

# Welcome to your CDP Climate Change Questionnaire 2022

### C0. Introduction

#### C<sub>0.1</sub>

#### (C0.1) Give a general description and introduction to your organization.

The Berkeley Group Holdings plc ('Berkeley', 'the Group') is a public limited company incorporated and domiciled in the United Kingdom. The address of its registered office is Berkeley House, 19 Portsmouth Road, Cobham, Surrey, KT11 1JG. The Group is listed on the London Stock Exchange as a FTSE 100 company and is made up of six autonomous brands: Berkeley; St George; St James; St Edward (a joint venture with M&G Investments); St William; and St Joseph. The Group operates through autonomous divisions and operating companies, each with its own Board. The Group and its subsidiaries are engaged in residential-led, mixed-use property development. The Group's purpose is to build quality homes, strengthen communities and improve people's lives. This begins with acquiring land in the right locations. We then develop schemes renowned for their quality, design, public realm, transport, open space, access to employment and amenities; all the things people look for in a place to live and that enable a community to thrive.

The developments we create range in size from under twenty homes to complex mixed-use urban regeneration schemes with over four thousand homes. The types of homes we build include modern city apartments and traditional family homes, as well as student and senior living accommodation. Our mixed-use developments incorporate community space, offices, retail units, leisure facilities, hotels and restaurants. We sell our homes and commercial space to a broad range of customers: private buyers; housing associations; shared-ownership buyers; universities; investors and commercial occupiers.

We focus on creating beautiful, successful places in London, Birmingham and the South-East of England. We have in the region of 90 live construction sites, 21 offices and a modular factory, with over 3,000 directly employed staff and on average more than 9,400 contractor operatives working across our sites. Our overseas operations are limited to sales and marketing suites in Bangkok, Beijing, Chengdu, Dubai, Hong Kong, Shanghai, Shenzhen and Singapore. Carbon emissions data reported by the Group covers development site, permanent office, sales, modular factory and business travel activities across the divisions of the business, with any exclusions to this reported annually within our Greenhouse Gas (GHG) Emissions and Energy Consumption Reporting Criteria document available on the Group's website.



The Group's business strategy is called Our Vision 2030 ("Our Vision"). Through Our Vision we aim to be a world-class business, trusted to transform the most challenging sites into exceptional places and to maximise our positive impact on society, the economy and the natural world. We have identified ten strategic priorities that will help us to transform tomorrow - through both what we create (Customers, Quality, Communities, Climate Action & Nature) and how we work (Employee Experience, Modernised Production, Future Skills, Supply Chain & Shared Value). The Climate Action priority of Our Vision includes a number of targeted focus areas, including both mitigation and adaptation measures within our own operations and the new homes and places we create.

#### C<sub>0.2</sub>

#### (C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	May 1, 2021	April 30, 2022	No

#### C<sub>0.3</sub>

(C0.3) Select the countries/areas in which you operate.

China

Hong Kong SAR, China

Singapore

Thailand

**United Arab Emirates** 

United Kingdom of Great Britain and Northern Ireland

#### C<sub>0.4</sub>

(C0.4) Select the currency used for all financial information disclosed throughout your response.

**GBP** 

#### C<sub>0.5</sub>

(C0.5) Select the option that describes the reporting boundary for which climaterelated impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

#### C-CN0.7/C-RE0.7

(C-CN0.7/C-RE0.7) Which real estate and/or construction activities does your organization engage in?



New construction or major renovation of buildings Buildings management

#### C<sub>0.8</sub>

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	GB00BLJNXL82

### C1. Governance

### C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

### C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Director on board	An Executive Director on the Main Board has overall responsibility for sustainability, including climate action. As a Managing Director for one of the Group's divisions and with a background in Construction Management, the Executive Director has vast experience of the operational activities undertaken pre, during and post the development process, and how climate change impacts these both in terms of mitigation and adaptation. The Executive Director is responsible for using this in-depth operational experience to work with and advise the Group Responsible Business Team in developing appropriate commitments and actions to address climate change risks and opportunities as part of the Berkeley Group's Our Vision 2030 business strategy. As an example, the Executive Director made the business decision to complete 15 detailed embodied carbon studies of our buildings in the reporting year and approved the budget for completing work in this area. The Executive Director is also responsible for advising and reporting on performance against climate change commitments to the Main Board and approving publicly disclosed data in the Annual Report. Following disclosure of emissions, the Executive Director makes the business decision as to which verified carbon offsetting projects are to be supported on an annual basis to deliver carbon neutral operations.



	As a note, the Executive Director joined Berkeley in 1996 and the Group's Main Board on 10 September 2009. The Executive Director is currently the Managing Director of the Berkeley (East Thames) division, leading the delivery of some of the largest regeneration projects in the UK; Kidbrooke Village and Royal Arsenal Riverside and Chairman of Berkeley Modular, our off-site volumetric advanced manufacturing business.
Chief Executive Officer (CEO)	The Chief Executive and the Main Board have ultimate responsibility for all sustainability matters, including climate change. The Chief Executive is also a named Board-level sponsor for the Climate Action part of our business strategy, Our Vision 2030. He has a degree in Geology and a personal interest in climate action, together with an understanding of the business need to take action. There are monthly Our Vision 2030 and Sustainability meetings which are attended by the Chief Executive Officer, Chief Financial Officer, Director on Board (detailed above), Head of Responsible Business and Head of Sustainability. These are used to discuss and agree action on sustainability topics and climate action is a key agenda item. The Chief Executive is responsible for reviewing climate related actions proposed by the Executive Director and Group Responsible Business Team under Our Vision 2030 and ensuring that they are ambitious and appropriate for the business.  As examples, the Chief Executive approved the development of new science-based targets for carbon emissions reduction in 2020, as a major part of our new Sustainability Strategy and one of 10 strategic priorities for the business within the new Our Vision 2030 business strategy. This year, the Chief Executive has been briefed in detail on the output of the embodied carbon studies and he approved the launch of new recommendations for our design teams, together with target values for embodied carbon and the requirement for all new sites to complete an embodied carbon assessment.

## C1.1b

### (C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy	The Executive Director is responsible for working with the Group Responsible Business Team to develop appropriate commitments and actions to address climate change risks and opportunities as part of the Berkeley Group's Our Vision 2030 business strategy. The Chief Executive, Chief Financial Officer and all Executive Directors were involved in the development and agreement of our science-based targets (SBTs) in



		2020 and in the approval of our draft Our Vision 2030 strategy before it was launched. In autumn 2022 the Executive Directors will be involved in the process of refining our medium-term targets under our strategy, to come into force from May 2023.  Monthly Our Vision meetings take place with the Chief Executive to provide an update on progress. As climate change is a key priority within this strategy, a focus of these meetings is regularly to review performance against current commitments, discuss future commitments and guide actions to be taken by the business.
Scheduled – all meetings	Monitoring and overseeing progress against goals and targets for addressing climate-related issues	A report outlining progress against the commitments under Our Vision 2030 (the Berkeley Group's business strategy), including those addressing climate-related issues, is provided by the Executive Director with responsibility for climate action and wider sustainability topics for each Main Board meeting.  Climate Action is discussed monthly within the Executive meetings between the Group Responsible Business Team (including the Head of Sustainability), the Chief Executive, Chief Financial Officer and Executive Director. A written update on progress against goals and targets is provided for each meeting.

## C1.1d

## (C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	Existing Board members are considered to be competent in the area of climate. With an increasing focus on climate change and recognising that our understanding needs to constantly evolve to meet our stringent targets in this area, we have undertaken a programme of upskilling our Executive Directors on key topics such as Climate Scenario Analysis and Embodied Carbon during the course of the year.  The Chief Executive Officer has a degree in Geology, providing firm foundations for a knowledge and interest in the natural world and climate science. He has been briefed at length on climate change over



a period of a number of years and has been heavily involved in the development of our strategy in this area. This year the internal briefings have focused on upskilling in the area of embodied carbon and the changes to the Building Regulations for energy in new homes.

The Chief Financial Officer has been heavily involved in the completion of Climate Scenario Analysis during the year which included briefings on transitional and physical risks from a specialist external consultancy. He also receives briefings annually from external parties on the emerging changes in corporate requirements and disclosure in this area.

The Executive Director responsible for sustainability has been in post since 2009, amassing significant experience in the practical aspects of sustainability and climate change mitigation and adaptation at a project level. He is a member of the leadership group for the UK Green Building Council, providing input at a senior level to industry discussions on sustainability in the built environment, such as climate change. During the year he has also had external briefings from the specialist consultancy on Climate Scenario Analysis, together with specialist consultants in calculating embodied carbon.

We plan to review the competency assessment procedure for Non Executive Directors over the next two years in this area, and provide training to upskill the Main Board, if required.

#### C1.2

## (C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Environment/ Sustainability manager	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

#### C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).



#### Chief Executive Officer (CEO)

Description: The Berkeley Group operates through autonomous divisions and operating companies, each with its own Board, including a Chairman and/or Managing Director (our equivalent to a CEO).

Rationale: Responsibility lies with the CEO for each autonomous division and operating company, as the key person with full oversight of their business activities and the decision maker.

Responsibilities: The CEO for each autonomous division and operating company is responsible for locally implementing the Berkeley Group's Our Vision 2030 business strategy (including meeting carbon-related targets), identifying climate change risks and opportunities facing their specific business (e.g. the flood risk of developments they are constructing) and delivering improvement in performance across their operations. Divisional Boards meet on a monthly basis, and comprehensive information is prepared for such meetings to cover all aspects of the business, including carbon emissions performance and information on climate change related matters produced by the sustainability professionals within the business (see below). The CEO of the Berkeley Group's Main Board is a member of the divisional Boards, in addition to Directors of the autonomous division. The CEO also led, with input from the entire Board including Non-Executive Directors, the development and launch of Our Vision 2030. This new business strategy includes Climate Action as one of 10 strategic priorities for the business and incorporates stretching science-based targets for greenhouse gas emissions reduction, together with broader commitments around aspects such as adaptation and carbon neutrality.

#### Environment/Sustainability manager

Description: There is a centralised Berkeley Group Responsible Business Team (made up of 7 professionals in 2021/22 including a Group Executive for Responsible Business, Head of Responsible Business Reporting, Senior Responsible Business Advisor, Head of Sustainability, two Sustainability Managers and a Graduate Sustainability Advisor) that works with members of the Main Board to assess and manage Group-wide climate related risks and opportunities. The Group Head of Sustainability and Group Sustainability Managers also support sustainability professionals in place across the autonomous divisions and operating companies in assessing and managing risks locally. In 202122, there were 18 dedicated sustainability professionals (including divisional Sustainability Advisors, Sustainability Managers and Heads of Sustainability) in place across the autonomous divisions and operating companies to support the local CEO in meeting their responsibilities.

Rationale: Responsibility for climate-related issues is overseen by sustainability professionals given the knowledge and experience they have on this topic.

Responsibilities: The Group Responsible Business Team assesses issues and trends that have the potential to be a risk or opportunity to the Berkeley Group, and works with a nominated Executive Director to identify key actions to be undertaken to address these. The Group Responsible Business Team is fundamental in managing the implementation of these



actions, through research and active collaboration with external experts, and communication of key requirements to the autonomous divisions and operating companies who locally manage integration of these into their business (see above). The Group Responsible Business Team monitors Group-wide performance against climate change related commitments using information submitted by the CEO and Sustainability Advisors/Sustainability Managers/ Heads of Sustainability of each autonomous division and operating company and presents this to the Executive Director who shares this with the Main Board.

To ensure climate change (along with other sustainability) actions are incorporated into daily activities, the divisional Sustainability Advisor/Sustainability Manager/ Head of Sustainability is responsible for helping to identify risks and opportunities facing their specific business, providing advice, and driving improvements. Performance monitoring and reporting is a key responsibility and is completed on a regular basis, with energy data submitted monthly via an online data management system which produces instantaneous and automatic carbon emissions outputs. These are included in the meeting packs for divisional Board meetings and used to aid discussions around performance and required action. This data is also automatically available to the Group Responsible Business Team to enable Group-wide monitoring and reporting of performance.

Sustainability professionals from the Berkeley Group team and the autonomous divisions and operating companies meet at least quarterly as a committee, to discuss performance updates, agree further actions, share lessons learnt and highlight good practice.

#### C<sub>1.3</sub>

## (C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

### C1.3a

## (C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Director on board	Monetary reward	Emissions reduction target	Sustainability issues form part of the business objectives, appraisals and remuneration package of the Executive Director of the Main Board with responsibility for sustainability and climate change. This includes performance against sustainability related commitments under Our Vision 2030, such as the Group's science-based targets for greenhouse gas emissions



			reductions in our direct activities and the carbon intensity of the homes we create.
Environment/Sustainability manager	Monetary reward	Emissions reduction target	Performance against sustainability related commitments under Our Vision, such as the Group's carbon emissions targets, form part of objectives, appraisals and remuneration packages of dedicated sustainability professionals working across the business.

## C2. Risks and opportunities

### C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

#### C2.1a

## (C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short- term	0	2	Climate Action is a priority area under the Berkeley Group's Our Vision 2030 business strategy. For Climate Action we have initially set our short-term targets over a two year timeframe and these will be reviewed in 2023 to ensure we are addressing the latest and most relevant climate-related risks and opportunities and are meeting our longer term targets.
Medium- term	2	10	The Berkeley Group consider this period as our medium-term time horizon as it coincides with key discussions applicable to our industry (e.g. the call for net zero carbon buildings by 2030) and our science-based targets which have a target year of 2030 (considered best practice).
Long- term	10	30	The Berkeley Group consider this period as our long-term time horizon as it coincides with UK carbon targets and best practice scenario analysis (i.e. a target year of 2050). We have set a long-term commitment to be a net zero carbon business by 2040.

### C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?



Substantive strategic impacts when identifying or assessing climate-related risks are those that require fundamental changes to our business strategy and that apply to all (100%) of business units. This could include impacts to the Berkeley Group's business processes and/or our product (i.e. the homes and developments the Berkeley Group creates).

A substantive financial impact to the Berkeley Group is considered to be any impact that would be deemed to have a material change to the Berkeley Group's results for the year or the future earnings potential of the Berkeley Group. The Berkeley Group has not defined or quantified what would be material as this is considered to be a subjective amount based on the current business activities at any point in time. As an indicator of how this may be measured, in 2021/22 the external auditors (KPMG LLP) has used £26.0 million (4.7% of Berkeley Group profit before tax) as their assessment of what constitutes a material impact to the Berkeley Group results.

#### C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climaterelated risks and opportunities.

#### Value chain stage(s) covered

Direct operations
Upstream
Downstream

#### Risk management process

Integrated into multi-disciplinary company-wide risk management process

#### Frequency of assessment

More than once a year

#### Time horizon(s) covered

Short-term Medium-term Long-term

#### **Description of process**

The Berkeley Group's risk and opportunity identification approach combines a top down strategic review and feedback, coupled with a bottom up review and reporting by each operating business. Risks and opportunities are identified for the short-term through to the long-term (e.g. changes required to the design and construction of homes and developments).

- Company level assessment

The Group Responsible Business Team identifies strategic climate change risks and



opportunities facing the Group through the regular review of issues and trends. Active collaboration with external experts, and representation at conferences, industry working groups and events help to ensure up-to date knowledge. Identified risks and opportunities are shared with the Berkeley Group's Risk Executive, in addition to the Chief Executive and the Executive Director responsible for sustainability and climate change as part of monthly meetings, and operational sustainability practitioners at Sustainability Committees.

#### - Asset level assessment

Prior to land purchase, an assessment is completed which seeks to identify all types of risks, including those related to climate change (e.g. flood risk and overheating). These assessments are site specific taking into account the unique characteristics of each development. During development works, operational sustainability practitioners identify climate change risks and opportunities facing their business through regular contact with project teams and by keeping up-to-date with issues and trends.

To ensure risk identification and management is embedded in our day-to-day operations, there is a formalised process whereby each operating business of the company produces quarterly risk and control reports that identify risks at an operating business and individual asset level, their potential impact and the actions being taken to mitigate these.

#### - Company-wide assessment

The strategic risks facing the Berkeley Group (see 'Company level assessment') overlay consolidated operational risk reports (see 'Asset level assessment'), in order to complete a company-wide risk review. This is assessed and managed on at least an annual basis by the Main Board who have substantial experience and a deep-seated knowledge of our operations and industry. In 2021/22, in response to the TCFD recommendations, we have expanded this assessment to incorporate future climate scenarios. We have selected climate scenarios drawing from widely used publicly available and peer reviewed sources (see 3.2).

Risks are assessed in terms of their likelihood of occurrence and impact to provide a gross risk rating. Controls and actions that have been applied to mitigate the risk are then taken into account to determine a net risk rating. Gross risk ratings are mapped against net risk ratings to prioritise identified risks. For instance, risks that are highly likely with significant impacts that can't be easily mitigated will be of the highest priority for instigating additional management actions.

Opportunities are prioritised based on their benefits, not only in terms of financial value but also across wider business areas such as customer satisfaction and brand reputation, along with benefit to our customers, local communities, the economy and the environment.



#### - Managing risks and opportunities

To ensure climate change actions are incorporated into the Berkeley Group's daily activities, the Group Responsible Business Team focus on identifying substantive strategic risks and opportunities, and ensuring these are managed through the Our Vision 2030 business strategy targets, including those which are climate-related. Through the Our Vision 2030 target review and consultation process, the Berkeley Group formally makes key decisions on which climate-related risks and opportunities to address through mitigation or control measures.

Actions required under Our Vision 2030 to manage climate-change risks are integrated within the Berkeley Group's sustainability strategy, standards, procedures and processes. The autonomous companies of the Berkeley Group are accountable for implementing these on a day-to-day basis, with each company supported by a dedicated sustainability professional who provides advice and guidance.

- Physical risks and opportunities case study; designing for higher temperatures.

As part of the Our Vision review process in 2019/20, the Group Responsible Business Team highlighted the need to focus on Climate Action. This is one of our priorities within our business strategy, Our Vision 2030. Under this priority area climate change resilience is one of the key focuses. We intend to build on our work that has already been done in this area including the continued use of our overheating risk assessment tool. The tool forms part of the Berkeley Group's processes and is used by all autonomous companies on new sites pre-planning as part of the asset level assessment. It takes into account factors which can affect overheating, such as location, building type and ventilation strategies. It then highlights site-specific risks and suggested actions to reduce these.

The thermal comfort risk assessment for the Berkeley Group's Lea Bridge development highlighted that there was the need for dynamic thermal modelling for the site, due to its location within an urban area. A number of mitigation measures were incorporated as a result of the assessment including external shading from balcony overhangs; natural ventilation measures; and the use of green roofs.

- Transition risks and opportunities case study; the zero carbon agenda.

