

# **CDP**

Climate Change 2016 Information Request British Land





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# **Module: Introduction**

### **O** Introduction

#### 0.1 Introduction

Please give a general description and introduction to your organization.

We are one of Europe's largest publicly listed real estate companies. We own, manage, develop and finance a portfolio of high quality commercial property, focused on retail locations around the UK and London offices. We have total assets in the UK, owned or managed, of £20.0 billion (of which British Land share is £14.6 billion) as valued at 31 March 2016. Our properties are home to over 1,200 different organisations ranging from international brands to local start-ups. Our objective is to deliver long term and sustainable total returns to our shareholders and we do this by focusing on Places People Prefer. People have a choice where they work, shop and live and we aim to create outstanding places which make a positive difference to people's everyday lives. Our shares are fully listed on the London Stock Exchange (BLND) and we have ADRs which are traded in the US on the over the counter market. The Group became a real estate investment trust (REIT) in 2007. Under UK law, UK REITs have special tax status which allows investors to invest in listed UK property companies as if they owned the assets directly themselves, without being tax disadvantaged.

Over the year, we undertook £1.3 billion of gross investment activity, increasing our weighting in London and the South East from 56% six years ago to 65% today. Activity included the recent acquisition of 1 Sheldon Square at Paddington, increasing our net investment at our London campuses to £280 million. We continued to reshape our retail portfolio, reducing our investment in superstores and increasing our investment in multi-let shopping parks and smaller asset management initiatives.

We had an exceptional period for leasing with 1.3 million sq ft of lettings and renewals across the business taking our overall occupancy to 98.8%.

We also progressed our development programme. At the Leadenhall Building, one of London's most iconic buildings, we achieved 98% let or under offer with just one floor left to let. We completed 710,000 sq ft of development at 5 Broadgate and achieved planning consent for a further 823,000 sq ft redevelopment at our Broadgate campus (100 Liverpool Street and 1 Finsbury Avenue).

A number of important macro trends are driving our activity and approach.

- Transforming impact of technology
- Population growth and urbanisation
- Focus on sustainable and ethical behaviors
- Globalisation
- Positive but moderate economic growth
- Increasing consumer expectations

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These trends are having a big impact on the UK real estate sector. We are positioning the business to be a long term beneficiary of these trends – playing to our strengths and focusing on our areas of competitive advantage.

Places People Prefer lies at the heart of what we do. It shapes our strategy and is how we focus our efforts on creating value. By creating Places People Prefer we drive enduring demand for our properties from occupiers and investors. This generates long term growth in rental income and capital. Together with an optimal capital structure this delivers long term sustainable value for our shareholders.

Our strategic focus:

There are four key focus areas for our business, which are how we deliver our strategy and create value. They are:

- Customer Orientation
- Capital Efficiency
- Right Places
- Expert People

Climate change is an integral aspect of one of our sustainability focus areas - Future Proofing (for example, which includes a target to reduce Scope 1 & 2 emissions intensity by 55% by 2020 (compared to a 2009 baseline)) - and this is, in turn, presented at the heart of our business strategy and particularly Capital Efficiency corporate focus area. Climate change is an important part of our sustainability strategy to generate cost efficiency and income from future-proofed assets:

- Protecting value by reducing flood risk
- Improving operational efficiency and reducing occupier costs
- Increasing on-site energy generation and associated revenue
- Preparing for resource constraints and regulation through materials and process innovation.

### 0.2 Reporting Year

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

#### Enter Periods that will be disclosed

Wed 01 Apr 2015 - Thu 31 Mar 2016

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### 0.3 Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

**Select country** 

United Kingdom

### 0.4 Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

GBP(£)

#### 0.6 Modules

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sub-industries, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco industry group should complete supplementary questions in addition to the main questionnaire.

If you are in these sector groupings (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email <a href="mailto:respond@cdp.net">respond@cdp.net</a>.

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx.

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# **Module: Management**

### 1 Governance

#### 1.1 Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

### 1.1.a Please identify the position of the individual or name of the committee with this responsibility

(i) The CFO reports to the CEO and is a Board Director. She is also Chair of our Sustainability Committee.

(ii) Our Sustainability Committee, which meets several times a year, acts as custodian for our sustainability strategy, which helps to deliver value, create positive social and environmental outcomes, and increase appeal for our stakeholders, as we work to create Places People Prefer.

Our Sustainability Committee:

- Reviews performance and monitors progress against targets and key initiatives
- Assesses emerging social, environmental and ethical issues to determine whether they can help us respond to some of the big questions our business and stakeholders face
- Considers social, environmental and ethical risks, and the mitigating actions that are in place
- Presents any proposed changes in sustainability strategy to the Executive Committee for approval

Our Sustainability Committee is Chaired by Chief Financial Officer, Lucinda Bell, and comprises representatives from across the business, including our sustainability team.

We also have a Sustainability Advisory Panel. We are currently renewing the purpose and content of this Panel.

### 1.2 Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

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### 1.2.a Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Corporate executive team	Monetary reward	<ul> <li>Energy reduction project</li> </ul>	Executive Directors variable remuneration is influenced by performance on four global sustainability indices: the Dow Jones Sustainability Index (DJSI) World and Europe, FTSE4Good and the Global Real Estate Sustainability Benchmark (GRESB). These indices contain performance criteria relating to taking action on and achieving reductions in energy consumption and GHG emissions. Critically, Section 2.6 Climate Strategy within the DJSI survey is completely aligned with the CDP Climate Change questionnaire.
Environment/Sustainability managers	Monetary reward	<ul><li>Emissions reduction target</li><li>Energy reduction project</li></ul>	The Annual Incentive award of Sustainability Team members is influenced by performance against agreed annual objectives for each individual. Many of these objectives relate specifically to the delivery of emissions/efficiency reduction projects and our overall emissions reduction targets, as set out within our 2020 sustainability strategy. Our 2020 sustainability targets include several climate change related metrics, including reducing the Scope 1 & 2 emissions intensity of our managed portfolio by 55% by 2020 (compared to a 2009 baseline). Furthermore, we are also targeting a 15% reduction in landlord tembodied carbon intensity for projects over £50m against a 2015 per m² benchmark – this involves considerable engagement with our development supply chain. For more information please visit our website http://www.britishland.com/sustainability.
All employees	Recognition (non- monetary)	<ul> <li>Energy reduction project</li> </ul>	Each year we recognise our employees through an awards scheme. Awards are guided by the aims of our 2020 sustainability strategy, which includes several climate change related metrics, including: reducing the Scope 1 & 2 emissions intensity of our managed portfolio by 55% by 2020 (compared to a 2009 baseline); and, targeting a 15% reduction in landlord embodied carbon intensity for projects over £50m against 2015 per m² benchmark.
Other: Suppliers	Recognition (non- monetary)	<ul> <li>Energy reduction project</li> </ul>	Each year we recognise our suppliers through an awards scheme. Awards are guided by the aims of our 2020 sustainability strategy, which includes several climate change related metrics, including: reducing the Scope 1 & 2 emissions intensity of our managed portfolio by 55% by 2020 (compared to a 2009 baseline); and, targeting a 15% reduction in landlord embodied carbon intensity for projects over £50m against 2015 per m² benchmark – this involves considerable engagement with our development supply chain.

