BARRATT DEVELOPMENTS PLC
GREENHOUSE GAS REPORTING METHODOLOGY 2021

1.09.21

Contents

1 Introduction

Reporting period	1st July 2020 to 30th June 2021

This document summarises the reporting methodology for Barratt Developments PLC's (The Group's) greenhouse gas (GHG) reporting for the above reporting period. This methodology is aligned with the GHG Protocol, and compliant with the GHG emissions and energy consumption reporting requirements of the Companies Act 2006 (Strategic and Directors' Reports) Regulations 2013, and with Streamlined Energy and Carbon Reporting Regulations (SECR) 2019.

1.1.1 Reporting boundaries

The Group reports within its Annual Report and Accounts and PLC website on scope 1 and 2 GHG emissions and underlying energy use. Prior to FY21, reporting boundaries were defined by the financial control approach, but in FY21 the change was made to the operational control approach, which is more reflective of our business impacts. To provide full transparency on the impact of this change, four years of historical data has been restated in accordance with the operational approach in the FY21 Annual Report and Accounts. As with previous years, scope 1 and 2 data is sourced from all of the Group's operations, which together extend across England, Scotland and Wales. The Group also reports on its relevant scope 3 emissions.

1.1.2 Reporting framework

The Group has developed and tailored its list of energy and GHG key performance indicators (KPIs) in line with its material issues, business reporting requirements, Corporate Sustainability indexes/surveys and the latest UK guidelines, including:

- The Companies Act 2006
- The Greenhouse Gas (GHG) Protocol (WRI, WBCSD)
- Streamlined Energy and Carbon Reporting (SECR)
- Energy Savings Opportunities Scheme (ESOS)
- Task Force on Climate-related Financial Disclosure (TCFD)
- The Group's core sustainability KPIs

1.1.3 Greenhouse gases

In accordance with the Kyoto Protocol the Group measures and reports emissions arising from the seven main greenhouse gases that contribute to climate change, namely carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3).

The effect of these emissions is reported as a single figure, carbon dioxide equivalent (CO_2e), which represents their combined global warming potential.

1.1.4 Emission factors

Greenhouse gas emissions are reported in line with the UK Government's 'Environmental Reporting Guidelines: including Streamlined Energy and Carbon Reporting (SECR)', March 2019 and the Group has used the GHG emission factors outlined in the version of the DEFRA/BEIS 'UK Government conversion factors for Company Reporting' described below.[1]

Company reporting period	Defra/BEIS UK Government Conversion Factors
Financial Year 1st July to 30th June 2021 ('FY21')	UK Government conversion factors for company reporting 2020 v1.00
Financial Year 1st July to 30th June 2020 ('FY20')	UK Government conversion factors for company reporting 2019 v1.03

1.1.5 Intensity metrics

To allow for ready comparison, the Group reports both absolute and intensity metrics.

The scope 1 and 2 intensity metric is greenhouse gas emissions normalised by floor area - 'tCO2e per 100m^2 legally completed floor area'. This metric is used in mainstream housebuilding financial reporting, and therefore encouraged by industry benchmarks such as NextGeneration, with uptake across the industry.

1.1.6 Energy consumption

Energy consumption associated with scope 1 and 2 greenhouse gas emissions is measured and reported in line with SECR reporting requirements. Where available, energy use is captured directly (e.g. kWh of electricity/gas used) or otherwise it is converted from available units to energy units using UK Government conversion factors (e.g. for diesel and LPG).

2 Scope 1 and 2 GHG emissions measurement

2.1.1 Context

Scope 1 comprises direct emissions from sources controlled by the Group, including all joint ventures. These include use of diesel, natural gas and liquid petroleum gas on construction sites and natural gas, biomass fuel and refrigerant losses in our offices, homes pre-sale and other administrative activities. Where we are operating district heating schemes we report emissions net of recharges for customer use, the latter being outside our control. Scope 1 also includes mileage from the Group's owned and leased van and car fleet.

Scope 2 comprises indirect emissions associated with the consumption of energy from purchased electricity and district heat & steam on both construction sites and in offices. Electricity from electric and hybrid vehicles is also included.