The Berkeley Group considers the potential for future carbon tax regimes to be a key transitional risk for the organisation. As a result, we have set science-based targets for our scopes 1 and 2 emissions to reduce in absolute terms by 50% by 2030 and for scope 3 to reduce in intensity terms, based on floor area completed, by 40% by 2030.

To tackle the most significant emissions category covered by our scope 3 target (purchased goods and services), in 2021/22 we have focused on understanding the impact of the materials we use across a representative selection of buildings with 15 embodied carbon assessments completed. We now have valuable information to help



us to understand both where the greatest impacts lie and to develop targeted actions for reduction, in partnership with our supply chain. The case study sites include Royal Arsenal Riverside, a medium rise apartment scheme, South Quay Plaza, a high rise apartment scheme, and Cranleigh, a low rise housing scheme. We have clear recommendations from the assessments undertaken to date which are being launched to our design teams in summer 2022. Moving forward, every project team will be required to calculate embodied carbon within the design and work with designers and the supply chain to drive down the carbon impact across our portfolio to meet target values.

#### C2.2a

## (C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & Please explain	
	inclusion	Please explain
Current regulation	Relevant, always included	The Berkeley Group operates in a highly regulated industry in which we are required to comply with regulation both in terms of the running of our business and in terms of the homes and developments we build. For example, at a company level, the Berkeley Group's risk assessment considers the risks of non-compliance associated with current regulation which applies, such as mandatory greenhouse gas emissions reporting and the Energy Savings Opportunity Scheme. Risks of non-compliance with these include financial penalties and reputational damage. At an asset level, each of the Berkeley Group's development sites is required to comply with planning policy and Building Regulations during development works, including building energy efficiency requirements. Failure to address regulation could affect our ability to acquire land, gain planning permission and deliver homes to our customers without delay, with these considered as part of our asset level risk assessments.
Emerging regulation	Relevant, always included	Building Regulations and local planning requirements applicable to the developments of the Berkeley Group regularly evolve to ensure buildings increasingly mitigate and adapt to climate change. The risk assessments completed by the Berkeley Group consider such emerging regulation at both a company and asset level, particularly in terms of the potential for added costs, along with upskilling teams to ensure awareness and delivery of new requirements. Reporting requirements at a company level are also subject to change and are considered in the risk assessment. For example, process and resource implications to meet Government's new Streamlined Energy and Carbon Reporting framework. The Berkeley Group considers the potential that aggressive climate mitigation could lead to implementation of carbon tax regimes, and an increase in the cost of emissions offset.



Technology	Relevant, sometimes included	Technological improvements outside our industry that support the transition to a lower carbon economy may impact the product of the Berkeley Group. For example, infrastructure on Berkeley Group developments will need to be able to accommodate any future increase in availability and uptake of electric vehicles due to increased climate change mitigation awareness of consumers; there is a risk that the capacity of networks currently designed into our developments will not be sufficient for future demand. There is also the risk of overdesigning and specifying electric vehicle networks on our developments at a cost to the business, if the appetite for electric vehicles does not increase as expected. Our developments will also need to efficiently optimise the benefits of a grid that is decarbonising as the replacement of systems that are dependent on fossil fuels could result in higher costs. There is also a risk that technologies selected at the outset of a planning process could become outdated and obsolete upon building completion as a result of the development of lower emission alternatives. Long-term trends and potential risks are assessed at a company level to help determine appropriate actions as part of our business strategy, with these applied at an asset level.  The Berkeley Group could be exposed to legal risk from our customers
Logai	sometimes included	should our homes and developments not be adapted appropriately to combat the impacts of climate change, such as flooding events and overheating. Risks, including to the reputation of the Berkeley Group, are assessed at a company level based on asset level risk assessments predominantly in regards to physical (e.g. flooding) risks.
Market	Relevant, sometimes included	There is a high demand for homes in the UK, with the key factors driving customers' selection of a home generally being cost, location and access to local facilities (e.g. schools). At a company level, the Berkeley Group undertakes brand research on an annual basis to determine any shifts in market demands, including for more sustainable homes that both mitigate and adapt to climate change. Although there has been a minimal shift identified to date, the market demand for more energy efficient homes may increase following improved consumer awareness through media and initiatives such as the launch of Barclays' Green Home Mortgage, of which the Berkeley Group is one of a select group of developer partners. Risks associated with such shifts are considered at a company level, to ensure that our business strategy suitably addresses these, with necessary actions applied at an asset level through the evolved development of our homes and places.
Reputation	Relevant, always included	There is an increased level of interest in disclosures on climate change management. Failure of the Berkeley Group to report in line with regulations or key recommendations could expose the company to reputational damage, with this a consideration within the company level risk assessment. The Berkeley Group's reputation with its



		customers and local planning authorities is critical to its success. Our reputation with these key stakeholders would be at risk should our homes and developments not be adapted appropriately to combat the impacts of climate change, such as flooding events, with these risks considered at an asset level as part of our risk assessment and management processes.
Acute physical	Relevant, always included	Acute weather events, such as flooding, are risk assessed at an asset level as part of the design process of every Berkeley Group development and mitigation measures incorporated. We also consider the potential impact to our day-to-day operations should extreme weather events result in the temporary closure of a construction site, e.g. due to high winds, flooding or extreme snowfall.
Chronic physical	Relevant, always included	Changes in longer-term climate patterns could affect homes developed by the Berkeley Group, for example through overheating during chronic heat waves. Such risks are assessed at an asset level in relation to the Berkeley Group's product through the design process.

#### C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

#### C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

#### Identifier

Risk 1

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Acute physical

Flood (coastal, fluvial, pluvial, groundwater)

#### **Primary potential financial impact**

Increased direct costs

#### Company-specific description

Scenario analysis completed in 2021/22 has identified that in present day conditions, 6% of the Berkeley Group's sites are deemed to be materially exposed to flooding (between 1 in 100 and 1 in 500 probability), given the predominance of the Berkeley



Group's portfolio in London and the flood defences in place in London.

Under a 4°C scenario, it is projected that peak river flows in the South East of England will increase significantly (by 33%) in the 2050s leading to an increase in river flooding. There would also likely be increased exposure to coastal flooding from sea level rise, as well as surface and groundwater flooding from heavy rainfall.

By 2050, the Berkeley Group's scenario analysis indicates that there are no further sites exposed beyond the 6% of sites already at risk in the present day. However, the exposure to flooding may increase for these particular sites which could therefore flood more often.

The main implication from floods is physical damage to completed property and construction assets.

#### Time horizon

Long-term

#### Likelihood

More likely than not

#### Magnitude of impact

Medium-high

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

#### Potential financial impact figure – minimum (currency)

27,000,000

#### Potential financial impact figure - maximum (currency)

60,000,000

#### Explanation of financial impact figure

As part of the Berkeley Group's scenario analysis, we have undertaken a financial impact assessment of the acute physical risks through probabilistic modelling utilising insurance market recognised catastrophe risk models. This methodology is widely used in the insurance industry to price insurable catastrophic risk when considering insurance premiums. Using Geographical Information System (GIS) tools and an extensive database of building design characteristics for each site exposed to flooding in 2050, the potential unmitigated event losses were calculated. The benchmarks used to assess this are defined as a "severe year" and an "extreme year", representing probability of 0.5% and 0.1% or a 1 in 200 year return period (a severe year) and a 1 in 1,000 year return period (an extreme year), respectively. The modelling estimates that by 2050 the physical damage from flooding under a 4°C scenario could exceed £27 million in a severe year (i.e. 1 in 200 year return period) and £60 million in an extreme year (i.e. a 1



in a 1,000 year return period). These figures represent physical loss to the entirety of all sites in our current land holdings which comprised around 63,000 homes at 31 October 2021. It is before any mitigation or adaptation measures and irrespective of insurance or other recovery or consideration of financial responsibility for any such losses.

Berkeley already insures against potential losses from catastrophic events. Under a 4°C scenario the primary cost exposure for Berkeley could be an increase to insurance premiums for assets under construction.

#### Cost of response to risk

4,170,000

#### Description of response and explanation of cost calculation

Action: For many years, flood risk assessments have been a standard part of the Berkeley Group's development planning and design if the developments fall within a flood zone. The flood risk assessments vary in extent based on the potential risk and already include allowances for the effects of climate change. Our homes are designed to the flood risk that is identified in the flood risk assessment. This includes designing to a 1 in 30 year, 1 in 100 year or 1 in 1,000 year flood. Within our developments, design mitigation measures include raising the levels of the lower floors to designing sustainable drainage systems (SuDS) to hold and store water in times of extreme rainfall.

Example: Following a flood risk assessment of the Berkeley Group's Kidbrooke Village development, sustainable drainage systems (SuDS) were considered early in the development process and a SuDS corridor including drainage swales is being incorporated to reduce the risk of flooding on site, with an allowance for climate change included.

Cost of management: Consideration of flooding during the design stages is undertaken at a typical cost ranging between £5,000 and £25,000 per development, depending on its complexity. As an indication of costs to manage flooding risks through the completion of flood risk assessments, the Berkeley Group submits in the region of 10 planning applications for new developments in a year. Assuming that a flood risk assessment costs £15,000 (the range mid-point), this would amount to a total cost of £150,000 across the 10 developments.

The cost of additional design measures to reduce the potential for flooding at a development site depends on the level of risk and the required solutions. Using a sample of four recent developments implementing flood risk abatement measures, on average the cost has been estimated at £670,000 per development to implement measures such as attenuation tanks, permeable paving and swales. On the basis that seven sites typically move into production each reporting year and roughly 90% of Berkeley Group sites implement sustainable drainage systems (SuDS), an indicative cost of management is £4,020,000 (6 development x £670,000) annually.



Total indicative costs of our response to this risk therefore equal £4,170,000 annually (£150,000 + £4,020,000).

#### Comment

#### Identifier

Risk 2

#### Where in the value chain does the risk driver occur?

Downstream

#### Risk type & Primary climate-related risk driver

Chronic physical Heat stress

#### Primary potential financial impact

Decreased revenues due to reduced demand for products and services

#### Company-specific description

Scenario analysis completed in 2021/22 indicates that present day heat stress is very low throughout the UK such that all of the Berkeley Group's sites currently have very low exposure (less than five heatwave days in a given year). Under a 4°C scenario, heat stress increases gradually and becomes a moderate risk beyond 2050 towards the end of the current century. This could mean frequent heatwaves (more than 20 days annually), with the majority of England and Wales (in particular SE, SW and The Midlands) exposed to more material heat stress by mid-century. Correspondingly, scenario analysis predicts that 84% of Berkeley's homes will be exposed to heat stress in the decades beyond 2050.

The potential for overheating in our homes arises through heat stress from climate change and the urban heat island effect. The overheating of homes could result in remedial costs and impact negatively on the Berkeley Group's brand reputation, potentially reducing revenue from sales.

#### Time horizon

Long-term

#### Likelihood

More likely than not

#### Magnitude of impact

Medium-high

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range

#### Potential financial impact figure (currency)



#### Potential financial impact figure – minimum (currency)

25,395,000

#### Potential financial impact figure - maximum (currency)

115.100.000

#### **Explanation of financial impact figure**

The Berkeley Group has implemented management strategies to mitigate against any financial implications related to heat stress, including a minimum requirement for all developments to assess overheating risk and incorporate measures to reduce this risk since 2017.

There is the potential of a financial risk if the demand for the Berkeley Group's homes reduces as a result of not implementing such management strategies, resulting in overheating in homes and affected brand reputation. The numerical value of this is difficult to define and was not quantifiable as part of our scenario analysis due to the number of variables, including the frequency and intensity of any climate change related weather events and potential impacts on our customers and reputation. However, an illustrative decrease in sales revenue of 5% would have a negative impact of £115,100,000 on the Berkeley Group were the impact purely on sales prices, based on 2021/22 residential sales revenue of £2,302,000,000. If there were to be a 5% reduction in volume, then the illustrative impact would be a £25,395,000 reduction in operating profit based on the company's operating margin.

#### Cost of response to risk

549,000

#### Description of response and explanation of cost calculation

Action: The Berkeley Group has a minimum Sustainability Standard for all developments to assess overheating risk and incorporate measures to reduce this risk. We use a risk assessment tool, specifically designed for our developments, to understand the risk of overheating to individual developments based on factors such as location and building type. The tool identifies the homes which are at higher risk to enable more detailed dynamic thermal modelling to be undertaken. It also identifies potential mitigation measures which may include thicker insulation to external walls, smaller windows with thermally efficient glass, integrating shading through the design such as brise soleil and incorporating soft landscaping to mitigate the heat island effect.

Example: Measures to control the risk of overheating range from reflective blinds at the Berkeley Group's The Arches development and solar control glazing at King's Road Park, to amended balcony design at Goodman's Fields and reducing solar gains through the use of green roofs at 9 Millbank.

Cost of management: Where supplementary overheating studies through dynamic thermal modelling are required, the cost of these typically ranges from £10,000 to £20,000 per development, depending on its complexity. As an indication of costs to



manage overheating through dynamic thermal modelling, the Berkeley Group submits in the region of 10 planning applications for new developments in a year. Assuming that an overheating study costs £15,000 (the range mid-point), this would amount to a total cost of £150,000 across the 10 developments.

The cost of additional design measures to reduce the potential for overheating of homes at a development site depends on the level of risk and the required solutions. Using a sample of two recent developments implementing overheating risk abatement measures, on average the cost has been estimated at £57,000 per development to implement measures such as reflective blinds and green roofs. On the basis that seven sites typically move into production each reporting year and that scenario analysis completed in 2021/22 indicates that all of the Berkeley Group's sites have some exposure to heat stress due to the areas in which we operate (i.e. London and the South of England), an indicative cost of management is £399,000 (7 developments x £57,000) annually.

Total indicative costs of our response to this risk therefore equal £549,000 annually (£150,000 + £399,000).

#### Comment

#### Identifier

Risk 3

#### Where in the value chain does the risk driver occur?

Direct operations

#### Risk type & Primary climate-related risk driver

Emerging regulation
Carbon pricing mechanisms

#### Primary potential financial impact

Increased indirect (operating) costs

#### Company-specific description

Scenario analysis completed in 2021/22 indicates that the Berkeley Group's direct emissions (scopes 1 and 2) could be subject to direct carbon pricing in the future, as aggressive climate mitigation could lead to implementation of carbon tax regimes. This could significantly impact the Berkeley Group's operating costs with uncertainty around UK pricing and regulations (e.g. cap and trade schemes) making planning for future Berkeley Group operations difficult.

#### Time horizon

Medium-term

#### Likelihood



About as likely as not

#### Magnitude of impact

Medium-low

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

### Potential financial impact figure – minimum (currency)

87.000

#### Potential financial impact figure – maximum (currency)

850,000

#### **Explanation of financial impact figure**

As part of the Berkeley Group's scenario analysis, we have undertaken a financial impact assessment of this transitional risk based on UK carbon price projections from the Network for Greening the Financial System (NGFS). Under the Below 2°C scenario, pricing of GHG emissions in the UK is expected to increase to reach \$54 to \$97 per tCO2 by 2030 (NGFS Below 2°C). Meanwhile under a 1.5°C scenario, pricing could reach between \$155 to \$454 per tCO2 (NGFS NZ2050).

The Berkeley Group has committed to reduce absolute scopes 1 and 2 greenhouse gas (GHG) emissions by 50% by FY2030 from a FY2019 base year. In 2019, these emissions were 3,808 tCO2e and it can therefore be assumed that (if targets are met) emissions will be 1,904 tCO2e or lower by 2030. Applying the highest carbon price of \$454 per tCO2 from the NGFS, annual costs could therefore be up to \$864,416 by 2030 (equivalent to £729,696 based on the exchange rate as of 14 July 2022). Applying the lowest carbon price of \$54 per tCO2 from the NGFS, annual costs could be \$102,816 by 2030 (equivalent to £86,792 based on the exchange rate as of 14 July 2022).

If the Berkeley Group failed to reduce its emissions between now and 2030, it could be exposed to higher carbon pricing, where the worst case under a 1.5°C scenario could present an annual cost to the Berkeley Group of \$1,003,794 / £847,353 (based on 2022 scopes 1 and 2 emissions of 2,211 tCO2e and the exchange rate as of 14 July 2022).

Based on the Berkeley Group meeting its targeted carbon emissions by 2030 and a low carbon tax regime, the minimum financial impact has been estimated to be £86,792 (rounded to £87,000), with the maximum financial impact should the Berkeley Group not meet its carbon emissions reduction target under a high carbon tax regime estimated to be £847,353 (rounded up to £850,000).

#### Cost of response to risk

60,000

Description of response and explanation of cost calculation



Action: Through employee engagement and the use of an internal carbon price, the Berkeley Group encourages the implementation of carbon emission reduction initiatives based on both capital and operational expenditure, rather than capital expenditure alone. Example initiatives implemented in recent years include the increased use of biodiesel HVO (Hydtrotreated Vegetable Oil), solar powered welfare units, battery storage and the implementation of LED lighting, timer controls and master off switches as part of temporary electrics packages.

Cost of management: The cost of initiatives implemented to reduce carbon emissions depends on the type and extent of initiative implemented. Based on average investment costs from recent years, the minimum annual cost is calculated to be in the region of £60,000.

#### Comment

#### Identifier

Risk 4

#### Where in the value chain does the risk driver occur?

Direct operations

#### Risk type & Primary climate-related risk driver

Emerging regulation
Carbon pricing mechanisms

#### Primary potential financial impact

Increased direct costs

#### Company-specific description

Scenario analysis completed in 2021/22 indicates that there is a risk of increased development costs if the Berkeley Group's suppliers pass the impact of carbon pricing for high carbon building materials onto the Berkeley Group. For example widely used steel, concrete, cement and glass all have energy intensive production which could require increased energy input costs under a 1.5°C transition pathway and in the absence of alternative technological advances.

#### Time horizon

Medium-term

#### Likelihood

Likely

#### Magnitude of impact

Medium-high

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate



#### Potential financial impact figure (currency)

11,250,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

#### **Explanation of financial impact figure**

Against a 1.5°C scenario, it is assumed that energy intensive raw materials such as glass, concrete and steel will be particularly impacted by carbon driven cost increases. Within the Berkeley Group's scenario analysis, scope 3 emissions have been used as a proxy to understand the relative scale of risk; Purchased Goods and Services contributed 857,341 tCO2e to Berkeley's Scope 3 emissions in 2021/22. Under a 1.5°C scenario, pricing of GHG emissions in the UK could rise by at least \$155 per tCO2 (NGFS NZ2050).

If 10% of cost increases are passed from suppliers to the Berkeley Group, this cost could be 857,341 \* \$155 \* 0.1 = \$13,288,785 = £11,217,728 based on the exchange rate on 14 July 2022. This figure has been rounded to £11,250,000.

