

## Basis of Reporting: Environmental Data

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### 1. Overview

This Basis of Reporting document provides detail on the scope of reporting and the reporting criteria against which Ferguson plc prepares and reports environmental data for the Group Annual Report and Accounts and the corporate website. As in previous years, reported figures includes estimates where actual data is unavailable. The reported environmental metrics for Financial Year (FY) 2018/19 (1 August 2018 – 31 July 2019) are:

#### Greenhouse Gas (GHG) emissions (tCO<sub>2</sub>e)

(i) Estimated absolute GHG emissions from:

• electricity use	Scope 2
• fuel consumption for operations*	Scope 1
• vehicle fuel use: Goods transport (owned/leased vehicles)	Scope 1
• vehicle fuel use: Goods transport (outsourced transportation)	Scope 3
• vehicle fuel use: People transport (company owned/leased vehicles)	Scope 1
• vehicle fuel use: People transport (private/hired vehicles)	Scope 3
• business travel: Rail, Air, and Rental Car	Scope 3
• refrigerant leakage	Scope 1

\*this includes natural gas, liquefied petroleum gas (LPG), diesel, petrol, and heating oil (Scope 1) unless not applicable or deemed insignificant. Fuels for operation are used for heating, emergency generators (as needed) and on-site mobile sources (e.g., forklifts).

(ii) GHG emissions per \$m revenue

This intensity metric is calculated by the Sustainability Team using published accounts data and constant currency figures provided by Ferguson Group Finance.

#### Waste (US Tons)

(i) Absolute waste tonnage, split by disposal fate:

- Waste: Incinerated
- Waste: Landfilled
- Waste: Recycled

(ii) Waste per \$m revenue

This intensity metric is calculated by the Sustainability Team using published accounts data and constant currency figures provided by Ferguson Group Finance.

- (iii) Recycled waste as a % of total waste

## Overall

It is the responsibility of each Ferguson business (see table below) to ensure that appropriate procedures are in place to provide data in line with this Basis of Reporting document.

Data is reported in line with Ferguson Group’s financial reporting year (01 August – 31 July), at the half year (to include 01 August to 31 January data) and the full year (to include 01 August to 31 July data). Data is reported by month at a half-year frequency.

Acquisitions, as aligned with the reporting boundary, are included as soon as the data becomes available but no later than 12 months after acquisition, unless otherwise stated.

Divestments are removed from the data from date of divestment and retrospectively where a full business is divested. Divestments that occurred during this reporting period include Wasco and Soak.com, and the data for these non-ongoing operations have been removed from all three years of data on the Group’s performance. In alignment with the GHG Protocol, organic site closures are not retrospectively removed from the data.

The measuring and reporting of environmental performance data involves a degree of estimation and the use of assumptions. Historic data is restated where material changes are made due to data improvements (e.g., refined estimation or calculation methodologies). All restatements are approved by the Group Director of Sustainability. Narrative is provided in the Annual Report to explain adjustments to prior year numbers.

## 2. Scope of Reporting

Ferguson is a global business that employs around 35,000 people. Ferguson directly owns or leases its operations and a full list of the Group’s subsidiary undertakings is available in our Annual Report of Accounts.

The organisational boundary and the operational boundary of Ferguson’s environmental data reporting are detailed below. Ferguson uses the Financial Control reporting boundary as delineated by the Greenhouse Gas Protocol.

### (a) Organisational boundary

Ferguson’s collected data includes all fully and majority owned operations (including distribution businesses and the Ferguson plc and Ferguson Group Services head quarter locations). The businesses and locations from which environmental data is calculated represent 99% of Ferguson Group’s total employee numbers. During this reporting year, Ferguson plc headquarters was relocated to the UK, and now resides at the same location as Ferguson Group Services Limited. Therefore, these entities are now reported together.

