & Energy Related Activities) 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 ($ktCO_2e$)
- National Grid total scope 3 emissions ($ktCO_2e$)

1.2.2 – Definitions

Scope 3 emissions are defined as those which are not directly from our operations or activities but occur within our value chain which we can have influence over. We report Scope 3 emissions across six categories as defined by the GHG Protocol (see Table 3 right).

1.2.3 – Scope

National Grid apply the operational control principal to determine operations that are in scope for emissions and environmental reporting. See section 3.1.3 for further detail. For the purposes of reporting on our Scope 3 emissions, NGV operations are reported within our UK figures and US figures.

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

Scope 3 emissions from Cat. 1, 3 and 11 made up >99% of our total scope 3 emissions in 2020/21 and are therefore included within scope for external assurance. Cat. 5, 6 and 7 are currently excluded from external assurance as these do not contribute materially to our total Scope 3 emissions.

UK emissions are reported in line with the financial year (1 April to 31 March) and US emissions are reported in line with the calendar year (1 January to 31 December). This reflects the regulatory reporting requirements and processes for the US.

The only exceptions, relevant to Scope 3 emissions reporting, are with Cat.1 (Purchased Goods and Services) and the air travel element of Cat.6 (Business Travel) which are reporting on a financial year basis for the US.

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

Scope 3 emission category	Scope – emissions sources	Scope – Business included
Cat. 1 (Purchased Goods and Services)	Includes all products and services purchased by National Grid Procurement, from stationary to construction products.	UK, US
Cat. 3 (Fuel & Energy Related Activities)	Includes any emissions associated with the generation of electricity purchased and sold by National Grid to customers. This is calculated from metered supply and regional carbon factors.	US
Cat. 5 (Waste Generated in Operations)	Includes all waste generated from our operations including office waste, operational waste and construction waste.	UK, US
Cat. 6 (Business 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 and electricity sold by National Grid to its customers.	US

[5] https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf
[6] https://ghgprotocol.org/sites/default/files/standards/Scope3_Calculation_Guidance_0.pdf

National Grid RBR Data Tables continued

1. Environment continued

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 Scope 3 emissions by category

Scope 3 emission category	Calculation methodology
Cat. 1 (Purchased Goods and Services)	We apply the spend-based method for estimating CO_2e for all products and services purchased by National Grid, based on UK government emission factors provided in the UK Government Environmental Reporting Guidelines – Annex E. The formula applied is: Spend (£) X Supply chain emission factor for product category. Our Group spend figures are sourced from the UK and US procurement teams and numbers are exclusive of sales tax. As specified by the Guidelines (Annex E), sales taxes must be included in the cost of purchased goods before the emission factor is applied. As sales tax is 20% (VAT) in the UK for the majority of our purchased goods and services, to ensure we account for this and take a conservative approach, we have applied a 20% uplift to our net purchased costs across our UK data. For US data, we have assumed net $ spend is equivalent to net £ spend and therefore applied a consistent 20% uplift to determine an appropriate base for align the conversion factors as per the Guidance above. Our baseline and reported comparative Scope 3 Cat.1 emissions have also been adjusted to include 20% sales tax.
Cat. 3 (Fuel & Energy Related Activities)	Calculated based on sold electricity from the metered supply (actual data) and the regional carbon grid factors (from EPA). Emissions from electricity generation are calculated using the formula: Electricity generated (kWh) X eGRID/2204.62 (conversion from lbs to grams) X Global Warming Potential (GWP); equation from EPA eGRID.
Cat. 5 (Waste Generated in Operations)	Calculated from quantity of waste types generated, data from our waste collection service providers on the disposal method and DEFRA/BIES or EPA waste conversion factors. The formula applied is: Waste disposed of (quantity) X Emission factor ($kgCO_2e$/quantity).
Cat. 6 (Business Travel)	Calculated by: Distance travelled on business (miles) X Emission factor. Carbon emissions factors used are UK industry standard factors from DEFRA/BEIS or EPA industry standard factors for US air travel and are specific for each type of transport.
Cat. 7 (Employee Commuting)	Estimated from UK employee commuting survey data which is extrapolated to represent the entire National Grid business using the Global FTE employee count at financial year end (31 March). Emissions are calculated by: Distance travelled to work (miles) X Emission factor (dependent upon travel method). Emission factors are from DEFRA/BIES, specific for each type of transport.
Cat. 11 (Use of Sold Products) Sold gas	Calculated based on sold gas (actual data). Emissions from gas sold are calculated using the following formula: Methane Correction Factor (MCF) X Higher Heating Value (HHV) x Emission Factor (EF); equation from EPA 40 CFR Part 98 Subpart NN-1.

Total Scope 3 emissions are a sum of Cat. 1, 3, 5, 6, 7 and 11 totals.

1.3 – SF_6 emissions

Sulphur hexafluoride ("SF_6") is a highly regulated gas in both the UK and US. In the UK, we are required to monitor and report our SF_6 emissions to our regulator OFGEM on an annual basis. In the US, we are required to monitor SF_6 for the Environmental Protection Agency and report should they exceed a defined threshold. In selected states, we are also required to report SF_6 emissions to the state authority. Our SF_6 reporting is carried out in line with the monitoring approaches and methodologies approved by our regulators.

1.3.1 – Metric

Total SF_6 emissions (in CO_2e) from our operations.

1.3.2 – Definitions

SF_6 is a powerful greenhouse gas with a global warming potential of 22,800[7] times that of CO_2. The biggest use of SF_6 in our operations is as an insulating gas in our high-voltage switch gear and as a current breaking medium. During operation, very small volumes of SF_6 can leak from equipment.

1.3.3 – Scope

All National Grid's businesses are included in the reporting of this metric (UK, US and NGV operations), see section 3.1.3 for exceptions to this. The UK Gas Transmission business has no SF_6 emissions as SF_6 is only kept in hermetically sealed units.

UK emissions are reported in line with the financial year (1 April to 31 March) and US emissions are reported in line with the calendar year (1 January to 31 December). This reflects the regulatory reporting requirements and processes for the US.

As NGV is a multi-territorial business, reporting periods are decided by geography, not by organisational structure.

1.3.4 – Calculation methodology

Annual SF_6 emissions data is added together from our business units to get the Group level total (in tonnes of SF_6). This is converted to tCO_2e using the IPCC AR4 GWP factor: 1kg SF_6 = 22,800kg CO_2e.

For NGET and the IFA 1 site, SF_6 readings are taken from the gas flow meters and the top-up masses recorded on to our systems. Top-ups over the 12-month reporting period are summed to get the annual SF_6 emissions for the UK and IFA 1 site.

For the US, SF_6 emissions are calculated using a mass balance approach. The following formula is applied: SF_6 emissions = (Change in SF_6 inventory[1]) + (Purchases/acquisitions of SF_6[2]) – (Sales/disbursements of SF_6[3]) – (Change in Nameplate capacity[4]).

1 Cylinder inventories are carried out on sites (each is weighed to calculate the mass of SF_6 in storage).

2&3 Our SF_6 supplier provides an annual report on the mass of SF_6 delivered to and returned from our sites.

4 Our inventory of all sub-station equipment exists on our CASCADE system. Equipment that has been newly installed/retired can be found here and the related SF_6 data handled appropriately. Note: an industry standard value of 5 psi is assumed as the pre-charge amount of SF_6 for new equipment supplied pre-charge.

Appropriate action is taken to ensure the calculated figures represent SF_6 leakage only. For example, if SF_6 is added to fill a new piece of equipment, this will appear in our SF_6 inventories but will not be included within calculations for SF_6 lost.

7 The Intergovernmental Panel on Climate Change (IPCC) 4th Annual Report (AR4) GWP for SF_6 is 22,800. IPCC have published subsequent versions, but for 2021/22 we have elected to use AR4 GWPs.

National Grid RBR Data Tables continued

1. Environment continued

1.4 – Total electricity consumption – Group

1.4.1 – Metric
Total electricity consumption of the group.

1.4.2 – Definitions
Electricity consumed is the amount of electricity used by National Grid. It is reported in gigawatt hours (GWh).

1.4.3 – Scope
Includes purchased electricity used on our sites.

UK electricity consumed is reported in line with the financial year (1 April to 31 March) and US electricity consumed in line with the calendar year (1 January to 31 December). This reflects the regulatory reporting requirements and processes for the US.

As NGV is a multi-territorial business, reporting periods are decided by geography, and not by organisational structure.

1.4.4 – Calculation methodology
Total electricity consumption is summed across all sites, this includes any site based self-generated renewable energy.

A number of metering data issues have been self-identified in US properties. For these locations, Commercial Buildings Energy Consumption Survey (CBECS) estimates provided by the EIA were used based on building type and size by zone.

Note: Work has commenced on correcting these issues so that we will have more accurate and reliable consumption data in the next financial year.

1.5 – Total operational consumption – Group

1.5.1 – Metric
Total operational consumption of the group.

1.5.2 – Definitions
Operational consumption includes electricity and fuel used at our operational sites (for example, for line heaters, stand-by generators, compressor units) For our power generation sites in the US, fuel burnt to generate electricity is not included, unless the energy is used by National Grid.

1.5.3 – Scope
UK is reported in line with the financial year (1 April to 31 March) and US in line with the calendar year (1 January to 31 December). This reflects the regulatory reporting requirements and processes for the US.

1.5.4 – Calculation methodology
Total operational consumption is summed across all sites.

1.6 – Total heating consumption – Group

1.6.1 – Metric
Total heating consumption of the group.

1.6.2 – Definitions
Heating consumption includes purchased heat (natural gas) used on our sites.

1.6.3 – Scope
UK is reported in line with the financial year (1 April to 31 March) and US in line with the calendar year (1 January to 31 December). This reflects the regulatory reporting requirements and processes for the US.

As NGV is a multi-territorial business, reporting periods are decided by geography, and not by organisational structure.

1.6.4 – Calculation methodology
Total heating consumption is summed across all sites.

1.7 – Total transport consumption – Group

1.7.1 – Metric
Total transport consumption of the group.

1.7.2 – Definitions
Transport consumption Includes fuel and electricity used within our ground and aviation vehicle fleet and company owned plane.

1.7.3 – Scope
UK is reported in line with the financial year (1 April to 31 March) and US in line with the calendar year (1 January to 31 December). This reflects the regulatory reporting requirements and processes for the US.

1.7.4 – Calculation methodology
Total transport consumption is summed for all ground and aviation fleet vehicles and the company owned plane.

1.8 – Total fuel consumption from non-renewable sources – Group

1.8.1 – Metric
Total fuel consumption of the group from non-renewable sources.

1.8.2 – Definitions
Fuel consumption from non-renewable sources includes electricity, heating, operational and transport sections, minus the electricity from renewable sources, per section 1.18.

1.8.3 – Scope
This metric does not include transport consumption.

UK is reported in line with the financial year (1 April to 31 March) and US in line with the calendar year (1 January to 31 December). This reflects the regulatory reporting requirements and processes for the US.

1.8.4 – Calculation methodology
Total fuel consumption is summed for all sites less electricity from renewable sources.

1.9 – Total fuel consumption from renewable sources – Group

1.9.1 – Metric
Total fuel consumption of the group from renewable sources.

1.9.2 – Definitions
Fuel consumption from renewable sources includes renewable electricity purchased at some of our US sites and a small amount of self-generated solar electricity on UK sites.

1.9.3 – Scope
UK sites are reported in line with the financial year (1 April to 31 March) and US in line with the calendar year (1 January to 31 December). This reflects the regulatory reporting requirements and processes for the US.

1.9.4 – Calculation methodology
Total fuel consumption is summed for all sites with electricity from renewable sources. For the US total electricity consumed from our property sites (kWh) with a state specific renewable in their generation portfolio factor is applied, to calculate the % percent that renewable generation makes up of our consumption figures.

National Grid RBR Data Tables continued

1. Environment continued

1.10 – Total energy consumed – US generation

1.10.1 – Metric
Total energy consumption for US generation.

1.10.2 – Definitions
Energy consumed is the net fuel energy. This is the total fuel energy used by the gas generation plant minus the fuel for generating self-supply electricity (i.e. the fuel energy used by the generation plant to produce the electricity that was exported to LIPA)

Net generation or is equal to gross electricity generation minus the consumption of power stations' auxiliary services. Therefore, net fuel energy is the fuel energy used by the generation plant minus the fuel energy used to generate the electricity that is needed to power the plant auxiliary services.

1.10.3 – Scope
Reported in line with the calendar year (1 January to 31 December). This reflects the regulatory reporting requirements and processes for the US.

1.10.4 – Calculation methodology
US Generation energy consumed equals the fuel energy used by the gas generation plant minus the self-supply electricity for the plant auxiliary services (Electricity used at US gas generation plant for pumps etc. that is self-generated i.e. Gross Electricity that is generated minus Net Electricity that is sold to LIPA).

1.11 – GHG emissions and total air miles from air travel

1.11.1 – Metric
Total air miles travelled on an annual basis by National Grid employees and the associated CO_2e emissions.

1.11.2 – Definitions
Air miles refer to the distance travelled via aeroplane by National Grid employees for business activities only.

Emissions as outlined in section 1.12.

1.11.3 – Scope
Includes air miles travelled by the National Grid workforce across all parts of the business (see section 1.12.3). In scope, are air miles from our company owned plane, as well as from third party airlines.

The air miles travelled on third party planes are captured through our UK and US third party travel providers (Capita and TLC respectively). It is National Grid policy that all employees must book business trips (long haul and short haul) through our travel providers.

Air miles associated with trips booked through our travel providers are counted in this metric, as of the start date of the trip. This is regardless of invoice date and whether a later return flight has been booked. For example, if the return flight was outside of the current financial year, it would still be included as part of the whole trip provided the trip start date was inside of the current financial year.

All emissions and miles travelled on third party planes are reported in line with the financial year (1 April to 31 March). Emissions and miles from National Grid's own plane are reported in line with the calendar year (1 January to 31 December).

Air miles travelled by contractors are not included.

1.11.4 – Calculation methodology
Air miles recorded by both our UK and US travel providers are combined (along with the miles from our company owned plane) to represent National Grid's Group total annual air miles.

For our company owned plane, the air miles are obtained internally from the aircraft pilot. Flight logs show flight time and average air speed from which mileage is calculated.

Although our target is measured in air miles, not the associated carbon emissions, we also convert and report our air miles data in TCO_2e. To complete the calculation CO_2e, the BIES/DEFRA (UK industry standard factors[8]) and EPA (US industry standard factors[9]) carbon conversion factors are applied as per Table 4. The factors change depending on the length of the flights taken (domestic, short, medium and long haul), as well as the type of seat booked (economy, business and 1st class).

1.12 – Air quality – Emissions from stationary sources (NOx, SOx and PM) emissions

National Grid is required to monitor and report air emissions to regulatory bodies in both the UK (OFGEM) and US (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 our regulators.

1.12.1 – Metric
Air emissions from stationary sources (Nitrogen Oxide – NOx, Sulphur Oxide – SOx and Particulate Matter – PM). The data we report is:

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

1.12.2 – Definitions
NOx, SOx and PM are air polluting gases released from combustion processes.

Stationary sources of NOx, SOx and PM include gas compressors in the UK, and the burning of natural gas and fuel oil to generate electricity, and submerged combustion vaporizers (SCV).

1.12.3 – Scope
NOx, SOx and PM emissions from all UK sites are included. For the US, only sites required to report NOx and SOx emissions to the EPA are included within these figures, representing 59 out of National Grid's total 64 US emissions units. The five units that are excluded comprise >3% of total US NOx and SOx emissions. All 64 emissions units are included in US PM reporting.