#### Cost of response to risk

70,000

#### Description of response and explanation of cost calculation

Action: The Berkeley Group has a diverse supply chain drawing material from a wide range of suppliers and we regularly assess material costs as part of development appraisals. In 2021/22, the Berkeley Group undertook embodied carbon studies to better quantify the emissions within the materials of our developments to inform future design. 15 assessments were completed across a range of building typologies, from houses to mid-rise apartments and tall buildings, together with homes built using modular construction. With support of specialist consultants we calculated the 'up front' embodied carbon of the materials and the supply chain used to construct our homes before they are legally completed (RICS Modules A1-A5). This covers extraction, manufacture and transportation of materials. The majority of embodied carbon in our developments arises from the façade, floors, substructure, frame and mechanical and electrical services. In particular, concrete, steel, glass and brick are significant contributors. The assessments have demonstrated that we should first focus on the design of our buildings to reduce the quantities of material used and then specify materials with lower carbon impact including materials with an increased percentage of recycled content. We have clear recommendations from the assessments undertaken to date which are being launched to our design teams in summer 2022. Every project team will also be required to calculate embodied carbon within the design and work with designers and the supply chain to drive down the carbon impact across our portfolio to meet target values.

In addition to this, the Berkeley Group is progressing with a Common Materials Strategy



to engage with and set standards for our supply chain across a range of topics including sustainability, responsible procurement and quality. This covers 110 manufacturers across 30 product groups and involves the development of new Group-wide Technical Standards for each product group, supported by Manufacturer Framework Agreements. Climate action is a key topic being covered for each product with a focus on reducing embodied carbon in line with our science-based targets.

Cost of management: The development of a Common Materials Strategy forms part of the Head of Group Supply Chain's job role and therefore incurs no additional cost. The cost to complete the embodied carbon assessments on the initial 15 buildings was in the region of £70,000.

#### Comment

#### C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

#### C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

#### Identifier

Opp1

#### Where in the value chain does the opportunity occur?

Downstream

#### **Opportunity type**

Products and services

#### Primary climate-related opportunity driver

Shift in consumer preferences

#### Primary potential financial impact

Increased revenues resulting from increased demand for products and services

#### Company-specific description

Scenario analysis completed in 2021/22 has identified that there is an inherent risk that by 2030, as energy prices increase, property buyers will favour lower carbon homes and expect greater energy operational efficiency. Conversely, strong sustainability related credentials evidenced through a proven delivery track record should improve the prospects of higher demand for the Berkeley Group's homes, with these differentiated



from the market particularly existing UK housing stock.

Whilst in the short-term the scale of opportunity for higher demand is not necessarily significant, increasing climate awareness and the Berkeley Group's focus on climate action and wider Our Vision initiatives are anticipated to influence customer demand positively over the next decade. The Berkeley Group's focus on urban, brownfield regeneration development is also inherently more sustainable. In addition, customer preference for new build over second-hand housing stock could further support demand for more efficient homes, with the latest technologies. Climate change is also expected to bring about more extreme weather events, including drier hotter summers which could lead to heat stress and the overheating of homes. This has already been experienced in existing housing stock within the UK and climate projections indicate that overheating is one of the key risks to homes (Risk 2). By demonstrating that the Berkeley Group designs homes with thermal comfort as a key consideration, we have the opportunity to benefit from increased demand for our homes.

#### Time horizon

Medium-term

#### Likelihood

About as likely as not

#### Magnitude of impact

Medium-high

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

#### Potential financial impact figure – minimum (currency)

25,395,000

#### Potential financial impact figure – maximum (currency)

115,100,000

#### **Explanation of financial impact figure**

Increased demand for existing products/services through demand for homes that remain comfortable all year round could lead to potential positive financial benefits associated with increased sales. Greater consumer awareness about more sustainable homes and concerns about rising utility costs may lead to greater demand for homes with a higher sustainability performance and therefore increased sales for the Berkeley Group.

The numerical value of the opportunity is difficult to define and was not quantifiable as part of our scenario analysis due to the number of variables involved. However, an illustrative increase in sales revenue of 5% would have a positive impact of £115,100,000 on the Berkeley Group were the impact purely on sales prices, based on 2021/22 residential sales revenue of £2,302,000,000. If there were to be a 5% increase



in volume, then the illustrative impact would be a £25,395,000 increase in operating profit based on the company's operating margin.

#### Cost to realize opportunity

7,064,200

#### Strategy to realize opportunity and explanation of cost calculation

Action and examples: The Berkeley Group continually works to improve the design and quality of our homes and developments. Sustainable features across our homes and developments include, but are not limited to, cycle storage, electric vehicle (EV) charging points, renewable or low carbon technologies, rainwater harvesting and ecological enhancements. We actively communicate sustainability features to customers through our sales process.

Cost of management: The cost of implementing sustainability features varies significantly across developments, due to the range and scale of measures used. Using SuDS, cycle storage, EV charging infrastructure, PVs and overheating measures as examples and on the basis of seven sites typically moving into production each reporting year:

SuDS - ~90% of Berkeley Group sites implement sustainable drainage systems (SuDS) at an estimated average cost of £670,000. An indicative cost is £4,020,000 (6 developments x £670,000) annually.

Cycle storage - 100% of Berkeley Group sites install cycle storage at an average of 1,140 spaces per development and at roughly £100 per space. An indicative cost is £798,000 (7 developments x 1,140 x £100) annually.

EV infrastructure -  $\sim$ 90% of Berkeley Group sites provide EV infrastructure at an average of 190 charging points per development and at roughly £1,400 per point. An indicative cost is £1,596,000 (6 developments x 190 x £1,400) annually.

PV panels -  $\sim$ 50% of Berkeley Group sites install PV panels at an average of 170 panels per development and at roughly £350 per panel. An indicative cost is £238,000 (4 developments x 170 x £350) annually.

Overheating measures - All Berkeley Group sites have some exposure to heat stress (Risk 2) with an estimated average cost of £57,000 to mitigate this. An indicative cost is £399,000 (7 developments x £57,000) annually.

Increasing consumer awareness and highlighting the positive features of the homes and developments of the Berkeley Group will become increasingly important in the short to medium-term to realise the opportunity. An indicative cost for additional sustainability-specific marketing material is approximately £2,200 per development. With around six new sales launches each year, evolved marketing of site-specific sustainability features is estimated to cost in the region of £13,200.



Total indicative costs of our response to this opportunity equal £7,064,200 annually (£4,020,000 + £798,000 + £1,596,000 + £238,000 + £399,000 + £13,200).

#### Comment

## C3. Business Strategy

#### C3.1

## (C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

#### Row 1

#### **Transition plan**

Yes, we have a transition plan which aligns with a 1.5°C world

#### Publicly available transition plan

Yes

## Mechanism by which feedback is collected from shareholders on your transition plan

We do not have a feedback mechanism in place, but we plan to introduce one within the next two years

#### Attach any relevant documents which detail your transition plan (optional)

Berkeley Group Climate Action Programme 3.1.pdf

#### C3.2

## (C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	
Row 1	Yes, qualitative and quantitative	

#### C3.2a

#### (C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate- related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios	Company- wide		For transition risks the representative scenarios assessed are a below 2°C scenario (using IEA SDS)



		and limiting glabal warming to 1.5°C (Not Zara 2050
IEA NZE 2050		and limiting global warming to 1.5°C (Net Zero 2050 scenario), used in conjunction with SSP1 Sustainability – Taking the Green Road. Where it is possible to differentiate across the two scenarios the assessment focused on the Net Zero 2050 scenario, in line with the Paris Agreement targets. Transition risks were assessed in relation to aggressive climate mitigation measures in both short term (to 2023) and medium term (to 2030) time horizons. Transition risks occur in response to aggressive climate mitigation to move to a less polluting and lower carbon economy. The Berkeley Group has identified 14 transition risk drivers under the recommended TCFD categories of Policy & Legal, Technology, Market and Reputation against a 2023 and 2030 time horizon. We assessed these qualitatively, and where possible, quantified potential impacts. Risks were assessed in terms of impact and likelihood via a series of subject matter expert interviews from Berkeley Group. Where the risks allowed for quantification, financial impacts were estimated and likelihoods assessed and aligned to an adapted version of Berkeley Group's Enterprise Risk Management rating criteria. The financial scenarios were identified to understand the potential magnitude of risks and were quantified based on data from external and internal sources. A number of assumptions had to be made, for example the use of NGFS as a primary source for carbon price estimates; in reality the UK government will pursue a range of fiscal and regulatory policies, which will have varying costs and benefits.
Transition scenarios IEA SDS	Company- wide	For transition risks the representative scenarios assessed are a below 2°C scenario (using IEA SDS) and limiting global warming to 1.5°C (Net Zero 2050 scenario), used in conjunction with SSP1 Sustainability – Taking the Green Road. Where it is possible to differentiate across the two scenarios the assessment focused on the Net Zero 2050 scenario, in line with the Paris Agreement targets. Transition risks were assessed in relation to aggressive climate mitigation measures in both short term (to 2023) and medium term (to 2030) time horizons. Transition risks occur in response to aggressive climate mitigation to move to a less polluting and lower carbon economy. The Berkeley Group has identified 14 transition risk drivers under the recommended TCFD categories of Policy & Legal,



		Technology, Market and Reputation agains 2030 time horizon. We assessed these qua and where possible, quantified potential im were assessed in terms of impact and likel series of subject matter expert interviews from Group. Where the risks allowed for quantification financial impacts were estimated and likeling assessed and aligned to an adapted version Group's Enterprise Risk Management ration. The financial scenarios were identified to use the potential magnitude of risks and were considered based on data from external and internal so number of assumptions had to be made, for the use of NGFS as a primary source for considered to the use of Risks and regulatory policies, which varying costs and benefits.	alitatively, pacts. Risks ihood via a rom Berkeley cation, noods on of Berkeley g criteria. nderstand juantified ources. A or example arbon price I pursue a ch will have
Physical climate scenarios RCP 2.6	Product- level	Our scenario analysis on the physical risks plausible climate scenarios in line with the Intergovernmental Panel on Climate Changhigh emissions 4°C scenario (RCP 8.5), in 1.5°C scenario (RCP 2.6) and involved qua analysis These were used in conjunction we Fossil-fueled Development – Taking the Hissper Sepectively. Physical risks were assessed long-term to 2050 and beyond, compared the exposure as a baseline position. The impact change were broken down into chronic climacute climate risks.  For each risk category we have undertakent assessment of exposure (i.e. the proportion our land holdings that will experience the exposure that we climate change, primarily due to climatic shimpact the whole of our primary operating to South East of the UK). The degree of that we defined by the frequency and/or severity (in that particular hazard. To identify potentiall unmittigated exposure, well recognised more insurance industry and UK specific climate used. Berkeley's developments were considered where a climate hazard may occur.	ge (IPCC); a addition to a antitative ith SSP5 ghway and oad over the o the current cts of climate nate risks and in an in of homes in affects of iffs that will region in the exposure is intensity) of y material dels from the data were dered



		In addition to the exposure analysis, another view of risk was incorporated that explores the probable losses (damages) from the extreme weather risks of windstorm and flood but without taking insurance cover into account. This was carried out using probabilistic models that forecast the likely financial impact for average as well as bad years when losses occur. An initial hazard review was undertaken to identify which climate hazard (flood or windstorm) prevails at each sites and for shortlisted assets an extensive data collection exercise was carried out including development-specific details. The data was then fed into Risk Management Solutions (RMS) models with the latest high definition information available. These models are widely used in the insurance industry to forecast the financial impact associated to natural catastrophe perils and are also used price premiums associated to catastrophe risks.
Physical climate scenarios RCP 8.5	Product- level	Our scenario analysis on the physical risks selected two plausible climate scenarios in line with the Intergovernmental Panel on Climate Change (IPCC); a high emissions 4°C scenario (RCP 8.5), in addition to a 1.5°C scenario (RCP 2.6) and involved quantitative analysis These were used in conjunction with SSP5 Fossil-fueled Development – Taking the Highway and SSP1 Sustainability – Taking the Green Road respectively. Physical risks were assessed over the long-term to 2050 and beyond, compared to the current exposure as a baseline position. The impacts of climate change were broken down into chronic climate risks and acute climate risks.
		For each risk category we have undertaken an assessment of exposure (i.e. the proportion of homes in our land holdings that will experience the effects of climate change, primarily due to climatic shifts that will impact the whole of our primary operating region in the South East of the UK). The degree of that exposure is defined by the frequency and/or severity (intensity) of that particular hazard. To identify potentially material unmitigated exposure, well recognised models from the insurance industry and UK specific climate data were used. Berkeley's developments were considered exposed in 2050 if they are located in a geographic area where a climate hazard may occur.



In addition to the exposure analysis, another view of risk was incorporated that explores the probable losses (damages) from the extreme weather risks of windstorm and flood but without taking insurance cover into account. This was carried out using probabilistic models that forecast the likely financial impact for average as well as bad years when losses occur. An initial hazard review was undertaken to identify which climate hazard (flood or windstorm) prevails at each sites and for shortlisted assets an extensive data collection exercise was carried out including development-specific details. The data was then fed into Risk Management Solutions (RMS) models with the latest high definition information available. These models are widely used in the insurance industry to forecast the financial impact associated to natural catastrophe perils and are also used price premiums associated to catastrophe risks.

#### C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

#### Row 1

#### Focal questions

As part of our scenario analysis, the Berkeley Group focused on assessing the following two workstreams:

- 1. Risks and opportunities relating to the transition to a lower-carbon economy; and
- 2. Risks relating to the physical impacts of climate change in relation to Berkeley's land holdings as at 31 October 2021.

The focal questions were:

- How resilient is the Berkeley Group to the anticipated transitional impacts of climate change?
- Which of our physical assets (development sites) are exposed to climate hazards?
- In which areas will we need to develop resiliency plans to manage threats, or plan to exploit opportunities?
- -Identify potential opportunities and challenges in meeting our existing strategy for Climate Action, including SBTs.

Results of the climate-related scenario analysis with respect to the focal questions



#### Transitional impacts - key results

Overall transitional risk exposure to the Berkeley Group in the short term (2023) is low, although carbon pricing (e.g. REGO costs) and increased cost of raw materials present moderate risk. In the medium term (2030), the Berkeley Group is more moderately exposed. This is driven by the risk of carbon pricing on scope 3 emissions for new developments enforced by London's planning authorities. Uncertainty surrounding the availability of skilled labour to install low emission technology also generates risk out to 2030.

#### Physical asset exposure

For physical impacts, a mix of actue and chronic climate risks were identified. Windstorm hazards could pose a moderate risk to all assets, whereas flood has a relatively small contribution to the risk profile. Drought stress will become more material by the 2050s, together with heat stress. Physical risk exposure in 2050 and beyond under a 4°C scenario is as follows:

- Windstorm: The typical windstorm hazard could pose a moderate risk for 100% of the Berkeley Group's sites. This does not reflect a change to the present day levels of exposure or probability of such risk.
- Flood: By 2050 there are no further sites exposed beyond the 6% of sites already at risk in the present day. However, the exposure to flooding may increase for these particular sites which could therefore flood more often.
- Heat stress: The majority of England and Wales (in particular SE, SW and The Midlands) will be exposed to more material heat stress by mid-century. Correspondingly, 84% of the Berkeley Group's homes will be exposed to heat stress in the decades beyond 2050.
- Drought stress: Similar to heat stress, the majority of England and Wales (in particular SE, SW and The Midlands) will be exposed to more material drought conditions by midcentury. Correspondingly, 92% of the Berkeley Group's homes will be exposed to drought conditions of 3 to 4 months annually in the decades beyond 2050. A significantly smaller proportion (5%) of homes could see drought conditions for 6 months of the year.
- Subsidence: Large areas in the South East and Eastern England are exposed to increasing subsidence conditions, including Greater London and the Thames Estuary due to the clay soils. The soil conditions to 90% of the Berkeley Group's current homes could potentially be impacted beyond 2050.

#### Resiliency plans and strategy

Having completed the scenario analysis in 2021/22, the Berkeley Group is now looking to complete resiliency planning work, and to identify the most effective ways to implement the results and findings into our strategic and financial planning processes. However, we are pleased to confirm that our existing strategy and management approaches address many of the identified material risks as outlined in C2.3. For example, the Berkeley Group already has a minimum Sustainability Standard for all developments to assess overheating risk (Risk 2) and incorporate measures to reduce this risk.



