



**2023 operational and value chain GHG emissions
basis of reporting**

Reporting boundary

Royal London's operational and value chain emissions include Scope 1, 2 and 3 emissions (excluding category 15, financed emissions). For the purpose of reporting, these emissions are referred to as "operational and value chain" emissions.

Royal London takes the 'operational control' approach, as defined by the Greenhouse Gas Protocol, to operational and value chain emissions reporting. This means Royal London accounts for 100% of emissions from operations over which it has operational control.

Where vehicles are owned or controlled by Royal London and we are the payer of fuel or electricity, emissions will fall under Scope 1 and 2. Where vehicles are not owned by Royal London, emissions are categorised as Scope 3 (value chain) emissions.

Where possible, data for new acquisitions and the impact of disposals, such as the closure of an office, will be captured in the reporting period in which the changes take effect. Where this is not possible, the data will be captured in the following reporting period and prior years restated.

The reporting period for GHG emissions is from 1 January to 31 December 2023.

Approach and methodology

Scope 1 GHG emissions (tCO₂e)

This category covers emissions generated from the gas and oil used in buildings, emissions generated from Group-owned vehicles and company cars used for business travel and fugitive emissions arising from the use of air-conditioning and chiller/refrigerant equipment.

Emissions factor sources: UK Government GHG Conversion Factors for Company Reporting, DESNZ/DEFRA, June 2023.

- **Company facilities – natural gas:** Natural gas is recorded in kilowatt hours (kWh). Where meter readings are provided as volume of natural gas (m³) consumed, this is converted to energy (kWh). This is then converted to tonnes of carbon dioxide equivalent (tCO₂e). Where estimates are required, they are calculated using one of three methods (in order of preference): direct comparison, pro-rata extrapolation, and benchmarking.
- **Company facilities - refrigerant gases:** Fugitive emissions relating to refrigerant gas is recorded in kgs of refrigerant lost to atmosphere or removed from company-controlled systems. This is then converted to carbon dioxide equivalent (tCO₂e) using the appropriate Global Warming Potential (GWP).
- **Company vehicles (owned or controlled by the Group using fossil fuels):** Energy, kWh and tCO₂e are calculated applying the distance-based method using vehicle mileage obtained via expense claims and the emission factors for vehicle size, fuel type and the appropriate year.

Scope 2 GHG emissions (tCO₂e)

This category covers emissions generated from the use of electricity in buildings and electric vehicles owned by the Company and is calculated in accordance with Greenhouse Gas Protocol guidelines in both location-based and market-based methodologies.

Emissions factor sources: UK Government GHG Conversion Factors for Company Reporting, DESNZ/DEFRA, June 2023 / AIB European Residual Mixes, 2022 (market-based factor - residual mix).

Location-based method

- **Purchased electricity (location-based):** Electricity purchased from the national grid, or an alternative third-party generation source are recorded in kWh. These are then converted to tCO₂e. Where estimates are required, they are calculated using one of three methods (in order of preference): direct comparison, pro-rata extrapolation, and benchmarking.
- **Company vehicles (owned or controlled by the Group utilising electric charging):** This methodology applies to electric and plug-in hybrid vehicles. Energy in kWh and emissions are calculated applying the distance-based method, which uses vehicle mileage obtained via expense claims and the emission factors for each vehicle size, fuel type and electricity used for charging.

Market-based method

- **Purchased electricity (market-based):** Electricity purchased from the national grid, or an alternative third-party generation source. Energy sourced from certified renewable sources via the Renewable Energy Guarantees of Origin (REGO) scheme (UK) or Guarantee of Origin scheme (GOs) scheme (Republic of Ireland) is currently classified as carbon neutral and is included in the market-based Scope 2 emissions. Confirmation of REGO and GOs electricity supply is obtained and retained as evidence.

Energy sourced from non-renewable sources represent reportable emissions, calculated using country specific residual mix factors obtained from the Association of Issuing Bodies (AIB) for the most recent year available.

Scope 3 – GHG (Value Chain) emissions (tCO₂e)

Categories 9, 10, 11, 12 and 14 of Scope 3 are not applicable to Royal London.

Categories 8 and 13 of Scope 3 were not applicable to Royal London in 2023.

Category 15 (Investments) emissions data is reported separately.

Category 1: Purchased goods and services and Category 2: Capital goods

These categories cover emissions from the extraction, production, and transportation of purchased goods and services (from cradle to gate).

Capital goods procurement categories for fuel, fleet, electricity, gas, and water are disregarded to prevent double counting of emissions which are covered in other elements of Scope 3.

Emissions factor sources: Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities, Supply Chain Factors Dataset v1.2, 2021 / CDP data provided to RLG and collected from suppliers (2022).

The methodology used for the calculation of categories 1 and 2 Scope 3 emissions is a hybrid method of the following two approaches:

- **Hybrid Method:** Using data from the CDP, a supplier-specific carbon factor (tCO₂e/£) is created for each supplier based on their total annual Scope 1, 2, 3 emissions and annual turnover. The factor is applied to the total annual spend on each supplier to obtain the carbon emissions (tCO₂e). This hybrid method allows for more in-depth actual data to be utilised where it is available, while implementing estimations for the remaining dataset using the spend-based method
- **Spend-Based Method:** Where suppliers are not covered by CDP, or the data provided to CDP is assessed to be insufficient, industry carbon factors are used from EEIO (Environmentally Extended Input-Output) data. The factor is applied to the total annual spend on each supplier to obtain the carbon emissions (tCO₂e).