Company or headquarters	Location
Ferguson Enterprises Incorporated*	USA
Wolseley Canada Incorporated	Canada
Wolseley UK	UK

Ferguson plc and Ferguson Group Services	UK
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Several small sourcing offices (or registered addresses) are excluded from the reporting boundary as they have less than 100 FTEs (Full Time Equivalent employees). The excluded facilities include:

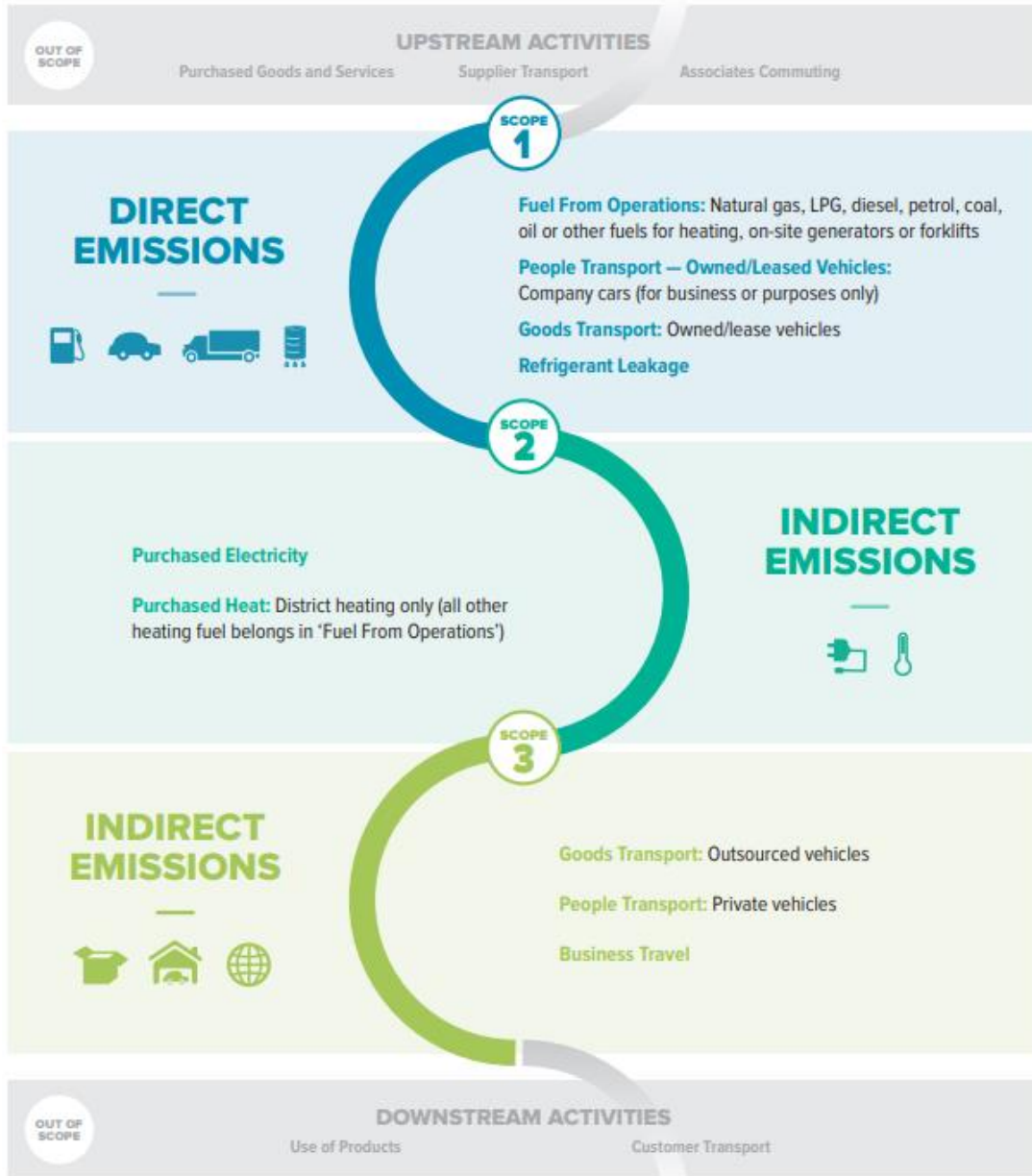
Small operations and sourcing offices in:

- Barbados
- Trinidad and Tobago
- Panama
- Puerto Rico
- Mexico
- Netherlands
- Canada
- Taiwan
- China

The FTEs for each above listed location will be assessed annually to ensure their exclusion from the reporting boundary remains appropriate.

## (b) Reporting boundary

For GHG emissions reporting, the activities outlined in the diagram below are included in the financial reporting boundary.