## C3.3

## (C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	The Berkeley Group has identified that extreme weather events (Risk 1) and chronic changes in temperatures (Risk 2) pose a risk to the homes and places we create.  Overheating is a growing risk for the industry and in particular the Berkeley Group, with the majority of the homes we build located in the south of England; a region that is particularly susceptible to this risk due to expected temperature increases in all seasons, as well as more extreme temperatures. In 2016, the Berkeley Group made the substantial strategic business decision to work with an external expert to further research overheating risk and develop a thermal comfort risk assessment which has been applied to all developments during the early design stages since May 2017. Specific action is determined on a site-bysite basis, depending on the outputs of these assessments, to ensure a bespoke design solution is applied to each individual development as necessary to address overheating risk throughout the development lifetime (i.e. from short-term through to long-term time horizons).  The Berkeley Group is also evolving its product (i.e. the homes and places we create) to reduce carbon emissions during use and to position our product to capitalise on future demands for more efficient homes (Opp 1). In December 2020 our science-based targets (SBTs) were validated, setting us ambitious targets to reduce the impact of our product. By 2030 we are committed to reduce the carbon intensity of the homes we build by 40% on an intensity basis normalised by floor area. This will require the evolvement of our designs and processes in the short to medium-term, focusing on further improvements to the building fabric, coupled with incorporating the appropriate energy infrastructure and technologies.  Having completed climate scenario analysis in 2021/22, over
		the coming year the Berkeley Group plans to complete work



		I a company of the co
		to identify the most effective ways to implement the results and findings into our strategic processes related to products and services. However, we are pleased to confirm that our existing strategy and management approaches address many of the identified risks. For example, the Berkeley Group already has a minimum Sustainability Standard for all developments to assess overheating risk and incorporate measures to reduce this risk.
Supply chain	Yes	The Berkeley Group is evolving its approach to carbon
and/or value chain		within the supply chain to reduce our indirect impacts and to ensure future resilience to climate change, including against the potential risk for material costs to increase as carbon pricing is applied to our suppliers' operations (Risk 4). To meet our scope 3 science-based target (SBT) we require a focus on understanding and then reducing the carbon content of the materials and services we use, minimising embodied carbon through design and collaborating with our supply chain to procure lower carbon products.  At a strategic level, in 2021/22 the Berkeley Group
		undertook embodied carbon studies to better quantify the emissions within the materials of our developments to inform future design. 15 assessments were completed across a range of building typologies. With support of specialist consultants we calculated the 'up front' embodied carbon of the materials and the supply chain used to construct our homes before they are legally completed (RICS Modules A1-A5). The assessments have demonstrated that we should first focus on the design of our buildings to reduce the quantities of material used and then specify materials with lower carbon impact including materials with an increased percentage of recycled content. Following this work, we have set strategic embodied carbon targets for the business for each different building typology and moving forward, every project team is required to calculate embodied carbon within the design and work with designers and the supply chain to drive down the carbon impact across our portfolio.
		The Berkeley Group is also progressing with a Common Materials Strategy to engage with and set standards for our supply chain across a range of topics including sustainability. This covers 110 manufacturers across 30 product groups and involves the development of new Groupwide Technical Standards for each product group, supported



		by Manufacturer Framework Agreements. Climate action is a key topic being covered for each product with a focus on reducing embodied carbon in line with our science-based targets.  Having completed climate scenario analysis in 2021/22, over the coming year the Berkeley Group plans to complete work to identify the most effective ways to implement the results and findings into our strategic processes related to our supply chain.
Investment in R&D	Yes	Recognising the climate change risks and opportunities facing the business, the Berkeley Group has, and will continue to, invest substantially in research and development on a regular basis, with time horizons dependent on the topic.  Given the potential direction of travel for future carbon pricing policy (Risk 3), in 2020 the Berkeley Group made its most substantial strategic business decision in this area to date and committed to science-based targets (SBTs) for emissions reduction. We have formed working groups focused on key workstreams and there will be a period of research and development to identify the most appropriate action to take to reduce emissions. As an example, in 2021/22 the Berkeley Group has completed research on embodied carbon. Detailed assessments for 15 buildings have been completed by an external specialist to calculate the 'up front' embodied carbon of the materials and the
		supply chain used to construct our homes before they are legally completed (RICS Modules A1-A5). The assessments have demonstrated that we should first focus on the design of our buildings to reduce the quantities of material used and then specify materials with lower carbon impact including materials with an increased percentage of recycled content. We have clear recommendations from the assessments undertaken to date which are being launched to our design teams in summer 2022. Every project team will also be required to calculate embodied carbon within the design and work with designers and the supply chain to drive down the carbon impact across our portfolio to meet target values.  In 2020/21, the Berkeley Group undertook R&D to understand the potential implications and changes required of future policy, through the Future Homes Standard and forthcoming changes to the Building Regulations (Part L, F



		and [X]). Building upon this work, in 2021/22, one of the Berkeley Group's operating companies has commissioned and completed work to develop an energy strategy which complies with the new Approved Document Part L 2021 Regulations. This work has been shared with the wider business via a Technical Bulletin.  Our construction teams are also investing in R&D, trialling lower carbon emitting plant and machinery (e.g. solar hybrid generators) and using biodiesel HVO (hydrotreated Vegetable Oil) as an alternative to traditional fuels.
Operations	Yes	In December 2020, the Berkeley Group set a science-based target (SBT) for our operational carbon emissions; to reduce absolute scopes 1 and 2 (market-based) emissions by 50% by 2030 from a 2019 baseline year. This strategic commitment will require energy efficiency improvements across our business and the early adoption of hybrid and electric construction plant and machinery. As an example, in 2021/22 our Hartland Village development site has procured solar powered toilet units for use on site; the units are self-sufficient and provide hot water for handwashing. Replacement of traditional fuels with lower emission alternatives is also key, with the Berkeley Group having proactively increased its use of biodiesel HVO (Hydrotreated Vegetable Oil) in the year to reach 38% of construction sites directly procuring fuels in 2021/22 having used this fuel. In 2021/22, the Berkeley Group introduced carbon budgets for each operating company, determining the maximum level of emissions allowed to ensure that the Berkeley Group remains on track to achieve its SBT. Performance against the carbon budgets is monitored on a quarterly basis, encouraging emissions reduction initiatives.  The Berkeley Group has also made the strategic business decision to ensure 100% of UK electricity used for direct operations is backed by Renewable Energy Guarantees of Origin (REGOs) since 2017/18 and to offset more than our remaining annual emissions from site, office, sales and business travel activities on an annual basis to be carbon neutral.  The opportunity to evolve our product and to build our homes more efficiently has led to the most substantial strategic business decision in this area to date; to found a new company, Berkeley Modular, to produce a volumetric



	modular housing solution specifically for the Berkeley Group.
	Our volumetric modular methodology will minimise
	environmental impact primarily by standardising production
	within a controlled environment, reducing material waste and
	by reducing vehicle movements to and from construction
	sites for both materials and people. Construction of the
	manufacturing facility building was completed in 2018/19
	with fit-out and prototype testing taking place in 2020/21 and
	2021/22. The first outputs for use on developments are
	planned for 2022/23, with output capacity to be between
	800-1,000 homes a year in the medium-term.
	000-1,000 nomes a year in the medium-term.

# C3.4

# (C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Direct costs Capital expenditures Access to capital Assets	- Direct costs and capital expenditures  The integration of sustainability measures across homes and developments, and climate change adaptation measures (e.g. flood risk management) across our developments to address Risks 1 and 2 and optimise Opp 1, impacts operating costs, with design and construction costs generally increasing. This impacts our financial planning processes in the short to medium-term as these additional costs need to be factored into viability assessments for new development and into development cost planning.  The implementation of initiatives to reduce emissions of the Berkeley Group's operational activities and to minimise the risk of future carbon pricing policies (Risk 3) reduces operational costs through reduced energy consumption and has a positive impact (note that this can be minimal on an annual basis with this accumulating over the lifetime of an initiative). This has impacted our financial planning process in the short-term as costs need to be increasingly reviewed based on a capital and operational basis, rather than capital alone. As examples, in 2021/22, our Hartland Village site recognised the opportunity to reduce operating costs and carbon emissions, making the business decision to procure solar powered toilet units over alternative units powered by a diesel generator. Similarly, our Grand Union site installed passive infrared (PIR) sensors for communal temporary lighting during construction works; the installation of these sensors reduces energy consumption when corridors are not actively being used. These initiatives have led to



immediate additional costs to the set up of the sites. However, due to the estimated efficiencies resulting from these measures, operating costs are expected to be lower annually. This highlights the importance of reviewing actions on both a capital and operational expenditure basis.

In 2021/22, the Berkeley Group has progressed with a Common Materials Strategy to engage with and set standards for our supply chain across a range of topics including sustainability, responsible procurement and quality. This covers 110 manufacturers across 30 product groups and involves the development of new Group-wide Technical Standards for each product group, supported by Manufacturer Framework Agreements. The Manufacturer Framework Agreements provide increased certainty around raw material costs (Risk 4) in the short to medium-term.

#### - Access to Capital

Under its Green Finance Framework, the Berkeley Group has raised £660m in 2021/22, including a £400m Green Bond with a maturity in August 2031 and a £260m Green Term Loan with a maturity in February 2027. The net proceeds from these Green Finance Instruments have been allocated to the Berkeley Group's ongoing development activities in accordance with our Green Finance Framework (available on the Berkeley Group's website). This allocation is in connection with the development of green buildings; energy efficient homes with an EPC rating of A or B developed on brownfield sites. This helps enable the Berkeley Group to realise Opp 1.

#### - Assets

A key asset for the Berkeley Group is the land we purchase for development, with changes in climate potentially affecting the ability of the Berkeley Group to deliver successful and sustainable homes and places (Risks 1 and 2), if these aren't considered at the earliest stages. Prior to land purchase, the Berkeley Group completes an assessment which seeks to identify all types of risks, including those related to climate change (e.g. flood risk). This impacts our financial planning processes as the outcomes of the land purchase risk assessment influence the decision on whether to progress with the purchase of land (short-term time horizon) affecting the assets that we hold, along with measures that are to be implemented during development (short to medium-term time horizon) to minimise any risk of flooding and retain the value of the land and its associated buildings (long-term time horizon).



# C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's transition to a 1.5°C world?

No, but we plan to in the next two years

# C4. Targets and performance

# C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target Intensity target

# C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

#### Target reference number

Abs 1

Year target was set

2020

**Target coverage** 

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Base year

2019

Base year Scope 1 emissions covered by target (metric tons CO2e)

3,808

Base year Scope 2 emissions covered by target (metric tons CO2e)

172



Base year Scope 3 emissions covered by target (metric tons CO2e)

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

3,980

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

**Target year** 

2030

Targeted reduction from base year (%)

50

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

1,990

Scope 1 emissions in reporting year covered by target (metric tons CO2e) 1,974

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

2.211

% of target achieved relative to base year [auto-calculated] 88.8944723618

Target status in reporting year



Underway

#### Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

#### **Target ambition**

1.5°C aligned

#### Please explain target coverage and identify any exclusions

In 2020, the Berkeley Group worked with an external party to develop a science-based target (SBT) for scopes 1 and 2 emissions, based on modelling aligned to a 1.5°C pathway using the Absolute Contraction Approach (ACA). The Berkeley Group submitted the science-based target, along with one for scope 3 emissions (see C4.1b) to the Science Based Target initiative (SBTi) in Autumn 2020 with validation received in December 2020.

Our validated SBT is: The Berkeley Group commits to reduce absolute scopes 1 and 2 GHG emissions 50% by FY2030 from a FY2019 base year.

The scopes 1 and 2 elements of the target relate to our direct emissions from our development sites, permanent offices, sales suites, modular factory and business travel activities (in company owned or company leased vehicles). The SBT is company-wide and covers 100% of emissions from our joint ventures.

Scopes 1 and 2 emissions of each financial reporting year are offset as part of a wider target to remain carbon neutral since May 2017.

#### Plan for achieving target, and progress made to the end of the reporting year

In 2021, the Berkeley Group published its Climate Action Programme outlining five action areas to drive progress against our SBTs. The action area of 'Low carbon construction sites' is most relevant to our scopes 1 and 2 SBT with this area requiring the implementation of efficiency measures on sites and the increased use of biodiesel in place of traditional gas oil. Other actions include being an early adopter of hybrid and electric machinery and setting challenging benchmarks and standards for energy management.

The most significant change in the reporting year impacting our scopes 1 and 2 SBT has been the increased use of biodiesel HVO (Hydrotreated Vegetable Oil) on our construction sites; in FY2022, 38% of construction sites directly procuring fuels utilised biodiesel HVO. The use of this alternative fuel has reduced scope 1 emissions by 338 tCO2e compared to an equivalent use of gas oil.

List the emissions reduction initiatives which contributed most to achieving this target



# C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

# Target reference number

Int 1

Year target was set

2020

### **Target coverage**

Company-wide

#### Scope(s)

Scope 3

Scope 2 accounting method

# Scope 3 category(ies)

Category 1: Purchased goods and services

Category 11: Use of sold products

#### Intensity metric

Metric tons CO2e per square foot

#### Base year

2019

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3 (metric tons CO2e per unit of activity) 0.2980592566

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.2980592566

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure



% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

96

% of total base year emissions in all selected Scopes covered by this intensity figure

96

**Target year** 

2030

Targeted reduction from base year (%)

40

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]

0.178835554

% change anticipated in absolute Scope 1+2 emissions

0

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3 (metric tons CO2e per unit of activity)

0.2900531807

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.2900531807

% of target achieved relative to base year [auto-calculated]

6.7151713315

Target status in reporting year

Underway



### Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

#### **Target ambition**

Other, please specify

The target meets the Science Based Targets initiative (SBTi) definition of being ambitious (Criterion 20) as it does not result in absolute emissions growth and leads to minimum linear annual intensity improvements equivalent to 2%.

# Please explain target coverage and identify any exclusions

In 2020, the Berkeley Group worked with an external party to develop a science-based target (SBT) for scope 3 emissions based on physical intensity. The Berkeley Group submitted the science-based target, along with one for scopes 1 and 2 emissions (see C4.1a) to the Science Based Target initiative (SBTi) in Autumn 2020 with validation received in December 2020.

Our validated SBT is: The Berkeley Group commits to reduce scope 3 purchased goods and services and use of sold products GHG emissions 40% per square foot of legally completed floor area by FY2030 from a FY2019 base year.

The SBT is company-wide and covers 100% of emissions from our joint ventures.

#### Plan for achieving target, and progress made to the end of the reporting year

In 2021, the Berkeley Group published its Climate Action Programme outlining five action areas to drive progress against our SBTs. The action areas of 'Embodied Carbon' and 'Low Carbon Homes' are the most relevant to our scope 3 SBT.

The Embodied Carbon area focuses on understanding and then reducing the carbon content of the materials and services we use. We look to minimise embodied carbon through design and then collaborate with our supply chain to procure lower carbon products. We will also partner with companies that are reducing emissions within their own operations.

The Low Carbon Homes area requires a reduction in the in-use lifetime carbon emissions of our homes by focusing on efficient building fabric in line with the Future Homes Standard and incorporating the right low carbon technologies for each site.

This reporting year we have focused on understanding the impact of the materials we use through an in-depth assessment of a representative selection of 15 buildings. For each building we calculated the carbon of the specific materials used to construct our homes; covering the extraction, manufacture and transportation of materials. Our embodied carbon studies provide valuable insights into the most carbon intensive elements of our buildings and provide clear recommendations on how to target and reduce these areas in partnership with our supply chain. We have clear recommendations from the assessments undertaken to date which are being launched to our design teams in summer 2022. Every project team will also be required to



calculate embodied carbon within the design and work with designers and the supply chain to drive down the carbon impact across our portfolio to meet target values.

List the emissions reduction initiatives which contributed most to achieving this target

# C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

No other climate-related targets

# C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

# C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	2	905
Not to be implemented	0	0

# C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

#### **Initiative category & Initiative type**

Low-carbon energy consumption Liquid biofuels

Estimated annual CO2e savings (metric tonnes CO2e)



338

# Scope(s) or Scope 3 category(ies) where emissions savings occur Scope 1

#### Voluntary/Mandatory

Voluntary

# Annual monetary savings (unit currency – as specified in C0.4)

6.214

## Investment required (unit currency – as specified in C0.4)

O

## Payback period

No payback

#### Estimated lifetime of the initiative

Ongoing

#### Comment

The Berkeley Group has increasingly used biodiesel HVO (Hydrotreated Vegetable Oil) as an alternative to traditional fuels across its development sites; in 2021/22, 38% of sites directly procuring fuels utilised biodiesel HVO compared to 5% of sites in 2020/21.

Scope 1 emissions resulting from biodiesel HVO consumption in 2021/22 were 4 tCO2e. If the equivalent volume of gas oil had been used instead of biodiesel HVO, the emissions would have been 342 tCO2e, providing estimated annual savings of 338 tCO2e. Based on a sample of invoices for biodiesel HVO and gas oil in the reporting year, on average biodiesel HVO was £0.05/litre cheaper.

#### **Initiative category & Initiative type**

Energy efficiency in production processes Motors and drives

### Estimated annual CO2e savings (metric tonnes CO2e)

567

# Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

### **Voluntary/Mandatory**

Voluntary

### Annual monetary savings (unit currency – as specified in C0.4)

244,192

# Investment required (unit currency – as specified in C0.4)

144,456



#### Payback period

<1 year

#### Estimated lifetime of the initiative

<1 year

#### Comment

As one of the Berkeley Group's sites could not install a temporary build supply (TBS) in the reporting year due to logistical constraints, the use of generators has been required. To improve the efficiency of these and reduce emissions, a battery storage unit was installed alongside the generators, providing a more efficient alternative to having the generators running 24 hours a day. The battery manages the load when power requirements are low (typically evenings and weekends when only essential services such as lighting is needed on site). Working seamlessly with the generators, the battery system provides silent, fuel and emission free power outside usual working hours whilst being charged by the generator throughout the working day. Two Peak Power Support 'Flywheels' have also been used, enabling the downsizing of the generators (60kVA generators have been used; 180kVA less than required). Peak Power Support Units capture energy that would normally be wasted and store it in the high-speed energy 'Flywheel'. They enable generators to run far more efficiently, with no interruption to the power supply and a significant reduction in fuel consumption and emissions.

# C4.3c

# (C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Employee engagement	Initiatives that have been implemented and have led to energy consumption, emissions and cost reductions are recognised and highlighted as best practice case studies within Group-wide employee communications. Acknowledgement of the benefits realised from initiatives has led to increased investment in these across the Berkeley Group.
Internal price on carbon	The Berkeley Group recharges business units the cost of offsetting their emissions to incentivise reductions and encourage emissions reduction investment decisions based on both capital and operational expenditure, rather than capital expenditure alone.

# C4.5

# (C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes



# C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

# Level of aggregation

Product or service

### Taxonomy used to classify product(s) or service(s) as low-carbon

Green Bond Principles (ICMA)

### Type of product(s) or service(s)

Other

Other, please specify Energy Efficiency

# Description of product(s) or service(s)

A home's energy performance is calculated using Government's Standard Assessment Procedure (SAP) methodology, which underpins the rating achieved on an Energy Performance Certificate (EPC). Each legally completed home has an EPC with an energy efficiency rating from A (most efficient) to G (least efficient). As part of the Berkeley Group's Green Finance Framework, prepared in accordance with the ICMA Green Bond Principles (GBP) 2021 and LMA Green Loan Principles (GLP) 2021, homes which are EPC A or B rated and delivered on brownfield land have been determined to be low-carbon products. This classification is aligned with Barclays' Green Home Mortgage, which offers customers discounted rates when purchasing new energy efficient homes with an EPC rating of A or B.

Of the homes completed by the Berkeley Group in 2021/22, 89% achieved an EPC rating of A or B, and 68% are to be supplied with energy from low carbon or renewable technology. Using 89% as the proportion of homes sold with an EPC of A or B, revenue from the sale of new homes that are low-carbon products is estimated to be 87% of total revenue in 2021/22.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

**Functional unit used** 



#### Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

87

# C5. Emissions methodology

# C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

# C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

# Row 1

# Has there been a structural change?

Yes, an acquisition

Name of organization(s) acquired, divested from, or merged with St William

## Details of structural change(s), including completion dates

On 15 March 2022, the Berkeley Group acquired National Grid's 50% interest in St William, which is now wholly owned by the Berkeley Group. This makes no difference to the emissions data reported to CDP, as the Berkeley Group has reported on the basis of operational control in prior years, including 100% joint venture emissions.



# C5.1b

# (C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology	There have been three key changes to our reporting methodology in the reporting period:  - The Berkeley Group has moved to report energy consumption related to scopes 1 and 2 emissions on a net calorific value (CV) basis rather than a gross CV basis in the year. This change in methodology has taken place as the UK Government's GHG Conversion Factors for Company Reporting include conversion factors to calculate energy use from road vehicle mileage on a net calorific value (CV) basis only.  - Scope 3 Category 1 (Purchased goods and services): change in the spend-based methodology to map Comprehensive Environmental Data Archive (CEDA) v5.0 category emission conversion factors to Berkeley cost codes and nominal account codes rather than a company's Standard Industrial Classification (SIC) code, as often SIC codes do not align to the works being undertaken (e.g. SIC codes relating to head office activities or dormant companies when the spend relates to contractors completing development works on site); and adjustment of annual CEDA factors using UK rather than US inflation rates and applying industry specific inflation rates to relevant CEDA categories.  - Scope 3 Category 11 (Use of sold products): the lifetime period applied to legally completed homes has been amended from 80 to 60 years in line with industry guidance.