[8] BEIS: https://naei.beis.gov.uk/data/emission-factors,
DEFRA: https://www.gov.uk/guidance/measuring-and-reporting-environmental-impacts-guidance-for-businesses
[9] EPA: GHG Emission Factors Hub (April 2021) (epa.gov)

National Grid RBR Data Tables continued

1. Environment continued

Our Isle of Grain LNG business is included and only NOx emissions from this site are reported. NOx emissions from the Isle of Grain LNG site are included for Phase 1 (emissions from four submerged combustion vaporisers (SCVs), Phase 2 and 3 (emissions from another six and four SCVs respectively). SOx and PM emissions are not monitored at our LNG Grain site 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 back-up 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 thought 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.

Air emissions for all of our business units are reported on a calendar year basis, 1 January – 31 December.

1.12.4 – 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 5 right for further information on how air emissions are calculated in each of our businesses.

Table 5: Calculation methodology for NOx, SOx and PM reporting across the Group

	UK Transmission and Distribution	US Transmission and Distribution	Isle of Grain LNG
NOx	Calculated via a Predictive Emissions Monitoring System (PEMS). Combustion is monitored via automated systems on all gas turbines 24/7. Data (including exhaust temperature, fuel flow, turbine compressor delivery temperature and calculated flame temperature) is fed into our Alert/CHC system every 10s which applies an Environment Agency approved algorithm to the combustion data to calculate the NOx emissions for each unit. The system is calibrated via an extractive exhaust gas emission test every 2-6 years as required by our Environment Permits.	Some units have Continuous Emissions Monitoring ("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 x 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 LNG Grain Phase 1, an average NOx emission rate is calculated via a timed spot sample to measure the kg NOx per tonnes 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, a CEMS is used. NOx is monitored via a probe and data recorded in our Process History Database (PHD). NOx is calculated by: CEMS hourly mean for each vaporiser (kg/hr of NOx) X number of operational hours.
SOx	Calculated by: Amount of gas burnt (m3) X SOx emission factor Amount of gas burnt (m3) is calculated by the continuous monitoring of gas flow for combustion from fuel gas metering units. Data is logged automatically on our Alert/CHC. Emissions factor is 0.0000078kg of SO_2 per kg of fuel burnt. This is calculated using the sulphur content of natural gas as specified by the UK Gas Safety Management Regulations (GSMR) and is representative of a 'worst case' scenario.	Calculated by: SOx = oil consumption X emission factor for SOx emissions from oil or SOx = gas consumption X emission factor for SOx emissions rom 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	Calculated by: Exhaust gas volume (m3) X PM10 emission factor. Exhaust gas volume is calculated by: Amount of gas burnt (m3) + Air required for combustion (m3). The amount of gas burnt is calculated in the same way as for SOx (see above). The air required is calculated using a 30:1 ratio, amount of gas burnt to air required for combustion; which is industry best practice. The emission factor for PM10 is provided by our equipment manufacturer and is calculated as 1 ug/m3 stack gas. This was the limit of detection and therefore is a conservative approach.	Particulate emissions from each stack is 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.	N/A

National Grid RBR Data Tables continued

1. Environment continued

1.13 – Electric vehicle fleet (light-duty)

1.13.1 – Metric
Percent of National Grid's light-duty vehicle fleet that are electric vehicles ("EVs")

1.13.2 – Definitions
Light-duty vehicles 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

Electric Vehicles are powered 100% by electricity and produce zero carbon emissions.

1.13.3 – Scope
All vehicles owned by National Grid are included in this metric, although it is noted that the NGV business does not own any vehicles

Employees' company cars and vehicles heavier than the defined light-duty vehicles are excluded.

The electric vehicle % of our light-duty vehicle fleet is reported as at the financial year end date, 31 March.

1.13.4 – Calculation methodology
The total light-duty fleet ("LDF") size and the number that are EVs is continuously tracked in our fleet management systems.

To calculate the percentage of the LDF that are EVs, the total fleet size and the total number of EVs in the UK and US are separately aggregated. The percentage that are EVs is then calculated as: (total number of EV LDVs / Total number of LDVs) × 100

1.14 – Total office waste

1.14.1 – Metric
Office waste generated and disposed of from core US and UK offices

1.14.2 – Definitions
Core offices are the primary locations where our office-based support services employees are based. This does not include site offices or locations where National Grid does not directly manage waste disposal.

Waste is any substance or object which the holder discards or intends or is required to discard.

1.14.3 – Scope
Only waste generated and disposed of from core offices are included in this metric.

Core offices occupied by our UK and US personnel are included.

Data is continuously monitored via internal waste reporting systems or through regular reporting by service providers where National Grid employ the services of third parties to manage office waste disposal.

Data from UK based offices are reported in line with the financial year, 1 April to 31 March. US office data is reported in line with the calendar year, 1 January to 31 December.

1.14.4 – Calculation methodology
Total waste for the respective US and UK reporting periods are combined to calculate the total office waste for the Group.

1.15 – Percent office waste diverted from landfill

1.15.1 – Metric
Percent of office waste that is not sent to landfill.

1.15.2 – Definitions
Office waste is as defined and reported separately. See metric 1.14

1.15.3 – Scope
Only waste generated and disposed of from core offices is included in this metric.

Core offices occupied by our UK and US personnel is included.

Data is continuously monitored via internal waste reporting systems or through regular reporting by service providers where National Grid employ the services of third parties to manage office waste disposal.

Data from UK based offices are reported in line with the financial year, 1 April to 31 March. US office data is reported in line with the calendar year, 1 January to 31 December.

1.15.4 – Calculation methodology
Total Group data is aggregated by disposal process to identify the total volume of waste that is not sent to landfill upon disposal.

The percent of office waste not sent to landfill is calculated as: (Total Group office waste not sent to landfill / Total office waste) × 100.

1.16 – Total energy consumption

1.16.1 – Metric
Total energy consumption, including a breakdown by renewable and non-renewable energy consumed as well as by electricity, heating, operational and transportation energy.

1.16.2 – Definitions
Energy consumed is the amount of electricity, natural gas and other fuels used by National Grid in support of its own requirements. It is reported in gigawatt hours (GWh).

1.16.3 – Scope
As well as reporting total energy consumption as a consolidated figure, the following breakdown is also reported:

- Renewable fuel consumed
- Non-renewable fuel consumed
- Electricity consumed
- Heating consumed
- Operational energy consumed
- Transportation energy and fuel consumed

System energy losses (line losses) are not included within our total energy consumption figure as they are not considered 'energy used' by National Grid. However, these will be disclosed separately for transparency. Total fuel consumption in electricity generation is also reported as a separate line item for transparency.

National Grid RBR Data Tables continued

1. Environment continued

Table 6 below presents the scope of each energy consumption category.

For information that is not available, particularly in the US (for example, National Grid gas data in an unbilled building where we do not have meter-specific information that would turn meter reads into an amount of gas), we used CBECS estimates provided by the EIA based on building type, property zone and square footage. A project has commenced in the US to extract more accurate meter readings in future periods.

UK energy use is reported in line with the financial year (1 April to 31 March) and US energy use is reported in line with the calendar year (1 January to 31 December). This reflects the regulatory reporting requirements and processes for the US and aligns energy consumed reporting with emissions reporting in other metrics.

1.16.4 – Calculation methodology
To calculate total energy consumption, each of the energy consumption categories is calculated by summing all data sources described in Table 6 below, as well as the estimates where accurate data is not available. Some unit conversions are required (for example, litres of diesel to GWh) and these are carried out using industry standard conversion factors.

Table 6: Scope of total energy consumption metric

Energy consumption	Scope
Renewable energy	Includes purchased renewable electricity and self-generated renewable electricity used at our facilities.
Non-renewable energy	Includes all of the items mentioned below (in electricity, heating, operational and transport sections), minus the electricity from renewable sources mentioned above.
Electricity	Includes purchased electricity used on our sites.
Heating	Includes energy consumed from all fuels used for heat on our sites.
Operational energy	Includes energy consumed at our operational sites not due to electricity or heating needs (for example, for line heaters, stand-by generators, compressor units).
Transportation energy	Includes fuel and electricity used within our vehicle fleet and company owned plane.
Total energy consumed	Includes all of the above elements. Excludes system losses (below) and total fuel consumption at electricity generation facilities.
System energy loses (line losses)	Energy lost in electricity and gas transmission.
Power Generation	Fuel consumption gas-powered electricity generation plant.

1.17 – Office energy consumption

1.17.1 – Metric
Total energy consumed at our UK and US core offices.

1.17.2 – Definitions
Core Offices those being managed by National Grid's Workplace Experience and Property Services teams in the UK and US respectively. These are offices where National Grid are directly liable for energy costs.

Energy refers to all imported electricity or heat and all solid, liquid and gaseous fuels consumed across the core offices.

1.17.3 – Scope
Properties which are primarily operational in function are excluded from this metric, as well as any non-core offices.

UK data is reported in line with the financial year, 1 April to 31 March. US data is reported in line with the calendar year, 1 January to 31 December.

1.17.4 – Calculation methodology
The data for the UK and US is consolidated from meter readings and invoices where possible. The total energy consumption for the entire Group's core offices is aggregated at the year-end for the purpose of reporting.

Note: This year, we have re-baselined the "core" US offices to better align with the historic UK approach.

1.18 – Percent Renewable energy purchased

1.18.1 – Metric
Percent of electricity supplied from renewable tariffs.

1.18.2 – Definitions
Renewable tariffs are electricity contracts that will supply 100% electricity to National Grid from non-fossil fuels.

Electricity supplied is the total in scope electricity supply contracts, measured in kWh.

1.18.3 – Scope
Electricity generated from biomass is considered renewable, but not electricity produced using Carbon Capture and Storage (CCS).

The metric includes electricity contracts that National Grid procure directly and where competitive supply markets exist. Electricity contracts supplied by National Grid's landlords are excluded.

The percentage of electricity supplied from renewable tariffs is reported as at the financial year end date, 31 March, for UK operations and as at the calendar year end date, 31 December, for US operations.

1.18.4 – Calculation methodology
The total in scope electricity supply contracts and the total in scope renewable supply contracts are aggregated by the UK and US according to their respective year end dates. The US and UK totals are then combined for Group totals.

The % of electricity supplied from renewable tariffs is then calculated as: (Total electricity supplied from renewable tariffs / Total electricity supplied) × 100.

National Grid RBR Data Tables continued

1. Environment continued

1.19 – Renewable energy connected to US and UK transmission and distribution grids

1.19.1 – Metric
Megawatts (MW) of renewables connected to the US and UK transmission and distribution grids over the course of the year.

1.19.2 – Definitions
US and UK transmission and distribution grids refer to the electricity transmission (ET) networks located in the UK and US plus the electricity distribution (ED) networks in the US.

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

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

Connections are counted from the 'in-service' date; when National Grid physically provides back-feed service to the facility. The first point with the project is interconnected.

UK data is reported in line with the financial year, 1 April to 31 March. US data is reported in line with the calendar year, 1 January to 31 December.

1.19.4 – Calculation methodology
The data is collected and monitored continuously in the course of operations. The total annual connections for each network are aggregated at the year-end for the purpose of reporting.

1.20 – Interconnector capacity

1.20.1 – Metric
The capacity of our UK interconnectors to Europe

1.20.2 – Definitions
Capacity is the intended maximum, full-load 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.

1.20.3 – Scope
All UK to Europe interconnectors in operation are in the metric and those under construction are excluded until they become operational.

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

1.20.4 – Calculation methodology
The 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.

1.21 – Renewables enabled by direct investment via National Grid Renewables

1.21.1 – Metric
Megawatts (MW) new renewables in commercial operation and under construction within the onshore renewables portfolio.

1.21.2 – Definitions
Onshore renewables refers to the National Grid Renewables business acquired by National Grid in June 2019.

The onshore renewables portfolio is the projects included within the Emerald joint venture which National Grid has 51% ownership of.

1.21.3 – Scope
Data represents total MW of renewable energy within the onshore renewables portfolio – either in commercial operation or currently under construction.

The reported metric includes all projects and their associated MW which have obtained Notice to Proceed (NTP) and are retained within the onshore renewables JV portfolio.

The metric excludes any MW developed and sold to third parties.

Renewables enabled by direct investment is reported as at the financial year end date, 31 March.

The data is continually measured and tracked by the onshore renewables team who formally report the data to National Grid on a quarterly basis. However, performance is monitored more frequently in the course of day-to-day operations.

1.21.4 – Calculation methodology
Total direct investment in renewable energy (MW), including both commercial operations and projects under construction in the reporting period.

1.22 – Global combined scope 1 and 2 emissions per million £ revenue

1.22.1 – Metric
Total global scope 1 & 2 emissions in tCO_2e per million £ of revenue.

1.22.2 – Definitions
As defined in 1.1 – Scope 1 emissions (tCO_2e) + Scope 2 Location-based emissions (tCO_2e).

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 (including electricity system losses consumption) by National Grid.

Revenue is the group revenue figure reported in the Annual Reports and Accounts (ARA).

1.22.3 – Scope
Includes Scope 1 & Scope 2 location-based emission figures as reported in 1.1.

1.22.4 – Calculation methodology
Scope 1 emissions (tCO_2e) + Scope 2 Location-based emissions (tCO_2e) reported in metric 1.1 / £millions Revenue.

1.23 – Carbon intensity of our generation

1.23.1 – Metric
The Scope 1 emissions in tCO_2e associated with the gross energy generated by our US generation businesses [gas and oil powered electricity generation plant (GenCo) and National Grid Renewables solar and wind generation sites (NG Renewables)] in gigawatt hours (GWh).

1.23.2 – Definitions
Scope 1 emissions are as defined in 1.1.

Energy refers to the GWh of generated gross electricity.

National Grid RBR Data Tables continued

1. Environment continued

Gross electricity generation includes the consumption by power stations' auxiliary services

1.23.3 – Scope
Includes US generation businesses (GenCo plant and NG Renewables). The gross energy generation from the four energy sources: oil, gas (GenCo), wind and solar (NG renewables). NG Renewables generation are assumed to be zero carbon emissions.

All of National Grid generation operations are in the US and US data is reported in line with the calendar year, 1 January to 31 December.

1.23.4 – Calculation methodology
The Scope 1 emissions from the US generation business (NG Renewables generating plant is zero emissions) as the numerator, and the GWh of gross electricity from our US generation businesses (sum of GenCo and NG Renewables) as the denominator, to calculate the tCO_2e/GWh, using the relevant emission conversion factors.

1.24 – Total water abstracted i.e withdrawal (and consumed)

1.24.1 – Metric
Water withdrawal at National Grid sites.

1.24.2 – Definitions
Water withdrawal, as aligned to the GRI standard, 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 reporting period, in the UK and US. It is reported in Mm3.

1.24.3 – Scope
UK: UK contracted utility water and water abstraction for Electricity Transmission Cable Cooling

US: US water withdrawals include municipal utility water, well extraction water and once-through seawater cooling water.

1.24.4 – Calculation methodology
UK: On an annual basis, the total water (m3) will be collected from the following data sources (to be converted to Mm3):

- Third Party Water for facilities – from utility billing
- Water abstraction for cable cooling (annual, total m3) as calculated by the Electricity Transmission business using pump meter run hours.

And the calculation of Water withdrawal = third party water + Water abstraction for cable cooling. This is then converted to Mcm

US: For one-through cooling water, variable drive motor frequency is recorded once each minute within the Pi Generation Data Management System. The frequency is converted to an associated flow rate within the Pi system. Each generation facility generates a monthly report which then provides the daily minimum, maximum and average flow rate in gallons per minute. Total daily flow (in gallons) is found as: Daily Total = Daily Ave × 60 × 24. Monthly Total Flow is the monthly summation of the associated daily flow total. Annual Total Flow is the summation of the associated monthly flow total.

1.25 – Total water discharged

1.25.1 – Metric
Water discharge at National Grid sites.

1.25.2 – Definitions
Water discharge, as aligned to the GRI standard, 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 reporting period, in the UK and US. It is reported in Mm3.