For global scope 3 goods transport emissions, only fuel related to road or rail-based transportation of goods is currently within scope. Other forms of outsourced transportation are used by some of our businesses (for example, international cargo shipments), but this data is not yet captured. The data for Ferguson's US operations includes full loads, LTLs (Less Truck Loads), and domestic ocean travel, but not small package or parcel deliveries.

Scope 3 people-transport includes emissions from employee vehicles or rental cars when used for business purposes, not including the commute to and from work. Business travel data is limited to air travel, rail travel, and rental car data booked through Ferguson's corporate travel department. Limited travel is booked outside of these approved systems. Ferguson is looking to close the possibility of direct-booking via administrative controls. Other forms of travel are less common and therefore not included (for example, coach travel or sea travel or chartered flights).

Waste and recycling data includes all hazardous and non-hazardous waste produced by the Ferguson businesses and headquarters within the reporting boundary. Hazardous waste definitions differ for each business according to their own national environmental regulations. For EU countries the definition of hazardous waste is defined by an EU directive ([European Waste Catalogue](#)). For the US, the definition of hazardous waste is defined by the Environmental Protection Agency (EPA) ([EPA Waste Types](#)).

As we operate primarily in distribution, Ferguson's water usage is limited to potable water and sewerage.

### **3. Reporting Criteria**

Environmental data preparation and reporting happens in two phases:

(i) Ferguson businesses and headquarters report activity data twice a year to Ferguson Group Services, for example kWh of electricity and litres of fuel. Data is provided via a web-based reporting tool and supporting Excel spreadsheets and can be reported using a number of pre-defined units of measure, highlighted to the businesses in a Data Reporting Manual.

(ii) The web-based reporting system is set up to convert the business data into standard units of measure for each activity (for example, the standard unit of measure for electricity is kWh) using the conversion factors stated in the Data Reporting Manual. The system also applies the appropriate emissions factors (See pages 8-10 of this document) to calculate the Group tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e). Reports are set up to calculate the intensity measures (per \$m revenue for carbon and waste). Revenue data is provided by Ferguson Group Finance in local currency for the equivalent reporting period and organisational scope. Exchange rates are provided by Ferguson Group Finance for the equivalent reporting period and are applied to current and prior period revenues to remove the impact of currency fluctuations from the reported performance. All financial data undergoes an annual financial audit by a third-party firm.