# C5.1c

# (C5.1c) Have your organization's base year emissions been recalculated as result of the changes or errors reported in C5.1a and C5.1b?

Base year Base year emissions recalculation policy, inc recalculation threshold		•	Base year emissions recalculation policy, including significance threshold
Ro 1	ow	Yes	Base year emissions have been recalculated and restated in the Berkeley Group's 2022 Annual Report as they exceed the Berkeley Group's



significance threshold (5%) as follows: Scope 3 Category 1 (Purchased goods and services) methodology change: estimated emissions for this category in 2021 have increased by 58% compared to those previously reported, with this year and all prior years (including the base year) restated in the 2022 Annual Report of the Berkeley Group; Scope 3 Category 11 (Use of sold products) methodology change: emissions for this category in 2021 and prior years have been restated with a 25% reduction. The acquisition of National Grid's 50% interest in St William does not affect the Berkeley Group's base year emissions, as reporting has historically been on an operational basis (including 100% joint venture emissions). The methodology change to report energy consumption on a net CV rather than gross CV basis has not changed the Berkeley Group's reporting of base year emissions.

# C5.2

### (C5.2) Provide your base year and base year emissions.

#### Scope 1

#### Base year start

May 1, 2018

#### Base year end

April 30, 2019

### Base year emissions (metric tons CO2e)

3.808

Comment

### Scope 2 (location-based)

#### Base year start

May 1, 2018

# Base year end

April 30, 2019

#### Base year emissions (metric tons CO2e)

6,246

Comment

#### Scope 2 (market-based)

#### Base year start

May 1, 2018



### Base year end

April 30, 2019

# Base year emissions (metric tons CO2e)

172

#### Comment

### Scope 3 category 1: Purchased goods and services

#### Base year start

May 1, 2018

# Base year end

April 30, 2019

# Base year emissions (metric tons CO2e)

863,079

#### Comment

This is the recalculated base year figure as detailed in C5.1b and C5.1c.

# Scope 3 category 2: Capital goods

# Base year start

May 1, 2018

### Base year end

April 30, 2019

# Base year emissions (metric tons CO2e)

5.788

#### Comment

# Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

# Base year start

May 1, 2018

### Base year end

April 30, 2019

# Base year emissions (metric tons CO2e)

2,342

#### Comment



# Scope 3 category 4: Upstream transportation and distribution

Base year start

May 1, 2018

Base year end

April 30, 2019

Base year emissions (metric tons CO2e)

5,090

Comment

# Scope 3 category 5: Waste generated in operations

Base year start

May 1, 2018

Base year end

April 30, 2019

Base year emissions (metric tons CO2e)

6,488

Comment

### Scope 3 category 6: Business travel

Base year start

May 1, 2018

Base year end

April 30, 2019

Base year emissions (metric tons CO2e)

2,630

Comment

### Scope 3 category 7: Employee commuting

Base year start

May 1, 2018

Base year end

April 30, 2019

Base year emissions (metric tons CO2e)

1,984



#### Comment

#### Scope 3 category 8: Upstream leased assets

#### Base year start

May 1, 2018

### Base year end

April 30, 2019

# Base year emissions (metric tons CO2e)

0

#### Comment

Not relevant - the Berkeley Group calculate and report all operational emissions for properties they are the lessee within scopes 1 and 2 emissions.

# Scope 3 category 9: Downstream transportation and distribution

# Base year start

May 1, 2018

#### Base year end

April 30, 2019

# Base year emissions (metric tons CO2e)

0

#### Comment

Not relevant - the Berkeley Group's product (i.e. homes) remain in situ in the place of construction and do not require transportation or distribution.

### Scope 3 category 10: Processing of sold products

### Base year start

May 1, 2018

### Base year end

April 30, 2019

#### Base year emissions (metric tons CO2e)

0

#### Comment

Not relevant - no further processing is required of the Berkeley Group's product (i.e. homes) before use.

# Scope 3 category 11: Use of sold products

#### Base year start



May 1, 2018

#### Base year end

April 30, 2019

## Base year emissions (metric tons CO2e)

233.603

#### Comment

This is the recalculated base year figure as detailed in C5.1b and C5.1c.

### Scope 3 category 12: End of life treatment of sold products

## Base year start

May 1, 2018

### Base year end

April 30, 2019

## Base year emissions (metric tons CO2e)

2,215

Comment

# Scope 3 category 13: Downstream leased assets

# Base year start

May 1, 2018

### Base year end

April 30, 2019

### Base year emissions (metric tons CO2e)

10.993

Comment

### Scope 3 category 14: Franchises

#### Base year start

May 1, 2018

# Base year end

April 30, 2019

### Base year emissions (metric tons CO2e)

0

#### Comment

Not relevant - the Berkeley Group does not have franchises.



### Scope 3 category 15: Investments

Base year start

May 1, 2018

Base year end

April 30, 2019

Base year emissions (metric tons CO2e)

4,824

Comment

# Scope 3: Other (upstream)

Base year start

May 1, 2018

Base year end

April 30, 2019

Base year emissions (metric tons CO2e)

0

Comment

# Scope 3: Other (downstream)

Base year start

May 1, 2018

Base year end

April 30, 2019

Base year emissions (metric tons CO2e)

0

Comment

# C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Defra Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019

The Greenhouse Gas Protocol: Scope 2 Guidance



# C6. Emissions data

# **C6.1**

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

### Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

1 974

Comment

# C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

#### Row 1

## Scope 2, location-based

We are reporting a Scope 2, location-based figure

#### Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

# C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

### Reporting year

### Scope 2, location-based

5,858

#### Scope 2, market-based (if applicable)

237

#### Comment

The Berkeley Group has reported both location-based and market-based emissions for scope 2, with the market-based emissions taking into account the Berkeley Group's purchase of Renewable Energy Guarantees of Origin (REGOs) to certify that 100% of UK electricity is from a renewable source (i.e. solar, wind or hydro power). Remaining



scope 2 market-based emissions result from electricity use in Berkeley's international offices, purchased heat and business vehicle travel.

# C<sub>6.4</sub>

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

# C<sub>6.5</sub>

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

# Purchased goods and services

#### **Evaluation status**

Relevant, calculated

# **Emissions in reporting year (metric tons CO2e)**

857,341

# **Emissions calculation methodology**

Spend-based method Fuel-based method

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

1

#### Please explain

The majority (99% in 2021/22) of category 1 emissions have been estimated using a spend-based methodology, by applying conversion factors originating from the cradleto-gate emissions model Comprehensive Environmental Data Archive (CEDA) v5.0 to financial spend in the reporting year for procured goods and services. This is a singlecountry (United States of America (US)) economic input-output database. With CEDA v5.0 factors using 2014 as their base year and presented as kgCO2e/\$USD, a 2014 exchange rate has been applied to determine the equivalent kgCO2e/£GBP. Additionally, to account for changes in the price of goods and services in the UK economy since 2014, annual inflation rates have been applied to adjust the 2014 CEDA category emission factors up to the reporting year using the Office for National Statistics (ONS) RPI All Items Index, except where an industry specific inflation rate has been deemed more appropriate and the Building Cost Information Service (BCIS) General Building Cost Index has been applied. Spend data (i.e. invoices paid) in £GBP is extracted from Berkeley's finance system for the reporting period, with CEDA category conversion factors applied using a hierarchy of actions (see the Berkeley Group's 2022 Greenhouse Gas (GHG) Emissions and Energy Consumption Reporting Criteria on our



website for details on this hierarchy of actions).

An element (1% in 2021/22) of category 1 emissions is calculated using contractor purchased fuel data. Raw data for sites has been collected on a monthly basis including gas oil, biodiesel HVO, diesel and petrol measured in litres and 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. Emissions, including well-to-tank (WTT) have been calculated using raw data values multiplied by their corresponding conversion factor as outlined in the UK Government's GHG Conversion Factors for Company Reporting.

### Capital goods

#### **Evaluation status**

Not relevant, calculated

#### **Emissions in reporting year (metric tons CO2e)**

5,788

### **Emissions calculation methodology**

Spend-based method

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

Immaterial scope 3 categories are not calculated by the Berkeley Group on an annual basis, unless calculated as a matter of course as part of wider business reporting processes. As such, 2021/22 emissions for category 2 have been estimated based on baseline year reported figures (2018/19) as there have been no organisational changes that would significantly alter this figure.

Using the Berkeley Group's 2018/19 spend on Freehold property, Fixtures and fittings and Motor vehicles, the emissions from this category have been calculated using the Comprehensive Environmental Data Archive (CEDA) v5.0, which is a single-country (United States of America (US)) economic input-output database. CEDA provides information about embodied lifecycle emissions per dollar spend on items. CEDA's cost-based emissions factors were applied to relevant spend to calculate embodied emissions of capital goods.

It is planned that the materiality of all scope 3 categories will be reviewed in the next two years in line with the SBTi requirement for scope 3 targets to be reviewed, and if necessary, recalculated and revalidated, at a minimum every 5 years.

#### Fuel-and-energy-related activities (not included in Scope 1 or 2)

#### **Evaluation status**



Not relevant, calculated

### **Emissions in reporting year (metric tons CO2e)**

2.619

#### **Emissions calculation methodology**

Fuel-based method

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

This immaterial category is calculated on an annual basis and includes emissions from four distinct activities: (1) Upstream emissions of purchased fuels (both stationary and mobile sources); (2) Transmission & Distribution (T&D) losses from purchased electricity and heat; (3) Upstream emissions from generation of purchased electricity and heat; (4) Upstream emissions from T&D losses from purchased electricity and heat.

UK Government GHG Conversion Factors for Company Reporting 2021 have been applied to 2022 data (covering 1 May 2021 to 30 April 2022), as 2021 is the calendar year in which the greatest portion of our data falls. The exception is T&D losses from overseas electricity for which International Energy Agency (IEA) 2021 factors have been applied.

2021/22 emissions have been calculated using raw data values multiplied by their corresponding conversion factor as outlined in the UK Government's GHG Conversion Factors for Company Reporting, or the IEA factor for international electricity consumption in relation to emissions from international offices. 'Average biofuel blend' factors for diesel and petrol conversions have been applied. For business vehicle travel, emissions and energy consumption have been calculated using the raw mileage data multiplied by the corresponding factor for the vehicle fuel type and engine size. The 'average car' factors provided individually for hybrid, plug-in hybrid electric and battery electric vehicles have been used, whilst 'average van' factors have been used for all van vehicles. For plug-in hybrid vehicles, emissions and energy consumption include the conventional fuel use and electricity.

#### **Upstream transportation and distribution**

# **Evaluation status**

Not relevant, calculated

**Emissions in reporting year (metric tons CO2e)** 

5,090

# **Emissions calculation methodology**

Spend-based method



# Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

Immaterial scope 3 categories are not calculated by the Berkeley Group on an annual basis, unless calculated as a matter of course as part of wider business reporting processes. As such, 2021/22 emissions for category 4 have been estimated based on baseline year reported figures (2018/19) as there have been no organisational changes that would significantly alter this figure.

Using the Berkeley Group's 2018/19 spend with companies providing transportation and distribution services, the emissions from this category have been calculated using the Comprehensive Environmental Data Archive (CEDA) v5.0, which is a single-country (United States of America (US)) economic input-output database. CEDA provides information about embodied lifecycle emissions per dollar spend on items. CEDA's cost-based emissions factors were applied to relevant spend to calculate embodied emissions of upstream transportation and distribution.

It is planned that the materiality of all scope 3 categories will be reviewed in the next two years in line with the SBTi requirement for scope 3 targets to be reviewed, and if necessary, recalculated and revalidated, at a minimum every 5 years.

#### Waste generated in operations

#### **Evaluation status**

Not relevant, calculated

# Emissions in reporting year (metric tons CO2e)

6,808

#### **Emissions calculation methodology**

Waste-type-specific method

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

95

#### Please explain

This immaterial category is calculated on an annual basis, with reported figures including emissions from wastes generated in 2021/22 across the Berkeley Group's demolition, excavation and construction activities. Primary data is extracted from waste transfer notes (WTNs), with container, waste type and end destination type recorded. UK Government GHG Conversion Factors for Company Reporting 2021 have been applied to 2022 data (covering 1 May 2021 to 30 April 2022), as 2021 is the calendar year in which the greatest portion of our data falls. Emissions have been calculated using raw data values multiplied by their corresponding conversion factor as outlined in the UK Government's GHG Conversion Factors for Company Reporting.



As contractors working on behalf of the Berkeley Group to complete works (e.g. RC Frame) are usually responsible for the removal of wastes resulting from their works, a high percentage of waste data is obtained from our contractors. In 2021/22, this accounted for 95% emissions from this scope 3 category.

#### **Business travel**

#### **Evaluation status**

Not relevant, calculated

### **Emissions in reporting year (metric tons CO2e)**

2.630

#### **Emissions calculation methodology**

Spend-based method Distance-based method

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Immaterial scope 3 categories are not calculated by the Berkeley Group on an annual basis, unless calculated as a matter of course as part of wider business reporting processes. As such, 2021/22 emissions for category 6 have been estimated based on baseline year reported figures (2018/19) as there have been no organisational changes that would significantly alter this figure.

Distance-based method: 2018/19 emissions from road and air travel were calculated based on data stored internally. Emissions from the transportation of employees for business-related activities in vehicles owned or controlled by third parties were included in this category. For the calculation of road travel emissions, UK Government GHG Conversion Factors for Company Reporting 2019 were applied to raw mileage data based on type of fuel and vehicle size used. Emissions from air travel were broken down into domestic, short haul, long haul and international flights by class type and factors from UK Government GHG Conversion Factors for Company Reporting 2019 applied based on the distance between airport locations.

Spend-based method: Using the Berkeley Group's 2018/19 spend with companies providing taxi and rail services, the emissions from this category have been calculated using the Comprehensive Environmental Data Archive (CEDA) v5.0, which is a single-country (United States of America (US)) economic input-output database. CEDA provides information about embodied lifecycle emissions per dollar spend on items. CEDA's cost-based emissions factors were applied to relevant spend to calculate embodied emissions of rail and taxi travel.

It is planned that the materiality of all scope 3 categories will be reviewed in the next two



years in line with the SBTi requirement for scope 3 targets to be reviewed, and if necessary, recalculated and revalidated, at a minimum every 5 years.

# **Employee commuting**

#### **Evaluation status**

Not relevant, calculated

### **Emissions in reporting year (metric tons CO2e)**

1.984

#### **Emissions calculation methodology**

Average data method

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

## Please explain

Immaterial scope 3 categories are not calculated by the Berkeley Group on an annual basis, unless calculated as a matter of course as part of wider business reporting processes. As such, 2021/22 emissions for category 7 have been estimated based on baseline year reported figures (2018/19) as there have been no organisational changes that would significantly alter this figure.

2018/19 emissions from employee commuting were estimated through the use of a commuting model developed by our consultancy partners, EcoAct. Inputs to the model included using average commuting times, commuting distances and breakdowns of mode of transport by country from reputable sources such as the EU Transport Data Hub and the University of Michigan Transportation Research Institute. The number of FTEs by country were input to the commuting model to estimate the commuting distances of the Berkeley Group's employees. The output of this model provided the Berkeley Group with an estimated cumulative commuting distance broken down by mode of transport (private vehicle, train, bus and metro). UK Government GHG Conversion Factors for Company Reporting 2019 emission factors were applied to the distance travelled by each mode of transport to calculate the total emissions associated with commuting.

It is planned that the materiality of all scope 3 categories will be reviewed in the next two years in line with the SBTi requirement for scope 3 targets to be reviewed, and if necessary, recalculated and revalidated, at a minimum every 5 years.

### **Upstream leased assets**

#### **Evaluation status**

Not relevant, explanation provided

#### Please explain



The Berkeley Group calculate and report all operational emissions for properties they are the lessee within scopes 1 and 2 emissions.

#### Downstream transportation and distribution

#### **Evaluation status**

Not relevant, explanation provided

### Please explain

The Berkeley Group's product (i.e. homes) remain in situ in the place of construction and do not require transportation or distribution.

#### Processing of sold products

#### **Evaluation status**

Not relevant, explanation provided

# Please explain

No further processing is required of the Berkeley Group's product (i.e. homes) before use.

### Use of sold products

#### **Evaluation status**

Relevant, calculated

#### **Emissions in reporting year (metric tons CO2e)**

268,502

#### **Emissions calculation methodology**

Average product method

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

To calculate annual scope 3 emissions related to the use of sold products (i.e. our homes), the Berkeley uses details obtained from the Standard Assessment Procedure (SAP) which is the methodology used by the UK government to assess and compare the energy and environmental performance of dwellings.

For each home legally completed during 2021/22, the Dwelling Emission Rate (DER) (kgCO2/m2/yr) has been extracted from the SAP calculation spreadsheet produced by the development's specialist energy consultant. This value has then been multiplied by the floor area of the home and a lifetime period of 60 years. In instances where information for a legally completed home was not available, calculations were undertaken to estimate emissions for the home using the average DER and average floor area of reported homes. Full DER and floor area data was available for 99% of the 4,632 homes that legally completed in 2021/22. The average DER for these homes was



used to estimate emissions for remaining homes missing this information to provide 100% coverage.

#### End of life treatment of sold products

#### **Evaluation status**

Not relevant, calculated

# Emissions in reporting year (metric tons CO2e)

2.215

#### **Emissions calculation methodology**

Waste-type-specific method

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

## Please explain

Immaterial scope 3 categories are not calculated by the Berkeley Group on an annual basis, unless calculated as a matter of course as part of wider business reporting processes. As such, 2021/22 emissions for category 12 have been estimated based on baseline year reported figures (2018/19) as there have been no organisational changes that would significantly alter this figure.

The Berkeley Group is not responsible for the demolition of our sold homes once they come to the end of their useful life. To estimate the emissions associated with the demolition of sold houses, a study produced by the Construction Resources & Waste Platform (CRWP) was used to determine the demolition material breakdown by tonne for every 100 m2 floor area of demolition. For the demolition of sold apartment blocks, we were able to obtain waste data for the demolition of a mid-20th century purpose built apartment block by tonnes per square meter. The demolition waste per square metre breakdown available from the CRWP study and the demolition sample were applied respectively to the floor area of houses and apartments sold within the reporting year, with the UK Government GHG Conversion Factors for Company Reporting 2019 emission factors applied to the tonnage of waste estimated to calculate the emissions associated with the demolition of our sold products.

