

2021 Greenhouse Gas Emissions and Energy Consumption Supporting Information

Reporting boundaries

2021 Annual Report

Reported emissions and energy consumption within the Directors' Report of the Berkeley Group Holdings plc ("Berkeley") 2021 Annual Report are based on its operational boundary. They include 100% of those resulting from its joint ventures St Edward and St William.

The emissions and energy consumption disclosed are aligned to Berkeley's financial reporting year (1 May 2020 to 30 April 2021) and are considered material to its business. The following reporting parameters are used:

- Scope 1: direct emissions from natural gas consumed for office, sales and development site activities; gas oil, biodiesel, diesel, petrol and liquefied petroleum gas (LPG) purchased directly for development site activities; and travel (business and other travel where expensed) in company owned and company leased vehicles.
- Scope 2: indirect emissions from electricity and heat consumed for office, sales and development site activities; and travel (business and other travel where expensed) in company owned and company leased vehicles. The Group has voluntarily purchased and retired Deep Green Renewable Energy Guarantee of Origins (REGOs) for all UK electricity consumption (accounted for within the Scope 2 market-based emissions figures presented in the above table).
- Scope 3: other indirect emissions within the two categories deemed to be of material significance:
 - Category 1: Goods and Services – impact within our supply chain, from the procurement of services and labour, including materials used to construct the homes and the use of gas oil and other fuels procured by our contractors for use on our construction sites
 - Category 11: Use of Sold Products – impact of the homes that were legally completed during the financial year over their lifetime

Emissions and energy consumption from pre-development sites with existing buildings in-situ that are to be demolished or refurbished as part of Berkeley's development works are not included as part of the figures presented until works (e.g. demolition, excavation or construction) begin. Pre-development emissions and energy consumption have been excluded as they are either deemed insignificant (e.g.

minimal energy consumed in unoccupied buildings for security and/or health and safety purposes) or Berkeley is not responsible for the energy consumed (e.g. buildings occupied by tenants).

Emissions and energy consumption from post-development sites where Berkeley has retained the freehold are not included within the scope of reporting as the purchasers or tenants are the consumers of the energy in this instance. During development works, emissions and energy consumption resulting from the commissioning of gas-fuelled plant to be retained on the development have not been included as this activity is considered to relate to the end use of the development rather than its construction.

UK and global emissions and energy consumption

Berkeley creates homes and neighbourhoods across London, Birmingham and the South of England. As a result, the majority of Berkeley's emissions and energy consumption is UK-based, resulting from the operations of our regional offices, development sites, and sales and marketing suites. Business travel in company owned and company leased vehicles is also included in the reporting boundary for the UK.

Global emissions and energy consumption result from electricity usage in Berkeley's six international offices.

Reporting methodology

UK Government Environmental Reporting Guidelines 2019 have been used as the basis for disclosures. UK Government GHG Conversion Factors for Company Reporting 2020 have been applied to 2021 data (covering 1 May 2020 to 30 April 2021), as 2020 is the calendar year in which the greatest portion of our data falls. UK Government GHG Conversion Factors for Company Reporting 2019 have been applied to 2020 data (covering 1 May 2019 to 30 April 2020). International Energy Agency 2020 factors have been applied to overseas electricity figures for 2021.

All emissions are calculated as carbon dioxide equivalent (CO₂e). In addition to carbon dioxide (CO₂), the carbon dioxide equivalent (CO₂e) values reported include the global warming potential from methane (CH₄) and nitrous oxide (N₂O). Remaining gases (hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃)) are understood to be relatively insignificant for reporting on emissions arising from Berkeley's activities.

Emissions have been calculated using the raw data values multiplied by their corresponding conversion factor as

outlined in the UK Government's GHG Conversion Factors for Company Reporting, or the International Energy Agency factor for international electricity consumption.

As Berkeley has voluntarily procured and retired Deep Green Renewable Energy Guarantee of Origins (REGOs) for 100% of its UK purchased electricity consumption, this is accounted for when reporting Scope 2 market-based emissions. Remaining emissions result from purchased heat, electricity use in Berkeley's international offices and business vehicle travel.