**(i) Ferguson businesses and headquarters reporting criteria**

Metric*	Acceptable units of measure	Definition	Typical sources of data
<b>tCO<sub>2</sub>e contributors</b>			
Electricity**	Kilowatt-hours (kWh) / million BTU / gigajoules	The total amount of electricity used. (the country in which the electricity was used should also be confirmed)	Utility bills, online energy management systems or confirmation from utility provider.
Fuel for Operations: Natural Gas	kWh / Cubic metres / million BTU / Therms (US)	Fuel for Operations captures all fuel consumed in a company's operations <i>except</i> for fuel related to transport. The most common source of fuel use is heating. Other activities which may use fuel include use of generators (emergency and otherwise) and other on-site equipment (e.g. forklift trucks)	This information may be obtained from local utility bills (e.g., natural gas suppliers) from local records, (e.g., documentation detailing the amount of oil purchased/used (via company issued credit cards), fuel tank level measurements, logs of emergency generator use, etc.) from large suppliers, or from general ledger accounts.
Fuel for Operations: Oil	Litres / U.S. gallons		
Fuel for Operations: LPG	Litres / U.S. gallons / Kilograms		
Fuel for Operations: Diesel	Litres / U.S. gallons		
Fuel for Operations: Petrol	Litres / U.S. gallons		
Vehicle fuel consumption: Goods Transport (Owned / leased fleet)	Preferred units: Litres or U.S. gallons Other acceptable units: Kilometres or miles	The total volume of fuel used, by type (i.e., diesel, petrol, LPG or other) related to: (i) Transportation of goods from distribution centres to branches/locations, only by owned or leased vehicles (ii) Transportation related to picking up goods directly from a supplier, and transporting them to a distribution centres or to branches/locations, only by owned or leased vehicles (iii) Delivery of goods to customers, only by owned or leased vehicles and (iv) any other goods transportation.	Fuel card records. Fuel invoices. General ledger accounts.
Vehicle fuel consumption: Goods Transport (Outsourced Transportation)	Preferred units: Litres or U.S. gallons Other acceptable units: Kilometres, miles or tonne kms (for freight train transport)	The total volume of fuel used, by type (i.e., diesel, petrol, LPG or other) related to: (i) Transportation of goods from distribution centres to branches/locations outsourced to a third-party, (ii) Transportation outside of the US business related to picking up goods directly from a supplier, and transporting them to a distribution centre or to branches/locations outsourced to a third-party and (iii) Delivery of goods outside of the US business to customers outsourced to a third-party	Actual fuel data is provided by the UK third-party transport provider. In the US, transport invoices miles and mode of transport from third-party transport provider and tracked internally. Miles are calculated based on fleet average fuel costs in Canada.
Vehicle fuel consumption: People Transport (Company owned / leased vehicles)	Preferred units: Litres or U.S. gallons Other acceptable units: Kilometres or miles	The total volume of fuel used, by type (i.e., diesel, petrol, LPG or other) related to: Vehicle-based, business-related travel of people (not including commuting to and from work). This only includes transportation in Ferguson-owned cars/vehicles, as well as cars/vehicles leased from other organisations.	Fuel card providers Fuel invoices Expenses systems
Vehicle fuel consumption: People Transport (Private or hired vehicles)	Preferred units: Litres or U.S. gallons Other acceptable units: Kilometres or miles	The total volume of fuel used, by type (i.e., diesel, petrol, LPG or other) related to: Vehicle-based, business-related travel of people (not including commuting to and from work). This only includes transportation in Ferguson-owned cars/vehicles, as well as cars/vehicles leased from other organizations.	Fuel card records. Fuel claims. Mileage claims.
Business Travel – Air (short haul)	Kilometres / Miles	The total distance of air travel for trips that are between 0 and 300 miles (0-482 kilometres) in length.	Travel company Expenses system.

Metric*	Acceptable units of measure	Definition	Typical sources of data
			Flight invoices. Business travel is not tracked for Canadian acquisitions.
Business Travel – Air (medium haul)***	Kilometres / Miles	The total distance of air travel for trips that are between 300 and 2300 miles (482-3701 kilometres) in length.	Travel company Expenses system. Flight invoices. Business travel is not tracked for Canadian acquisitions.
Business Travel – Air (long haul)	Kilometres / Miles	The total distance of air travel for trips that are over 2300 miles (3701 kilometres) in length	Travel company Expenses system Flight invoices. Business travel is not tracked for Canadian acquisitions.
Business Travel – Rail	Kilometres / Miles	The total distance of all rail-based travel	Travel company Expenses system Rail invoices
Refrigerant Leakage in operations	Kilograms / Pounds	The total weight of refrigerants leaked (i.e., replenished), by type	Estimates based on conditioned square footage, or contractor invoices. In the US business, an unknown refrigerant blend is assumed for the refrigerant type and a leakage rate of 8% (EPA) is applied to the estimated refrigerant use per sq. ft of conditioned space. Refrigerants are not tracked in Canada.
<b>Waste</b>			
Hazardous waste – incinerated	Kilograms / Metric Tonnes or U.S. Tons	Total weight should be reported. Hazardous waste includes wastes which are defined as 'hazardous' by each business' local (i.e., country-specific) environmental regulations. Includes all waste, both from normal operations and from non-standard activities (i.e. discarded/off-spec products (unless sent back to the supplier) or construction debris related to construction, demolition or an extension to an existing structure). Actual weights should be used wherever possible. If actual weights are not available, 'average' weights should be used (based on a Ferguson or industry profile). If average weights are not available, it should be assumed that all bins are full upon collection and an appropriate conversion (volume to mass) applied.	Waste contractor (for average weights). Hazardous waste is not tracked for Canadian operations. Waste generation not managed by national waste contractors is estimated using employee count and CalRecycle Solid Waste Characterization benchmarks
Hazardous waste – landfilled	Kilograms / Metric Tonnes or U.S. Tons		
Hazardous waste – recycled	Kilograms / Metric Tonnes or U.S. Tons		
Non-hazardous waste – incinerated	Kilograms / Metric Tonnes or U.S. Tons		
Non-hazardous waste – landfilled	Kilograms / Metric Tonnes or U.S. Tons		
Non-hazardous waste – recycled	Kilograms / Metric Tonnes or U.S. Tons		

\*The data reported under any of the listed metrics may include estimates. Actual data is provided when available.

