

# 2020 Greenhouse Gas Emissions and Energy Consumption

## Supporting Information

### Reporting boundaries

#### 2020 Annual Report

Reported emissions and energy consumption within the Directors' Report of the Berkeley Group Holdings plc ("Berkeley") 2020 Annual Report include 50% of those resulting from Berkeley's joint ventures on the basis of its equity share.

The emissions and energy consumption disclosed are aligned to Berkeley's financial reporting year (1 May 2019 to 30 April 2020) 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 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 vehicles;
- Scope 3: other indirect emissions from gas oil, biodiesel, petrol, LPG and diesel purchased by contractors for development site activities; travel (business and other travel where expensed) in company leased and employee owned vehicles; business air travel; transmission and distribution losses of purchased electricity and heat; and upstream emissions.

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.

#### Other Berkeley disclosures

Emissions and energy consumption reported outside of the Directors' Report of the 2020 Annual Report (for example, as part of performance reporting under 'Our Vision') are based on Berkeley's operational boundary. This differs to the reporting boundary of the 2020 Annual Report (see above) as follows:

- Reported emissions and energy consumption include 100% of those resulting from Berkeley's joint ventures; and,
- Travel (business and other travel where expensed) in company leased vehicles is reported as part of Scope 1 emissions and energy consumption as Berkeley has operational control over these vehicles. This is in line with Greenhouse Gas (GHG) Protocol guidance.

#### UK and global emissions and energy consumption

Berkeley creates homes and neighbourhoods across London, Birmingham and the South-East 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 vehicle travel and domestic air travel 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 and air travel related to short haul, long haul and international flights.

### Reporting methodology

UK Government Environmental Reporting Guidelines 2019 have been used as the basis for disclosures. UK Government GHG Conversion Factors for Company Reporting 2019 have been applied to 2020 data (covering 1 May 2019 to 30 April 2020), as 2019 is the calendar year in which the greatest portion of our data falls. UK Government GHG Conversion Factors for Company Reporting 2018 have been applied to 2019 data (covering 1 May 2018 to 30 April 2019). International Energy Agency 2019 factors have been applied to overseas electricity figures for 2020.

All emissions are calculated as carbon dioxide equivalent (CO<sub>2</sub>e). In addition to carbon dioxide (CO<sub>2</sub>), the carbon dioxide equivalent (CO<sub>2</sub>e) values reported include the global warming potential from methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O). Remaining gases (hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>)) 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 kilowatt-hours (kWh) has been calculated and reported on a gross calorific value (CV) basis. As conversion factors for the kilowatt-hour per raw 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 2019:

Raw unit to kilowatt-hour conversion factor =  
 Raw unit to kgCO<sub>2</sub>e conversion factor  
 -----  
 Kilowatt-hour to kgCO<sub>2</sub>e 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.

#### Contractor purchased fuels (Scope 3)

- 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;

- 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.

Note that for diesel and petrol conversions, 'average biofuel blend' factors for these fuels have been applied.

### 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) or a cash allowance to support the use of a private vehicle as at 30 April 2020.

In 2020, one of our operating companies collated this information on behalf of their employees using monthly expense details. Information for employees from all other operating companies 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, no assumptions have been made to complete the data set.

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 CO<sub>2</sub>e conversion factors by the relevant fuel (e.g. petrol) kilowatt-hour (gross) CO<sub>2</sub>e 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 – business air travel activities

Raw data for business air travel has been collected on an annual basis via a Business Air Travel Capture Form completed by each operating company. Within the form, operating companies have been requested to declare departure and arrival airports, along with the passenger class of travel, for each flight paid for by the company and completed for business purposes in the reporting year.

Emissions have been calculated using the distance travelled between the departure and arrival airports multiplied by the corresponding factor for the passenger class and flight type (i.e. domestic, short-haul, long-haul or international). The 'average' class factors have been used where passenger class details have not been made available. The conversion factors applied include an uplift factor of 8% to compensate for planes not flying the most direct route. No aviation radiative forcing factor has been applied.

Note that energy consumption conversion factors have been calculated by dividing kilometre CO<sub>2</sub>e conversion factors by the aviation turbine fuel kilowatt-hour (gross) CO<sub>2</sub>e conversion factor. The resulting values have then been multiplied by the corresponding distance travelled to obtain energy consumption from business air travel activities.

#### Data coverage

In 2020, emissions and energy consumption from 100% of regional offices, development sites and sales suites have been reported.

Annual emissions and energy consumption cover business road mileage in 92% of company owned vehicles, 91% of company leased vehicles and 84% of private vehicles used by employees receiving a cash allowance.

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## Supporting Information continued

### Transmission and distribution losses

Emissions associated with the transmission and distribution of purchased electricity and heat have been included within Scope 3 reporting. For every kilowatt-hour of heat and electricity consumed (including electricity used to charge vehicles used for business travel), the energy losses are calculated using the relevant transmission and distribution factor as contained within the UK Government's GHG Conversion Factors for Company Reporting.

### Upstream emissions

Upstream emissions from the extraction and production of directly purchased fuels, contractor purchased fuels, and fuels related to business road travel, business air travel and the production of electricity and heat have been calculated using the relevant well-to-tank conversion factors as contained within the UK Government's GHG Conversion Factors for Company Reporting and included within Scope 3 reporting.

### Covid-19

The Covid-19 pandemic has led to decreased carbon emissions and energy consumption in the final months of the reporting year; Berkeley's sales suites were closed and office based staff transitioned to home working from the middle of March 2020. To ensure compliance with social distancing rules, the number of operatives and level of activity across Berkeley sites also reduced. As an indicator of impact to reported figures, greenhouse gas emissions from our regional offices, development sites and sales suites were 41% lower in April 2020 compared to February 2020 (using an operational reporting boundary). Annual emissions from business air travel and vehicle travel would also have seen reductions due to restrictions on movements.

### Intensity ratio

The intensity ratio (tCO<sub>2</sub>e/person<sup>1</sup>) has been calculated using the number of Berkeley employees and the number of contractors working on our sites (2020: 10,207; 2019: 10,808). This is the average monthly figure for the year (covering 1 May 2019 to 30 April 2020) and only includes 50% of direct employees and contractors working in offices, in sales and marketing suites or on development sites of Berkeley's joint ventures.

### Data revisions

2019 data has been restated in Berkeley's 2020 Annual Report based on amendments made within the period, including the removal of a commercial tenant's natural gas meter inadvertently included within previously disclosed figures. Revisions have resulted in a 0.2% decrease in total reported emissions for 2019.

(1) The tCO<sub>2</sub>e/person intensity metric has not been subject to PwC assurance for the 2020 or prior financial reporting years