It is planned that the materiality of all scope 3 categories will be reviewed in the next two years in line with the SBTi requirement for scope 3 targets to be reviewed, and if necessary, recalculated and revalidated, at a minimum every 5 years.

#### **Downstream leased assets**

#### **Evaluation status**

Not relevant, calculated

#### **Emissions in reporting year (metric tons CO2e)**

10,993



## **Emissions calculation methodology**

Average data method

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

#### Please explain

Immaterial scope 3 categories are not calculated by the Berkeley Group on an annual basis, unless calculated as a matter of course as part of wider business reporting processes. As such, 2021/22 emissions for category 13 have been estimated based on baseline year reported figures (2018/19) as there have been no organisational changes that would significantly alter this figure.

The Berkeley Group leases commercial space within our developments to a diverse range of clients. To estimate the 2018/19 emissions associated with our leased assets, the Planning Permission Use Class was used to determine the nature of the business that occupied each of our leased commercial spaces. Once this was established, the most relevant CIBSE (Chartered Institution of Building Services Engineers) Building Type was applied to each unit and the associated CIBSE benchmark for energy consumption per m2 was applied to the floor area of each commercial lease. The UK Government GHG Conversion Factors for Company Reporting 2019 emission factors were used to calculate the emissions associated with the electricity and heating demand for all our commercial leased assets.

The Berkeley Group is additionally responsible for communal areas in residential buildings. It is estimated that where the Berkeley Group is the landlord of an apartment block, communal areas make up circa 20-25% of the building. By obtaining the total floor area in 2018/29 where the Berkeley Group is the landlord of residential buildings, the total communal area was estimated and then consumption calculated across the portfolio using a kWh/sqft metric based on a sample of buildings which for which the Berkeley Group had access to energy data for.

It is planned that the materiality of all scope 3 categories will be reviewed in the next two years in line with the SBTi requirement for scope 3 targets to be reviewed, and if necessary, recalculated and revalidated, at a minimum every 5 years.

#### **Franchises**

#### **Evaluation status**

Not relevant, explanation provided

#### Please explain

The Berkeley Group does not have franchises.

#### Investments

#### **Evaluation status**



Not relevant, calculated

# Emissions in reporting year (metric tons CO2e)

4.824

#### **Emissions calculation methodology**

Average data method Spend-based method

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Please explain

Immaterial scope 3 categories are not calculated by the Berkeley Group on an annual basis, unless calculated as a matter of course as part of wider business reporting processes. As such, 2021/22 emissions for category 15 have been estimated based on baseline year reported figures (2018/19) as there have been no organisational changes that would significantly alter this figure.

During 2018/19, £7m was paid into the Berkeley Group pension pot. To determine the emissions associated with our pensions, we broke down the £7m spend by the proportional market share of each supersector within the FTSE 100 companies. The emissions from this spend were calculated using the Comprehensive Environmental Data Archive (CEDA) v5.0, which is a single-country (United States of America (US)) economic input-output database. The most appropriate CEDA emission factor was applied to the spend of each supersector within the FTSE 100 to determine the emissions associated with our investments.

It is planned that the materiality of all scope 3 categories will be reviewed in the next two years in line with the SBTi requirement for scope 3 targets to be reviewed, and if necessary, recalculated and revalidated, at a minimum every 5 years.

necessary, recalculated and revalidated, at a minimum every 5 years.	
Other (upstream)	
Evaluation status	
Please explain	
Other (downstream)	
Evaluation status	



# C-CN6.6/C-RE6.6

# (C-CN6.6/C-RE6.6) Does your organization assess the life cycle emissions of new construction or major renovation projects?

	Assessment of life cycle emissions	Comment
Row 1	Yes, quantitative assessment	In 2021/22, the Berkeley Group has undertaken 15 embodied carbon assessments across a range of building typologies, from houses to midrise apartments and tall buildings, together with homes built using modular construction. Assessments were completed on projects at a variety of stages, from early design through to construction.

# C-CN6.6a/C-RE6.6a

# (C-CN6.6a/C-RE6.6a) Provide details of how your organization assesses the life cycle emissions of new construction or major renovation projects.

	Projects assessed	Earliest project phase that most commonly includes an assessme nt	Life cycle stage(s) most commonly covered	Methodologies/standards/to ols applied	Comment
Ro w 1	All new construction n and major renovation projects	Pre-design phase	Cradle-to-practical completion/handov er	One Click LCA Whole life carbon assessment for the built environment (RICS)	In 2021/22, the Berkeley Group undertook 15 embodied carbon assessments across a range of building typologies, from houses to mid- rise apartments and tall buildings, together with homes built using modular construction. Assessments



		were completed
		on projects at a
		variety of
		stages, from
		early design
		through to
		construction.
		The One Click
		LCA tool was
		selected due to
		its large data
		sets and
		established use
		within the
		industry. The
		assessments
		covered the
		embodied
		carbon of the
		buildings until
		the point of legal
		completion
		(RICS Modules
		A1-A5);
		covering the
		product stage
		(raw material
		extraction and
		manufacture)
		together with
		construction
		(emissions from
		transport to site
		and contractor
		works). They did
		not cover the in-
		use
		maintenance or
		operations of
		the buildings nor
		end of life
		decommissionin
		g.
		9.
		At the Berkeley
		Group, we take
		Cloup, we take



		a bespoke
		approach to
		designing our
		developments,
		to ensure they
		maximise the
		long-term value
		of each project.
		This approach
		means that the
		assessments
		are unique to
		each
		development,
		however
		common themes
		have been
		identified; the
		majority of
		embodied
		carbon in our
		developments
		arises from the
		façade, floors,
		substructure,
		frame and
		mechanical and
		electrical
		services. In
		particular,
		concrete, steel,
		glass and brick
		are significant
		contributors. By
		floor area,
		houses were
		found to have
		the lowest
		embodied
		carbon followed
		by mid-rise and
		taller buildings.
		ŭ
		The
		assessments
		have



demonstrated that we should first focus on the design of our buildings to reduce the quantities of material used and then specify materials with lower carbon impact including materials with an increased percentage of recycled content. Following the completion of our initial 15 embodied carbon assessments, from summer 2022 all new construction projects of the Berkeley Group have been required to undertake an LCA assessment at the early predesign stage and continue to review this through the design and construction phase to reduce the embodied carbon and meet target values aligned



		to our science-
		based target
		(SBT). The
		assessments
		are required to
		cover the
		embodied
		carbon of the
		buildings until
		the point of legal
		completion
		(RICS Modules
		A1-A5);
		covering the
		product stage
		(raw material
		extraction and
		manufacture)
		 together with
		 construction
		(emissions from
		 transport to site
		and contractor
		works).

# C-CN6.6b/C-RE6.6b

(C-CN6.6b/C-RE6.6b) Can you provide embodied carbon emissions data for any of your organization's new construction or major renovation projects completed in the last three years?

	Ability to disclose embodied carbon emissions	Comment
Row 1	No	The Berkeley Group's initial 15 embodied carbon assessments were undertaken on projects at a variety of stages, from early design through to construction. As these buildings move to completion over the coming years, this question will become relevant and the Berkeley Group will be able to disclose applicable data. Note that as the Berkeley Group's requirement for all new projects to complete embodied carbon assessments from summer 2022 and the London Plan requirement for relevant projects to complete a Whole Life-Cycle Carbon (WLC) Assessment apply to the pre-design phase, it will be a number of years



	until these buildings are completed to enable relevant data to this question
	to be disclosed.

### C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Yes

#### C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	3,186	To ensure complete reporting, the biogenic CO2 of the following energy sources has been accounted for by the Berkeley Group: directly purchased biodiesel HVO (Hydrotreated Vegetable Oil), diesel and petrol; and electricity.

#### C<sub>6</sub>.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

#### Intensity figure

0.0000033355

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

7,832

#### **Metric denominator**

unit total revenue

Metric denominator: Unit total

2,348,000,000

#### Scope 2 figure used

Location-based

% change from previous year

16



#### Direction of change

Decreased

#### Reason for change

Emissions intensity has reduced due to a combination of absolute scopes 1 and 2 (location-based) emissions reducing by 10% and total revenue having increased by 7%. The most significant change to business operations resulting in the emissions reduction has been the initiative to increase the use of biodiesel HVO (Hydrotreated Vegetable Oil) on our construction sites; in 2022, 38% of construction sites directly procuring fuels utilised biodiesel HVO. The use of this alternative fuel has reduced scope 1 emissions by 338 tCO2e compared to an equivalent use of gas oil.

#### Intensity figure

0.000009417

## Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

2.211

#### Metric denominator

unit total revenue

Metric denominator: Unit total

2,348,000,000

#### Scope 2 figure used

Market-based

#### % change from previous year

19

#### **Direction of change**

Decreased

#### Reason for change

Emissions intensity has reduced due to a combination of absolute scopes 1 and 2 (market-based) emissions reducing by 13% and total revenue having increased by 7%. The most significant change to business operations resulting in the emissions reduction has been the initiative to increase the use of biodiesel HVO (Hydrotreated Vegetable Oil) on our construction sites; in 2022, 38% of construction sites directly procuring fuels utilised biodiesel HVO. The use of this alternative fuel has reduced scope 1 emissions by 338 tCO2e compared to an equivalent use of gas oil.

#### Intensity figure

2.17



## Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

7,832

#### Metric denominator

Other, please specify

100 sqm of legally completed floor area

Metric denominator: Unit total

3.606

#### Scope 2 figure used

Location-based

#### % change from previous year

34

#### **Direction of change**

Decreased

#### Reason for change

Emissions intensity has reduced due to a combination of absolute scopes 1 and 2 (location-based) emissions reducing by 10% and legally completed floor area having increased by 35%. The most significant change to business operations resulting in the emissions reduction has been the initiative to increase the use of biodiesel HVO (Hydrotreated Vegetable Oil) on our construction sites; in 2022, 38% of construction sites directly procuring fuels utilised biodiesel HVO. The use of this alternative fuel has reduced scope 1 emissions by 338 tCO2e compared to an equivalent use of gas oil.

#### Intensity figure

0.61

## Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

2,211

#### **Metric denominator**

Other, please specify
100 sqm of legally completed floor area

Metric denominator: Unit total

3,606

#### Scope 2 figure used

Market-based

#### % change from previous year

36



#### **Direction of change**

Decreased

#### Reason for change

Emissions intensity has reduced due to a combination of absolute scopes 1 and 2 (market-based) emissions reducing by 13% and legally completed floor area having increased by 35%. The most significant change to business operations resulting in the emissions reduction has been the initiative to increase the use of biodiesel HVO (Hydrotreated Vegetable Oil) on our construction sites; in 2022, 38% of construction sites directly procuring fuels utilised biodiesel HVO. The use of this alternative fuel has reduced scope 1 emissions by 338 tCO2e compared to an equivalent use of gas oil.

### C7. Emissions breakdowns

#### C7.1

## (C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

### C7.1a

## (C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	1,951	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	2	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	21	IPCC Fourth Assessment Report (AR4 - 100 year)

#### C7.2

#### (C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United Kingdom of Great Britain and Northern Ireland	1,974
China	0
Hong Kong SAR, China	0
Singapore	0
United Arab Emirates	0



Т	hailand	0
1 -		

### C7.3

## (C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division By activity

### C7.3a

#### (C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Berkeley Group (central offices and business travel in company owned and company leased vehicles)	415
Berkeley	1,353
Berkeley Modular	4
St Edward	105
St George	25
St James	3
St Joseph	21
St William	48

#### C7.3c

#### (C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Divisional Offices	149
Development sites	1,378
Sales suites and show homes	62
Modular Factory	4
Business travel (company owned and company leased vehicles)	381

### **C7.5**

#### (C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based	Scope 2, market-based
	(metric tons CO2e)	(metric tons CO2e)



United Kingdom of Great Britain and Northern Ireland	5,702	81
China	78	78
Hong Kong SAR, China	38	38
Singapore	15	15
Thailand	5	5
United Arab Emirates	20	20

### C7.6

## (C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division By activity

### C7.6a

#### (C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location- based (metric tons CO2e)	Scope 2, market- based (metric tons CO2e)
Berkeley Group (central offices and business travel in company owned and company leased vehicles)	324	161
Berkeley	2,454	75
Berkeley Modular	80	0
St Edward	654	1
St George	1,179	0
St James	303	0
St Joseph	225	0
St William	639	0

### C7.6c

#### (C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Divisional offices	529	10
Development sites	4,809	52
Sales and marketing suites	435	170



Modular factory	80	0
Business travel (company owned and	5	5
company leased vehicles)		

### C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

#### C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	338	Decreased	13.3	The Berkeley Group has increasingly used biodiesel HVO (Hydrotreated Vegetable Oil) as an alternative to traditional fuels across its development sites; in 2021/22, 38% of sites directly procuring fuels utilised biodiesel HVO compared to 5% of sites in 2020/21.  Emissions resulting from biodiesel HVO consumption in 2021/22 were 4 tCO2e. If the equivalent volume of gas oil had been used instead of biodiesel HVO, the emissions would have been 342 tCO2e. The change in emissions attributed to switching to biodiesel HVO as a renewable energy source = 4 - 342 = -338 tCO2e. Our total scopes 1 and 2 (market-based) emissions last year were 2,548 tCO2e (note that this is a restated value presented in our 2022 Annual Report). The percentage change value resulting from a change in renewable energy consumption has therefore been calculated as follows: (-338 / 2,548)*100 = -13.3%.



Other emissions reduction activities	33	Decreased	1.3	Emission reduction initiatives (other than renewable energy consumption) implemented during this reporting year (2021/22) have been calculated to have reduced carbon emissions by 33 tCO2e (note that this is lower than the figure reported in C4.3b as the duration that the initiative has been in place during the reporting year has been accounted for in the calculation for this question).  The change in emissions due to emission reduction activities = 33 tCO2e (note that this figure would be higher in reality as we have prioritised the reporting of new initiative types and those that provide a meaningful contribution to emission reductions in C4.3b). Our total scopes 1 and 2 (market-based) emissions last year were 2,548 tCO2e. The percentage change value resulting from emissions reduction activities has therefore been calculated as follows: (-33 / 2,548)*100 = -1.3%.
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	0	No change	0	
Change in methodology	19	Decreased	0.7	UK Government GHG Conversion Factors for Company Reporting and International Energy Agency (IEA) conversion factors are updated annually. We apply these as applicable to each of our reporting years; for example UK Government GHG Conversion Factors for Company Reporting 2021 have been applied to this reporting year (1 May 2021 to 30 April 2022) and UK Government GHG Conversion Factors for Company Reporting 2020 have been applied to the previous year (1 May 2020 to 30



				April 2021). Emission conversion factors between data sets can vary significantly. For example, UK average diesel van factors (scope 1) have decreased by 2%, whilst Hong Kong electricity factors (scope 2) have increased by 11%.  To calculate the change to our emissions resulting from a change in methodology, UK Government GHG Conversion Factors for Company Reporting 2020 (i.e. the prior year's factors) have been applied to this reporting year's raw data. Scopes 1 and 2 (market-based) emissions for 2021/22 total 2,230 tCO2e when applying the prior year's conversion factors. The change in emissions attributed to a methodology change (i.e. the difference between emissions resulting from application of this year's factors to those resulting from application of prior year's factors) = 2,211 - 2,230 = -19 tCO2e.  Our total scopes 1 and 2 (market-based) emissions last year were 2,548 tCO2e (note that this is a restated value presented in our 2022 Annual Report). The percentage change value resulting from a change in methodology has therefore been calculated as follows: (-19 / 2,548)*100 = -0.7%.
Change in boundary	89	Decreased	3.5	Due to the cyclical nature of the Berkeley Group's business, each year we have development sites that begin development works (i.e. demolition, excavation and construction works) and development sites that complete development works. The sites for which we report emissions, and the type and extent of development work being undertaken on sites, change year-on-year. Our scopes 1 and 2 emissions will be affected by these changes. They will also be affected by the new or cessation of use of sales and marketing suites



				associated with the developments.
				We have calculated the difference in emissions this year compared to last year for those sites, sales and marketing suites and divisional offices starting in the reporting year (i.e. new emissions sources) and those completing in the reporting year (i.e. historic emission sources that reduce to zero emissions during the reporting year). Note that the same conversion factors have been applied to raw data for both years as part of this calculation to remove methodology impacts already addressed in the above row. The scopes 1 and 2 (market-based) emissions increase in the reporting year from new sites, sales and marketing suites and divisional offices equals 95 tCO2e. The scopes 1 and 2 (market-based) emissions decrease in the reporting year from completed sites and newly inactive sales and marketing suites equals 184 tCO2e. The change in emissions attributed to a change in boundary (i.e. the difference between new emissions and ceased emissions) = 95 - 184 = -89 tCO2e. Our total scopes 1 and 2 (market-based) emissions last year were 2,548 tCO2e (note that this is a restated value presented in our 2022 Annual Report). The percentage change value resulting from a change in boundary has therefore been calculated as follows: (-89 / 2,548)*100 = -3.5%.
Change in physical operating conditions	0	No change	0	
Unidentified	142	Increased	5.6	Emission changes attributed to renewable energy consumption, the implementation of initiatives, the change in methodology and the change in boundary would have led to a reduction



Other	0	No change	0	
				unidentified, but is likely to be due to day-to-day changes in activities on sites, with these being fluid and regularly changing due to the stages of work in progress. In addition to this, in 2021/22 the Berkeley Group completed 42% more homes than the prior year; this increase has not been accounted for in the 'Change in output' section as there is not a direct correlation between emissions and the number of homes completed. However, it would be expected that the higher production levels required to complete such a substantial increase in the number of homes would lead to emissions increases.  Our total scopes 1 and 2 (market-based) emissions last year were 2,548 tCO2e (note that this is a restated value presented in our 2022 Annual Report). The percentage change value resulting from unidentified reasons has therefore been calculated as follows: (142 / 2,548)*100 = 5.6%.
				of emissions of 479 tCO2e. However, emissions have reduced by 337 tCO2e compared to the previous year. There is therefore an increase in emissions of 142 tCO2e. The exact reason for this is

### C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based



## C8. Energy

### C8.1

## (C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

#### C8.2

#### (C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy- related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

### C8.2a

## (C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non- renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	1,184.73	7,947.89	9,132.62
Consumption of purchased or acquired electricity		26,470.86	283.71	26,754.57



Consumption of purchased or acquired heat	0	446.69	446.69
Consumption of self- generated non-fuel renewable energy	0.58		0.58
Total energy consumption	27,656.17	8,678.29	36,334.46

### C8.2b

#### (C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

### C8.2c

## (C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

#### Sustainable biomass

**Heating value** 

LHV

Total fuel MWh consumed by the organization

1,184.73

MWh fuel consumed for self-generation of electricity

170.76

MWh fuel consumed for self-generation of heat

1,013.97

Comment



This includes energy from biodiesel HVO (Hydrotreated Vegetable Oil) used across the Berkeley Group's construction sites.