\*\* Ferguson does not currently collect direct data on a business' renewable electricity purchases. Businesses are requested to indicate the percentage of their total electricity that is certified by such an agreement and provide a copy of the green electricity contract/certificate. This data is used for internal purposes and is not currently reported.

\*\*\* If a business is unable to split the distance by short-/medium-/long-haul (if for example only spend data is available), the GHG emissions are calculated assuming a medium-haul.

## (ii) Ferguson Group Services

The activity data reported by each business is first converted into standard units of measure (UOM) and secondly (except for waste) is converted into a tCO<sub>2</sub>e impact using the emissions factors below:

Metric (and UOM)	Emissions factor
<b>tCO<sub>2</sub>e contributors</b>	
Electricity (kWh)	IEA CO <sub>2</sub> emissions for OECD countries available in 2019 (the 2017 factors). gCO <sub>2</sub> e per kWh of electricity. (Converted to kg CO <sub>2</sub> e per kWh of electricity for each country).
Fuel for Operations: natural gas (kWh)	DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: "Fuels". Gaseous Fuels. Natural Gas. kWh _ Energy Gross CV. kg CO <sub>2</sub> e.
Fuel for Operations: oil (kWh)	DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: " <b>Fuels</b> ". <b>Liquid Fuels. Fuel Oil.</b> kWh _ Energy Gross CV. kg CO <sub>2</sub> e.
Fuel for Operations: LPG (Litres)	DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: " <b>Fuels</b> ". <b>Gaseous Fuels. LPG.</b> Litres - Volume. kg CO <sub>2</sub> e.
Fuel for Operations: Diesel (Litres)	DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: " <b>Fuels</b> ". <b>Liquid Fuels. Diesel</b> (average biofuel blend). Litres _ Volume. kg CO <sub>2</sub> e.
Fuel for Operations: Petrol (Litres)	DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: " <b>Fuels</b> ". <b>Liquid Fuels. Petrol</b> (average biofuel blend). Litres _ Volume. kg CO <sub>2</sub> e.
Fuel for Operations: Biomass (various)	Tonnes: DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: " <b>Bioenergy</b> ". <b>Biomass: Wood pellets. Tonnes.</b> kg CO <sub>2</sub> e. kWhs: DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: " <b>Bioenergy</b> ". <b>Biomass: Wood pellets. kWh.</b> kg CO <sub>2</sub> e.
Fuel for Operations: District Heating (kWh)	Where national emissions factors are not applied: DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: " <b>Heat and steam</b> ". <b>District heat and steam.</b> kg CO <sub>2</sub> e.
Vehicle fuel consumption: Goods Transport (Owned / leased fleet) (Litres or km)	<b>Diesel (Litres):</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: "Fuels". Liquid Fuels. Diesel (average biofuel blend). Litres _ Volume. kg CO <sub>2</sub> e. <b>Petrol (Litres):</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: "Fuels". Liquid Fuels. Petrol (average biofuel blend). Litres _ Volume. kg CO <sub>2</sub> e. <b>Biodiesel (Litres):</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: "Bioenergy". Biofuel: Biodiesel. Litres. kg CO <sub>2</sub> e. <b>Biodiesel (kgs):</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: "Bioenergy". Biofuel: Biodiesel. kg. kg CO <sub>2</sub> e. <b>Diesel (kms):</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: "Freighting goods". HGV (all diesel). HGV: Average Laden. kms. <b>Freight train (tonne kms):</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019</a> . Conversion Factors Full Set. 2019. Workbook tab: "Freighting goods". Rail. Freight train. Tonne.km kg CO <sub>2</sub> e.