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Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Business unit managers	Monetary reward	<ul> <li>Energy reduction project</li> </ul>	The Annual Incentive award of the retail team and developments team is influenced by performance against agreed annual objectives for each individual. Some of these objectives relate specifically to the delivery of emissions/efficiency reduction and behaviour change projects that contribute to our overall emissions reduction targets, as set out within our 2020 sustainability strategy. Our 2020 sustainability targets include several climate change related metrics, including reduction of our Scope 1 & 2 emissions intensity by 55% by 2020 (compared to a 2009 baseline). Furthermore, we are also targeting a 15% reduction in landlord embodied carbon intensity for projects over £50m against 2015 per m² benchmark – this involves considerable engagement with our development supply chain. For more information please visit our website http://www.britishland.com/sustainability. Building operation teams also have performance based objectives for resource management, and associated links to reward schemes.

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# 2 Strategy

# 2.1 Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

# 2.1.a Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
- , , -	Board or individual/sub- set of the Board or committee appointed by the Board	The geographical area covered by assets owned and managed by British Land PLC and its subsidiaries.	> 6 years	The Board is responsible & determines the nature and extent of 'principal' risks it is willing to take to achieve its strategic objectives. Our integrated approach to risk combines a top-down strategic view with a complementary bottom-up operational process. Top-down approach: review of the external environment to determine level of exposure to principal risks comfortable exposing business to: risk appetite. Key risk indicators (KRIs) identified for each principal risk and used to monitor risk exposure to ensure business activities remain within agreed appetite. KRIs reviewed quarterly by Risk Committee. Bottom-up approach: identification, management and monitoring of risks in each business area, including corporate responsibility risks. Control of this process is provided through maintenance of risk registers in each area. Risk registers are aggregated and reviewed by the Risk Committee; significant and emerging risks escalated to Board. Register of principal risks updated quarterly.

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# 2.1.b Please describe how your risk and opportunity identification processes are applied at both company and asset level

Our integrated approach to risk combines a top-down strategic view with a complementary bottom-up operational process.

For the top-down approach, the Board reviews the external environment to determine the level of internal/external and company/asset level principal risks it is comfortable exposing the business to: risk appetite. Principal risks include: political outlook (incl. policy/regulation change), occupier demand for sustainable buildings; and catastrophic business events (e.g. flooding). Key risk indicators are identified for each principal risk and used for quarterly monitoring of exposure to ensure business activities remain within agreed risk appetite.

For the bottom-up approach, each business unit identifies, manages and monitors its risks. Control of this process is provided through maintenance of risk registers in each area. Internal/external and company/asset level risks relating to climate change are identified and reviewed by the Sustainability Committee and input into our risk assessment/management process by contributing to the company-wide Business Unit Risk Register Report (updated quarterly).

The Sustainability Committee and Team assess internal/external and company/asset level risks and opportunities for us and our stakeholders by considering: experience over previous year; internal/managing agent feedback; stakeholder engagement; sustainability performance; future focus areas/issues and results of asset-level risk and opportunity assessment procedures (e.g. flood risk assessment (FRA), energy audits). In 2014 we expanded our stakeholder engagement considerably: online surveys/workshops aimed at elucidating key sustainability risks/opportunities. We hosted workshops exploring our carbon strategy and supply chain management issues.

Furthermore, at the asset level we maintain Asset Plans, which include provisions for the identification of climate change-related risks and opportunities (e.g. FRA, energy improvements following audits).

#### 2.1.c How do you prioritize the risks and opportunities identified?

- (i) Risks evaluation: To prioritise emerging risks, the risk register employs a risk matrix classification system. The risk matrix has two axes: impact and likelihood. 'Impact' is graded according to predicted potential low, medium and high financial and reputational impact. 'Likelihood' is graded according to predicted likelihood of the risk materialising. 'Impact' is assessed on a 'gross basis', which means before taking into account the effect of recorded mitigants. 'Likelihood' is assessed on a 'net basis', which means after taking into account the effect of recorded mitigants. Once this risk classification process has been applied, a colour is awarded according to the following traffic light system: red for high impact and low, medium or high likelihood, and medium impact and high likelihood; yellow for medium impact and medium likelihood; and, green for the rest. The traffic light system is used to prioritise risks, including those related to climate change and carbon.
- (ii) Opportunities evaluation: Opportunities are prioritised at the corporate and asset level by the Sustainability Committee and Team according to how they support our company-level sustainability strategy to: enliven places and nurture people's wellbeing; connect with local communities; design for the future; and, enhance local skills and opportunities. As part of our company-level sustainability strategy to design for the future, we aim to: improve operational efficiency and reduce occupier costs; increase on-site energy generation and associated revenue; prepare for resource constraints and regulation through materials and process innovation; and, protect value by reducing flood risk. For certain issues (e.g. energy) asset level opportunities are further prioritised according to the outcomes of detailed assessments for example, our building energy audits provide recommendations for improvements prioritised according to return on investment analyses (ROI).

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# 2.1.d Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process Do you plan to introduce a process? Comment

#### 2.2 Is climate change integrated into your business strategy?

Yes

# 2.2.a Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

#### i) How strategy influenced

Risk and opportunity evaluation frames the determination of our strategy and the actions of its execution. Many of our risks/opportunities are directly/indirectly affected by climate change mitigation/adaptation matters. E.g., our strategies to ensure regulatory compliance, operational efficiency, occupier and investor demand, successful investment, planning applications/development and asset protection depend on our integration of climate change related risk mitigation and opportunities realisation into our business strategy. For more information on our approach to risk and opportunities, see CC2.1a-c.