Energy consumption in megawatt hours (MWh) has been calculated and reported on a gross calorific value (CV) basis. As conversion factors for the megawatt-hour per unit value are not available for all data sources, note that the following methodology has been applied using factors disclosed in the UK Government GHG Conversion Factors for Company Reporting 2020:

Raw unit to megawatt-hour conversion factor =

Raw unit to kgCO₂e conversion factor

Megawatt-hour to kgCO₂e conversion factor

Data sources and reporting method – office, sales and development site activities

Raw consumption data for regional offices, sites, sales and marketing suites and show homes has been collected on a monthly basis as follows:

Directly purchased fuels (Scope 1)

- Gas oil, biodiesel, diesel and petrol purchased in litres based on delivery notes received from the fuel supplier, or where unavailable, based on informed estimations by site personnel;
- Liquefied petroleum gas (LPG) purchased in litres or kilogrammes based on delivery notes received from the fuel supplier, or where unavailable, based on informed estimations by site personnel;
- Natural gas consumed in cubic metres, hundreds of cubic feet or kilowatt-hours based on monthly meter readings, or where unavailable, estimates based on energy costs or pro-rated calculations of periods with actual consumption.

Electricity and heat (Scope 2)

- Purchased electricity measured in kilowatt-hours based on monthly meter readings, or where unavailable, estimates based on energy costs or pro-rated calculations of periods with actual consumption;
- Purchased heat measured in kilowatt-hours based on monthly meter readings, or where unavailable, estimates based on energy costs or pro-rated calculations of periods with actual consumption.
- Renewable energy generated and consumed on-site in kilowatt-hours based on monthly meter readings.

Data sources and reporting method – business road travel activities

Raw data for business road travel has been collected on an annual basis from employees in receipt of a company vehicle (owned or leased) as at 30 April 2021.

In 2021, one of our operating companies collated this information on behalf of some of their employees using monthly expense details. Information for employees from all other individuals has been collected via a survey. Within this survey, employees have been requested to declare business road mileage (including other road mileage where expensed) for the reporting year, along with basic details for each vehicle used, on a voluntary basis. Where mileage data has not been provided, assumptions have been made to complete the data set based on the size and fuel type of the vehicles that were not included and applying an average mileage from all respondents.

Emissions have been calculated using the raw mileage data multiplied by the corresponding factor for the declared fuel type and engine size. The 'average car' factors have been used for hybrid, plug-in hybrid electric and battery electric vehicles, whilst 'average van' factors have been used for all van vehicles. For vehicles using electricity (i.e. plug-in hybrid electric and battery electric vehicles) emissions include the conventional fuel use and electricity consumption.

Note that energy consumption conversion factors have been calculated by dividing mileage CO₂e conversion factors by the relevant fuel (e.g. petrol) kilowatt-hour (gross) CO₂e conversion factor. The resulting values have then been multiplied by the corresponding distance travelled to obtain energy consumption from business road travel activities.

Data sources and reporting method – other indirect impacts (Scope 3)

Category 1 – Purchased Goods and Services

- Emissions arising as a result of purchased goods and services are estimated using a spend-based method. Companies paid by the Group within the year are referenced against Companies House information to provide a Standard Industrial Classification (SIC) code. Comprehensive Environmental Data Archive (CEDA) 5.0 cost-based emissions factors are then applied to each category to calculate GHG emissions. This is a single-country economic input-output database. Where SIC codes were not available for spend within the year, a Berkeley description of industry was used for the higher spend items to identify the most relevant emissions factors.
- Gas oil, biodiesel, diesel and petrol measured in litres based on declarations from contractors on the amount purchased, supported by delivery notes received by the contractor from the fuel supplier where available. Note that for diesel and petrol conversions, 'average biofuel blend' factors for these fuels have been applied.
- Liquefied petroleum gas (LPG) measured in litres or kilogrammes based on declarations from contractors on the amount purchased, supported by delivery notes received by the contractor from the fuel supplier where available.
- Well to Tank (WTT) impacts from contractor purchased gas oil, biodiesel, petrol and LPG is calculated based on Defra conversion factors.

Note: It is recognised that the spend data categories provides only an estimate of embodied carbon and we are working to source more detailed information on the embodied carbon within the goods and services that we procure. Work has commenced on detailed whole lifecycle carbon assessments across a range of our development portfolio to increase our understanding of our impact and data capture in this area. It is likely that we will adopt a hybrid form of reporting in future years, with actual data from some developments used to supplement more generic spend data, as we move towards capturing more accurate information across our supply chain.