1.25.3 – Scope
UK: UK water discharge includes third party water (SMS utility invoice), and Electricity Transmission cable cooling volumes only. As there is no metering of utility discharge volumes it is assumed that all utility water discharge is equal to utility water withdrawal. UK cable cooling is a closed system, and it is assumed that a dynamic equilibrium is reached where the rate of evaporation equals the rate of condensation, subsequently there is no water consumption and water withdrawal is equal to water discharge.

US: US water discharges include utility water, plant makeup water and once-through seawater cooling.

1.25.4 – Calculation methodology
As there is no metering of utility discharge volumes it is assumed that all utility water discharge is equal to utility water withdrawal. Utility water withdrawal is metered, and the metered volumes are incorporated within the invoicing process.

UK National Grid uses meter readings for cable cooling abstraction/withdrawal and water withdrawal is equal to water discharge

Total UK discharge = Utility discharge + Cable cooling discharge.

For the US, due to ongoing metering data issues, a historic approach has been taken using an average of historic bills within a reliable range.

1.26 – Number of hectares of land we have remediated

1.26.1 – Metric
Hectares of land we have remediated to an acceptable risk level or to the satisfaction of a regulatory agency over the course of the year.

1.26.2 – Definitions
Land remediated is the area which has been remediated to a level acceptable to the governing regulatory agency for site closure. This remediation focuses on the reduction of risk associated with contaminants in the environment to acceptable level.

Legacy land impacts are a result of past contaminative uses of land owned by National Grid.

1.26.3 – Scope
The total land area of any site affected subject to remediation activities will be reported as the remediated area.

Land remediation required for small spills during our ongoing activities is excluded from our reporting. Remediation of legacy land impacts only are included in our reporting.

Only the UK and US principal businesses contribute towards this metric. NGV do not undertake land remediation.

UK data is reported in line with the financial year, 1 April to 31 March. US data is reported in line with the calendar year, 1 January to 31 December.

1.27.4 – Calculation methodology

The total areas of land for the year for the UK and US are aggregated in hectares. The UK and US totals for the financial and calendar years respectively are then aggregated to calculate the total areas of land remediated across the Group.

National Grid RBR Data Tables continued

2. People

2.1 – Diversity of the workforce, senior leadership group and hires in new talent programmes

2.1.1 – Metric

Percentage of diverse employees within our total workforce, senior leadership group and 'new talent hires'. The data we report is:

- Percentage of diverse employees in our total workforce
- Percentage of diverse employees in our senior leadership group
- Percentage of diverse employees in our new talent hires

2.1.2 – Definitions

Diverse employees are defined as females or those that identify themselves as being of a certain sexual orientation, having a disability or being part of an ethnic minority group. If an employee has identified themselves as female and as part of another diverse group, they will only be counted once in the calculation.

All our gender 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%. All other diversity data relies on employee self-disclosure within our HR system. At the time of preparing this document, around 93-94% of employees have declared ethnicity which poses a very good representation of the company.

Table 7, right, shows the groups that are defined as 'diverse' and 'non-diverse' in our UK and US businesses.

Table 7: National Grid diverse and non-diverse employees in the UK and US for our diversity of the workforce, senior leadership and new talent reporting

Gender (UK and US)	
Male	Non-diverse
Female	Diverse
Sexual Orientation (UK and US)	
Heterosexual	Non-diverse
Gay	Diverse
Bisexual	Diverse
Lesbian	Diverse
I prefer to use my own term	n/a
Prefer not to say	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		
Mobility	Diverse		
Visual	Diverse		
Musculoskeletal	Diverse		
Other 'neurodiverse'	Diverse		
Speech	Diverse		
Other	Diverse		
More than one	Diverse		
No disability	Non-diverse		
Prefer not to say	n/a		

Ethnicity (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		
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		

National Grid RBR Data Tables continued

2. People continued

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

Senior leadership group refers to the number of employees outlined above who have been identified as our key senior leaders following our Operating Model re-design in April 2021. The senior leadership group are defined in our Human Resources (HR) System, MyHub as senior leaders and this is flagged in the system. These represent the senior / top levels of management, Directors and Executives.

Note: As the Senior Leadership group definition in FY22 was based on the April 2021 Operating Model re-design, the prior year FY21 figure is based on a different scope. Therefore, the current and prior year figures have been calculated using different methodologies. For transparency, we have provided the FY21 definition of the Senior Leadership Group below:

- Senior leadership group FY21: Employees included in our total workforce (defined above) who are in the following paygrades: EXEC, A+, A, B and B+. These paygrades represent the senior and top levels of management including Directors and Executives.

New talent hires refer to employees included in our total workforce (defined above) that have been onboarded to National Grid as part of a graduate schemes or training program. These are distinguished by the 'Grad' and 'Trainee' paygrades in the UK and 'Graduate Development Employees' in the US.

2.1.3 – Scope
Includes the total National Grid workforce across all parts of the business.

Diverse employees are all those that have self-declared their diversity status. Individuals who have chosen not to declare their diversity status have been treated as non-diverse in for the calculations.

Diversity metrics are measured on a rolling 12-month period. 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 – 31 March).

2.1.4 – Calculation methodology
Data is extracted from the HR management system and the following calculations are performed on the dataset to calculate this metric:

- Percentage of diversity in workforce = (diverse individuals in workforce) / (employees in workforce)
- Percentage of diversity in senior leadership = (diverse individuals in senior leadership) / (employees in senior leadership)
- Percentage of diversity in new talent hires = (diverse individuals in new talent hires in rolling 12 month period) / (new talent hires in rolling 12 month period)

2.2 – Gender and ethnicity % of joiners, promotions and leavers

2.2.1 – Metric
Percentage of female and ethnic minority employees within external hires, promotions and leavers. The data we report is:

- Percentage of female external hires
- Percentage of ethnic minority external hires
- Percentage of female promotions
- Percentage of ethnic minority promotions
- Percentage of female leavers
- Percentage of ethnic minority leavers

2.2.2 – Definitions
Female employees are those that have self-disclosed themselves as being so upon joining the company. All our gender 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%.

Ethnic minority employees are those that have identified themselves as being part of an ethnic minority group via voluntary self-disclosure within our HR system. As at the time of preparing this document, around 93-94% of employees have declared ethnicity so we would posit that this poses a very good representation of the company.

National Grid RBR Data Tables continued

2. People continued

The following groups presented in Table 8, below, are defined as 'diverse' and 'non-diverse' in our UK and US businesses:

Table 8: National Grid diverse and non-diverse employees in the UK and US for our diversity of recruitment, promotion and leavers reporting

Gender (UK and US)			
Male		Non-diverse	
Female		Diverse	
Ethnicity (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		

External hires are employees that have been recruited to National Grid from outside of the organisation. Those included have completed National Grid's on-boarding process and have been issued with a National Grid employee ID card. Not included are those who have been recruited to a role from inside the company (e.g. internal transfers), or new hires that have not completed the on-boarding process.

Promotions represent all internal employees who have been awarded a promotion (with or without pay change). Not included are movements not related to promotion including lateral moves, re-organisations and secondments.

Leavers refer to employees whose contract of employment at National Grid has been terminated for any reason (including resignation, retirement and non-voluntary reasons).

2.2.3 – Scope

Includes the total National Grid workforce across all parts of the business. In scope, are active permanent employees, including those on short/long term leave of absence, full-time and all union, schemes, graduates and interns. Out of scope are temporary employees, contingent workers, manage service providers and non-executive Board members.

Note: some employees may be counted under two or more parts of this metric (e.g. external hires and promotions if the employee joined National Grid and was awarded a promotion in the same year).

Diverse employees are all those that have self-declared their diversity status. Individuals who have chosen not to declare their diversity status have been excluded from the calculations.

Diversity metrics are measured on a rolling 12-month period and will be reported in the Responsible Business Report to represent the previous financial year (1 April – 31 March).

2.2.4 – Calculation methodology

Data is extracted from the HR management system and the following calculations are performed on the dataset to calculate this metric:

- Percentage of female external hires = (female hires in time period) / (total hires in time period)
- Percentage of ethnic minority external hires = (minority hires in time period) / (total hires in time period who have declared minority status)
- Percentage of female promotions = (female promotions in time period) / (total promotions in time period)
- Percentage of ethnic minority promotions = (minority promotions in time period) / (total promotions in time period who have declared minority status)
- Percentage of female leavers = (female leavers in time period) / (total leavers in time period)
- Percentage of ethnic minority leavers = (minority leavers in time period) / (total leavers in time period who have declared minority status)

National Grid RBR Data Tables continued

2. People continued

2.3 – Age of workforce in bands for current workforce, starters and leavers

2.3.1 – Metric
Workforce, starters and leavers split by age band.

2.3.2 – Definitions
Workforce refers to active, permanent employees (including those on short/long term leave of absence) as well as both full-time and part-time employees. All union, schemes, graduates and interns are included. Excluded are temporary employees, contingent workers, managed service providers, and non-executive Board members.

Starters are employees that have been recruited to National Grid from outside of the organisation. Not included are those who have been recruited to a role from inside the company (e.g., internal transfers). Only those employees who have completed the on boarding process are included.

Leavers refer to employees whose contract of employment at National Grid has been terminated for any reason (including resignation, retirement and non-voluntary reasons).

2.3.3 – Scope
In scope are active, permanent employees (including those on short/long term leave of absence) as well as both full-time and part-time employees. All union schemes, graduates and interns are included. Out of scope are temporary employees, contingent workers, manage service providers and non-executive Board members.

2.3.4 – Calculation methodology
Data is extracted from the HR system on the first calendar day of the reporting month:

- Rolling 12 months hires including date of birth
- Rolling 12 month leavers including date of birth

From these, we group the number of employees in total workforce, hires and attrition into age brackets, as follows: Under 20, 20 to 25, 25-30, 30-35, 35-40, 40-45, 45-50, 50-55, 55-60, 60-65, 65-70, over 70.

For reporting purposes, these brackets are then consolidated into the following buckets:

- Under 25
- 26 – 40
- 41 – 55
- Over 55

2.4 – % of colleagues completed unconscious bias training

2.4.1 – Metric
Percent of total workforce population who have taken part in our unconscious bias training.

2.4.2 – Definitions
Unconscious bias training is an online training course intended to build awareness of differences and understanding of the importance of diversity and necessity of achieving equity and inclusion.

2.4.3 – Scope
All employees who are permanently employed as at the reporting date are included in the metric.

The status of employees who have completed the training is continuously monitored through our HR management system.

The % of employees who have completed unconscious bias training in the past three years is reported as at the relevant financial year end date, 31 March.

2.4.4 – Calculation methodology
As at the year end, a report is run from our HR management system that shows our total number of active employees, and the total number of active employees to have completed the unconscious bias training course within three years of the reporting date.

The % of colleagues to have completed the unconscious bias training is calculated as: (total number of active employees to have completed the training in the three years since the reporting date / total number of active employees) × 100.

2.5 – Employee engagement score (from Grid:voice)

2.5.1 – Metric
Engagement index score, as measured by National Grid's annual Employee Engagement Survey, "Grid:voice".

2.5.2 – 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.

2.5.3 – 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.

2.5.4 – 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 5 years + or until retirement.

The engagement score is calculated as the % of favourable responses the questions identified. The score is calculated as: (total favourable responses / total responses) × 100.

National Grid RBR Data Tables continued

2. People continued

2.6 – 'Safe to say yes' index in Grid:voice

2.6.1 – Metric

'Safe to say yes' index score, as measured by National Grid's annual Employee Engagement Survey, "Grid:voice".

2.6.2 – Definitions

'Safe to say yes' index 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.

2.6.3 – Scope

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

2.6.4 – 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 yes' index is calculated as the % of favourable responses to the survey statement. The score is calculated as: (total favourable responses / total responses) × 100.

2.7 – Wellbeing index (employees)

2.7.1 – Metric

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

2.7.2 – Definitions

The Wellbeing index is a measure of how employees feel about their wellbeing, based on the average responses to the three statements 'I know who I can turn to at work for support and advice' 'National Grid supports me in achieving a reasonable balance between my work life and my personal life' and 'National Grid shows care and concern for its employees' 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.

2.7.3 – 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.

2.7.4 – Calculation methodology

Respondents answer each statement 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) x 100.

2.8 – Living wage paid (UK only)

2.8.1 – Metric

Compliance with the Real Living Wage.

2.8.2 – Definitions

The real Living Wage is a wage rate that is voluntarily paid based upon the wage rate set by the Living Wage Foundation ("the Foundation"). It is designed to be at a level that is required for employees and their families to meet their everyday needs. The real Living Wage is independently calculated and is greater than the National Living Wage that is required to be paid by UK legislation.

2.8.3 – Scope

All UK based employees are included in the metric. Including graduates, trainees and apprentices. US based employees are not included in the metric.

The real Living Wage communicated by the Foundation around October or November of the relevant financial year is used for the metric reported at the end of the respective financial year. UK real Living Wage is reported as at the year-end date, 31 March.

2.8.4 – Calculation methodology

On receiving the new rate, the hourly pay on employees is reviewed to determine if any current hourly rates fall below the new rate as set by the Foundation and any uplifts are applied before the year end. As at 31 March, we review our payroll records to identify any employees receiving a wage lower that the rate set by the Foundation and report any exceptions.

2.9 – 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, Responsible Business Report and as a standalone Report on our website[1]. Our Gender Pay Gap Reporting Methodology document can also be accessed on our website[10].

[10] https://www.nationalgrid.com/careers/understanding-our-uk-gender-pay-gap-2021

National Grid RBR Data Tables continued

2. People continued

2.10 – UK 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 choose 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.

2.10.1 – Metric

Our UK ethnicity pay gap reporting covers our total UK businesses only, representing our entire UK workforce (i.e. inclusive of all UK legal entities, regardless of headcount). The metrics disclosed are listed below, each metric is reported once to represent the total UK workforce.

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

For the ethnicity pay gap, 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.

Table 9: National Grid diverse and non-diverse employees in the UK workforce

Ethnicity (UK)	
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	n/a
<null>	n/a

Refer to section 5.2.2 for definitions of common terms. For more granular definitions of the above terms used in gender pay gap calculations, please refer to the legislation and ACAS guidance.

2.10.3 – Scope

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

The scope of National Grid UK legal entities is disclosed in National Grid's 2020/21 Annual Report and Accounts. All UK incorporated subsidiaries are included in the relevant statutory and total ethnicity pay gap calculations for all metrics as stated in section '5.3.1 – Metric'. There is only one exclusion to note, bonuses paid from the National Grid Metering entity are not included. National Grid Metering operates independently (they are not governed by Group) and as such National Grid have limited access and oversight of the bonus payments data at Group level. This exclusion will only affect the total UK mean and median ethnicity bonus pay gap calculations.

2.10.4 – Calculation methodology

UK ethnicity pay gap metrics are calculated in accordance with the methodology set out in the legislation and ACAS guidance, 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 system), before being reconciled and prepared for calculations to ensure that only the relevant employees, wage types and bonus types are included.

2.11 – US gender 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 US gender pay gap but choose 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, some adaptations have been made to ensure its suitability for US gender pay gap reporting. Any variations from the UK gender pay gap methodology are explained below.

2.11.1 – Metric

Our US gender pay gap reporting covers our total US businesses only, representing our entire US workforce (i.e. 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 (%)

For the US gender pay 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.

National Grid RBR Data Tables continued

2. People continued

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

- 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 that have a contract of employment with National Grid, employed on the snapshot date 5th 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 the 5th April 2020 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 5th 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 5th April.
- Relevant pay / bonus pay: An employee's 'normal' monthly salary, including any regular allowances and supplements, paid out in pay period that includes April 5th is considered as relevant or 'normal' pay. Bonus payments made to employees in the form of cash, vouchers or securities in addition to normal pay, for reasons including performance and incentives, in the twelve months prior to and including April 5th of each year.