The outcomes of our risk and opportunities assessment and management processes are fed into our company-level sustainability strategy. Progress against our strategy is reviewed several times a year at the Sustainability Committee meetings. The Committee Chairman reports to the CEO on progress on an ad hoc basis, whilst the Head of Sustainable Places provides monthly updates to the Board. A presentation is given to the Executive Committee to approve any changes in strategy and to provide updates on external change. A review of the strategy and performance is presented to the Board annually, in addition to the monthly updates.

Physical, regulatory and reputational risks/opportunities were considered during the formulation of our 2020 Sustainability Strategy. Climate change is an integral aspect of one of our four sustainability focus areas - Future Proofing (which includes a target to reduce Scope 1 & 2 emissions intensity by 55% by 2020 (compared to a 2009 baseline)) - and this is, in turn, at the heart of our business strategy and particularly Capital Efficiency corporate focus area.

#### ii) Aspects that influenced strategy

Physical risks/opportunities, e.g. flooding: for example, flood risk assessments and feedback from insurers have informed strategic discussions regarding our flood policies, insurance and asset plans. Regulatory risks/opportunities: e.g., increasingly stretching planning requirements (e.g. Part L), carbon taxation, 2015 Energy Efficiency Regulations (i.e. MEES) and ESOS have informed our developments, EPC and acquisition policies, and asset improvement plans. Reputational

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risks/opportunities, incl. stakeholder demand for carbon/energy efficiency and resilient buildings have also informed our acquisition policy and asset plans (e.g. renewables feasibility studies).

#### iii) Short-term strategy:

Continue to optimise asset energy supply/efficiency: In 2013/14 we confirmed no exposure to the Energy Act minimum requirement of E in our office portfolio. We completed a review of exposure in our retail portfolio and analysed the likely costs per asset to improve ratings above an F or G (£65k per unit). For those buildings rated F and G, we have plans in place to upgrade performance. We have worked with occupiers to support their efforts to reduce resource use; implemented initiatives including a whole scale energy optimisation process, lighting upgrades and accelerated plant replacement. We have also installed significant on-site low carbon energy generation capacity at several of our retail assets and are currently exploring other opportunities. We have made a commitment to RE100 – currently 96% of the total managed portfolio is supplied with renewable energy; this will rise to 100% in 2017/18.

Continue to manage flood risk: Continue to explore opportunities to improve flood risk assessment and protection for our assets. For example, in 2011/12, we commissioned a flood consultant to perform a review of our entire portfolio. At that time we had several assets deemed to be at risk; many of these assets were supermarkets and flood risk management measures have since been developed. At present, we have 25 assets classified as high flood risk (e.g. fully/partially Flood Zone 3); we reviewed two of these assets in 2015 and we are now evaluating recommendations from these surveys.

#### iv) Long-term strategy:

Asset energy supply/efficiency: We do not purchase F or G rated assets without explicit actions in the asset plan on how to improve the EPC rating, unless the Investment Committee decides otherwise. In our office portfolio we have significant influence when refurbishing and seek to ensure typically a D rating. For all new lettings we consider actions required to improve an EPC rating above F and retail lease clauses include a requirement for fit-out to exceed an F rating. We published our 2020 Sustainability Strategy in May 2015. 2020 targets include:

- 55% Scope 1 and 2 carbon intensity reduction, based on index score of 45 against 2009 score of 100
- 15% reduction in landlord embodied carbon intensity for projects over £50m against a 2015 per m² benchmark

We have also identified a risk of 'blackouts' arising from carbon intensive power stations going offline in 2015-16. We commissioned a study in 2014/15 to enable us to properly assess this risk and determined the risk to be low.

Asset flood risk management: We review flood risk for assets entering the portfolio and where new acquisitions do not meet the flood standard, then we need a costed proposal to mitigate the risk prior to acquisition.

Developments: On-going consideration of adaptation in the design of our developments; building in flexibility and future-proofing.

v) Strategic advantage: We are increasingly able to demonstrate the impact of our energy reduction initiatives to occupiers, such as a 40% reduction in landlord-influenced energy intensity across our portfolio over the last six years, and work with them to support their own climate change objectives. As a result, we have been able to deliver significant reductions in costs for our occupiers (approx. £3m since 2011/12). We are also able to deliver assets that are more resilient to policy change, future issues of energy security/cost and other climate change impacts (e.g. flooding) for our investors and customers. Our 2015/16 independent survey of customers rated us at 7.9 out of 10. Our belief that this helps protect and grow capital value over the medium to long-term is somewhat supported by the fact that

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our occupancy rates have been very strong this past reporting year – 98.8%. Developing energy efficient assets with reduced embodied carbon also assists us to achieve planning approvals.

vi) Decisions influenced by climate change: During the reporting year we made a commitment to RE100 and commissioned a review of our Scope 3 emissions by Arup, which revealed that changes in our portfolio since 2012 have substantially reduced our carbon footprint and overall carbon liability. We leant our support to the COP21 conference, making a corporate pledge through the UKGBC. Other activities within our ongoing sustainability programme, further confirmed our decision to continue to reduce landlord influenced energy consumption in support of our 2020 emissions target; and to engage with assets at risk of flooding.

### 2.2.b Please explain why climate change is not integrated into your business strategy

#### 2.2.c Does your company use an internal price of carbon?

No, and we currently don't anticipate doing so in the next 2 years.