Category 15 – Use of Sold Goods

- SAP calculation spreadsheets are provided from each project's specialist energy consultant for every home

that legally completed during the year. These set out the Dwelling Emission Rate (DER) for each home in kilograms of carbon per year and the floor area and a calculation is undertaken to identify the impact of the homes over an 80 year expected lifetime. This covers the vast majority of homes within the reporting period. For completions where full data is not available, calculations are undertaken to estimate the emissions using the average dwelling emission rate and average floor area for reported homes are used.

Data coverage

Data coverage by activity area for 2021 is as follows:

- Regional offices: annual emissions and energy consumption from 100% (26no.) of permanent offices reported.
- Development sites: annual emissions and energy consumption from 99% (98no.) of development sites reported. Only partial data was captured for one development site which was set up in a temporary location for remedial works and was using a supply from the managing agent for the first three months of the year.
- Sales and marketing suites: annual emissions and energy consumption from 100% (63no.) of sales and marketing suites reported.
- Business road travel: annual emissions and energy consumption cover business road mileage in 100% of company owned and company leased vehicles.
- Spend data: data was available for 100% of the Group's spend. 88% could be allocated a Standard Industrial Classification Code in order to select the correct CEDA conversion factor. The remaining data had Berkeley own categories assigned and the top 20 spend categories were assessed in more detail to assign the most relevant conversion factor and the remaining categories were assigned an average emissions factor.
- Completed homes: full data was available for 99% of the 3254 homes that legally completed during the year. Part or full data was estimated for the remaining homes based on average values from the homes with full data provided. Note that data is included for homes only and excludes the long-term use of any other spaces e.g. commercial.

Scope 3 materiality

An assessment of all 15 categories of Scope 3 emissions was undertaken in summer 2020 on data from our 2019 financial year (1 May 2018 to 30 April 2019). This year forms the baseline year for our science-based targets. The following proportions were identified and this has helped shape our strategic areas of focus together with reporting in this area. Two categories (Category 1 – Purchased Goods and Services and Category 11 – Use of Sold Products) were identified to be the most materially significant to our activities; combined, these two categories make up 95% of our Scope 3 impacts. The other 12 categories combined made up 5% of our impact. Further detail is provided below:

Category of Scope 3 emissions	Proportion of scope 3 emissions
Purchased Goods and Services	61.01%
Capital Goods	0.63%
Fuel- and energy-related activities	0.60%
Upstream transportation and distribution	0.56%
Waste generated in operations	0.71%
Business travel	0.29%
Employee commuting	0.22%
Use of Sold Products	34.02%
End of life treatment of sold products	0.24%
Downstream leased assets	1.20%
Investments	0.53%

We intend to undertake detailed calculations of the Scope 3 categories every three years to reassess materiality and inform both our targets and reporting. This will be undertaken in summer 2022 based on our 2022 financial year (1 May 2021 to 30 April 2022).

Intensity ratio

The intensity ratio (tCO₂e/sq ft¹) has been calculated using the legally completed floor area across both homes and commercial space during the year (2021: 2,875,265; 2020: 2,921,928).

This aligns with the intensity ratio for our validated science-based target for Scope 3 emissions.

¹ The tCO₂e/sq ft metric has not been subject to PwC assurance for the 2021 or prior financial reporting years

Data revisions

Prior to 2021, data within the Director's Report of Berkeley's Annual Report has been aligned to the financial boundary. As such, it has included only 50% of emissions resulting across our activities from our joint ventures (St Edward and St William).

To align with our science-based targets, in 2021 we have reported on our operational boundary, taking into account all activities across our development sites, offices and sales suites including 100% of joint venture operations.

2020 data has been restated in Berkeley's 2021 Annual Report based on amendments made within the period, and to report on an operational boundary rather than a financial boundary, as follows:

- Updated data made available within the period; this adjustment accounts for less than +1.5% of the total Scope 1 and 2 location-based emissions reported in 2020.
- Reporting data according to our operational boundary rather than the financial boundary that has been reported in previous years, including 50% of our joint ventures. Reporting 100% of our joint ventures results in a +6% change in reported emissions.