Metric (and UOM)	Emissions factor
tCO <sub>2</sub> e contributors	
Vehicle fuel consumption: People Transport (Company owned / leased vehicles) (Litres or km)	<p><b>Diesel (Litres):</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-fuels-liquid-fuels">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-fuels-liquid-fuels</a>. Diesel (average biofuel blend). Litres _ Volume. kg CO<sub>2</sub>e.</p> <p><b>Petrol (Litres):</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-fuels-liquid-fuels">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-fuels-liquid-fuels</a>. Diesel (average biofuel blend). Litres _ Volume. kg CO<sub>2</sub>e.</p>
Vehicle fuel consumption: People Transport (Private or hired vehicles) (Litres or km)	<p><b>Diesel (kms):</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-passenger-vehicles-cars-by-size">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-passenger-vehicles-cars-by-size</a>. Cars (by size). Average Car. Diesel. km. kg CO<sub>2</sub>e.</p> <p><b>Petrol (kms):</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-passenger-vehicles-cars-by-size">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-passenger-vehicles-cars-by-size</a>. Cars (by size). Average Car. Petrol. km. kg CO<sub>2</sub>e.</p>
Business Travel – Air (short haul) (mi)	Environmental Protection Agency Emission Factors for Greenhouse Gas Inventories. <a href="https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf">https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf</a> . Table 8: "Business Travel and Employee Commuting". Air Travel- Short Haul (< 300 miles): passenger-mile. kg CO <sub>2</sub> e.
Business Travel – Air (medium haul) (mi)	Environmental Protection Agency Emission Factors for Greenhouse Gas Inventories. <a href="https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf">https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf</a> . Table 8: "Business Travel and Employee Commuting". Air Travel- Medium Haul (>= 300 miles, < 2300 miles): passenger-mile. kg CO <sub>2</sub> e.
Business Travel – Air (long haul) (mi)	Environmental Protection Agency Emission Factors for Greenhouse Gas Inventories. <a href="https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf">https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf</a> . Table 8: "Business Travel and Employee Commuting". Air Travel- Long Haul (>= 2300 miles): passenger-mile. kg CO <sub>2</sub> e.
Business Travel – Rail (km)	DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-business-travel-land">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-business-travel-land</a> . <b>Rail:</b> National Rail. km. kg CO <sub>2</sub> e.
Refrigerant Leakage in operations (tonnes)	<p><b>R22:</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-refrigerant-other">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-refrigerant-other</a>. Montreal Protocol (standard). HCFC-22/R22 = chlorodifluoromethane. kg. kg CO<sub>2</sub>e.</p> <p><b>R134A:</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-refrigerant-other">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-refrigerant-other</a>. Kyoto Protocol (standard). HFC-134a. kg. kg CO<sub>2</sub>e.</p> <p><b>R407C:</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-refrigerant-other">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-refrigerant-other</a>. Kyoto Protocol: blends. R407C. kg. kg CO<sub>2</sub>e.</p> <p><b>R410A:</b> DEFRA Greenhouse Gas Conversion Factor Repository. <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-refrigerant-other">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019-conversion-factors-full-set-2019-workbook-tab-refrigerant-other</a>. Kyoto Protocol: blends. R410A. kg. kg CO<sub>2</sub>e.</p> <p><b>R401A:</b> Bitzer International Refrigerant Report (16. Edition A-501-16) (Not included in Defra list)</p> <p><b>R417A:</b> Bitzer International Refrigerant Report (16. Edition A-501-16) (Not included in Defra list)</p> <p><b>R422D:</b> Bitzer International Refrigerant Report (16. Edition A-501-16) (Not included in Defra list)</p>

Greenhouse gas emissions are reported as tonnes of CO<sub>2</sub> equivalent (abbreviated as tCO<sub>2</sub>e), based on the Global Warming Potential (“GWP”) of each of the “basket of six” greenhouse gases, as defined by the Kyoto Protocol. The GWP of CO<sub>2</sub> is 1 (1 tonne CO<sub>2</sub> = 1 tonne CO<sub>2</sub>e). For other greenhouse gases in the “basket of six”, including refrigerants, the GWP is relative to the CO<sub>2</sub> over a 100-year time horizon (e.g. one tonne of the refrigerant R407C is equivalent to 1,526 tonnes of CO<sub>2</sub> in terms of its potential impact on climate change).

For questions on this Basis of Reporting, or to request additional detail, please contact [sustainability.team@ferguson.com](mailto:sustainability.team@ferguson.com).