- 2.2.d Please provide details and examples of how your company uses an internal price of carbon
- 2.3 Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers Trade associations Funding research organizations Other

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### 2.3.a On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Other: Business Energy Tax Reform	Support	Attendance of meeting with British Property Federation and BCSC to compose a consultation response to HM Treasury on Business Energy Tax Reform	The UK government is planning to simplify the business energy efficiency tax landscape by abolishing the Carbon Reduction Commitment (CRC) energy efficiency scheme with effect from the end of the 2018-19 compliance year and increasing the main rates of Climate Change Levy (CCL) from 1 April 2019 to cover the cost of CRC abolition in a fiscally-neutral reform and incentivise energy efficiency in CCL-paying businesses. We support moving away from the current system of overlapping policies toward a system where a single business/organisation faces one tax and one reporting scheme.
Other: Climate Change	Support	Informal meeting with DECC and CBI	Discussion about what the Paris COP21 negotiations look like, the activity that will be undertaken up to and at the conference; and, what British business can do to support efforts to get a strong deal. This gave us an opportunity to hear directly from the government, as well as provide them with any messages from business. We supported a strong deal at the COP21 conference.
Energy efficiency	Support	Public Consultation on the Energy Performance of Buildings Directive Recast (through membership with British Property Federation)	The Energy Performance Certificate is not widely trusted in the market due to a lack of consistency and quality with which the national standards are applied – the Commission should reiterate the need for credible sanctions and quality control of EPCs to ensure that they are reliable. Implementation of the EPBD by the Member States requires improvement. From a substantive perspective, many of the individual instruments underlying the EPBD are beneficial for tackling energy security, energy demand and climate change effects associated with buildings, but may be insufficient in their scope to meet the necessary targets for 2030. There is a particular need for closer synergies between the building-related elements of the Energy Efficiency Directive and the Energy Performance of Buildings Directive.
Energy efficiency	Support	Attendance at meetings with British Property Federation and Better Building Partnership	Engagement on Heat Network (Metering and Billing) Regulations 2014

### 2.3.b Are you on the Board of any trade associations or provide funding beyond membership?

Yes

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# 2.3.c Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
Better Buildings Partnership	Consistent	Extract from website: To get close to the carbon emission reductions required to slow the impacts of climate change, we have to make sure all businesses understand how to use their space efficiently and productively to make a shift towards a sustainable economy. Then the property industry can get on with delivering better buildings. It's a big challenge but the BBP members have shown already what can be achieved, so it's clearly not impossible.	meetings, committees and
British Property Federation	Consistent	1	Sarah Cary, Head of Sustainable Places at British Land, chairs the Sustainability Committee.
UK Green Building Council	Consistent	Extract from website: Our built environment is vital in the fight against climate change as about 45% of CO <sub>2</sub> emissions in the UK come from energy used in our homes and buildings. We need to almost completely decarbonise our built environment by 2050, through a combination of very high energy efficiency of buildings, on-site renewable energy, community scale renewables and decarbonisation of the grid.UK-GBC sees embodied carbon as an increasingly important area for all sectors of the built environment to actively address and are working with their members to assist them in the process of making buildings more resource efficient. Globally, the built environment accounts for 40-50% of natural resource use, 20% of water use, 30-40% of energy use and around a third of CO <sub>2</sub> emissions. The new homes, offices and other buildings which the industry designs and develops every year are an opportunity to make sure that the built environment has a positive contribution to the environment, economy and our quality of life.	meetings, committees and informal discussions.
Confederation Consistent of Business and Industry			Regular participation in meetings, committees and informal discussions. Lucinda Bell, CFO of British Land, sits on the Energy and Climate Change Board of the CBI

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Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
European Public Real Estate Association	Consistent	Extract from Best Practices Recommendations on Sustainability Reporting 2014 guidance document: We are pleased to publish the second edition of the EPRA Best Practices Recommendations on Sustainability Reporting (EPRA sBPR). Since the launch of the first edition of the EPRA sBPR in 2011 and of the EPRA sBPR awards, we have seen a steady increase in the number of EPRA members reporting on their environmental performance. Encouragingly, the quality of reporting has also improved, with more companies achieving Gold, Silver and Bronze awards for their sustainability reporting each year. The second edition of the EPRA sBPR draw on the new Global Reporting Initiative (GRI G4 CRESSD) guidelines and still complement the existing and well established EPRA Financial BPR1. Furthermore, the second edition of the guidelines meets the following objectives: • To provide further clarity, conciseness and support for companies wishing to disclose their performance in accordance with the EPRA sBPR guidelines. • To raise the bar and further challenge those companies already reporting on the performance measures and overarching recommendations included in the first edition of the guidelines. We hope that the process of reporting in line with the guidelines will facilitate a greater understanding of the environmental impacts associated with your company's activities, leading to efficiency gains and ultimately, lower operating costs.	Regular participation in meetings, committees and informal discussions.
British Council for Offices	Consistent	those aspects of environmental sustainability that effect and influence office development, design	Regular participation in meetings, committees and informal discussions.
Accounting for Sustainability	Consistent	a sustainable economy.	British Land is working with other Chief Financial Officers through the Prince's Accounting for Sustainability network to develop a framework.

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### 2.3.d Do you publicly disclose a list of all the research organizations that you fund?

No

### 2.3.e Please provide details of the other engagement activities that you undertake

- Better Buildings Partnership We continue to take a leading role with Better Buildings Partnership to promote their 'Commitment Agreement' or 'Design for Performance' scheme. A final report of a feasibility study into the potential for UK implementation of a Design for Performance approach has recently been published (May 2016). The proposed next step is an 18-month pilot phase to consider each major element of the Commitment Agreement separately on one or more real projects.
- UK Green Building Council UK-GBC Member and in April 2014 and then again in September 2015, we co-sponsored the UK Green Building Council's Embodied
  Carbon Week; a series of events to further raise awareness of the importance of embodied carbon, hear from experts and encourage collaboration on different
  measurement approaches and identify best practice opportunities. Sarah Cary, Head of Sustainable Places, was Chairperson of Embodied Carbon week.
- Our Head of Sustainable Places, Sarah Cary, chaired the UK GBC's Zero Carbon Buildings Task Force and is on Sustainability Committees with both the British Council of Offices and British Property Federation.
- EPRA Sustainability Reporting Working Group participation in meetings, committees and informal discussions.
- In December 2015 we signed an initiative to support the delivery of nearly zero energy buildings in Europe by 2030 (http://www.corporateleadersgroup.com/)
- In Spring 2016 we agreed to follow RE100 and are switching all purchased electricity to renewables through REGO contacts.

# 2.3.f What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Two members of the Sustainability Committee represent environmental and social issues on our Public Affairs Committee. This ensures our direct and indirect policy-influencing activities are consistent with our climate change strategy. Public Affairs engagement strategy is approved by our Executive Committee.

On an annual basis the Public Affairs Committee reviews all third party organisations that British Land supports – who can be said to speak on our behalf. We review our membership and support as well as the organisations' activities around climate change and other matters.