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

2.11.3 – Scope
In terms of the time period in scope, our gender pay gap disclosures are prepared on an annual basis using the snapshot date 5th April each year for base / ordinary pay, and for the twelve months period including that pay period and the eleven pay periods prior to that date for bonus pay.

The scope of National Grid US legal entities is disclosed in National Grid's 2021/22 Annual Report and Accounts. All US incorporated subsidiaries are included in the relevant statutory and total ethnicity pay gap calculations for all metrics as stated in section '2.11.1 – Metric'.

2.11.4 – Calculation methodology
US gender pay gap metrics are calculated in accordance with the methodology set out in the legislation and ACAS guidance. Our data is extracted from our source systems (Payroll and HR management system), before being reconciled and prepared for calculations to ensure that only the relevant employees, wage types and bonus types are included.

2.12 – 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 gender pay gap but choose 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 been to ensure its suitability for ethnicity pay gap reporting. Any variations from the UK gender pay gap methodology are explained below.

2.12.1 – Metric
Our US ethnicity pay gap reporting covers our total US businesses only, representing our entire US workforce (i.e. 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 ethnicity pay gap (%)
- Median ethnicity pay gap (%)
- Mean ethnicity bonus gap (%)
- Median ethnicity bonus pay gap (%)

For the ethnicity pay gap, 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.

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

- Ethnic minority (or diverse) employees are those that identify themselves as being part of an ethnic minority group, which is self-declared by employees within our HR system. As at the time of preparing this document, approximately 94% of National Grid employees have declared their ethnicity. Employees that have not declared their ethnicity are excluded from the calculation.

National Grid RBR Data Tables continued

2. People continued

The following groups presented in Table 10 below are defined as 'diverse' and 'non-diverse' in terms of ethnicity, within our UK and US businesses.

Table 10: National Grid diverse and non-diverse employees in the US workforce

Ethnicity / Race (US)	
Not Hispanic/Latino	Non-diverse
<null>	n/a
American Indian or Alaskan Native	Diverse
Asian	Diverse
Black	Diverse
Hispanic or Latino	Diverse
Native Hawaiian or Pacific Islander	Diverse
Prefer not to say	n/a
Two or more Races	Diverse
White	Non-diverse

Refer to section 5.2.2 for definitions of common terms.

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

2.12.3 – Scope
Our ethnicity pay gap disclosures are prepared on an annual basis using the snapshot date 5th April each year for base / ordinary pay, and for the twelve months period including that pay period and the eleven pay periods prior to that date for bonus pay.

The scope of National Grid US legal entities is disclosed in National Grid's 2021/22 Annual Report and Accounts. All US incorporated subsidiaries are included in the relevant statutory and total ethnicity pay gap calculations for all metrics as stated in section '2.12.1 – Metric'.

2.12.4 – Calculation methodology
US ethnicity pay gap metrics are calculated in accordance with the methodology set out in the legislation and ACAS guidance, 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 system), before being reconciled and prepared for calculations to ensure that only the relevant employees, wage types and bonus types are included.

National Grid RBR Data Tables continued

3. Communities

3.1 – Fatalities

3.1.1 – Metric

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

3.1.2 – Definitions

Fatal injuries are injuries that directly results in death.

3.1.3 – Scope

Employees, contractors, and members of the public are in scope.

We do not include members of the public fatalities where they relate to our asset (on non-National Grid owned property) if an individual trespasses on a National Grid asset and is fatally injured, or a road traffic accident 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, and cumulatively by summing all data from 1 April 2021 to the relevant year end date.

3.1.4 – Calculation methodology

All fatalities in the reporting period are summed.

3.2 – Lost time injury frequency rate (LTIFR)

3.2.1 – Metric

Total number of lost time incidents incurred as a portion of total hours worked by the workforce, multiplied by 100,000.

3.2.2 – Definitions

Lost time incidents are defined as events which cause injury and a loss of time beyond the shift during which the incident occurred, consistent with the UK HSE definition.

3.2.3 – Scope

Employees, contractors, and agency staff are in scope.

UK, US, NGV and Corporate Functions operations are covered by this metric. The LTIFR for 1 April to 31 March does not include WPD incidents and working hours, which are reported separately within this document.

Lost time injury figures are recorded, tracked, and frequently reported via the Group's incident management systems.

This metric is reported in line with the financial year, 1 April to 31 March, and cumulatively by summing all data within the period.

3.2.4 – Calculation methodology

Total number of lost time incidents throughout the reporting period are calculated on a 12 month rolling programme [LTIFR = (12 mo. Rolling LTI / 12 month rolling hours worked) × 100,000] and divided by total hours worked by the workforce and multiplied by 100,000.

3.3 – Member of the public injuries as a result of National Grid work

3.3.1 – Metric

Number of major injuries associated with work or activity undertaken by National Grid.

3.3.2 – 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.

3.3.3 – 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.

3.3.4 – Calculation methodology

All injuries in the reporting period are summed.

3.4 – Network reliability – % Availability

3.4.1 – Metric

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

- US Electricity Transmission ("ET")
- US Electricity Distribution ("ED")
- UK Gas Transmission ("GT")
- UK ET

3.4.2 – Definitions

For the UK:

Potential availability: the maximum possible operational volume of our systems.

Actual availability: The operational volume delivered over the relevant period.

For the US:

Time in period: total calendar year minutes in reporting year, based on a 365-day calendar year

Total circuits: the total number of transmission lines in system.

Total Duration of Circuit Outages[11]: the accumulated duration of transmission outages sustained in system for the reporting year, in minutes.

Total Customer Outage Duration[12]: The accumulated customer hours impacted for the reporting year.

Total Customer Hours serviced: A product of total customer count and total calendar year hours in reporting year.

3.4.3 – Scope

US ET availability includes major storm days, and US ED availability excludes major storm days[13].

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

In the UK, the metric is reported in line with the financial year, 1 April to 31 March. In the US, the ED and the ED systems report with reference to the calendar year, 1 January to 31 December.

3.4.4 – Calculation methodology

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

UK % availability = (actual availability/potential availability) × 100

US ET % availability = (Time in period × Total Circuits – Total Duration of Circuit Outages) / (Time in period × Total Circuits)

US ED % availability = 1 – (Total Customer Outage Duration/ Total Customer hours serviced)

[11] Excludes all major storm events
[12] Includes all major storm events
[13] Major storms are defined by respective US States

National Grid RBR Data Tables continued

3. Communities continued

3.5 – Interconnector reliability – % Availability

3.5.1 – Metric

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

- IFA Interconnector
- IFA2 Interconnector (from mid-year go-live date)
- NSL Interconnector (from mid-year go-live date)
- BritNed Interconnector
- Nemo Interconnector

3.5.2 – Definitions

Potential availability: the maximum possible operational volume of our systems.

Aggregate availability: potential availability less any planned outages, short notice planned outages or trips. Aggregate availability includes all unavailability, from the point at which the capacity becomes unavailable to the point at which the link returns to full service and can flow any nominated volume up to its Nominal Capacity.

3.5.3 – Scope

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

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

3.5.4 – Calculation methodology

For the system corresponding to the respective definition, actual availability for the last 12 months is identified.

The % availability for the year is then calculated by: % availability = (aggregate availability/potential availability) × 100.

3.6 – Contribution of NG UK's transmission costs to consumer bills

3.6.1 – Metric

UK National Grid element of the average domestic consumer bill.

3.6.2 – 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 costs for the gas/electricity attributable to National Grid.

3.6.3 – Scope

This metric includes bill impact data for UK National Grid Electricity Transmission (NGET), National Grid Gas Transmission (NGGT)[14] and internal Electricity System Operator (ESO) costs. It does not include the impact of external ESO costs as they are a pass-through cost managed on behalf of the industry, rather than being an internal ESO cost.

UK National Grid do not directly charge consumers therefore the metric approximates the network charges proportion of the Energy Supplier bills. It excludes that proportion of our revenues that are charged to other parties e.g. costs levied on companies entering energy onto 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.

3.6.4 – Calculation methodology

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

NGGT costs are identified from our internal charging models that are used to publish final tariffs to the industry.

For NGET, the portion of the average Transmission Use of System Charges (''TNUoS'') tariff for the relevant year, attributable to NGET, is derived from the charges published by the ESO[15]. 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[16] to account for losses and then multiplied by the average domestic demand, also published by Ofgem[17], to determine an average cost to UK households.

The NGESO Internal Revenue is identified from the Price Control Financial Model, as published by Ofgem. This is adjusted by 50% to reflect the costs recovered from Energy Suppliers for Balancing Services Use of System ("BSUoS") charges as per the methodology prescribed by the Connection and Use of System Code[18] ("CUSC") and divided by the total annual demand, as published by the ESO[19], to estimate an average tariff charged by the ESO. That charge to customers is scaled up by the average loss adjustment factor as published by Ofgem[20] to account for losses and then multiplied by the average domestic demand, also published by Ofgem[21], to determine an average cost to UK households.

The average costs of NGGT, NGET and NGESO are then combined to calculate the National Grid element of the average UK domestic customer bill.

3.7 – Average energy bill charged to US households

3.7.1 – 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.

3.7.2 – 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 the low-income program[22].

Average US gas customer bill is the average total bill charged to all National Grid US residential gas customers, excluding customers who participated in low-income[22] program.

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 program[22]

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 program[22]

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

[14] The internal Gas Transmission Operator (GTO) and Gas System Operator (GSO) costs are both contained within NGGT
[15] Source: https://www.nationalgrideso.com/document/162431/download
[16] Source: https://www.ofgem.gov.uk/publications-and-updates/default-tariff-cap-level-1-october-2020-31-march-2021
[17] Source: https://www.ofgem.gov.uk/system/files/docs/2019/10/tdcvs_2019_open_letter_0.pdf
[18] Source: https://www.nationalgrideso.com/document/91411/download
[19] source: https://www.nationalgrideso.com/industry-information/charging/balancing-services-use-system-bsuos-charges
[20] Source: https://www.ofgem.gov.uk/publications-and-updates/default-tariff-cap-level-1-october-2020-31-march-2021
[21] Source: https://www.ofgem.gov.uk/system/files/docs/2019/10/tdcvs_2019_open_letter_0.pdf
[22] Low-income customers are defined as those who qualify for the Low Income Home Energy Assistance Program (LIHEAP)

National Grid RBR Data Tables continued

3. Communities continued

3.7.3 – 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[23] (upstate, electricity)
- Niagara Mohawk (upstate, gas)
- KEDNY (downstate)[24]
- KEDLI (downstate)[25]

Massachusetts Department of Public Utilities:

- Massachusetts Electric/Nantucket Electric
- Massachusetts Gas

Rhode Island Public Utilities Commission

- Narragansett Electric
- Narragansett 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 program 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.

3.7.4 – 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: Average bill = the total charged to customer ($) / 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).

3.8 – Customer Trust Survey (US)

3.8.1 – Metric
Percent of survey respondents who trust National Grid to provide the advice needed to make good energy decisions.

3.8.2 – Definitions
Survey: Supported by a third-party research provider, National Grid continuously survey their 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'.

3.8.3 – Scope
The metric considers US residential customers only and excludes customers for whom National Grid do 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.

3.8.4 – 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.

3.9 – Number of qualifying volunteering hours

3.9.1 – Metric
Total volunteering hours completed on behalf of National Grid since 1 April 2020.

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

3.9.3 – 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 or as reported by our charity partners as relevant.

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

3.9.4 – Calculation methodology
Volunteering hours are initially recorded by those overseeing the activities. On an annual basis, the data is collated to sum the total annual volunteering hours. 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.

3.10 – Number of young people provided access to skills development

3.10.1 – Metric
Total people provided access to skills development since 1 October 2020.

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

Participant: A participant comes from one of the lower income communities we serve.[26]

3.10.3 – 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.

3.10.4 – 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 to sum to the annual total annual participants on our skills development programmes.

The total annual participants on 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.

[23] Both transmission and distribution, excluding stranded costs
[24] KeySpan Energy Delivery New York (the Brooklyn Union Gas Company).
[25] KeySpan Energy Delivery Long Island (KeySpan Gas East Corporation).
[26] Lower income communities based upon UK ONS and US Census data

National Grid RBR Data Tables continued

4. Economy

4.1 – % of supplier payments paid to contractual term

4.1.1 – Metric
% of supplier payments made within the contractual term.

4.1.2 – Definitions
Contractual term refers to the period between the date an invoice is received and when the invoice is due to be paid.

4.1.3 – Scope
Our reporting considers 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, 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.

4.1.4 – Calculation methodology
The metric is calculated based on the volume of invoices settled in the year as follows:

(Total PO invoices paid within the contractual payment terms) / (Total PO invoices paid within the reporting time period) × 100.

4.2 – Percent of suppliers with carbon reduction target

4.2.1 – Metric
Percent of National Grid's top 250 suppliers engaged through Carbon Disclosure Project (CDP) who have an active carbon reduction target by 2030.

4.2.2 – Definitions
National Grid's top 250 suppliers is determined by total spend data and carbon intensity of the category. There are a number of exclusions as described in Scope below.

Carbon reduction targets are targets to reduce carbon emissions as defined by the CDP.

4.2.3 – Scope
Our reporting considers targets set by our suppliers at the time of performing the review during the current reporting period.

All Group suppliers are considered when determining the top 250. However, a number of suppliers have been excluded, largely on the basis that they are (1) not Procurement team driven suppliers such as Ancillary Services and (2) non-carbon relevant such as consultancy and insurance service providers.

We are reassessing our approach for FY23.

Suppliers are asked to fill out the CDP online reporting system data submission questionnaire, with a minimum acceptable response rate of 80%. Procurement category teams agree on the supplier target listing. Total supplier spend of this list of 250 is then determined via our financial management systems, based on data retrieved in the prior year. Spend is consolidated at the parent level of the company.

4.2.4 – Calculation methodology
The metric is calculated as follows: (# of top 250 suppliers engaged through CDP with carbon reduction targets) / (250 × 100).

4.3 – Investment by NG Partners (NGP)

4.3.1 – Metric
Annual investments by our NGP investment fund.

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

4.3.3 – Scope
This metric includes all investments made by NGP over the course of the year. NGP was formed to identify and invest in technologies and innovation that would ultimately benefit customers. With that founding goal, it is expected that each investment made by NGP will contribute to furthering the Group's Responsible Business priorities as outlined in the Responsible Business Charter. Specifically, the Group's commitment to invest in developing technologies and innovations that benefit our customers and wider society.

Data on amounts invested is continuously tracked and updated as new investments are made.

Any return on investments realised during the year is not netted against the amount invested.

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

4.3.4 – Calculation methodology
Investment data is continuously reported and tracked over the course of the year via our operational management and reporting systems. All NGP's amounts invested made over the previous year are summed to calculate the total investments in technology and innovation.

4.4 – Investment in energy infrastructure

4.4.1 – Metric
Annual investment into energy infrastructure (£).

4.4.2 – Definitions
Investment in energy infrastructure refers to capital expenditure on additions to property, plant and equipment and non-current intangible assets. Investments in and loans to joint ventures and associates are also included. It is reported in GBP (£).

4.4.3 – Scope
This metric includes all capital investments made by National Grid plc and its subsidiaries.

Data is based on actual investment data (not estimated).

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

4.4.4 – Calculation methodology
Investment data is reported and tracked via our operational management and reporting systems. All invested amounts made over the previous year are summed to calculate the total annual capital investment figure. Our annual investments are measured in accordance with International Financial Reporting Standards (IFRS).

4.5 – Jobs (worldwide)

4.5.1 – Metric
Total Group workforce.

4.5.2 – Definitions
Total workforce refers to all permanent National Grid employees, regardless of paygrade and tenure at National Grid. Included are those on parental leave or on short/long term leave of absence, part time workers, graduates, and interns. Excluded are temporary employees, contingent workers, manage service providers and Non-executive Board members.

4.5.3 – 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).

