
Group Greenhouse Gas Emissions Methodology 2021

1. Introduction

This statement summarises the reporting methodology for Persimmon Plc's greenhouse gas (GHG) emissions for the financial reporting year 1st January 2021 to 31st December 2021, and that are considered material. This methodology is in line with Persimmon's requirements to report on operational greenhouse gas emissions including mandatory carbon reporting requirements of the Companies Act 2006 (Strategic and Directors' Reports) Regulations 2013 and the Streamlined Energy and Carbon Reporting (SECR) regulations. The Group reports its GHG emissions and scope 1 and 2 energy usage in its Annual Report and Accounts.

2. Reporting approach

The methodology used to calculate our GHG emissions and energy use is the GHG Protocol Corporate Accounting and Reporting Standard (revised edition).

Persimmon Plc report on emissions using a financial control approach. The company has financial control over the operation if the former has the ability to direct the financial and operating policies of the latter with a view to gaining economic benefits from its activities. For example, financial control usually exists if the company has the right to the majority of benefits of the operation, however these rights are conveyed. Similarly, a company is considered to financially control an operation if it retains the majority risks and rewards of ownership of the operation's assets.

3. Scope and reporting boundary

Persimmon Plc is the holding company for the Persimmon Group of companies. It operates from 31 regional offices throughout the UK. The Group trades under the brand names of Persimmon Homes, Charles Church and Westbury Partnerships across England, Wales and Scotland.

Persimmon Plc also operates Space4, Tileworks, Brickworks manufacturing sites and Fibrenew broadband services.

Scope 1 emissions: Direct greenhouse gas emissions from natural gas consumed, use of fuels (diesel, petrol, LPG, kerosene), occurring from sources that are controlled by Persimmon Homes including offices, show homes, development sites, Space4, Brickworks, Tileworks and Fibrenew; and business travel in company owned and company leased vehicles.

Scope 2 emissions: Indirect greenhouse gas emissions from the use of purchased electricity, consumed in offices, show homes, development sites, Space4, Brickworks, Tileworks, and business travel in company owned or company leases vehicles.

Scope 3 other indirect sources within three categories of material significance:

- Category 1; Purchased goods and services – the impact from our supply chain for the provision of goods and services including materials used to build the homes.
- Category 6 & 7; Business travel and employee commuting – this is employee commuting.
- Category 11; Use of sold good – Greenhouse gas emissions from the use of homes by our customers, applied over the lifetime of the home.

4. Excluded activities

Based on materiality, any joint ventures, part-exchanges, the letting of premises to third parties and emissions occurring from refrigerant losses from air conditioning units from a selection of our regional offices have been excluded from our calculations.

5. Scope 1 and 2 Data collation and methodology

Electricity and gas

Electricity and gas consumption is provided by our energy suppliers for the following operations:

- Regional offices
- Show homes
- Stock properties that legally complete in the year
- Brickworks, Tileworks and Space4
- FibreNest broadband
- Temporary building supplies (e.g. site cabins)

Show homes and temporary building supplies

Meters installed within show homes and temporary building supplies use Non Half Hourly electricity meters. Meter readings are provided to our energy supplier during the course of the year.

Stock properties that legally complete in the year

The Group's stock properties have Non Half Hourly meters installed. Final meter readings are taken when the home is handed over to a customer and provided to our energy supplier on a regular basis throughout the year.

Regional offices

Half Hourly electricity meters have been installed in our offices across the Group, with 28 Non Half Hourly electricity meters. Meter readings are also provided to our energy broker on an annual basis.

Brickworks, Tileworks and Space 4

Half Hourly electricity meters have been installed within Brickworks, Tileworks and Space4. Meter readings are also provided by Persimmon to our energy broker on a regular basis.

Gas meters across the Group

Gas meters are fitted across the Group. Meter readings are provided to our energy providers on a regular basis.

Operational fuel

Operational fuel emissions are calculated using a spend-based methodology for the following fuel types used across our sites: LPG, Kerosene and Petrol. Operational fuel emissions are recorded based on supplier invoices received through Persimmon's financial accounting software, COINS, for regional operating businesses and Groundworks. For Space4, Tileworks and Brickworks, usage is provided through individual site's financial team based on supplier invoices.

Operational fuel emissions for Red Diesel used on construction sites has changed from a spend-based methodology and is now calculated using the amount of litres purchased. This information is based on supplier invoices received through COINS. Any invoices where the amount of litres has not been inputted correctly, or is not available a spend-based methodology has been applied.