### 2.3.g Please explain why you do not engage with policy makers

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# **3 Targets and Initiatives**

3.1 Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Intensity target Renewable energy consumption and/or production target

3.1.a Please provide details of your absolute target

ID Scope % of emissions in	% reduction from	Base	Base year emissions covered by target	Target	Is this a science-based	Comment
scope	base year	year	(metric tonnes CO <sub>2</sub> e)	year	target?	

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### 3.1.b Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science- based target?	Comment
Int1	Scope 1+2 (location- based)	100%	55%	Other: Tonnes CO <sub>2</sub> e per m <sup>2</sup> net lettable floor area (offices)	2009	0.118	2020	No, but we anticipate setting one in the next 2 years	Our target is to reduce our Scope 1 and 2 carbon intensity across our portfolio (common parts and shared services) by 55% compared to 2009. We have developed an index methodology to allow us to track and report the relative resource efficiency of our entire managed portfolio over time, and to demonstrate performance against our index baseline year of 2008/9. Overall portfolio index is calculated by weighting each asset class by total consumption or carbon emissions per reporting year. The intensity metrics that sit behind the overall index include: metric tonnes CO <sub>2</sub> e per: m² net lettable area (offices: landlord influenced area: common parts and shared services); m² net lettable floor area (retailenclosed: common parts); and, car park space (retail-open air: common parts). Our target for offices, retail-enclosed and retail-open air is combined, however, due to differences in their denominators, we have split them here into the three component parts (Int1, Int2, and Int3).
Int2	Scope 1+2 (location- based)	100%	55%	Other: Tonnes CO <sub>2</sub> e per m <sup>2</sup> net lettable floor area (retail- enclosed)	2009	0.174	2020	No, but we anticipate setting one in the next 2 years	Our target is to reduce our Scope 1 and 2 carbon intensity across our portfolio (common parts and shared services) by 55% compared to 2009. We have developed an index methodology to allow us to track and report the relative resource efficiency of our entire managed portfolio over time, and to demonstrate performance against our index baseline year of 2008/9. Overall portfolio index is calculated by weighting each asset class by total consumption or carbon emissions per reporting year. The intensity metrics that sit behind the overall index include: metric tonnes CO <sub>2</sub> e per: m² net lettable area (offices: landlord influenced area: common parts and shared services); m² net lettable floor area (retailenclosed: common parts); and, car park space (retail-open air: common parts). Our target for offices, retail-enclosed and retail-open air is combined, however, due to differences in their denominators, we have split them here into the three component parts (Int1, Int2, and Int3).

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ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science- based target?	Comment
Int3	Scope 1+2 (location- based)	100%	55%	Other: Tonnes CO <sub>2</sub> e per car park space (retail-open air)	2009	0.106	2020	No, but we anticipate setting one in the next 2 years	Our target is to reduce our Scope 1 and 2 carbon intensity across our portfolio (common parts and shared services) by 55% compared to 2009. We have developed an index methodology to allow us to track and report the relative resource efficiency of our entire managed portfolio over time, and to demonstrate performance against our index baseline year of 2008/9. Overall portfolio index is calculated by weighting each asset class by total consumption or carbon emissions per reporting year. The intensity metrics that sit behind the overall index include: metric tonnes CO <sub>2</sub> e per: m² net lettable area (offices: landlord influenced area: common parts and shared services); m² net lettable floor area (retailenclosed: common parts); and, car park space (retail-open air: common parts). Our target for offices, retail-enclosed and retail-open air is combined, however, due to differences in their denominators, we have split them here into the three component parts (Int1, Int2, and Int3).

### 3.1.c Please also indicate what change in absolute emissions this intensity target reflects

	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Decrease	16			
Int2	Decrease	24			
Int3	Decrease	75			

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### 3.1.d Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target		Base year energy for energy type covered (MWh)			% renewable energy in target year	Comment
RE1	Electricity consumption	2015	87809	0.05%	2018		Our RE100 commitment covers all purchased electricity; 100% of landlord influenced energy within our managed portfolio will be supplied by renewables in 2017/18.

### 3.1.e For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Int1	64%	65%	Since 2009, we have achieved a 36% reduction in Scope 1 and 2 emissions across our office managed portfolio (common parts and shared services). We continue to target carbon reductions.
Int2	64%	100%	Since 2009, we have achieved a 58% reduction in Scope 1 and 2 emissions across our retail-enclosed managed portfolio (common parts). We continue to target carbon reductions.
Int3	64%	75%	Since 2009, we have achieved a 41% reduction in Scope 1 and 2 emissions across our retail-open managed portfolio (common parts). We continue to target carbon reductions.

# 3.1.f Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

# 3.2 Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?

Yes

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# 3.2.a Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Group of products	Development projects, including new builds and major refurbishments (office, retail and/or residential): We seek to design and build buildings which in operation emit fewer GHG emissions than UK building regulations require (this year 30.90% more energy efficient on average). We work with our construction supply chain to reduce emissions associated with the manufacture of our developments. We have been exploring embodied carbon on our developments since 2009, commissioning studies across our development programme and detailed studies at - amongst others - 5 Broadgate. These studies highlighted the significance of energy and material use on our developments, particularly the fabrication of steel and concrete, in relation to our other managed emissions. Building on this knowledge, we have been working with our supply chain partners to reduce embodied carbon since 2011. For instance, our design teams for 5 Broadgate and Marble Arch House conducted investigations into the embodied carbon of key building elements, seeking to design out material usage and to specify lower carbon sources of concrete and aluminium. Since January 2014, we have required all projects with a construction value over £50	emissions	Other: For example, the 5 Broadgate embodied carbon LCA assessment was undertaken in accordance to BS EN ISO14040. The whole life carbon performance model evaluated from "Cradle to end of operation". It includes predicted CO2 emissions associated with production of raw materials, transport of materials to site, construction activities, and operational energy consumption. The following assumptions were made: Decarbonisation of UK power grid will be according to DECC projections; 60 year life time based on life expectancy for steel frame (up to first major refurbishment). Embodied carbon factors - Hammond G, Jones C, 2006. Inventory of Carbon & Energy (ICE) Version 2.0; Transport carbon factors - Guidelines to Defra/DECCs Greenhouse Gas Conversion Factors for Company Reporting 2010; Life expectancy - BCIS, 2006. Life Expectancy of Building Components. 2nd ed.			