4.5.4 – Calculation methodology
Data is extracted from the HR management system and the sum of workforce members is calculated.

National Grid RBR Data Tables continued

5. Governance

5.1 – % of employees to have undertaken Ethics and Anti Bribery & Corruption training

5.1.1 – Metric

% of total workforce population who have completed our Ethics training

% of total workforce population who have completed our Anti Bribery and Corruption training

5.1.2 – 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.

Employees are all staff who are permanently employed by National Grid, excluding US based union employees, and National Grid's contractors with a National Grid email for the purpose of this metric.

5.1.3 – Scope

All employees 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.

The training courses are refreshed every three years 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.

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

5.1.4 – Calculation methodology

As at the year end, a report is run from our HR management system that shows our total number of employees and the total number of employees to have completed the ethics and fraud & bribery training courses.

The % of colleagues to have completed the training is calculated as: (total number of employees to have complete the training / total number of employees) × 100.

5.2 – Diversity of the Board

5.2.1 – Metric

Percentage of diverse representation on our Board.

5.2.2 – Definitions

Diverse Board members are individuals who have identified themselves as female, LGBTQ+, disabled or from an ethnic minority. A Board member is only counted once if they are diverse based on multiple categories. All our gender data relies on our Board member's classification of their own gender as male or female. Data on both Executive Directors and Non-Executive Directors is held in "MyHub" (National Grid's Human Resources ("HR") record management system), 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. In the instance that any diversity information is missing for these individuals, our Corporate Affairs team would write to these individuals to invite them to declare their diversity status for use in our external diversity statistics. Employees and Board members are not obliged to provide diversity information.

The following groups in Table 11 are defined as 'diverse' and 'non-diverse' in our UK and US businesses.

Table 11: National Grid diverse and non-diverse employees on the Board

Gender (UK and US)			
Male		Non-diverse	
Female		Diverse	
Sexual Orientation (UK and US)			
Heterosexual		Non-diverse	
Gay		Diverse	
Bisexual		Diverse	
Lesbian		Diverse	
I prefer to use my own term		n/a	
Prefer not to say		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		
Mobility	Diverse		
Visual	Diverse		
Musculoskeletal	Diverse		
Other 'neurodiverse'	Diverse		
Speech	Diverse		
Other	Diverse		
More than one	Diverse		
No disability	Non-diverse		
Prefer not to say	n/a		

National Grid RBR Data Tables continued

5. Governance continued

Table 11: National Grid diverse and non-diverse employees on the Board (continued)

Ethnicity (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		

Board refers to members as defined on the National Grid website[27] who are active in post at the financial year end (31 March).

5.2.3 – Scope

Board members can self-declare their diversity status (optional) in accordance with Table 11, within our Group HR system. In the instance that any diversity information is missing for individual Board members, our Co-Sec team 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 members who fit within one of the diverse categories in Table 11. If a Board member fits more than one of these diverse categories, we would only count this individual once.

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

5.2.4 – Calculation methodology

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

- % diverse representation on the Board = (# Diverse members on the Board) / (# Board members)

[27] https://www.nationalgrid.com/about-us/our-leadership-team/the-board

WPD Data Tables

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WPD Data Tables continued

1. Environment

1.1 – Scope 1 and Scope 2 greenhouse gas emissions

The reporting of WPD's total carbon emissions in our Annual Report and Accounts 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) and the GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard. The data compiled and reported by the WPD Group follows a recognised methodology as described within international business carbon footprint standards, the Greenhouse Gas ("GHG") carbon reporting guidance as provided by BEIS / DEFRA, the 2021 UK Government GHG Conversion Factors for company reporting and ISO14064-3.

1.1.1 – Metric

We report our Scope 1 and Scope 2 emissions (in tCO_2e) as a consolidated total for all our operations.

1.1.2 – Definitions

Scope 1 emissions are direct emissions from the operational activities of WPD.

Scope 2 emissions are indirect emissions from the energy purchased and used by WPD. Network losses are identified by Ofgem as being Scope 2 emissions (pending clarification from Ofgem).

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 WPD has 100% of operational control and the full authority to introduce and implement its operating policies, are included within the reported metrics. Work is underway to separate out office and depot electricity from EV charging supply.

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

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

Emissions scope	Scope – emissions sources for inventory
Scope 1	Operational Transport (road)
	Building energy use (gas)
	Fugitive emissions (SF_6)
	Fuel combustion
Scope 2	Building/Substation energy use (electricity)
	Network operation losses
	WPD telecoms

Our emissions are reported in line with the financial year (1 April to 31 March).

1.1.4 – Calculation methodology

Annual Scope 1 and 2 emissions data is reported in tonnes of CO_2e. See Table 2 below for detail on how emissions relevant to each source in our emissions inventory are calculated.

Table 2: Calculation methodology for Scope 1 and 2 emissions

Emissions scope	Emissions sources for inventory	Calculation methodology
Scope 1	Operational Transport (road/rail/air/sea)	Road fleet vehicles: Data is converted from litres of fuel to $kgCO_2e$ using published conversion factors Helicopter: Data is converted from litres of fuel to $kgCO_2e$ using published conversion factor. Operational sea: Distance travelled data is converted using $kgCO_2e$ published conversion factors Rail: n/a
	Building energy use (gas)	Invoice data is converted from kWh to $kgCO_2e$ using published conversion factor.
	Fugitive emissions (SF_6 and air conditioning)	Weight (kg) of SF_6 emissions is based on the following data sources; SF_6 top-up figures; Redundant equipment; Units returned empty to manufacturers. Total annual weight emitted is converted using published conversion factors.
	Fuel combustion	Total volume of fuel used is converted using published conversion factors.
Scope 2	Building/Substation energy use (electricity)	Data converted from kWh to $kgCO_2e$ using published conversion factors.
	Network operation losses	Licence area annual Statement of Distribution Business Imports, Losses, Sales data converted from MWh – kWh to $kgCO_2e$ using published conversion factor.
	WPD telecoms	Data received from installed smart meters at sites and supplier invoices is converted from kWh to $KgCO_2e$ using published conversion factors.

WPD Data Tables continued

1. Environment continued

1.2 – Scope 3 greenhouse gas emissions

Our Scope 3 emissions are calculated and reported in line with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (Revised)[30], the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard[31] and the Technical Guidance for Calculating Scope 3 Emissions: Supplement to the Corporate Value Chain (Scope 3) Accounting and Reporting Standard[32]. The data compiled and reported by the WPD Group follows a recognised methodology as described within international business carbon footprint standards, the Greenhouse Gas ("GHG") carbon reporting guidance as provided by BEIS / DEFRA, the 2021 UK Government GHG Conversion Factors for company reporting and ISO14064-3

1.2.1 – Metric

The scope 3 emissions categories we report are:

- Cat. 1 (Purchased Goods and Services) emissions ($ktCO_2e$)
- Cat 3 (Fuel & Energy Related Activities) emissions ($ktCO_2e$)
- Cat. 6 (Business Travel) emissions ($ktCO_2e$)
- WPD total scope 3 emissions ($ktCO_2e$)

1.2.2 – Definitions

Scope 3 emissions are a consequence of the WPD Group's activities that occur at sources that are not controlled by the WPD Group and are not classed as Scope 2 emissions. Examples of Scope 3 emissions include business travel by means not owned or controlled by the Group, water supply and materials / services that the WPD Group purchases.

1.2.3 – Scope

WPD applies the operational control principle to determine operations that are in scope for emissions and environmental reporting. See section 3.1.3 for further detail.

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

There is no current requirement under RIIO-ED1 for WPD to report Scope 3 Purchased Goods and Services and FERA as part of the company BCF. However, as part of our preparation for RIIO-ED2 we have undertaken a full Scope 3 screening exercise of Cat 1 Purchased Goods and Services and Cat 3 FERA to determine their % contribution to our overall BCF as part of our SBT submission.

Our emissions are reported in line with the financial year (1 April to 31 March).

1.2.4 – Calculation methodology

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

Table 3: Scope of WPD's Scope 3 emission sources by category and business included

Scope 3 emission category	Scope – emissions sources
Cat. 1 (Purchased Goods and Services)	Contractor work including the following: cable laying; overhead line installation; works at substations; logistics (external transport provision). Includes any vegetation management, building and civil works, asbestos abatement, electrical works, water usage and waste management associated with the contractor activities.
Cat 3 (Fuel & Energy Related Activities)	Includes indirect emissions associated with the generation of electricity purchased and sold to customers.
Cat. 6 (Business Travel)	Includes employee business travel, (air travel, sea travel, hire cars, private cars, company cars, taxis and rail travel). Business travel not recorded in our systems (e.g. not expensed) is not included.

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

Scope 3 emission category	Scope – emissions sources
Cat. 1 (Purchased Goods and Services)	Data provided by contractors and converted using published conversion factors.
Cat 3 (Fuel & Energy Related Activities)	Operational road fleet vehicles: Fuel use data is provided by contractors. Total volume of fuel used is converted using published conversion factors. Total distance travelled is converted using published conversion factors unless specific vehicle type is given.
Cat. 6 (Business Travel)	Calculated by: Distance travelled on business (miles) X Emission factor. Carbon emissions factors used are UK industry standard factors from DEFRA/BEIS or EPA industry standard factors for US air travel and are specific for each type of transport.

Total Scope 3 emissions are a sum of Cat. 1, 3 and 6 totals.

[30] https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf
[31] https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf
[32] https://ghgprotocol.org/sites/default/files/standards/Scope3_Calculation_Guidance_0.pdf

WPD Data Tables continued

1. Environment continued

1.3 – SF_6 emissions

Sulphur hexafluoride ("SF_6") is a highly-regulated gas. In the UK, we are required to monitor and report our SF_6 emissions to our regulator Ofgem on an annual basis. Our SF_6 reporting is carried out in line with the monitoring approaches and methodologies approved by our regulators.

1.3.1 – Metric
Total SF_6 emissions (in CO_2e) from our operations.

1.3.2 – Definitions
SF_6 is a powerful greenhouse gas with a global warming potential of 22,800 times that of CO_2.

1.3.3 – Scope
All WPD operations are included in the reporting of this metric.

Our emissions are reported in line with the financial year (1 April to 31 March).

1.3.4 – Calculation methodology
Annual SF_6 emissions data is added together from our operations to get the Group level total (in tonnes of SF_6). This is converted to tCO_2e using the IPCC GWP factor: 1kg SF_6 = 22,800kg CO_2e.

Weight (kg) of SF_6 emissions is based on the following data sources: SF_6 top-up figures; Redundant equipment; Units returned empty to manufacturers.

1.4 – Total electricity consumption

1.4.1 – Metric
Total electricity consumed at our offices, depots and substations.

1.4.2 – Definitions
Offices, depots and substations where WPD are directly liable for energy costs. Electricity use (kWh) refers to both metered and unmetered, WPD Telecoms and distribution network losses (Scope 2)

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

1.4.4 – Calculation methodology
The data is consolidated from meter readings and invoices. In unmetered locations (substations) a monthly estimate is used from the supplier. The data for each location is aggregated at each year end.

1.5 – Total heating consumption

1.5.1 – Metric
Total energy consumed at our offices, depots and substations.

1.5.2 – Definitions
Offices, depots and substations where WPD are directly liable for energy costs. Energy refers to all imported electricity (metered or unmetered) or heat and all solid, liquid and gaseous fuels consumed across the offices, depots and substations.

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

1.5.4 – Calculation methodology
The data is consolidated from meter readings and invoices. In unmetered locations (substations) a monthly estimate is used from the supplier. The data for each location is aggregated at each year end.

1.6 – GHG emissions and total air miles from air travel

1.6.1 – Metric
Total air miles travelled on an annual basis by WPD employees and the associated CO_2e emissions.

1.6.2 – Definitions
Air miles refer to the distance travelled via aeroplane by WPD employees for business activities only.

Emissions as outlined in section 1.1 and 1.2.

1.6.3 – Scope
Includes airmiles travelled by the WPD workforce. The airmiles travelled are captured through invoice returns from company travel agents, company credit card statements and company insurance records. All emissions and miles travelled are reported in line with the financial year (1 April to 31 March). Air miles travelled by contractors are not included.

1.6.4 – Calculation methodology
Total annual distance (km) is converted using conversion factor ($kgCO_2e$): Business Travel – Air, without RF, $kgCO_2e$; Average domestic passenger – 0.1292; Average Short haul – 0.08223; Business class long haul international (UK)- 0.22408.

1.7 – Electric vehicle fleet

1.7.1 – Metric
% of WPD's commercial van vehicle fleet that are light duty electric vehicles ("EVs")

1.7.2 – Definitions
Electric Vehicles are powered 100% by electricity and produce zero-carbon emissions.

1.7.3 – Scope
All commercial van vehicles owned by WPD are included in this metric. Employees' company cars and vehicles heavier than the defined light-duty vehicles are excluded. The electric vehicle % of our van vehicle fleet is reported as at the financial year end date, 31 March.

1.7.4 – Calculation methodology
The number of EV deliveries is tracked each month by the Transport Administration Team.

To calculate the % of the LDF that are EVs, the total fleet size and the total number of EVs calculated. The % that are EVs is then calculated as: (total number of EVs / Total number of vehicles) × 100

WPD Data Tables continued

1. Environment continued

1.8 – Total office waste

1.8.1 – Metric
Office waste generated and disposed of from all WPD offices and depots.

1.8.2 – Definitions
WPD offices/depots are the primary locations where our office employees and WPD Network Services are based. This does not include operational sites.

Waste is any substance or object which the holder discards or intends or is required to discard, including general waste, dry mixed recycling (DMR), specific waste stream recycling (i.e., wood, vegetation, C & D) and hazardous waste. This does not include asset recovery materials, for example scrap metal and cable, nor does it include waste collected directly from operational sites. Measured in tonnes.

1.8.3 – Scope
Only waste generate and disposed of from WPD offices/depots are included in this metric. Data is monitored monthly via regular reporting by third party service providers who manage office waste disposal. Data is reported in line with the financial year, 1 April to 31 March.

1.8.4 – Calculation methodology
Total waste for each office/depot is combined to calculate the total office waste for WPD.

1.9 – % office waste diverted from landfill

1.9.1 – Metric
% of office waste that not sent to landfill.

1.9.2 – Definitions
Office waste is as defined and reported separately. See metric 1.8.

1.9.3 – Scope
Only waste generate and disposed of from WPD offices/depots are included in this metric. Data is monitored monthly via regular reporting by third party service providers who manage office waste disposal. Data is reported in line with the financial year, 1 April to 31 March.

1.9.4 – Calculation methodology
Total WPD data is aggregated by disposal process to identify the total volume of waste that is not sent to landfill upon disposal.

The % of office waste not sent to landfill is calculated as: (Total office waste not sent to landfill / Total office waste) × 100.

1.10 – Total energy consumption

1.10.1 – Metric
Total energy consumption of electricity and gas (kWh) use at depots, offices and substations (Scope 1 and 2)

1.10.2 – Definitions
Energy consumed is the amount of electricity and natural gas [and other fuels] used by WPD. It is reported in kilowatt hours (KWh).

1.10.3 – Scope
Total energy consumption is reported as a consolidated figure. Total electricity consumed, total heating consumed, and % of renewable energy as reported under sections 1.4, 1.5 and 1.12 respectively.

Our emissions are reported in line with the financial year (1 April to 31 March).

1.10.4 – Calculation methodology
Total energy consumption = electricity + gas energy at offices, depots and substations. Some unit conversions are required (for example, litres of diesel to kWh) and these are carried out using industry standard conversion factors. Substation electricity is unmetered and therefore electricity use is estimated.

1.11 – Office energy consumption

1.11.1 – Metric
Total energy consumed at our offices.

1.11.2 – Definitions
Offices are those being managed by WPD. These are offices where WPD are directly liable for energy costs. Energy refers to all imported electricity or heat and all solid, liquid and gaseous fuels consumed across the offices.