Business travel in company owned or leased vehicles

The methodology for calculating travel emissions is calculated through employee surveys using a distance-based methodology, which involves determining the distance and mode of business trips, then applying the appropriate emission factor for the mode used.

This information has been extrapolated from a representative sample of employees to the total business travel of all employees.

Estimations

Where emissions for individual periods that make up the financial year are not available at the time of reporting, the Group applies the use of estimates and pro-rates.

Emissions conversions used

Emissions conversions have been calculated for all carbon streams using 2021 Government conversion factors for company reporting of greenhouse gas emissions from the Department for Business, Energy and Industrial Strategy, which can be found here:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021>

Consumption	Recorded as	Conversion used (kg CO ₂ e)	Source location*
Electricity	kWh	0.21233	Electricity
Natural gas	kWh	0.18316	Fuel – Natural Gas
Site fuel – Diesel	Litres	2.75857	Fuel – Gas oil
Site fuel – LPG	Litres	1.55709	Fuel – LPG
Site fuel – Petrol	Litres	2.33969	Fuels – Petrol (100% mineral petrol)
Site fuel - Kerosene	Litres	2.54014	Fuels – Burning oil
Business travel - Diesel	Miles	0.22143 (small car) 0.26549 (medium car) 0.33348 (large car)	Passenger vehicles - Cars (by size)
Business travel – Petrol	Miles	0.24052 (small car) 0.30231 (medium car) 0.44914 (large car)	Passenger vehicles - Cars (by size)
Business Travel – Hybrid (Plug-in)	Miles	0.03607 (small car) 0.11175 (medium car) 0.12350 (large car)	Passenger vehicles - Cars (by size)
Business travel – no fuel type specified	Miles	0.27108	Business Travel - Land

* Source location within 2021 UK Government GHG Conversion Factors for Company Reporting UK

Intensity Metrics

The Group reports both absolute emissions and an intensity metric. The scope 1 and 2 intensity metric is the quantity of greenhouse gas emissions scope 1 and 2, normalised per home completed during the financial year.

Energy Consumption

Energy consumption for scope 1 and 2 greenhouse gases is measured and reported in accordance with the Streamlined Energy and Carbon Reporting (SECR) regulations. The unit kWh is used, and where the energy unit is not in kWh e.g. diesel or LPG, then the appropriate UK Governments conversion factors are used.

Location based emissions

All electricity that the group consumes is multiplied by the UK average grid electricity emissions factor for the reporting year. This gives the tonnes of CO₂e emitted.

Market-based emissions

Market based emissions enable recognition of the purchase of electricity which comes from a renewable source, and has either a lower or zero carbon emissions factor. The Group uses a number of different electricity providers who have specific fuel mixes and corresponding emissions factors, and the relative portions of the supply are individually calculated for each fuel mix. Where the electricity supplier is providing a zero rated emission fuel, the Group receives the appropriate quantity of Renewable Energy Guarantee of Origin (REGO) certificates.

6. Scope 3 Emissions Data collation and methodology

An assessment of the 15 categories of Scope 3 emissions was undertaken in 2020 on data covering our 2019 financial reporting period (1st January 2019 - 31st December 2019) to determine those that are most material. This approach was used to establish our science based targets, with 2019 established as the Group's baseline year. Covering over 95% of the total scope 3 emissions are; Category 1 – purchased goods and services, and Category 11 – use of product. In addition the Group reports greenhouse emissions from business travel and employee commuting within scope 3.

Category 1 – Purchased goods and services

Emissions are estimated based on the spend on both goods and services from the Group's suppliers. A set of best matching Environmentally Extended Input Output (EEIO) emission factors have been applied to the individual category spends giving the quantity of greenhouse gas emissions.

Category 6 & 7 – Business travel and employee commuting

The same methodology as for company owned and company leased travel emissions has been applied using the employee survey and a distance-based methodology. This involves determining the distance and mode of travel trips, then applying the appropriate emission factor for the mode used, and allocating to business travel and employee commuting. The results are then extrapolated to represent the full population.

Category 11 – Use of sold goods

This an estimation of the greenhouse gas emissions from homes used by customers over the homes lifetime. SAP calculations from the homes sold over the reporting period are used, to provide a Dwelling Emissions Rate (DER) for each home which is measured in kgCO₂ per year. The sum of these are then multiplied by 60 years which gives the lifetime impacts (EN 15978 and RICS Whole life carbon assessment for the built environment Nov 2017 recommendation of 60 years for life cycle modelling purposes)