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Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
	million to reduce embodied carbon in concrete, steel, rebar, aluminium and glass by 10% compared to the concept design. At 100 Liverpool Street, our design team has developed plans that re-use as much of the building structure as possible, cutting construction costs and reducing embodied carbon by 7,270 tonnes. Design improvements are also targeting a further 4,360 tonne saving versus the original concepts, at no extra cost. Emissions related to operational energy use avoided on our current office and retail developments through design that exceeds Building Regulations are estimated [2014] at 4,135t CO <sub>2</sub> /year (or 69,400t CO <sub>2</sub> across a 20 year operational life and 208,300t across a 60 year development life). Building regulations only address a defined subset of total building energy use and the actual value of savings is likely to be significantly larger.					
Group of products	Managed portfolio (i.e. existing/operational assets over which we have landlord control): We work closely with our managing agents to manage energy use at our properties, implementing environmental action plans at all major assets. We have installed automatic meter reading (AMR) systems across 95% of our managed retail portfolio and 80% of our offices managed portfolio enable our local teams to identify reduction opportunities on an ongoing basis, at the same time as improving billing accuracy. Examples of energy reduction	Avoided emissions	Other: The carbon savings figure is calculated from electricity, gas and oil savings in MWh made since 2009, as well as any reductions in refrigerant loss and fuel use in British Land owned vehicles. The following carbon factors are used (from UK Government conversion factors for Company Reporting 2015): electricity generated scope 2 (kgCO <sub>2</sub> e/kWh): 0.46219; nat. gas scope 1 (kgCO <sub>2</sub> e/kWh): 0.20494; gas oil scope 1 (kgCO <sub>2</sub> e/l): 2.90884; HFC 134a (GWP/t): 1430; R407c (GWP/t): 1773.9; R410a			

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Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
	measures include: matching heating and cooling plant run times with operational hours agreed with occupiers; increasing intake of external ambient air to reduce the need for heating and cooling, and eliminating heating and cooling conflicts; installing motion sensors and replacing lighting with energy efficient alternatives; and, adjusting temperature set points to reduce heating and cooling demands. We are working with our occupiers to reduce energy use and cut carbon emissions, notably through Green Building Management Groups in our multi-let offices. We have also completed Energy Performance Certificate assessments across our portfolio. In the past six years we have reduced landlord influenced emissions intensity (common parts and shared services) across our portfolio 40% against a 2009 baseline		(GWP/t): 2087.5; R417a (GWP/t): 2346.0; diesel scope 1 (kg CO <sub>2</sub> e/l): 2.67614; petrol scope 1 (kgCO <sub>2</sub> e/l): 2.29968; LPG scope 1 (kg CO <sub>2</sub> e/l): 1.50938.			

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

Yes

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# 3.3.a Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO<sub>2</sub>e savings

Stage of development	Number of projects	Total estimated annual CO <sub>2</sub> e savings in metric tonnes CO <sub>2</sub> e (only for rows marked *)
Under investigation	7	1147
To be implemented*	42	4323
Implementation commenced	0	0
Implemented*	6	336
Not to be implemented	0	0

### 3.3.b For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO <sub>2</sub> e savings (metric tonnes CO <sub>2</sub> e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	
Energy efficiency: Building services	Installation of boilers, cooling towers and chillers across offices		Scope 1 Scope 2 (location- based) Scope 3	Voluntary	80000	120000	1-3 years	6-10 years	Replacement of pneumatic heating valves to electronic, pneumatic chilled water valves to electronic, cooling tower inverters and recommissioning chiller system to improve performance and energy consumption at 1 office
Energy efficiency: Building services	LEDs across retail and offices	55	Scope 2 (location- based) Scope 3	Voluntary	13000	26000	1-3 years	6-10 years	LED installations at 3 offices and 1 retail site
Low carbon energy installation	Solar PV at St Stephen's shopping centre	146	Scope 2 (location- based) Scope 3	Voluntary	52922	402000	4-10 years	21-30 years	Installation of 1,200 solar PVs (250MW) on a shopping centre roof – generating income through selling energy to site and through government incentives

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### 3.3.c What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	We have invested in energy monitoring and management systems, partially to support compliance with the CRC Energy Efficiency Scheme, ESOS and Minimum Energy Efficiency Standards. More importantly these systems support the identification of energy saving opportunities. We aim to exceed and have significantly exceeded regulatory standards for energy efficiency in new developments.
Dedicated budget for energy efficiency	Our sustainability programme budget covers a range of initiatives aimed at delivering our sustainability targets. We report on our investment annually in our Sustainability Accounts. Since 2011/12 we have invested over £6.2 million in energy initiatives across our existing portfolio. Furthermore, in our developments, we assigned project budgets for extra metering over requirement to support operational energy efficiency.
Internal incentives/recognition programs	Each year, at an awards ceremony, we recognise the achievements of our staff and supply chain who have helped us to achieve our overall sustainability goals.
Employee engagement	At Head Office we have numerous initiatives in place to engage with employees on reducing environmental impact (including emissions). For example, we: provide employees with real-time Head Office environmental KPI data; have a bicycle user group; have a scheme to encourage use of Santander Bike Hire Scheme; cycle to work loans through the UK Government's Ride2Work scheme; and, have awareness raising campaigns on various environmental issues. We also provide staff inductions, wherein new starters receive a presentation on sustainability.
Internal finance mechanisms	All managed properties are required to contribute to our Sustainability Action Plan. For initiatives requiring CAPEX managers are required to complete an investment request providing information on the initiative including payback. That request is discussed with Asset Managers as part of a review of the service charge budgets and asset plans for the following year.
Other	We also engage actively with occupiers, notably through sustainability groups in our multi-let offices. We have found a number of occupiers who are also keen to work with us on optimisation of our central heating and cooling plant. This has enabled us to work with occupiers to identify savings they can make within their own space. With the extensive sub-metering in each of our buildings, we are able to project energy savings or each initiative before we secure the support from occupiers to proceed on a new initiative. In recent years, we have won several industry awards for our energy reduction work, including: 2014 CIBSE (Chartered Institute of Building Service Engineers) Client Energy Management Award 2014 for energy reduction across our managed portfolio, for the third year running, Building Operation Award 2014 for our Exchange House energy reduction collaboration and NAREIT Global Recognition Leader in the Light Award, 2014.
Other	We also engage actively with suppliers on our developments, to try to reduce embodied carbon on our new construction projects. We have been exploring embodied carbon on our developments since 2009, commissioning studies across our development programme and detailed studies a 5 Broadgate, The Leadenhall Building, Regent's Place, Ropemaker Place and Whiteley Shopping. These studies highlighted the significance of energy and material use on our developments, particularly the fabrication of steel and concrete, in relation to our other managed emissions. Building on this knowledge, we have been working with our supply chain partners to reduce embodied carbon since 2011. For instance, our design teams for 5 Broadgate and Marble Arch House conducted investigations into the embodied carbon of key building elements, seeking to design out material usage and to specify lower carbon sources of concrete and aluminium. We require all projects with a construction value over £50 million to reduce embodied carbon by 15% compared to a 2015 per m² benchmark.