Note that it is difficult to accurately calculate biodiesel HVO used to generate electricity versus heat on construction sites due to this fuel generally being delivered to a central storage location. The breakdown has been estimated for a sample of sites, representing 96% of consumption in 2021/22, with the average percentage breakdown for use in plant/machinery vs. use in generators to produce electricity for these sample sites then applied to all biodiesel HVO consumption in the year.

#### Other biomass

#### **Heating value**

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

#### Other renewable fuels (e.g. renewable hydrogen)

#### **Heating value**

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

#### Coal

#### **Heating value**

LHV

Total fuel MWh consumed by the organization

0



#### MWh fuel consumed for self-generation of electricity

0

#### MWh fuel consumed for self-generation of heat

n

#### Comment

#### Oil

#### **Heating value**

LHV

#### Total fuel MWh consumed by the organization

5,650.02

#### MWh fuel consumed for self-generation of electricity

1,092.87

#### MWh fuel consumed for self-generation of heat

4.557.15

#### Comment

This includes diesel and gas oil used across the Berkeley Group's construction sites. It also includes the diesel and petrol used in company owned or company leased vehicles for business travel.

Note that it is difficult to accurately calculate diesel and gas oil used to generate electricity versus heat on construction sites due to these fuels generally being delivered to a central storage location. The breakdown has been estimated for a sample of sites, representing 79% of gas oil consumption and 100% of diesel consumption in 2021/22, with the average percentage breakdown for use in plant/machinery vs. use in generators to produce electricity for these sample sites then applied to all gas oil and diesel consumption in the year.

#### Gas

#### **Heating value**

LHV

#### Total fuel MWh consumed by the organization

2.297.87

#### MWh fuel consumed for self-generation of electricity

0

#### MWh fuel consumed for self-generation of heat

2,297.87



#### Comment

This includes natural gas used across the Berkeley Group's offices, construction sites and sales suites, along with liquefied petroleum gas (LPG) used at our modular factory.

#### Other non-renewable fuels (e.g. non-renewable hydrogen)

#### **Heating value**

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

#### **Total fuel**

#### **Heating value**

LHV

Total fuel MWh consumed by the organization

9,132.62

MWh fuel consumed for self-generation of electricity

1,263.63

MWh fuel consumed for self-generation of heat

7,868.99

Comment

#### C8.2d

## (C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	1,391.43	1,264.21	298.56	171.34
Heat	7,868.99	7,868.99	1,013.97	1,013.97



Steam	0	0	0	0
Cooling	0	0	0	0

#### C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

#### Sourcing method

Unbundled energy attribute certificates (EACs) purchase

#### **Energy carrier**

Electricity

#### Low-carbon technology type

Renewable energy mix, please specify

For 2021/22, the Berkeley Group has procured REGOs from a renewable energy mix of solar and wind technologies.

#### Country/area of low-carbon energy consumption

United Kingdom of Great Britain and Northern Ireland

#### Tracking instrument used

**REGO** 

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

26,470.86

## Country/area of origin (generation) of the low-carbon energy or energy attribute

United Kingdom of Great Britain and Northern Ireland

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

#### Comment

For 2021/22, the Berkeley Group has procured REGOs from a renewable energy mix of solar and wind technologies.

### C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.



#### Country/area

United Kingdom of Great Britain and Northern Ireland

Consumption of electricity (MWh)

26,494.12

Consumption of heat, steam, and cooling (MWh)

446.69

Total non-fuel energy consumption (MWh) [Auto-calculated]

26,940.81

#### Country/area

China

Consumption of electricity (MWh)

125.04

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

125.04

#### Country/area

Hong Kong SAR, China

Consumption of electricity (MWh)

45.65

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

45.65

#### Country/area

Singapore

Consumption of electricity (MWh)

38.59



Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

38.59

#### Country/area

Thailand

Consumption of electricity (MWh)

11.42

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

11.42

#### Country/area

**United Arab Emirates** 

**Consumption of electricity (MWh)** 

40.33

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

40.33

### C9. Additional metrics

#### C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.



# C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	As an example, in 2021/22 the Berkeley Group invested in research into understanding how we can reduce the embodied carbon of our homes and in understanding how we can reduce their in-use emissions.  The operating companies of the Berkeley Group also regularly complete R&D. For example, our Silk Park development has researched the use of exhaust air heat pumps in the reporting year.

#### C-CN9.6a/C-RE9.6a

(C-CN9.6a/C-RE9.6a) Provide details of your organization's investments in low-carbon R&D for real estate and construction activities over the last three years.

#### **Technology area**

Integration of renewable energy sources in buildings

#### Stage of development in the reporting year

Applied research and development

Average % of total R&D investment over the last 3 years ≤20%

R&D investment figure in the reporting year (optional)

#### Comment

In 2021/22, the Berkeley Group's Silk Park development has undertaken research into the best renewable energy technology for use in the completed building. For this development we are using exhaust air source heat pumps which use renewable electricity rather than a traditional natural gas system to heat and provide hot water for the home. The next stage will be to install the systems to each apartment through the construction process.

#### **Technology area**

Unable to disaggregate by technology area



#### Stage of development in the reporting year

## Average % of total R&D investment over the last 3 years ≤20%

#### R&D investment figure in the reporting year (optional)

#### Comment

In 2021/22, the Berkeley Group has undertaken research to understand how we are going to reduce the in-use energy of our homes. This work has been completed by external experts that have researched different fabric and system technologies including renewable technologies that will enable our homes to meet the new Building Regulations Part L 2021, the new Future Homes Standard and our internal science-based target. The solutions suggested range from the use of more solar photovoltaic (PV) panels to heating, ventilation, and air conditioning (HVAC) systems.

Building upon this work, in 2021/22, one of the Berkeley Group's operating companies has commissioned and completed work to develop an energy strategy which complies with the new Approved Document Part L 2021 Regulations. This work has been shared with the wider business via a Technical Bulletin.

#### C-CN9.10/C-RE9.10

(C-CN9.10/C-RE9.10) Did your organization complete new construction or major renovations projects designed as net zero carbon in the last three years?

No, but we plan to in the future

#### C-CN9.11/C-RE9.11

(C-CN9.11/C-RE9.11) Explain your organization's plan to manage, develop or construct net zero carbon buildings, or explain why you do not plan to do so.

The Berkeley Group's aim is to create highly efficient, low energy homes which can draw the power they need from clean and renewable sources. However there remains uncertainty in the industry around the right long-term solutions for homes due to changing energy policies and uncertainty around carbon emissions from grid electricity and gas in the future.

In 2021, with the support of specialist external consultants, we undertook further research to understand how we could reduce the carbon emissions of our homes to deliver homes which can operate at net zero carbon. Our research and analysis was undertaken to understand how we are going to meeting the new Building Regulations Part L 2021, the new Future Homes Standard and our internal science-based target. The research demonstrated that there are a number of solutions depending on the house type and that it is achievable through a combination of design and future proofing measures, and taking into consideration the required energy infrastructure, available technologies and sustainable operating costs for our customers.



On every site we follow, and often exceed, the requirements of the Building Regulations and local planning policy. With evolving legislation the new homes we design and build are set to become more energy efficient as there is a transition towards net zero carbon buildings.

We are committed to becoming a net zero carbon business by 2040 and this includes our scope 3 emissions relating to the homes we develop.

### C10. Verification

### C10.1

## (C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

#### C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

#### Verification or assurance cycle in place

Annual process

#### Status in the current reporting year

Complete

#### Type of verification or assurance

Limited assurance

#### Attach the statement

Berkeley Group\_2022 Assurance Report.pdf

#### Page/ section reference

1-2

#### Relevant standard

**ISAE 3410** 

#### Proportion of reported emissions verified (%)



100

#### C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

#### Scope 2 approach

Scope 2 location-based

#### Verification or assurance cycle in place

Annual process

#### Status in the current reporting year

Complete

#### Type of verification or assurance

Limited assurance

#### Attach the statement

Berkeley Group\_2022 Assurance Report.pdf

#### Page/ section reference

1-2

#### Relevant standard

**ISAE 3410** 

#### Proportion of reported emissions verified (%)

100

#### Scope 2 approach

Scope 2 market-based

#### Verification or assurance cycle in place

Annual process

#### Status in the current reporting year

Complete

### Type of verification or assurance

Limited assurance

#### Attach the statement



Berkeley Group\_2022 Assurance Report.pdf

#### Page/ section reference

1-2

#### Relevant standard

**ISAE 3410** 

#### Proportion of reported emissions verified (%)

100

#### C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

#### **Scope 3 category**

Scope 3: Purchased goods and services

#### Verification or assurance cycle in place

Annual process

#### Status in the current reporting year

Complete

#### Type of verification or assurance

Limited assurance

#### Attach the statement

Berkeley Group\_2022 Assurance Report.pdf

#### Page/section reference

1-2

#### Relevant standard

**ISAE 3410** 

#### Proportion of reported emissions verified (%)

100

#### Scope 3 category

Scope 3: Use of sold products

#### Verification or assurance cycle in place

Annual process



#### Status in the current reporting year

Complete

#### Type of verification or assurance

Limited assurance

#### Attach the statement

Berkeley Group 2022 Assurance Report.pdf

#### Page/section reference

1-2

#### Relevant standard

ISAE 3410

#### Proportion of reported emissions verified (%)

100

#### C<sub>10.2</sub>

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

#### C10.2a

## (C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	ISAE 3000	Energy consumption (in MWh) in relation to scopes 1 and 2 emissions has been reported by the Berkeley Group and verified by external parties on an annual basis since 2019/20. The verified figures for scopes 1 and 2 energy consumption align to those reported as part of question C8.2a; scope 1 (total consumption of fuel) is equal to 9,133 MWh and scope 2 (consumption of purchased electricity, purchased heat and selfgenerated non-fuel renewable energy) is equal to 27,202 MWh. Energy consumption from office, sales, development site, modular factory and business travel activities of the Berkeley Group has been captured. Further details on the methodology used to report energy consumption can be found in the Berkeley Group's



Reporting Criteria and Assurance Report available on
our website from 3 August 2022:
https://www.berkeleygroup.co.uk/about-
us/sustainability/governance-and-management/reports-
and-case-studies.

### C11. Carbon pricing

### C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, and we do not anticipate being regulated in the next three years

#### C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

Yes

#### C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

#### Credit origination or credit purchase

Credit purchase

#### **Project type**

**Forests** 

#### **Project identification**

Veraguas, Panama - Across Central America, high rates of forest deforestation pose significant threats to the remaining biodiversity and rural communities. This project is transforming formerly degraded pastures into mixed forests by planting a mixture of 20 native tree species and more than 30 other exotic species. This project ensures sustainable timber production and cocoa cultivation, protects biodiversity and restores a healthy forest ecosystem. Sustainable forest management provides employment opportunities, thus improving the economic and social situation of rural communities. More than 150 jobs have been created to date and local schools have been supported with financial programmes and teaching materials. Veraguas combines carbon sequestration with regional, ecosystem and climate benefits. The project will lead to nearly 525,000 tonnes of CO2 sequestered and more than 7.5 million trees planted.



The project type is ARR (Afforestation, Reforestation, Revegetation), aligning with the type of carbon credits required as part of the Science Based Targets inititiave (SBTi) Net-Zero Standard.

#### Verified to which standard

Gold Standard

#### Number of credits (metric tonnes CO2e)

2.322

#### Number of credits (metric tonnes CO2e): Risk adjusted volume

2.322

#### Credits cancelled

Yes

#### Purpose, e.g. compliance

Voluntary Offsetting

#### C11.3

#### (C11.3) Does your organization use an internal price on carbon?

Yes

### C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

#### Objective for implementing an internal carbon price

Drive low-carbon investment

#### **GHG Scope**

Scope 1

Scope 2

#### **Application**

The Berkeley Group recharges business units the cost of offsetting their emissions to incentivise reductions and encourage decisions based on both capital and operational expenditure, rather than capital expenditure alone.

#### Actual price(s) used (Currency /metric ton)

27

#### Variance of price(s) used

The Berkeley Group applies an evolutionary price that evolves over time, uniformly across its business units and geographies.

#### Type of internal carbon price



#### Internal fee

#### **Impact & implication**

The Berkeley Group has an internal carbon fee levied on each operating company to incentivise emissions reduction. The Berkeley Group recharges business units the cost of offsetting their emissions to incentivise reductions and encourage decisions based on both capital and operational expenditure, rather than capital expenditure alone. Each year the price is determined based on the average cost of procuring REGOs and certified offsets to account for our emissions across scopes 1 and 2.

The introduction of an internal carbon price across the Berkeley Group has already impacted some business decisions, with project teams noting this cost when determining plant and equipment to be used, as the internal carbon price helps to incentivise low-carbon alternatives which may have a greater capital cost.

The increase in the internal carbon price in this reporting year reflects increases in the market value of REGOs and certified carbon credits.

### C12. Engagement

#### C12.1

#### (C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

Yes, other partners in the value chain

#### C12.1a

#### (C12.1a) Provide details of your climate-related supplier engagement strategy.

#### Type of engagement

Innovation & collaboration (changing markets)

#### **Details of engagement**

Collaborate with suppliers on innovative business models to source renewable energy

#### % of suppliers by number

21

#### % total procurement spend (direct and indirect)

80

#### % of supplier-related Scope 3 emissions as reported in C6.5

1



#### Rationale for the coverage of your engagement

To be an 'Approved' contractor for working on a Berkeley Group site, a contractor has to sign to accept the requirements of our 'Management Rules' and supporting documents. One of the supporting documents is the Berkeley Group's Sustainability Standard for Contractors which sets a requirement for contractors to take reasonable measures to reduce the climate change impacts of their site activities, including their construction works, welfare and office activities. It also outlines that opportunities to be early adopters of new low-carbon or zero-carbon plant and machinery should be sought, and that energy use from electricity, diesel, petrol, LPG and other fuels must be minimised through actions such as raising awareness of staff, the use of efficient plant and equipment, or the use of more energy efficient construction techniques and practices to fulfil the scope of works. Any specific measures to be implemented should be discussed with the Berkeley Group's project team.

Approximately 21% of suppliers in 2021/22 were contractors working across Berkeley Group sites, accounting for roughly 80% of procurement spend in the year. Remaining suppliers are vendors that are not required to sign up to the Berkeley Group's Management Rules or supporting documents (e.g. insurance providers, consultants, utilities companies etc.) that make up a lower proportion of overall spend.

Of the supplier-related scope 3 emissions reported under category 1 in 2021/22, 1% are calculated using contractor purchased fuel data related to this engagement.

#### Impact of engagement, including measures of success

A measure of success of our engagement with contractors is the number and scale of initiatives being implemented. Examples from the year are detailed below:

- By working with our contractors to encourage the procurement of alternatives to traditional fuels, the Berkeley Group has seen a significant increase in the number of contractors using biodiesel HVO (Hydrotreated Vegetable Oil) on our sites; in 2020/21, contractors on 3 sites used this fuel source compared to 46 sites in 2021/22. This action has led to avoided scope 3 emissions of 1,774 tCO2e in the year. Increasing the number of contractors using biodiesel and therefore reducing the emissions associated with contractor purchased fuel is a key measure of success in the reporting year.
- At the Berkeley Group's Kidbrooke Village development, DJ Civils trialled the use of hybrid machinery instead of traditional machinery; hybrid machines capture and reuse energy to improve fuel efficiency. Analysis was undertaken to compare the fuel consumption on the project to similar works using standard machinery and the success of this engagement was measured by a 32% reduction in fuel use and therefore an accompanying reduction in carbon emissions.

As a threshold to measure success, we compare performance against our SBT related to scope 3 category 1 (purchased goods and services). To be on track to meet our SBT, in 2021/22 our threshold for success was an 11% reduction in emissions intensity compared to our 2018/19 baseline year. When reviewing our contractor purchased fuels



only, in 2021/22 this element of our scope 3 category 1 emissions saw a 46% reduction in emissions intensity compared to our 2018/19 baseline year, far exceeding our target and demonstrating the success of contractor initiatives implemented in the year. On an absolute emissions basis, 2021/22 saw a 43% reduction compared to the 2018/19 baseline year.

#### Comment

#### Type of engagement

Information collection (understanding supplier behavior)

#### **Details of engagement**

Collect climate change and carbon information at least annually from suppliers

#### % of suppliers by number

21

#### % total procurement spend (direct and indirect)

80

#### % of supplier-related Scope 3 emissions as reported in C6.5

1

#### Rationale for the coverage of your engagement

To be an 'Approved' contractor for working on a Berkeley Group site, a contractor has to sign to accept the requirements of our 'Management Rules' and supporting documents. One of the supporting documents is the Berkeley Group's Sustainability Standard for Contractors which sets a requirement for all contractors to disclose their consumption of all energy sources at least monthly for the duration of their works. This data is reported via an online data management system, with assurance of emissions resulting from contractor purchased fuels being undertaken by an external party on an annual basis. This is then reported as part of our assured figures for scope 3 category 1 emissions.

Approximately 21% of suppliers in 2021/22 were contractors working across Berkeley Group sites, accounting for roughly 80% of procurement spend in the year. Remaining suppliers are vendors that are not required to sign up to the Berkeley Group's Management Rules or supporting documents (e.g. insurance providers, consultants, utilities companies etc.) that make up a lower proportion of overall spend.

Of the supplier-related scope 3 emissions reported under category 1 in 2021/22, 1% are calculated using contractor purchased fuel data related to this engagement.

#### Impact of engagement, including measures of success

As a result of our monthly information collection in relation to fuel purchases made by contractors working on our sites, we are able to regularly review and compare performance. This encourages change and the implementation of initiatives to be a



preferred contractor, with resulting emissions reductions considered to be a measure of success. For example, to demonstrate their commitment to work with the Berkeley Group and to assist us in meeting our science-based targets (SBTs), a number of contractors have moved to using biodiesel HVO (Hydrotreated Vegetable Oil) as an alternative to traditional fuel. In 2020/21, contractors on 3 sites used this fuel source compared to 46 sites in 2021/22; this action has led to avoided scope 3 emissions of 1,774 tCO2e in the year.

As a threshold to measure success, we compare performance against our SBT related to scope 3 category 1 (purchased goods and services). To be on track to meet our SBT, in 2021/22 our threshold for success was an 11% reduction in emissions intensity compared to our 2018/19 baseline year. When reviewing our contractor purchased fuels only, in 2021/22 this element of our scope 3 category 1 emissions saw a 46% reduction in emissions intensity compared to our 2018/19 baseline year, far exceeding our target and demonstrating the success of contractor initiatives implemented in the year. On an absolute emissions basis, 2021/22 saw a 43% reduction compared to the 2018/19 baseline year.