1.11.3 – Scope
Properties which are primarily operational in function are excluded from this metric. Work is underway to separate out office and depot electricity from EV charging supply.

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

1.11.4 – Calculation methodology
The data is consolidated from meter readings and invoices. The total energy consumption for WPD's offices is aggregated at the year-end for the purpose of reporting.

1.12 – % Renewable energy purchased

1.12.1 – Metric
% of electricity supplied from renewable tariffs.

1.12.2 – Definitions
Renewable tariffs are electricity contracts that will supply 100% electricity to WPD from non-fossil fuels. Electricity supplied is the total in scope electricity supply contracts, measured in kWh.

1.12.3 – Scope
Electricity generated from biomass is considered renewable, but not electricity produced using Carbon Capture and Storage (CCS).

The metric includes electricity contracts that WPD procure directly and where competitive supply markets exist. Electricity contracts supplied by WPD's landlords are excluded.

% of electricity supplied from renewable tariffs is reported as at the financial year end date, 31 March.

1.12.4 – Calculation methodology
Our electricity supplier provides certification for the % of renewable energy provided, backed by Renewable Energy Guarantees of Origin (REGO)[33].

[33] https://www.ofgem.gov.uk/environmental-and-social-schemes/renewable-energy-guarantees-origin-rego#:~:text=What%20is%20it%3F,to%20have%20such%20a%20scheme.

WPD Data Tables continued

2. People

2.1 – Gender % of the workforce, senior leadership group and hires in new talent programmes

2.1.1 – Metric

Percentage of female employees within our total workforce, senior leadership group and 'new talent hires'. The data we report is:

- Percent female employees in our total workforce
- Percent female employees in our senior leadership group
- Percent female employees in our new talent hires

2.1.2 – Definitions

This metric does not consider ethnic background, sexual orientation or disabilities. Each employee is only counted once in the calculation.

All our gender data relies on our employees' classification of their own gender as male or female. This is a binary field in our HR system, which is manually inputted by the HR team, and therefore WPD has a gender disclosure rate of 100%.

Total workforce refers to all permanent (on payroll) WPD employees, regardless of paygrade and how long they have worked at WPD. Included are those on parental leave or on short/long term leave of absence, part time workers, graduates and interns. Excluded are agency workers, contractors and non-executive Directors.

Senior leadership group refers to employees included in our total workforce (defined above) who are a Director or Personal Contract Manager, as at each month end.

New talent hires refers to employees included in our total workforce (defined above) that have been onboarded to WPD in the previous 12 months, with a job title including Apprentice or Trainee.

2.1.3 – Scope

Female employees are all those that have self-declared upon joining the company.

Gender metrics are measured on a rolling 12-month period. To report on our total WPD workforce and WPD 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 – 31 March).

2.1.4 – Calculation methodology

Data is extracted from the HR management system and the following calculations are performed on the dataset to calculate this metric:

- % female in workforce = (# female individuals in workforce) / (# employees in workforce)
- % female in senior leadership = (# female individuals in senior leadership) / (# employees in senior leadership)
- % female in new talent hires = (# female individuals in new talent hires in rolling 12 month period) / (# new talent hires in rolling 12 month period)

2.2 – Gender % of joiners and leavers

2.2.1 – Metric

Percentage of female employees within external hires and leavers. The data we report is

- Percent female external hires
- Percent female leavers

2.2.2 – Definitions

Female employees are those that have self-disclosed themselves as being so upon joining the company. All our gender data relies on our employees' classification of their own gender as male or female. This is a binary field in our HR system, which is manually inputted by the HR team, and therefore WPD has a gender disclosure rate of 100%.

External hires are employees that have been recruited to WPD from outside the organisation. Not included are those who have been recruited to a role from inside the company (e.g. internal transfers).

Leavers refers to employees whose contract of employment at WPD has been terminated for any reason (including resignation, retirement and non-voluntary reasons).

2.2.3 – Scope

Includes the total WPD workforce. In scope, are all WPD employees on payroll, regardless of paygrade and how long they have worked at WPD. Included are those on parental leave or on short/long term leave of absence, part time workers, graduates and interns. Excluded are agency workers, contractors and non-executive Directors.

Female employees are all those that have self-declared their gender status.

Gender metrics are measured on a rolling 12-month period and will be reported in the Responsible Business Report to represent the previous financial year (1 April – 31 March).

2.2.4 – Calculation methodology

Data is extracted from the HR management system and the following calculations are performed on the dataset to calculate this metric:

- % female external hires = (# female hires in time period) / (# total hires in time period)
- % female leavers = (# female leavers in time period) / (# total leavers in time period)

WPD Data Tables continued

2. People continued

2.3 – 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 the WPD Group Annual Report, National Grid Responsible Business Report and as a standalone Report on our website[34].

2.3.1 – Metric

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

- Mean 'based' gender pay gap (%)
- Mean 'incentive' gender pay gap (%)

2.3.2 – Definitions

The gender pay gap is an equality measure that shows the difference in average earnings between female and male employees. It is different from equal pay.

The definitions for the key terms included as part of our gender pay gap calculations are:

- 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 WPD has a gender disclosure rate of 100%.
- Relevant employee: Those that have a contract of employment with WPD, employed on the snapshot date 5th April 2021. All bonus payments in the year from March to April will be included in the 'Incentive' Pay Gap calculation.
- Full pay relevant employee: Relevant employees excluding those paid less than their usual pay during the payroll period in which the 5th April 2021 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 5th 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 5th April.
- Relevant pay / bonus pay: An employee's 'normal' monthly salary, including any regular allowances and supplements, paid out in the pay period that includes April 5th is considered as relevant or 'normal' pay. Bonus payments made to employees in the form of cash, vouchers or securities in addition to normal pay, for reasons including performance and incentives, in the twelve months prior to and including April 5th of each year.

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

2.3.3 – Scope

In terms of the time period in scope, our gender pay gap disclosures are prepared on an annual basis using the snapshot date 5th April each year for base / ordinary pay, and for the twelve months period including that pay period and the eleven pay periods prior to that date for incentive pay.

Includes the total WPD workforce. In scope, are all WPD employees on payroll, regardless of paygrade and how long they have worked at WPD. Included are those on parental leave or on short/long term leave of absence, part time workers, graduates and interns. Excluded are agency workers, contractors, and non-executive Directors.

2.3.4 – Calculation methodology

UK gender pay gap metrics are calculated in accordance with the methodology set out in the legislation and ACAS guidance. Our data is extracted from our source systems (Payroll and HR management system), before being reconciled and prepared for calculations to ensure that only the relevant employees, wage types and bonus types are included. The calculations are performed by external consultants.

2.4 – National Living Wage paid (UK only)

2.4.1 – Metric

Compliance with the statutory National Living Wage.

2.4.2 – Definitions

The National Living Wage is a wage rate that is applicable to those aged 23 and over and is a considered requirement.

2.4.3 – Scope

All directly employed WPD staff are in scope.
All working and study hours are recorded.

The National Living Wage rates are updated each year on 1 April on the government website.

National Living Wage is reported as at the year-end date, 31 March.

2.4.4 – Calculation methodology

A report is run every year to ensure the hourly rate of every member of staff is greater than the National Living Wage appropriate to their group. This is supplemented with a report run by the payroll team detailing actual pay against hours worked to ensure pay is in excess of the National Living Wage.

[34] https://www.westernpower.co.uk/downloads-view-reciteme/564748

WPD Data Tables continued

3. Communities

3.1 – Fatalities

3.1.1 – Metric
Number of fatal injuries associated with work or activity undertaken by WPD.

3.2.2 – Definitions
Fatal injuries are injuries that directly result in death.

3.3.3 – Scope
Employees and contractors are in scope. This metric is reported in line with the calendar year.

3.4.4 – Calculation methodology
All fatalities in the reporting period are summed[35].

3.2 – Lost time Injury frequency rate (LTIFR)

3.2.1 – Metric
Total number of lost time accidents (LTA) incurred as a portion of total hours worked by the workforce, per 100,000 employees[36].

3.2.2 – Definitions
Lost time accidents are defined as events which cause fatal injury or injury which results in a loss of time beyond the shift during which the incident occurred, consistent with the UK Health and Safety Executive definition.

3.2.3 – Scope
All employees are in scope. Lost time injury figures are recorded, tracked and reported monthly.

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

3.2.4 – Calculation methodology
The sum of the LTA incidents for the current calendar year is divided by the number of staff obtained from Employee Relations and the result is multiplied by 100,000.

For the LTIFR the number of staff incidents that have occurred during the calendar year are taken from our workforce management system.

3.3 – Member of the public injuries/ fatalities as a result of WPD work

3.3.1 – Metric
Number of injuries/fatal injuries associated with work or activity undertaken by WPD.

3.3.2 – Definitions
Fatal injuries are injuries to members of the public that directly results in death.

Injuries are significant injuries to members of the public that have been brought to the attention of WPD.

3.3.3 – Scope
Members of the public are in scope.

We do not include member of the public injuries/ fatalities where they relate to our asset (on non-WPD owned property) if an individual trespasses on a WPD asset and is injured/fatally injured, or a road traffic accident where the vehicle came into contact with an asset and there was an injury/fatality.

This metric is reported in line with the calendar year.

3.3.4 – Calculation methodology
All injuries/fatalities in the reporting period are summed.

3.4 – Network reliability – % Availability UKED

3.4.1 – Metric
The % availability of the WPD electricity distribution network to the end customer.

3.4.2 – Definitions
Potential availability: The maximum possible operational volume of our system.

Actual availability: The operational volume delivered over the relevant period, using Customer Minutes Lost (CML)[37].

3.4.3 – Scope
The metric is assessed monthly, with the impact of any exceptional events assessed annually[38]. In year figures are therefore indicative.

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

3.4.4 – Calculation methodology
Network Availability is calculated using the following formula with 'CML' being the total customer minutes lost.

Potential availability = minutes in an hour × hours in a day × days in a year

Actual availability = potential availability – CML

The % availability for the year is then calculated by: % availability = (actual availability/potential availability) × 100.

The calculation is run annually for reporting for Ofgem's Regulatory Financial Performance Reporting (RFPR) submission and publication.

3.5 – Contribution of distribution costs to consumer bills

3.5.1 – Metric
WPD element of the average domestic consumer bill.

3.5.2 – Definitions
UK average domestic bill is the average gas/electric bill for non-business customers in the UK. The WPD element is the portion of the average UK domestic bill associated with the electricity distribution costs attributable to Western Power Distribution

3.5.3 – Scope
This metric includes bill impact data for WPD distribution costs. WPD charging statements are publicly available[39].

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

3.5.4 – Calculation methodology
The costs are identified from the Common Distribution Charging Methodology (CDCM) and the Extra High Voltage (EHV) Distribution Charging Methodology (EDCM), which are the charging methodologies used by Distribution Network Operators (DNOs) for their use of system charges to customers connected to lower and higher voltages respectively. They are published 15 months in advance of a network charge being passed onto a customer (via their supplier). As such, the metric is calculated using this forecast data, as is industry standard.

Once calculated, this is converted into a percentage of consumer bills using the latest Ofgem bill information publication, to determine an average cost to UK households.

[35] Information provided by CROWN incident database
[36] Target set at RIIO-ED1 to ensure continual performance improvement
[37] Sourced from IRIS
[38] The Customer Minutes Lost (excluding exceptions) data are based on planned and unplanned events and are calculated before exceptional events are finalised by Ofgem in the following year.
[39] https://www.westernpower.co.uk/our-network/use-of-system-charges/charging-statements

WPD Data Tables continued

4. Economy

4.1 – Percent of supplier payments paid to contractual term

4.1.1 – Metric
Percent of supplier payments made within the contractual term.

4.1.2 – Definitions
Contractual term refers to the period between the date an invoice is received and when the invoice is due to be paid.

4.1.3 – Scope
Our reporting considers invoices that are paid to trade suppliers over the course of the financial year. Payments made to sundry suppliers are excluded.

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

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

4.1.4 – 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) × 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.

4.2 – Investment in energy infrastructure

4.2.1 – Metric
Annual investment in energy infrastructure (£).

4.2.2 – Definitions
Investment in energy infrastructure refers to capital expenditure on additions to property, plant and equipment and non-current intangibles. Investments in and loans to joint ventures and associates are also included. It is reported in GBP (£).

4.2.3 – Scope
This metric includes all capital investments made by WPD. Data is based predominantly on actual investment data, with forecasts updated annually to the end of the price control.

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

4.2.4 – Calculation methodology
Investment data is reported and tracked via our regulatory reporting packs, required by Ofgem. All invested amounts made over the previous year are summed to calculate the total annual capital investment figure. Our annual investments are measured in accordance with Ofgem's definitions for RRP purposes and in accordance with International Financial Reporting Standards (IFRS).

4.3 – Jobs (worldwide)

4.3.1 – Metric
Total Group workforce.

4.3.2 – Definitions
Total workforce refers to all permanent and temporary WPD employees, regardless of paygrade and how long they have worked at WPD. Included are those on parental leave or on short/long term leave of absence, part time workers, graduates and interns. Excluded are agency workers, contingent workers, and non-executive Directors.

4.3.3 – Scope
Includes the current WPD workforce on payroll. The data is extracted monthly and the number of jobs at each respective reporting year end is presented (31 March).

4.3.4 – Calculation methodology
Data is extracted from the payroll/HR database and the sum of workforce members is calculated.

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Sustainability Accounting Standards Board

Electric utilities & power generators

Greenhouse Gas Emissions & Energy Resource Planning

IF-EU-110a.1. Scope 1 Emissions

Metric

- (1) Gross global Scope 1 emissions, percentage covered under (2) emissions-limiting regulations, and (3) emissions-reporting regulations

Definition

- Gross global Scope 1 emissions: This metric is captured elsewhere in this document, please refer to page 07 for definition and methodology calculations.
- % of emissions covered under emissions-limiting regulations: The percentage of gross global Scope 1 GHG emissions that are covered under an emissions-limiting regulation, or programme that is intended to directly limit or reduce emissions
- % of emissions covered under emissions-reporting regulations: the percentage of its gross global Scope 1 GHG emissions that are covered under emissions reporting-based regulations

Scope

In the UK our, the following business units meet the UK Emissions Trading Scheme (UK ETS) qualifying criteria of operating combustion units with a total rated thermal input exceeding 20MW:

- Gas Transmission Business Compressor Station operations.
- National Grid Ventures – Isle of Grain LNG facility.

In the US, our US generation business fuel use for generation falls under the Regional Greenhouse Gas Initiative (RGGI).

- The demand for the disclosure of GHG emissions data applies to all our scope 1 emissions.

Calculation Methodology

- The total amount of gross global Scope 1 GHG emissions (CO_2-e) that are covered under emissions-limiting regulations divided by the total amount of gross global Scope 1 GHG emissions (CO_2e).
- Total amount of gross global Scope 1 GHG emissions (CO_2-e) that are covered under emissions reporting-based regulations divided by the total amount of gross global Scope 1.

IF-EU-110a.2 Greenhouse Gas emissions associated with electric power delivered to retail customers

This metric has been calculated in order to submit our overall Greenhouse Gas emissions, the reporting methodology for this metric has been described in the NG RBR section on page 07. However, the number presented in this year's RBR represents greenhouse gas emissions at an overall level. In future periods, we will endeavour to disclose metrics at this more granular level.

IF-EU-110a.3 Strategy to manage Scope 1 emissions

This metric has been qualitatively addressed in the RBR.

IF-EU-110a.4 Customers served in markets subject to renewable portfolio standards

Metric

(1) Number of customers served in markets subject to renewable portfolio standards (RPS) and (2) percentage fulfilment of RPS target by market.

Definition

- Number of customers served that are located in markets subject to renewable portfolio standards (RPS).
- Fulfilment of RPS targets as a percentage.

Scope

All of the states in which we operate and serve customers have RPS.