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3.3.d If you do not have any emissions reduction initiatives, please explain why not

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### **4 Communication**

4.1 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	Status	Page/Section reference	Attach the document	Comment
In mainstream reports (including an integrated report) but have not used the CDSB Framework		Annual Report and Accounts 2016 pages 1, 7, 20, 31, 48, 196	https://www.cdp.net/sites/2016/97/2297/Climate Change 2016/Shared Documents/Attachments/CC4.1/BL-AR2016.pdf	
In voluntary communications	Complete	Sustainability Update for colleagues and suppliers 2016, page 5	https://www.cdp.net/sites/2016/97/2297/Climate Change 2016/Shared Documents/Attachments/CC4.1/BL-Sustainability- Update-2016.pdf	
In voluntary communications	Complete	Sustainability Accounts, pages 20-29	https://www.cdp.net/sites/2016/97/2297/Climate Change 2016/Shared Documents/Attachments/CC4.1/BL-Sustainability- accounts-2016.pdf	
In voluntary communications	Complete	Online website pages, all		http://www.britishland.com/sustainability.aspx
In voluntary communications	Complete	British Land in London, page 4	https://www.cdp.net/sites/2016/97/2297/Climate Change 2016/Shared Documents/Attachments/CC4.1/BL-in-London- 2016.pdf	

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# **Module: Risks and Opportunities**

# **5 Climate Change Risks**

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation Risks driven by changes in physical climate parameters Risks driven by changes in other climate-related developments

### 5.1.a Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Fuel/ energy taxes and regulatio ns		operational cost	Up to 1 year	Direct	Virtually certain	Low	Low British Land's estimated financial exposure to the CRC for 2015/16 was £1.35m.	We work closely with our managing agents to manage energy use at our properties, implementing environmental action plans at all major assets. We have installed automatic meter reading (AMR) systems across 95% of our managed retail portfolio and 80% of our offices managed portfolio to enable our local teams to identify reduction opportunities on an ongoing basis, at the same time as improving billing accuracy. Examples of energy reduction measures include: matching heating and cooling plant run times with operational hours agreed with occupiers; increasing	

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood		Estimated financial implications	Management method	Cost of management
	associated with this scheme; for example, British Land's estimated financial exposure to the CRC in 2015/16 was £1.35m. As the UK CRC Energy Efficiency Scheme is an obligatory scheme, there is also a regulatory compliance risk; for example, we must also report emissions annually and have suitable information available in an Evidence Pack.							intake of external ambient air to reduce need for heating and cooling, and eliminating heating and cooling conflicts; installing motion sensors and replacing lighting with energy efficient alternatives; and, adjusting temperature set points to reduce heating and cooling demands. Through these recent and other more historic initiatives, we have been able to achieve 40% reduction in our Scope 1 & 2 emissions intensity since 2009.	
Carbon taxes	The government is planning to simplify the business energy efficiency tax landscape by abolishing the Carbon Reduction Commitment (CRC) energy efficiency scheme with effect from the end of the 2018-19 compliance year and increasing the main rates of Climate Change Levy (CCL) from 1 April 2019 to cover the cost of CRC abolition in a fiscally-neutral reform and incentivise energy efficiency in CCL-paying businesses. There would be a cost risk associated with this scheme. As a	operationa cost	3 to 6 years	Direct	Virtually certain	Low	risk associated with this scheme. As a proxy, British Land's estimated financial exposure to the CRC in 2015/16 was £1.35m. The estimated exposure for British Land to this 'bolstered CLL' would be in the region of	To influence the policy, we continue to participate in consultation on the scheme through the British Property Federation. To generally reduce exposure to carbon/energy taxes, we work closely with our managing agents to manage energy use at our properties, implementing environmental action plans at all major assets. We have installed automatic meter reading (AMR) systems across 95% of our managed retail portfolio and 80% of our offices managed portfolio to enable our local teams to identify reduction opportunities on an ongoing basis, at the same time as improving billing accuracy. Examples of energy reduction measures include: matching heating and cooling plant run times with operational hours	internal costs have also been incurred.

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect			Estimated financial implications	Management method	Cost of management
	proxy, British Land's estimated financial exposure to the CRC in 2015/16 was £1.35m. The estimated exposure for British Land to this 'bolstered CLL' would be in the region of £2m (including British Land tenants).							agreed with occupiers; increasing intake of external ambient air to reduce need for heating and cooling, and eliminating heating and cooling conflicts; installing motion sensors and replacing lighting with energy efficient alternatives; and, adjusting temperature set points to reduce heating and cooling demands. Through these recent and other more historic initiatives, we have been able to achieve 40% reduction in our Scope 1 & 2 emissions intensity since 2009.	
efficiency regulatio ns and	, ,	Increased operational cost	1 to 3 years	Direct	Virtually certain	High	above an E rating: estimated at just over £6m (based on estimated cost of £110 per square metre to improve an EPC from	The first step to manage this risk has been for British Land to undertake an EPC review of our portfolio to understand exposure to E, F and G rated properties. Furthermore, we have funded an analysis into the likely costs of improving underperforming assets above an E rating. Where appropriate, the results of these analyses feed directly into our asset specific management plans 10 – a procedure which enables us to work closely with managing agents to improve energy use and rating performance at our properties. Our Sustainability Brief for Acquisitions identifies the EPC rating of a potential new acquisition as investment critical information. During the due diligence phase consultants are required to investigate energy supply and EPC recommendations further. Our	complete review of EPCs across our portfolio: £1m. Estimated cost of improving underperforming EPCs above an E rating: just over £6m (based on estimated cost of £110 per square metre to improve a rating from