2.1.2 Excluded activities

Peripheral or incidental activities, such as the sale of part-exchanged properties, property management and the letting of premises to third parties, have been excluded on the basis of materiality.

[1] The range of emission sources have a number of greenhouse gas emissions associated with them , and each have different levels of impact on global warming (referred to as Global Warming Potential, GWP). As such, to get a meaningful comparison between the GHG emissions, conversion factors are used to convert the quantities consumed into tCO_2e. CO_2e is a measure for describing the impact of each different GHG in terms of the amount of carbon dioxide that would create the same amount of global warming.

2.1.3 Data collection

Data is collected via the Corporate Sustainability Questionnaire, which is sent out to our business divisions and records utility usages, refrigerant losses and business mileage. Data is derived from meter readings, invoices and mileage claims.

A list of construction sites is obtained from our finance database, which includes legally completed floor areas that are used to calculate intensity figures.

The diagram below shows a summary of the Corporate Sustainability Questionnaire process.

2.1.4 Estimations

Where actual energy usages for all of the individual periods that make up the financial year are not available by the reporting date, the Group applies the use of estimates and pro-rates. Any such estimates are based on identifiable and measurable drivers in accordance with the Group's Corporate Sustainability policies and procedures. In FY20, pro-rating was adjusted to reflect reduced business activity resulting from COVID-19. Where and when available, estimates are replaced with actuals.

2.1.5 Calculations relating to Scope 2 GHG emissions

The Group's scope 2 GHG emissions are calculated and reported using both the location and market-based methods.

2.1.5.1 Location-based method:[2]

All electricity consumption by the Group occurring in the UK is multiplied by the UK average grid electricity emission factor for the reporting year to calculate the emissions.

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[2] The location-based method reflects the average emissions intensity of macro scale (regional/national) electricity grids where energy consumption occurs. Companies should use the regional/national grid-average emission factor. In the UK, this would be sourced from the BEIS UK Government conversion factors for Company Reporting.

2.1.5.2 Market-based method[3]:

Purchased renewable electricity: For purchased electricity to be considered as being generated by a renewable source under the market-based method (e.g., wind, solar, hydro), this electricity must be matched to the latest available Renewable Energy Guarantee of Origin (REGO) certificates. REGOs must be recognised by Ofgem. One REGO is matched to 1 MWh of electricity, and a REGO is only valid for the reporting year (1st April to 31st March) during which it was issued.

If the Group purchases an electricity tariff that is 100% renewable, all electricity purchased within the REGO reporting period must be backed by REGOs. Renewable Origin Certificates (ROCs) and Levy Exemption Certificates (LECs) serve different roles and cannot be used as evidence that a tariff is from renewable sources. Certain suppliers may provide the ID numbers of REGOs allocated to each client's supply, while others do not. For the Group, there is a period for which electricity purchased on a renewable tariff cannot be evidenced as REGO-backed (April, May and June), because the REGO and company reporting periods do not align; therefore, REGO certificates allocated in a given year may not cover all electricity consumption within that reporting period. In this instance, a reasonable assumption is made that the final three months of electricity on renewable tariffs can also be counted at a zero greenhouse gas emission factor on the proviso of sufficient evidence provided for the July to March period.

Self-generated renewable electricity: When calculating emissions from self-generated electricity, the emission factor used will depend on whether Feed-In tariffs are received for the electricity generation. If Feed-In tariffs are applied, the residual grid emission factor for the corresponding country should be used in calculations and emissions added to Scope 2. If Feed-In tariffs are not received for the electricity generation then the emission factor applied would be 0.

Non-renewable electricity: A hierarchy approach is used to determine which emissions factor is used for non-renewable electricity under the market-based method:

1. Where the Group is aware of the supplier tariff purchased, and the tariff emission factor is available, this is used. Where the supplier is known, but the tariff emission factor cannot be identified, an average factor of the supplier's tariffs can be used, but only where this tariff excludes renewable products (the supplier residual mix).
2. Where a supplier residual mix emission factor cannot be obtained, the UK residual grid mix emission factor (which is the UK mix minus the renewables) will be used.