Calculation Methodology

- As all of the states in which we operate and serve customers have RPS all of our customers are served.
- Amount of renewable electricity sold (MWh) in markets with RPS regulations / amount of renewable electricity (MWh) that would need to be sold to achieve the target.

Air Quality

IF-EU-120a.1 NOx, Sox, PM, Lead and Mercury emissions.

This metric is captured elsewhere in this document for NOx, SOx and PM emissions, Please refer to page 12 for definition and methodology calculations.

For Lead and Mercury, these are not appliable to National Grid.

0% of our UK and 100% US emissions are within or near to areas of dense population.

Water Management

IF-EU-140a.1 Water use

This metric is captured elsewhere in this document. Please refer to page 16 for definition and methodology calculations.

0% of water withdrawn or consumed in the UK and in the US is within regions of high or extremely high water stress.

IF-EU-140a.2 Non-compliance associated with water

This metric has been qualitatively addressed in the RBR. We submit CDP Climate Change and CDP Water questionnaires annually to CDP in August.

IF-EU-140a.3 Water management risks and mitigation

This metric has been qualitatively addressed in the RBR.

Coal Ash Management

IF-EU-150a.1 Coal Combustion and IF-EU-150a.2 Coal combustion residual impoundments

National Grid only generates electricity in the US and none of its generating plants use coal as fuel.

Sustainability Accounting Standard Board continued

Electric utilities & power generators continued

Energy Affordability

IF-EU-240a.1. Average retail electric rate for (1) residential, (2) commercial, and (3) industrial customers

Metric

Average retail electric rate for residential, commercial, and industrial customers.

Definition

Average retail electric rate is the average cost charged to National Grid US retail customers for the supply and delivery of electricity per kilowatt hour (kWh).

Scope

This metric combines the tariff charges managed under the National Grid US rate plans, as listed below.

New York Public Service Commission:

- Niagara Mohawk (upstate, electricity)

Massachusetts Department of Public Utilities:

- Massachusetts Electric Company MECO
- Nantucket Electric

Rhode Island Public Utilities Commission

- Narragansett Electric

Data is captured and prepared at the operational level for National Grid Distribution companies only and aggregated by customer class.

This metric is prepared in line with the previous calendar year, 1 January – 31 December.

Calculation Methodology

For each customer class, the average retail electric rate is calculated as the total revenue directly resulting from electricity delivered to retail customers divided by the amount of corresponding electricity delivered (in kWh).

Average retail electric rate = [(Revenue / kWh of electricity delivered) / Total number of customers], where the Number of Customers = Average over 12-month period.

IF-EU-240a.2.Typical monthly electric bill for residential customers for (1) 500 kWh and (2) 1,000 kWh of electricity delivered per month.

Metric

Average residential monthly electric bill for 500 kWh and 1,000 kWh of electricity delivered per month.

Definition:

Typical monthly electric bill is the average monthly cost billed to National Grid US residential customers for the supply and delivery of electricity, for (1) the first 500 kilowatt hours (kWh), and separately, (2) the first 1,000 kWh per month.

Scope:

US residential electric customers. Data is captured and prepared by operating jurisdictions, New York, Massachusetts, and Rhode Island.

This metric utilizes historical rates managed under the National Grid US rate plans, as listed below:

New York Public Service Commission

- Niagara Mohawk – NIMO (upstate, electricity)

NY residential electric customer bills using the actual historical rates for each billed rate component, including supply, surcharges and an estimated GRT and Commodity tax. Sales tax is not included.

Massachusetts Department of Public Utilities

- Massachusetts Electric Company – MECO
- Nantucket Electric

Rhode Island Public Utilities Commission

- Narragansett Electric

NE residential electric customer bills using the actual historical rates for each billed rate component, including both delivery and supply.

Metric is reported in line with the previous fiscal year 1 April – 31 March.

Calculation Methodology:

Typical monthly electric bill is the average of the sum of electric bills for residential customers over the course of the previous fiscal year, divided by the average number of residential customers. This is done for the first 500 kWh, and separately the first 1,000 kWh of energy usage.

Typical monthly electric bill = [(Total annual charges / 12) / Total number of customers], where the Number of Customers = Average over 12-month period.

IF-EU-240a.3. Number of residential customer electric disconnections for nonpayment and percentage reconnected within 30 days

Metric

Total number of residential electric customer disconnections and the percentage reconnected within 30 days.

Definition

Residential customer electric disconnection is defined as the total electric disconnections among residential customers during the reporting period that resulted from non-payment.

A disconnection is defined as intentionally turning off a customer's access to electricity, where a reconnection is defined as intentionally turning on a customer's access to electricity, which was previously disconnected.

Reconnections may occur for reasons including, but not limited to, bill payment, the establishment of a bill payment plan, and/or the use of a bill assistance program.

Scope

This metric includes all National Grid US electric customers, excluding those who are not eligible for disconnection, elderly, medical, infant, life support, etc.

The metric is prepared in line with the previous calendar year, 1 January – 31 December.

Calculation Methodology

The number of residential customer electric disconnections are initially recorded within National Grid's customer support systems. On an annual basis the data is collated to summed to the total disconnections in our customer support systems.

The percentage of reconnections within 30 days is calculated as the number of residential customers previously disconnected that were reconnected within 30 days of the date of the disconnection, divided by the total number of residential customer disconnections during the reporting period that resulted from non-payment.

IF-EU-240a.4 Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory

This metric has been qualitatively addressed in the RBR.

Sustainability Accounting Standard Board continued

Electric utilities & power generators continued

End-Use Efficiency & Demand

IF-EU-420a.1. Percentage of electric utility revenues from rate structures that (1) are decoupled and (2) contain a lost revenue adjustment mechanism (LRAM)

Metric

Percentage of electric utility revenues from rate structures that are decoupled and contain a lost revenue adjustment mechanism (LRAM).

Definition

Revenue decoupled rate structures are defined, according to the U.S. National Association of Regulatory Utility Commissioners in Decoupling for Electric & Gas Utilities (September 2007), as rate adjustment mechanism that separate the entity's electric utility's fixed costs recovery from the amount of electricity sold. The utility's revenues are collected based on the regulatory-determined revenue requirement.

Revenue decoupled rate structures may also be referred to as "revenue regulation" or "revenue cap regulation," where the regulator establishes an allowed revenue requirement and adjusts collections so as to achieve that allowed, or "target," revenue irrespective of actual sales (definition adapted from Decoupling Case Studies: Revenue Regulation Implementation in Six States, The Regulatory Assistance Project, July 2014).

Rate structures that contain a Lost Revenue Adjustment Mechanism LRAM are defined as volumetric rates that contain a mechanism which allows for recovery of lost revenues directly resulting from energy conservation, energy efficiency, demand-side management, and/or distributed generation programs that are directly managed and/or implemented by the company.

Scope

This metric combines the tariff charges managed under the National Grid US rate plans, as listed below.

New York Public Service Commission:

- Niagara Mohawk (upstate, electricity)

Massachusetts Department of Public Utilities:

- Massachusetts Electric Company MECO
- Nantucket Electric

Rhode Island Public Utilities Commission

- Narragansett Electric

100% of service classes for both New York and New England electric companies are revenue decoupled. These companies do not have an LRAM for electric.

The metric is reported in line with the previous fiscal year April 1 – March 31.

Calculation Methodology

The percentage of revenue decoupled is calculated as the total regulated electric utility revenue from revenue decoupled rate structures divided by total regulated electric utility revenue.

The percentage shall be calculated as the total regulated electric utility revenue from rate structures that contain an LRAM divided by total regulated electric utility revenue.

IF-EU-420a.2. Percentage of electric load served by smart grid technology

Metric

Percentage of residential, small commercial and industrial electric load served by Advanced Metering Infrastructure (AMI) meters

Definition

A smart grid technology is defined, consistent with the National Institute of Standards and Technology (NIST) Smart Grid Interoperability Standards, as a modernized grid that enables bidirectional flows of energy and uses two-way communication and control capabilities that will lead to an array of new functionalities and applications.

The electric load served by smart grid technology is defined as the amount of electricity delivered to the entity's customers that incorporates the use of smart grid technologies to meet the electricity demand of the consumer.

An electric load is considered to be served by smart grid technology when the technology enables one or more of the distinguishing characteristics set forth in Title XIII of the U.S. Energy Independence Act of 2007.

Examples of smart grid technologies include, but are not limited to, demand-response systems, distribution automation, smart inverters, advanced metering equipment, and other smart home and intelligent building control products.

Scope

US residential, commercial, and industrial electric load served by AMI meter installations. This does not include the MV90 metering system used by some large C&I customers.

Data is requested on an annual basis for the previous fiscal year and the metric is reported in line with the previous fiscal year April 1 – March 31.

Calculation Methodology

Data query on AMI captured in National Grid's Customer Service System ("CSS"), with a match rate of 99.5%.

IF-EU-420a.3. Customer electricity savings from efficiency measures, by market.

Metric

The total amount of electricity savings delivered to customers, in megawatt hours (MWh), from energy efficiency measures during the reporting period for each service territory.

Customer savings from efficiency measures, by market.

Definition

Electricity savings from efficiency measures is defined as the gross savings approach to changes in energy consumption and/or demand that results from program-related actions taken by participants in an efficiency program, regardless of why they participated.

Markets are defined as those operations that are subject to distinct public utility regulatory oversight.

This metric is prepared in line with the previous calendar year, 1 January – 31 December, in accordance with regulatory reporting requirements.

Scope

US retail electric customers.

The scope of electricity savings from efficiency measures includes savings delivered directly by the company and, where regulations provide, savings substantiated through purchases of efficiency savings credits.

Sustainability Accounting Standard Board continued

Electric utilities & power generators continued

NY Electric:
- Data includes energy efficiency (EE) programmes that are administered by the Company in the New York service territory for the represented calendar year. Third party vendors report data to the Company through invoices and data submission on an annual basis, and in accordance with regulatory requirements.

MA Electric:
- The provided data represents the energy efficiency (EE) measures installed by National Grid in its MA service territory for the represented calendar year. The savings reported from the tracking system are constantly evaluated and verified by independent third-party evaluators, and in accordance with regulatory requirements.

RI Electric:
- Data includes energy efficiency (EE) programmes that are administered by the Company in the RI service territory for the represented calendar year. Third party vendors report data to the Company through invoices and data submissions on an annual basis, and in accordance with regulatory requirements.

This metric is prepared in line with the previous calendar year, 1 January – 31 December, in accordance with regulatory reporting requirements.

Calculation Methodology
Data for electric efficiency savings is continuously reported and tracked over the course of the year via our operational management and reporting systems. All electric efficiency savings for National Grid US customers made over the previous year are summed to calculate the total customer gas savings from efficiency measures by operating company. Data is reported to the respective State regulators as per regulatory requirements

Grid Resiliency

IF-EU-550a.1. Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations

Metric
Total number of incidents of non-compliance with physical and/or cyber security standards or regulations

Definition
The number of incidents of non-compliance is defined as instances where the company failed to meet physical and/or cyber security standards or regulations applicable to electricity infrastructure that is owned and/or operated by the company.

Physical and/or cyber security standards or regulations include the North American Electric Reliability Corporation (NERC) Critical Infrastructure (CIP) standards when the standards are applicable to electricity infrastructure that is owned and/or operated by the entity.

Scope
The scope of physical and/or cyber security standards or regulations includes mandatory, enforceable standards and regulations that are intended to mitigate physical and/or cybersecurity risks related to the reliability and/or resiliency of electricity infrastructure, including the electricity grid.

Data is requested on an annual basis for the previous fiscal year, and the metric is reported in line with the previous fiscal year April 1 – March 31.

Calculation Methodology
All physical and cybersecurity incidents are captured in our Incident Management System and monitored continuously over the course of operations. All incidents of non-compliance for the financial year are consolidated at the year-end for the purpose of reporting

IF-EU-550a.2. (1) System Average Interruption Duration Index, (2) System Average Interruption Frequency Index, and (3) Customer Average Interruption Duration Index.

Metric
Electric reliability performance indexes, SAIDI, SAIFI, and CAIDI.

Definition
1. SAIDI is defined as the total duration of an interruption for the average customer during the period under reporting.
2. SAIFI is defined as the average number of times that a system customer experiences an outage during the period under reporting.
3. CAIDI is defined as the average amount of time required to restore service once an outage has occurred.

Scope
Electric reliability data includes all US electric distribution, retail customers. Outage data is collected and tracked against service quality metrics established by the New York State Public Service Commission (NYSPSC) & Massachusetts Department of Public Utilities (MADPU).

NY Electric
- Two metrics are tracked and reported to the NYSPSC on an annual basis, System Average Interruption Frequency Index (SAIFI) and Customer Average Interruption Duration Index (CAIDI).

MA, Nantucket, & RI Electric
- Two metrics are tracked and reported to the MADPU on an annual basis, System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI).

Inaccurate reporting of electric reliability metrics could result in regulatory scrutiny and potential penalties.

Scope excludes all major storm events.

The data is prepared annually, and metrics are reported in line with the previous calendar year, 1 January – 31 December.

Calculation Methodology
1. SAIDI is calculated as the total number of customers interrupted multiplied by the duration of interruptions (i.e., restoration time) divided by the total number of customers served, written as $\sum(ri \times Ni) / NT$, where;
   - $\sum$ = Summation function
   - ri = Restoration time, in minutes
   - Ni = Total number of customers interrupted
   - NT = Total number of customers served
2. SAIFI is calculated as the total number of customers interrupted divided by the total number of customers served, written as $\sum(Ni) / NT$, where;
   - $\sum$ = Summation function
   - Ni= Total number of customers interrupted
   - NT = Total number of customers served
3. CAIDI is calculated as the total number of customers interrupted multiplied by the duration of interruptions (i.e., restoration time, in minutes) divided by the sum of the number of customers interrupted, written as $\sum(ri \times Ni) / \sum(Ni)$, where;
   - $\sum$ = Summation function
   - ri = Restoration time, in minutes
   - Ni = Total number of customers interrupted

Sustainability Accounting Standard Board continued

Electric utilities & power generators continued

Activity Metrics

IF-EU-000.A Number of: (1) residential, (2) commercial, and (3) industrial customers served

Metric

Total number of National Grid US electric customers served for the following retail customer classes; residential, commercial, and industrial.

Definition

The number of customers served for each class shall be considered as the average number of electric meters billed over the 12-month period.

Scope

National Grid US electric customers.

This metric is prepared in line with the previous calendar year, 1 January – 31 December.

Calculation Methodology

Data is extracted from the General Ledger for each US operating company and combined to calculate the total customers served.

IF-EU-000.B Total electricity delivered to: (1) residential, (2) commercial, (3) industrial, (4) all other retail customers, and (5) wholesale customers

Metric

The amount of electricity delivered to each customer class; residential, commercial, and industrial, and transferred to a third party; measured in megawatt hours (MWh).

Definition

Total amount of electricity delivered in terms of megawatt hours for each customer class.

Scope

National Grid US electric customers.

This metric is prepared in line with the previous calendar year, 1 January – 31 December.

Calculation Methodology

Data is extracted from the general ledger for each US operating company and combined to calculate the amount of electricity delivered to each customer class.

IF-EU-000.C Length of transmission and distribution lines

This information is provided within our Annual Report and Accounts on page 4.

IF-EU-000.D Electricity Generated / Sources

Metric

Total electricity generated; percentage by major energy source, percentage in regulated markets.

Definition

Total electricity generated in MWh, percentage by major energy source, percentage in regulated markets.

Scope

All of our generation facilities are in the US which is a regulated market.

The Major Energy Generated / Sources are:

LIPA

- Natural Gas Generation
- Fuel Oil Generation

Renewable Generation

- Wind
- Solar

Calculation Methodology

Total electricity generated = Sum of generation from the Major Energy Source

Percentage by major energy source = Generation quantity for each Major Energy Source / Total Electricity Generation

Percent in regulated markets = Generation quantity in regulated markets / Total Electricity Generation

IF-EU-000.E Wholesale Electricity Purchased

This metric has been calculated in order to submit our total electricity consumption, the reporting methodology for this metric has been described in the NG RBR section on page 11.