Category 3: Fuel and energy related activities:

This category includes emissions from the extraction, production and transportation of fuels and purchased energy (not accounted for within Scopes 1&2), as well as due to the loss of energy during transmission and distribution.

Emissions factor sources: UK Government GHG Conversion Factors for Company Reporting, DESNZ/DEFRA, June 2023 / SEAI (Sustainable Energy Authority of Ireland), 2022.

- **Transmission and distribution losses from fuel and energy** purchases are converted from kWh to CO₂e.
- **Well-to-tank (WTT):** Carbon conversion factors are applied to the annual electricity, natural gas, and other fuel consumption to calculate associated WTT emissions.

Category 4: Upstream transportation and distribution

This category includes water supply transportation and distribution emissions to our offices.

This is converted from m³ or litre water consumption to CO₂e using a water supply factor. Where estimates are required to calculate the water consumption, the BBP REEB Water Benchmark is applied.

Emissions factor source: UK Government GHG Conversion Factors for Company Reporting, DESNZ/DEFRA, June 2023.

Category 5: Waste generated in operations

This category covers all emissions from the disposal and treatment of waste generated from our offices, with the exclusion of Wealth Wizards (Athena Court).

Emissions factor source: UK Government GHG Conversion Factors for Company Reporting, DESNZ/DEFRA, June 2023.

- **Waste tonnage** from all sites and waste streams is converted from tonnes to CO₂e using a waste carbon factor for each waste stream and processing type.

Waste data is estimated by using a pro-rata average of available months' data. If a site is missing waste data, this is estimated by apportionment of average tCO₂e / FTE of the sites where data is available.

- **Wastewater** is converted from m³ to CO₂e using a wastewater treatment carbon factor.

Water consumption is estimated where data is not available using one of two methods:

- The site FTE is used to estimate m³ consumption using a Good Practice water intensity factor (litres / person / working day) sourced from the BBP REEB Water Benchmark for Offices.
- The site floor area in m² (Net Lettable Area, NLA) is used to estimate m³ consumption using a Good Practice water intensity factor (litres / m² NLA / year) sourced from the BBP REEB Water Benchmark for Offices.

Category 6: Business Travel

This category covers emissions generated from Group rail and air business travel, hotel stays, taxi travel, and personal car use.

Emissions factor source: UK Government GHG Conversion Factors for Company Reporting, DESNZ/DEFRA, June 2023.

- **Rail and air** input data is obtained via a report from Amex, a global business travel agency, and emissions are calculated using a rail and air carbon factor and data including travelled distance, mode of transport, haul, and class of service.

For Air estimations: a short haul average conversion factor is used for European Premium Economy. A domestic average conversion factor is used for Domestic Business due to no specific conversion factors being available.

- **Expensed travel** (road, non-company owned cars) input data is obtained from Zenith – Intelligent vehicle solutions, and emissions are calculated using data including vehicle mileage, engine size and fuel type used.

Where required, data is estimated using the average £/mile for the rest of the available cost data.

- **Taxi travel** input data is obtained from invoices and emissions are calculated using taxi spend data (converted to mileage) and the percentage of electric vehicles.

Estimated Taxi mileage data is calculated using an average UK cost per mile and taxi spend invoices.

- **Hotel stays** input data is obtained via a report from Amex, a global business travel agency and emissions are calculated using hotel stay destination information and the number of nights.

For countries where a conversion factor is not available, an average of available conversion factors is applied based on region (European/international).

Category 7: Employee Commuting & Homeworking

This category covers emissions from transportation of employees between their homes and their work sites (in vehicles not owned or operated by the Group) and emissions from employees working from home.

Emissions factor source: UK Government GHG Conversion Factors for Company Reporting, DESNZ/DEFRA, June 2023.

- **Employee commuting:** The employee travel survey results, office occupancy and FTE data is used to calculate the carbon emissions. The results from the optional travel survey, are extrapolated for the total FTE of the company.
- **Working from home:** Results from the working from home survey, office occupancy and FTE data is used to calculate the carbon emissions. The methodology in the Eco Act homeworking whitepaper is used.

- **Shuttle bus:** Shuttle bus fuel, passenger numbers and working days are used to calculate the carbon emissions for two shuttle buses between the train station and office in Alderley Park. Where fuel data is unavailable, this is estimated using the average l/mile ratio of RLG shuttle buses.

The travel / working from home survey had a 24.1% response rate in 2023.

Category 8: Upstream leased assets

This category covers emissions from the operation of assets leased by Royal London and not included in Scope 1 and Scope 2, where Royal London does not have full operational control of the property, under an operating lease.

Purchased natural gas and electricity from leased assets is converted from KWh to tCO_{2e} on a monthly basis.

Where gas & electricity data is not available or incomplete, consumption is estimated by one of the following:

- Direct Comparison: Utilisation of figures from a comparable period (same day, week and/or month in another year).
- Pro-rata extrapolation: Utilisation of data for another period to apportion data for another (average over a set period applied to another)

There were no upstream leased assets applicable to Royal London Group operations in 2023.

Category 13: Downstream leased assets

This category covers emissions from the operation of assets owned by the reporting company (lessor) and leased to other entities, where Royal London does not have full operational control of the property.

Purchased natural gas and electricity from leased assets is converted from KWh to tCO_{2e} on a monthly basis.

Where gas & electricity data is not available or incomplete, consumption is estimated by one of the following:

- Direct Comparison: Utilisation of figures from a comparable period (same day, week and/or month in another year).
- Pro-rata extrapolation: Utilisation of data for another period to apportion data for another (average over a set period applied to another)

There were no upstream leased assets applicable to Royal London Group operations in 2023.