#### Comment

#### Type of engagement

Innovation & collaboration (changing markets)

#### **Details of engagement**

Collaborate with suppliers on innovative business models to source renewable energy

#### % of suppliers by number

0

#### % total procurement spend (direct and indirect)

0

% of supplier-related Scope 3 emissions as reported in C6.5

#### Rationale for the coverage of your engagement

The Berkeley Group recognises that targeted engagement with key manufacturers and suppliers of construction products is key in delivering against our scope 3 science-based target (SBT).

To actively work with key companies to initiate change involves more in-depth discussions and a higher level of engagement from all parties. Therefore, engagement as a proportion of our total number of suppliers is low but this is counteracted by the quality of engagement being much improved.

Our engagement with key manufacturers and suppliers of materials also does not



directly correlate with our procurement spend; due to the nature of our business the majority of materials are procured via contractors as part of their works packages. For example, a RC Frame contractor would provide both the labour and materials (such as steel and concrete) required to complete the works.

#### Impact of engagement, including measures of success

The Berkeley Group is increasingly engaging with key manufacturers and suppliers on climate-related issues, with key examples detailed below.

- This year we have been engaging directly with our suppliers of steel as we see this as a big impact area for us as a result of the research that we have completed to inform our embodied carbon work. To measure the success of this engagement, we have baselined the use of steel across 15 of our current buildings and within the Berkeley Modular factory and have agreed to work with suppliers such as Tata Steel to reduce the amount of carbon emissions associated with steel over our agreed SBT target year of 2030.
- The Berkeley Group is pleased that its Group Head of Sustainability sits on Saint-Gobain's CRS Advisory Panel, providing the opportunity to actively discuss and be involved in the delivery of Saint-Gobain's sustainability roadmap and zero carbon commitment.
- Travis Perkins is the Berkeley Group's preferred supplier for production in Berkeley Modular, our advanced manufacturing facility for modular homes. Berkeley Modular has the aim of improving process efficiencies and reducing waste/ packaging in the system, with the overall goal of lowering emissions. Berkeley Modular is working with Travis Perkins to reduce the amount of cardboard, plastic wrap, plastic banding, bulk bags, pallet, bearers and timber used in the system. For example, by swapping out disposal elements and using metal stillages, reusable pallets, reusable crates etc. The Berkeley Group has also planned further engagement with suppliers to directly reduce packaging at the source. This year, our Group Head of Sustainability attended Travis Perkins' National House Builder ESG Event to provide an overview of the Berkeley Group's Sustainability Strategy, initiating discussions around how further collaboration could help in the achievement of our sustainability related goals including our science-based targets (SBTs).

#### Comment

#### C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.



Education/information sharing

Share information about your products and relevant certification schemes (i.e. Energy STAR)

#### % of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

## Please explain the rationale for selecting this group of customers and scope of engagement

The Berkeley Group seeks to engage with all of our customers so that they are equipped with the knowledge and facilities to live a sustainable lifestyle. We engage with customers on sustainability, including climate change, throughout the customer journey by providing accessible and home-specific information.

Sales staff receive sustainability training and relevant site-specific information is contained within marketing information, including brochures and webpages. Where relevant, this includes identifying whether a home is supplied with energy from low carbon or renewable technologies and whether it is fitted with energy efficient fittings (e.g. LED lighting and white goods with high efficiency ratings). We also outline any climate change adaptation measures included in the wider development, e.g. sustainable drainage systems (SuDS).

To further engage customers on energy, every home has an Energy Performance Certificate (EPC) showing its rating in terms of energy performance. The Berkeley Group is pleased to be able to make available Barclays' Green Home Mortgage product to customers purchasing an energy efficient new-build home (i.e. those with an A or B Energy Performance Certificate (EPC) rating); Barclays Green Home Mortgage offers preferential interest rates compared to standard mortgages.

Once a home sale has been completed, a priority is to ensure that our customers are informed of the actions they can take to reduce their energy use and live a low carbon lifestyle. To do this, we provide customers with a home demonstration upon handover of their new home to help ensure that they are aware of the energy efficient measures integrated into their home and on the wider development.

#### Impact of engagement, including measures of success

As a measure of success, the Berkeley Group tracks customers' opinion on their ability to live a life with a low environmental impact on our developments. The Berkeley Group does this by requesting all customers to complete a survey via an independent third party upon completing their home purchase. This includes the question: "How do you rate [development] as a place to live where you can enjoy a good quality of life, with low environmental impact?". In 2021/22, 77% of customers outlined that they were 'Very Satisfied' and 19% highlighted that they were 'Satisfied' in response to this question, showing high levels of customer engagement and satisfaction in relation to the



sustainability features provided, which includes those which are climate-related (e.g. solar photovoltaic (PV) panels and sustainable drainage systems (SuDS)) as applicable to each individual home and development. Each response is allocated a score; 'Very Satisfied' = 1 decreasing incrementally down to 'Very Dissatisfied' = 0. Our threshold for success is a weighted average score of 0.85. Based on our 2021/22 survey responses, our weighted average score was 0.93, demonstrating a high level of successful engagement.

In 2021/22, 89% of homes completed by the Berkeley Group had an EPC rating of B or above, indicating the volume of Berkeley Group customers that could benefit from Barclays' Green Home Mortgage (note that this figure will change year-on-year due to completions occurring on different development sites). A measure of success is the number of customers taking up the mortgage. However, due to the personal and confidential nature of this information, the Berkeley Group is unable to disclose this.

#### C12.1d

## (C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

We have a number of strategic partners that we continually work with, including the UK Green Building Council (UKGBC) and the Supply Chain Sustainability School (SCSS). An example of our engagement in the reporting year includes our continued support as a programme partner of the UKGBC's Advancing Net Zero work, which aims to help drive the transition to a net zero carbon built environment in the UK and deliver the emissions reductions required from the construction and property sectors. The Berkeley Group's Head of Sustainability is an active participant at the quarterly meetings held by the Advancing Net Zero programme, sharing the Berkeley Group's work in this area, including the Berkeley Group's work on calculating embodied carbon undertaken in 2021/22. The Berkeley Group's Head of Sustainability is also on the Programme Board (i.e. the steering committee) for the Construction Leadership Council's CO2nstructZero zero carbon change programme, aimed at driving change by helping to share innovative solutions and setting transparent goals and clear actions that everyone in the construction industry can help to achieve.

#### C12.2

## (C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, climate-related requirements are included in our supplier contracts

#### C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.



#### Climate-related requirement

Climate-related disclosure through a non-public platform

#### Description of this climate related requirement

To be an 'Approved' contractor for working on a Berkeley Group site, a contractor has to sign to accept the requirements of our 'Management Rules' and supporting documents. One of the supporting documents is the Berkeley Group's Sustainability Standard for Contractors which sets a requirement for all contractors to disclose their consumption of all energy sources at least monthly for the duration of their works. This data is reported via an online data management system, with assurance of emissions resulting from contractor purchased fuels being undertaken by an external party on an annual basis. This is then reported as part of our assured figures for scope 3 category 1 emissions.

Approximately 80% of procurement spend in 2021/22 was with contractors working on Berkeley Group sites. Remaining spend is generally with vendors that are not required to sign up to the Berkeley Group's Management Rules or supporting documents, e.g. insurance providers, consultants, utilities companies etc.

### % suppliers by procurement spend that have to comply with this climaterelated requirement

80

## % suppliers by procurement spend in compliance with this climate-related requirement

80

## Mechanisms for monitoring compliance with this climate-related requirement Off-site third-party verification

## Response to supplier non-compliance with this climate-related requirement Retain and engage

#### Climate-related requirement

Complying with regulatory requirements

#### Description of this climate related requirement

To be an 'Approved' contractor for working on a Berkeley Group site, a contractor has to sign to accept the requirements of our 'Management Rules' and supporting documents. One of the supporting documents is the Berkeley Group's Sustainability Standard for Contractors which sets a requirement for contractors to undertake their works in compliance with all applicable legislation and regulation. To help ensure compliance with regulation, the Berkeley Group's team of sustainability professionals undertake regular (at least quarterly) sustainability assessments on each construction site. During the assessment, checks are made on contractors' compliance with relevant environmental legislation. Contractors are expected to give full cooperation during a sustainability assessment, providing the Berkeley Group with information as required



and providing a named contact responsible for the contractor's sustainability management on site and / or across the wider business. Any corrective actions identified and communicated to the contractor are to be carried out within a timeframe specified by the Berkeley Group's sustainability professional.

Approximately 80% of procurement spend in 2021/22 was with contractors working on Berkeley Group sites. Remaining spend is generally with vendors that are not required to sign up to the Berkeley Group's Management Rules or supporting documents, e.g. insurance providers, consultants, utilities companies etc.

% suppliers by procurement spend that have to comply with this climaterelated requirement

80

% suppliers by procurement spend in compliance with this climate-related requirement

80

Mechanisms for monitoring compliance with this climate-related requirement Second-party verification

Response to supplier non-compliance with this climate-related requirement Retain and engage

#### C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

#### Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, but we plan to have one in the next two years

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

The Berkeley Group's main process for engaging directly with policy makers is through the response to Government consultations on proposed regulation. To ensure that our approach is consistent with the Berkeley Group's climate strategy, our Group Head of Sustainability works with our Technical Committee and Land and Planning Committee to



respond to the consultations on behalf of the company.

We actively engage with trade associations engaging with the UK Government on the low carbon home agenda. This includes being a Gold Leaf member of the UKGBC and funding their climate change programme, 'Advancing Net Zero'. This work is consistent with the Berkeley Group's overall climate change strategy as they are focusing on how to decarbonise the UK built environment. As a Programme Partner, the Berkeley Group's Head of Sustainability contributes to UKGBC research and outputs, further ensuring consistency with our climate strategy.

#### C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

#### Focus of policy, law, or regulation that may impact the climate

Minimum energy efficiency requirements

## Specify the policy, law, or regulation on which your organization is engaging with policy makers

Building Regulations - Part L

#### Policy, law, or regulation geographic coverage

National

#### Country/region the policy, law, or regulation applies to

United Kingdom of Great Britain and Northern Ireland

#### Your organization's position on the policy, law, or regulation

Support with minor exceptions

#### Description of engagement with policy makers

The Berkeley Group has engaged with the UK Government on the updates to Part L of the Building Regulations and the Future Homes Standard. We provided a response to both their initial and follow-up consultations, with the new Building Regulations coming into force in June 2022.

In addition to engaging directly, the Berkeley Group also participated in industry workshops and meetings which were seeking to gain feedback from across industry for consultation responses including the CIBSE Homes for the Future Group.

## Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

The Berkeley Group's exceptions were in response to what buildings the regulation should apply to; the regulations introduce new transitional arrangements for buildings



and we suggested that depending on the type of building or if it was a phased development this should be considered to ensure consistency of design.

## Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

#### Focus of policy, law, or regulation that may impact the climate

Adaptation and/or resilience to climate change

## Specify the policy, law, or regulation on which your organization is engaging with policy makers

Biodiversity Net Gain

#### Policy, law, or regulation geographic coverage

National

#### Country/region the policy, law, or regulation applies to

United Kingdom of Great Britain and Northern Ireland

#### Your organization's position on the policy, law, or regulation

Support with minor exceptions

#### Description of engagement with policy makers

The Berkeley Group has engaged directly with Defra and Natural England in relation to the consultation on Biodiversity Net Gain regulation.

The Berkeley Group has had a commitment to biodiversity net gain since May 2017 for all our new sites and the UK Government is set to make this mandatory for all new sites from autumn 2023. We provided input into the consultation document in January 2022 outlining our experience and approach to biodiversity net gain. We have also been involved in meetings to discuss the policy with Natural England; our Group Head of Sustainability has met with the Natural England lead for Biodiversity Net Gain on a number of occasions to input our experience and to help shape the policy.

## Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Overall the Berkeley Group is supportive of the policy but do not think that temporary applications should be included; we have proposed that they should be exempt because temporary applications can be part of a wider master plan solution. The proposal placed undue focus on the temporary application which is part of a wider longer term masterplan, discounting any biodiversity being delivered elsewhere on the site. We suggested that a more holistic site-wide approach should be taken.

## Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned



#### C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

#### **Trade association**

Other, please specify

UK Green Building Council (UKGBC)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The UKGBC is a charity and membership organisation which campaigns for a sustainable built environment. They work to inspire, challenge and empower members, helping to identify and adopt the most sustainable, viable solutions. They also engage members in advocating a progressive message to the Government, informing, influencing and progressing green building policy. The UKGBC has had a positive impact on issues such as zero carbon new build homes and retrofitting existing homes and buildings. The UKGBC works closely with Ministers, advisers, MPs and officials to develop new policies and support the implementation of existing ones. This includes activities such as convening member roundtables, responding to consultations and coordinating industry letters to Ministers. Policy positions are developed with the help of the Members Committee or by running policy Task Groups which explore specific issues in detail.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

32,500

#### Describe the aim of your organization's funding

The Berkeley Group is a Gold Leaf member of the UKGBC and we fund their main climate change programme, 'Advancing Net Zero'.

The aim of our funding is to demonstrate our leadership in the industry and commitment to climate change. To be a Gold Leaf member it is a requirement to sign up to the #RaceToZero Campaign.



The aim of the Advancing Net Zero work is to help drive the transition to a net zero carbon built environment in the UK. Our funding helps to provide research and guidance for the industry. In the reporting year, the UKGBC published research for the industry on 'Building the Case for Net Zero: A case study for low-rise residential developments'.

## Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

#### **Trade association**

Other, please specify

The National House Building Council (NHBC) Foundation

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The NHBC Foundation provides high quality research and practical guidance to support the house-building industry as it addresses the challenges of delivering 21st century new homes. It is also involved in a programme of positive engagement with Government, academics and other key stakeholders, focusing on current and pressing issues relevant to house building. Work is focused primarily on sustainability, risk management, the consumer and housing supply. Research on the delivery of the Government's low carbon agenda is one of the priority areas in the NHBC Foundation's research programme.

The NHBC Foundation's research programme is steered by an Expert Panel of senior representatives from all sectors of the housebuilding industry, government and academia. The Expert Panel includes an Executive Director of the Berkeley Group's Main Board.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?



Yes, we have evaluated, and it is aligned

#### C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

#### **Publication**

In mainstream reports, incorporating the TCFD recommendations

#### **Status**

Underway - previous year attached

#### Attach the document

Berkeley Group 2021 Annual Report.pdf

#### Page/Section reference

40, 42-43, 70-75, 154-155

#### Content elements

Governance

Strategy

Risks & opportunities

**Emissions figures** 

**Emission targets** 

Other metrics

#### Comment

The Berkeley Group's 2022 Annual Report highlights our performance for our latest financial reporting year, 1 May 2021 to 30 April 2022. This will be publicly available on our website from 3 August 2022 and includes: a progress update on our Climate Action focus area under our business strategy Our Vision 2030 (page 42); a section on climate action and disclosure in line with the TCFD recommendations and detailing the climate scenario analysis completed in the reporting year and progress made against our SBTs (pages 58-70); disclosure against SASB criteria (pages 56-57); and energy consumption and emissions data in line with SECR requirements (pages 159-161).

Our 2021 Annual Report includes similar information for the previous reporting year and is attached for reference, with pages highlighted in the 'Page/section' column.

#### **Publication**



In voluntary sustainability report

#### **Status**

Underway - previous year attached

#### Attach the document

Berkeley Group\_2021 Sustainability Report.pdf

#### Page/Section reference

Climate Action (pages 10-23)

#### **Content elements**

Strategy Emissions figures Emission targets

Other metrics

#### Comment

Climate Action is one of the ten priorities under the Berkeley Group's business strategy Our Vision 2030 and one of the five key focus areas under the Berkeley Group's Sustainability Strategy.

The Berkeley Group's 2021 Sustainability Report was published in September 2021 and covered progress made during 1 May 2020 to 30 April 2021. It provided an overview of our Climate Action goal and targets, our approach under the five action areas of our climate action programme and our 2020/21 performance data.

The Berkeley Group's 2022 Sustainability Report covering progress and performance in the latest financial reporting year, 1 May 2021 to 30 April 2022, is due for publication in autumn 2022.

#### **Publication**

In voluntary communications

#### **Status**

Complete

#### Attach the document

Berkeley Group\_Climate Action Programme\_12.4.pdf

#### Page/Section reference

Whole document

#### **Content elements**

Strategy



#### **Emission targets**

#### Comment

In 2021 the Berkeley Group developed and launched a climate action programme identifying five key action areas which are driving progress towards our SBTs and ensuring that our homes, places and business operations are resilient to the impacts of climate change. This integrated climate action programme targets the most carbon intensive activities throughout our full supply chain, identifying mitigations and adaption solutions. They chart a course for the Berkeley Group to become a net zero carbon business by 2040.

### C15. Biodiversity

#### C15.1

## (C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	Ultimate responsibility for all sustainability topics lies with the Berkeley Group's Main Board. An Executive Director has specific responsibility for sustainability at Board level, including our response to nature and biodiversity net gain. The Managing Director of one of our operating companies supports the Executive Director on the Main Board by being the lead responsible for the Nature priority area under our business strategy, Our Vision 2030; they work with the Group's Head of Sustainability to drive action and track performance.

#### C15.2

## (C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

		Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments
R(	ow	Yes, we have made public commitments only	Commitment to Net Positive Gain



#### C15.3

#### (C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	No, and we do not plan to assess biodiversity-related impacts within the next two years

#### C15.4

## (C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

		Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
R 1	Row	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water management Education & awareness Law & policy

### C15.5

## (C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	State and benefit indicators

#### C15.6

# (C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In mainstream financial reports	Content of biodiversity-related policies or commitments Details on biodiversity indicators Biodiversity strategy	Our 2021 Annual Report (page 41) includes a progress update on our Nature focus area under our business strategy Our Vision 2030. The Berkeley Group's 2022 Annual Report (page 46) will be publicly available on our website from 3 August 2022.



		<u> </u>
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Impacts on biodiversity Details on biodiversity indicators	The Berkeley Group's 2021 Sustainability Performance Report (pages 19-21) sets out our approach and progress on our targets. Our 2021/22 report detailing performance for 1 May 2021 to 30 April 2022 is due for publication in autumn 2022.  ① 2
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Details on biodiversity indicators Biodiversity strategy	The Berkeley Group's Enhancing Nature booklet published in 2021/22 outlines our approach to nature and our commitment to biodiversity net gain on our sites.

<sup>&</sup>lt;sup>1</sup>Berkeley Group\_2021 Annual Report.pdf

## C16. Signoff

### C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

N/a

### C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Executive Director	Director on board

### Submit your response

In which language are you submitting your response?

<sup>&</sup>lt;sup>3</sup>Berkeley Group\_Nature Action Plan.pdf



### Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options		Public
addiniaaion optiona		

Please confirm below