Sustainability Accounting Standard Board continued

Gas utilities & distributors

Energy Affordability

IF-GU-240a.1 Average retail gas rate for (1) residential, (2) commercial, (3) industrial customers, and (4) transportation services only

Metric

Average retail gas rate for residential, commercial, industrial customers, and transportation services.

Definition

Average retail gas rate is the average cost charged to National Grid US retail customers for the supply and delivery of gas per million British thermal units (MMBtu).

Scope

This metric combines the tariff charges managed under the National Grid US rate plans, as listed below.

New York Public Service Commission:

- Niagara Mohawk (upstate, gas)
- KEDNY (downstate)[40]
- KEDLI (downstate)[41]

Massachusetts Department of Public Utilities:

- Massachusetts Gas[42]

Rhode Island Public Utilities Commission

- Narragansett Gas

Data is captured and prepared at the operational level for National Grid Distribution companies only and aggregated by customer class.

This metric is prepared in line with the previous calendar year, 1 January – 31 December.

Calculation Methodology

For each customer class, the average retail gas rate is calculated as the total revenue directly resulting from gas delivered to retail customers divided by the amount of corresponding gas delivered (in MMBtu).

Average retail gas rate = [(Revenue / MMBtu of gas delivered) / Total number of customers], where the Number of Customers = Average over 12-month period.

IF-GU-240a.2 Typical monthly gas bill for residential customers for (1) 50 MMBtu and (2) 100 MMBtu of gas delivered per year

Metric

Average residential monthly gas bill for 50 MMBtu and 100 MMBtu of gas delivered per year.

Definition

Typical monthly gas bill is the average monthly cost billed to National Grid US residential customers for the supply and delivery of gas, for (1) the first 50 million British thermal units (MMBtu), and (2) the first 100 million British thermal units (MMBtu) per year.

Scope

US residential gas customers only.

This metric is prepared in accordance with the tariff charges managed under the National Grid US rate plans, for the utilities listed in IF-GU-240a.1 above.

This metric reflects rates in effect during the previous calendar year for residential heating customers, and does not exclude low-income discount, which certain residential heating customers qualify for; no rates are excluded from the calculation.

This metric is prepared in line with the previous calendar year, 1 January – 31 December.

Calculation Methodology

Typical monthly gas bill for residential customers is calculated as the sum of revenue directly resulting from gas delivered to residential customers over the course of the previous calendar year, divided by the number of months (12), divided by the weighted average number of residential customers during the reporting period.

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

Typical monthly gas bill = [(Revenue / 12) / Total number of customers], where the Number of Customers = Average over 12-month period.

IF-GU-240a.3 Number of residential customer gas disconnections for nonpayment, percentage reconnected within 30 days.

Metric

Total number of residential gas customer disconnections and the percentage reconnected within 30 days.

Definition

Residential customer gas disconnection is defined as the total number of gas disconnections among residential customers during the reporting period that resulted from non-payment.

A disconnection is defined as intentionally turning off a customer's access to gas, where a reconnection is defined as intentionally turning on a customer's access to gas, which was previously disconnected.

Reconnections may occur for reasons including, but not limited to, bill payment, the establishment of a bill payment plan, and/or the use of a bill assistance program.

Scope

This metric includes all National Grid US gas customers, excluding those who are not eligible for disconnection, elderly, medical, infant, life support, etc.

This metric is prepared in line with the previous calendar year, 1 January – 31 December.

Calculation Methodology

The number of residential customer gas disconnections are initially recorded within National Grid's customer support systems. On an annual basis the data is collated to summed to the total disconnections in our customer support systems.

The percentage of reconnections within 30 days is calculated as the number of residential customers previously disconnected that were reconnected within 30 days of the date of the disconnection, divided by the total number of residential customer disconnections during the reporting period that resulted from non-payment.

IF-GU-240a.4 Discussion of impact of external factors on customer affordability of gas, including the economic conditions of the service territory

This metric has been qualitatively addressed in the RBR.

[40] KeySpan Energy Delivery New York (the Brooklyn Union Gas Company).
[41] KeySpan Energy Delivery Long Island (KeySpan Gas East Corporation).
[42] Formerly known as Colonial Gas Company and Boston Gas Company.

Sustainability Accounting Standard Board continued

Gas utilities & distributors continued

End Use Efficiency – Gas

IF-GU-420a.1 Percentage of gas utility revenues from rate structures that (1) are decoupled or (2) contain a lost revenue adjustment mechanism (LRAM).

Metric

Percentage of gas utility revenues from rate structures that are decoupled or contain a lost revenue adjustment mechanism (LRAM).

Definition

Revenue Decoupled Rate Structures are defined, according to the U.S. National Association of Regulatory Utility Commissioners in Decoupling for Electric & Gas Utilities (September 2007), as a rate adjustment mechanism that separates the entity's gas utility's fixed cost recovery from the amount of gas sold—and the utility's revenues are collected based on the regulatory-determined revenue requirement.

Rate structures that contain a LRAM are defined as volumetric rates that contain a mechanism which allows for recovery of lost revenues directly resulting from energy conservation, energy efficiency, demand side management, and/or distributed generation programs that are directly managed and/or implemented by the company.

Scope

This metric includes all National Grid US gas retail customers, and is reported in accordance in respect to US rate plans, as listed in IF-GU-240a.1 above.

In addition to retail customers, our New York operations include Natural Gas Vehicles and Electric Generators.

Our NE operations have a full Revenue Decoupling Mechanism (RDM), which considers changes in revenue from all factors (energy efficiency, the economy, weather, etc.), so therefore we do not have a separate LRAM. Our NE operations are not 100% decoupled because we do not include new, large or extra-large commercial and industrial (C&I) customers. We retain revenue billed to such customers, whether higher or lower than the RDM fixed revenue per customer (RPC) as determined in a rate case.

This metric is prepared in line with the previous calendar year, 1 January – 31December.

Calculation Methodology

New York (NY):

The percentage of revenue decoupled rate structures is calculated as a measure of the total regulated gas distribution delivery revenue targets set for the calendar year for customers covered by RDM or LRAM, divided by the total regulated gas distribution revenue.

1. Percent of Revenue Decoupled Rate Structures = (RDM revenue targets / total gas distribution revenue)
2. Percent of Lost Revenue Adjustment Mechanism = (LRAM revenue targets / total gas distribution revenue)

New England (NE):

The percentage of revenue decoupled rate structures is calculated as a measure of the total regulated gas distribution revenue billed during the calendar year for customers covered by RDM, divided by the total regulated gas distribution revenue.

1. % of Revenue Decoupled Rate Structures = (gas distribution revenue covered by RDM / total gas distribution revenue)

IF-GU-420a.2 Customer gas savings from efficiency measures by market

Metric

The total amount of gas savings delivered to customers, in million British thermal units (MMBtu), from energy efficiency measures during the reporting period for each service territory.

Definition

Gas savings from efficiency measures are defined as the gross savings approach to changes in energy consumption and/or demand that results from program-related actions taken by participants in an efficiency program, regardless of why they participated.

Markets are defined as those operations that are subject to distinct public utility regulatory oversight.

Scope

US retail gas customers.

The scope of gas savings from efficiency measures includes savings delivered directly by the company and, where regulations provide, savings substantiated by purchases of efficiency savings credits.

NY Gas

- Data includes energy efficiency (EE) programs that are administered by the Company in the NY service territory for the represented calendar year. Third party vendors report data to the Company through invoices and data submission on an annual basis, and in accordance with regulatory requirements.

MA Gas

- The provided data represents the energy efficiency (EE) measures installed by National Grid in its MA service territory for the represented calendar year. The savings reported from the tracking system are constantly evaluated and verified by independent third-party evaluators, and in accordance with regulatory requirements.

RI Gas

- Data includes energy efficiency (EE) programs that are administered by the Company in the RI service territory for the represented calendar year. Third party vendors report data to the Company through invoices and data submission on an annual basis, and in accordance with regulatory requirements.

This metric is prepared in line with the previous calendar year, 1 January – 31 December, in accordance with regulatory reporting requirements.

Calculation Methodology

Data for gas efficiency savings is continuously reported and tracked over the course of the year via our operational management and reporting systems. All gas efficiency savings for National Grid US customers made over the previous year are summed to calculate the total customer gas savings from efficiency measures by operating company.

Data is reported to the State Regulators as per regulatory requirements.

Sustainability Accounting Standard Board continued

Gas utilities & distributors continued

Integrity of Gas Delivery Infrastructure

IF-GU-540a.1 Number of (1) reportable pipeline incidents, (2) Corrective Action Orders (CAO), and (3) Notices of Probable Violation (NOPV)

Metric

Number of reportable pipeline incidents, corrective actions, and violations.

Definition

A reportable pipeline incident is defined as events that involve a release of gas from a pipeline and that result in one or more of the following consequences: a death or personal injury necessitating in-patient hospitalization; estimated property damage of $50,000 or more, including losses to the operator, losses to others, or both, but excluding the cost of gas lost; an unintentional estimated gas loss of three million cubic feet or more; or an event that is significant in the judgment of the operator, consistent with the definition provided in U.S. 49 CFR 191.

A Corrective Action Order (CAO) is issued when a particular pipeline facility is found to be hazardous to life, property, or the environment. A corrective action may include suspended or restricted use of the facility, physical inspection, testing, repair, replacement, or other appropriate action, consistent with the definition provided by U.S. 49 CFR 190.233.

A Notice of Probable Violation (NOPV) is defined as the beginning of an enforcement proceeding that contains a statement of the provisions of the laws, regulations, or orders that the respondent is alleged to have violated and a statement of the evidence upon which the allegations are based, consistent with the definition provided in U.S. 49 CFR 190.207.

Scope

(1) This metric includes all gas business activities that meet the federal definition of 'incident' and are thus reported to PHMSA.

(2) (3) COA and NOPV are instances of external enforcement action by regulatory bodies for violations of federal and state pipeline safety regulations.

This metric is prepared in line with the financial year, April 1 – March 31.

Calculation Methodology

The data is collected within our Risk Management systems and monitored continuously over the course of operations. All reported pipeline incidents, corrective actions, and violations for the previous calendar year are summed at the year-end for the purpose of reporting.

IF-GU-540a.2: Percentage of distribution pipeline that is (1) cast and/or wrought iron and (2) unprotected steel

Metric

The percentage, by length, of distribution pipeline that is cast/wrought iron and unprotected steel

Definition

Distribution pipeline is defined as gas distribution main[43] pipelines that operate at less than 124 PSIG (NY) and less than 200 PSIG (NE), where:

1. Cast and/or wrought iron is defined as iron that is heated to its melting point and poured into molds and cannot be molded or screwed.
2. Unprotected steel is defined as steel with no form of corrosion protection.

The material and percentages of our distribution mains are tracked within our inventory gas distribution systems and mapping software.

Scope

All National Grid US distribution pipeline "mains". This metric does not include gas distribution services[44].

This metric is prepared in line with the previous calendar year, 1 January – 31 December, in accordance with regulatory reporting requirements.

Calculation Methodology

(1) Cast and/or wrought iron distribution pipelines and (2) unprotected steel distribution pipelines are calculated as a percentage of the total length of our US distribution pipeline system.

Percentage = [Total length of cast/wrought iron distribution pipeline / Total length of US distribution pipeline]

Percentage = [Total length of unprotected steel distribution pipeline / Total length of US distribution pipeline]

IF-GU-540a.3: Percentage of gas (1) transmission and (2) distribution pipelines inspected

Metric

The percentage, by length, of gas transmission and distribution pipelines inspected per state (US) or national system (UK) and regulatory requirements for the previous calendar year.

Definition

A transmission pipeline[45] is defined as gas pipelines that operate over 20% SMYS (US). In the UK National Grid owns the Gas Transmission System only, that operates up to system pressures of 94 bar.

A distribution pipeline[44] is defined as gas distribution main pipelines that operate at less than 124 PSIG (NY) and less than 200 PSIG (NE).

[43] 49 CFR 192.3: Main means a distribution line that serves as a common source of supply for more than one service line.

[44] A service pipeline is defined, according to 49 CFR 192.3, as a distribution line that transports gas from a common source of supply to an individual customer, to two adjacent or adjoining residential or small commercial customers, or to multiple residential or small commercial customers served through a meter header or manifold. A service line ends at the outlet of the customer meter or at the connection to a customer's piping, whichever is further downstream, or at the connection to customer piping if there is no meter.

[45] A transmission pipeline is defined, according to U.S. 49 CFR 192.3, as a pipeline, other than a gathering line, that (1) transports gas from a gathering line or storage facility to a distribution center, storage facility, or large volume customer that is not down-stream from a distribution center; (2) operates at a hoop stress of 20 percent or more of the specified minimum yield strength (SMYS); or (3) transports gas within a storage field.

Sustainability Accounting Standard Board continued

Gas utilities & distributors continued

Scope
All National Grid US transmission and distribution pipeline "mains". This metric does not include gas distribution[46] services.

The company is required to conduct these surveys per the state and regulatory codes.

Our US Transmission pipeline system is inspected every 7 years with ILI or ECDA, and our US Distribution system is inspected every 3 years.

Inspection activities include those listed under U.S. 49 CFR 192 for gas pipelines, including:

- Internal inspection tool or tools capable of detecting corrosion and any other threats to which the covered segment is susceptible
- Pressure test(s)
- Direct assessment to address threats of external corrosion, internal corrosion, or stress corrosion racking
- Other technology that an operator demonstrates can provide an equivalent understanding of the condition of the pipeline

This metric is prepared in line with the previous calendar year, 1 January – 31 December, in accordance with regulatory reporting requirements.

Our UK Transmission Pipeline is subject to Pressure Systems Safety Regulations (PSSR) inspection run requirements.

Calculation Methodology
The percentage is calculated as the length of gas pipelines inspected divided by the total length of gas pipelines

Activity Metrics

IF-GU-000.A: Number of: (1) residential, (2) commercial, and (3) industrial customers served

Metric
Total number of National Grid US gas customers served for the following retail customer classes; residential, commercial, and industrial.

Definition
The number of customers served for each class shall be considered as the average number of gas meters billed over the 12-month period.

Scope
National Grid US gas customers.

This metric is prepared in line with the previous calendar year, 1 January – 31 December.

Calculation Methodology
Data is extracted from the general ledger for each US operating company and combined to calculate the total customers served.

IF-GU-000.B: Amount of natural gas delivered to: (1) residential customers, (2) commercial customers, (3) industrial customers, and (4) transferred to a third party

Metric
The amount of natural gas delivered to each customer class, residential, commercial, and industrial, and transferred to a third party; measured in dekatherms[48].

Definition
The amount of natural gas delivered is a measure of energy consumption that takes into consideration environmental variables, i.e. the total heating value of natural gas as opposed to volume.

Scope
National Grid US gas customers.

This metric is prepared in line with the previous calendar year, 1 January – 31 December.

Calculation Methodology
Data is extracted from the general ledger for each US operating company and combined to calculate the amount of natural gas delivered to each customer class.

IF-GU-000.C Length of gas: (1) Transmission, and (2) Distribution pipelines
This information is provided within our Annual Report and Accounts on page 4.

[47] A service pipeline is defined, according to 49 CFR 192.3, as a distribution line that transports gas from a common source of supply to an individual customer, to two adjacent or adjoining residential or small commercial customers, or to multiple residential or small commercial customers served through a meter header or manifold. A service line ends at the outlet of the customer meter or at the connection to a customer's piping, whichever is further downstream, or at the connection to customer piping if there is no meter.

[48] 1 Million British thermal unit (MMBtu) = 1 Dekatherm (Dth)