3 Scope 3 carbon emissions

Data from financial year 2018 (1st July 2017 to 30th June 2018) was used as the baseline for assessing the materiality and relevance of the Group's Scope 3 greenhouse gas emissions. In accordance with the Greenhouse Gas Protocol, 8 categories were found to be relevant. In the FY20 Annual Report and Accounts, the Group reported performance against these material categories of Scope 3 greenhouse gas emissions for the first time.

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[3] The market-based method reflects the emissions from the electricity that a company is purchasing. Energy suppliers in the EU are already required, by law, to disclose to consumers the fuel mix and GHG emissions associated with their portfolio or tariffs. As such, companies intending to report a market-based Scope 2 electricity emissions figure should:

- Request the emission factor for their tariff(s) from their energy supplier(s).
- Request the source of this data (e.g. generator declarations in the UK).
- Request the energy generation technologies and mix specific to the supplier / tariff(s).

Category	Definition	Method
1) Purchased goods and services	Extraction, production, and transportation of goods and services purchased or acquired.	Estimated on the basis of spend on goods and services using industry average emissions for respective industry categories.
2) Capital goods	Extraction, production, and transportation of capital goods purchased.	Excluded on the basis of materiality
3) Fuel and energy related activities	Extraction, production, and transportation of fuels and energy purchased or acquired and not already accounted for in Scope 1 or Scope 2.	Obtained via the Corporate Sustainability Questionnaire. BEIS scope 3 emission factors applied.
4) Upstream transportation and distribution	Transportation and distribution of products from tier 1 suppliers to our operations.	Estimated on the basis of spend and industry average emissions.
5) Waste generated in operations	Disposal and treatment of waste generated in our operations.	Calculated on the basis of average emissions for disposal by tonnage broken down by waste categories and disposal routes supplied by the Group's waste contractors, sub-contractors and divisions. Office waste is excluded on the bases of materiality.
6) Business travel	Transportation of employees for business-related activities.	Obtained via the Corporate Sustainability Questionnaire, using DEFRA/ BEIS emission factors.
7) Employee commuting	Transportation of employees between their homes and their worksites.	a) Commuting: Obtained via a self-selecting survey sample of employee commuting habits across four of our 27 housebuilding divisions in different geographical areas of the UK. b) Working from home: Estimated additional emissions arising from heating, lighting and computing equipment.
8) Upstream leased assets	Operation of assets leased by the reporting company.	Excluded on the basis of materiality
9) Downstream transportation and distribution	Transportation and distribution of products sold.	Excluded on the basis of materiality
10) Processing of sold products	Processing of intermediate products sold.	Excluded on the basis of materiality

Category	Definition	Method
11) Use of sold products	End use of goods and services sold in the reporting year.	Calculated on the basis of SAP designed performance ($kgCO_2e$ per m^2 per year) applied to the assumed average floor area per plot, which is applied to the number of completed units in the year, and applied over a 60 year time frame, taking estimated UK energy fuel mix into account. For FY21, data on completed plot floor area was not available and therefore a floor area of $100m^2$ was applied, this being a proportionate increase on FY20 ($98.6m^2$) compared to FY19 ($97.4m^2$).
12) End of life treatment of sold products	Waste disposal and treatment of products sold in the reporting year at the end of their life.	An industry average for home end of life emissions was multiplied by the number of homes completed in the reporting year. End of life emissions from an average home was determined by third party experts using data from construction clients.
13) Downstream leased assets	Operation of assets owned by the reporting company and leased to other entities in the reporting year.	Excluded on the basis of materiality
14) Franchises	Operation of franchises.	Excluded on the basis of materiality
15) Investments	Operation of investments (including equity and debt investments and project finance).	Excluded on the basis of materiality

4 Assurance

Scope 1, 2 and selected scope 3 emissions are independently assured to the ISAE 3000 (revised) standard. Our Assurance Statement is publicly available on the PLC website.