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Sustainability Brief for Developments also provides requirements and guidance for improving the energy and carbon performance of our developments.	
efficiency regulatio ns and	Revisions to the UK Building Regulation Part L are setting increasingly challenging energy and carbon minimum standards that may require us to increase capital investment in development projects. The UK Climate Change Act 2008 provisions, including policies required to meet the new carbon targets, such as a shift to renewable power may affect our future decisions and opportunities regarding energy supply and design decisions for development and refurbishment projects.	cost	Up to 1 year	Direct	Virtually certain	Medium- high	in capital costs that enhance energy and carbon performance of our development projects. Exact costs vary, but as an example, compliance with Part L is estimated to have cost £1,000,000 for a recent mixed-use scheme or 1-3% of the total project costs. Additional impacts include possible difficulty to secure planning permissions, accelerated asset	We set annual targets for development projects for BREEAM; BREEAM requirements are amended in order to track ahead of Part L (and other) requirements we believe this mitigates any potential financial impact related to compliance with Building Regulation amendments. During 2015/16 our developments were designed to have 31% lower energy consumption on average than current Building Regulations. Our Sustainability Briefs for Developments provides development project teams with energy and carbon requirements including energy efficiency standard of 50kWh/m². We engage with government departments and advise on emerging legislation; for example, Sarah Cary (Head of Sustainable Places) recently chaired a UKGBC taskforce on the future of Building Regulations Part L.	mean we further invest in capital costs that enhance energy and carbon performance of our development projects. Exact costs vary, but as an example, compliance with Part L is estimated to have cost circa
efficiency regulatio ns and	Certain local authorities are assigning additional carbon efficiency targets/requirements to building planning applications. Meeting	Increased capital cost	Up to 1 year	Direct	Virtually certain	Medium- high	Ensuring compliance with the additional carbon efficiency planning conditions presents an additional capital cost to	We set annual targets for development projects for BREEAM; BREEAM requirements are amended in order to track ahead of Part L (and other) energy/carbon requirements we believe this mitigates potential	

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Estimated financial implications	Management method	Cost of management
	these additional planning requirements presents an additional capital cost to the project. Failing to meet the requirements attracts a commensurate tax from the planning authority.					These are generally set as a fiscal penalty for failing to meet regulatory targets above and beyond national standards. Additional impacts include possible difficulty to secure planning permissions, accelerated asset		building regulations are estimated to have cost £1,000,000 for a recent mixed-use scheme or 1-3% of the total project costs. Additional impacts include possible difficulty to secure planning permissions, accelerated asset value

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect			Estimated financial implications	Management method	Cost of management
regulations and	The Energy Savings Opportunity Scheme (ESOS), launched in December 2014, requires all large companies to undertake organisation-wide audits of their energy use and identify costed energy efficiency opportunities every four years. Risks from non-compliance include government fines and reputational impact. The deadline for the first compliance period was 5 December 2015.	operationa cost	3 to 6 years	Direct	Virtually certain	Low	required to assess all assets. Financial implications of discharging the emerging efficiency	We treated ESOS audits as an opportunity and not just a tick box exercise. Through the audits we identified efficiency opportunities that could deliver cost savings, building performance improvements and carbon reductions. We negotiated with a single supplier to carry out audits across our entire office portfolio, Cavendish Engineers. This means that, where they identified something that works well in one building, they could explore the feasibility of rolling it out elsewhere. In addition, thanks to our smart metering systems, they had access to robust, detailed energy data for each building, so they could accurately forecast savings for potential innovations. Broadgate Estates Ltd (our in-house property management partner) is now engaging with occupiers on opportunities in each building.	Cost of the process: Our ESOS audits cost approximately £2000-3000 per asset; however, we were not required to assess all assets. Cost of discharging the emerging efficiency recommendations: To realise the benefits identified from the ESOS audits, the capital investment required would be £2.8m.
regulations and	Increased costs associated with carbon intensive building materials. Building materials are energy intensive to make (mining/manufacturing) etc. There is a risk that more strict efficiency requirements or additional carbon/energy taxes at the point of manufacture could be	Increased capital cost	3 to 6 years	Indirect (Supply chain)	About as likely as not	Medium	At present, the financial implications are unknown; however, construction costs for our developments can range between £200,000-£200,000,000 and thus a 5% increase could represent a significant additional cost.	We set annual targets for development projects for BREEAM; BREEAM requirements include requirements on embodied carbon and recycled content of materials, which thus mitigates potential financial impact related to these additional costs. Within our Sustainability Brief for Developments we have additional requirements around embodied carbon (15% reduction in landlord embodied carbon intensity for projects over	Actions relating to BREEAM and implementing our Sustainability Brief for Development are integrated within our business activities and thus present no additional costs.

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect		Estimated financial implications	Management method	Cost of management
	passed on to consumers, such as British Land.	•					£50m against 2015 per m²) and recycled content.	

### 5.1.b Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) precipitation	Insurers increase insurance rates significantly to reflect increased real or perceived risks of flooding. The impact of this is indirect to British Land as we pass these costs on to occupiers.	Increased operational cost	Up to 1 year	Indirect (Supply chain)	About as likely as not	Low	Where flooding does occur, then this may result in insurance claims. In 2007, two flood events within our portfolio resulted in insurance losses of some £25 million. In this example insurance premiums on those assets were increased by 5% as a result of the flood claims. In 2012, British Land encountered one flood claim incident at a public house where the repair costs are estimated to be £100,000.	We continue to explore opportunities to improve flood risk assessment and protection for our assets and developments. In addition to flood risk assessments required for insurance purposes, we carry out regular portfolio-wide assessments. For example, in 2011/12, we commissioned a flood consultant to perform an indepth review of our entire portfolio. At that time we had several assets deemed to be at risk; many of these assets were supermarkets and flood risk management measures have since been developed. At present, we have 25 assets classified as high flood risk (e.g. fully/partially Flood Zone 3); we reviewed two of these assets in 2015 and we are now evaluating recommendations from these surveys. Our publically available management procedures – Sustainability Briefs for Development and Acquisition –	renewing the insurance at one of our assets we had to demonstrate improved flood defenses at a cost of £1m. Many of the

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								also include prescriptions for asset-level flood risk assessment and mitigation. For example, the Sustainability Brief for Development prescribes a Flood Risk Assessment and site-wide water balance calculation at RIBA Stage 2 (Concept Stage). Furthermore, the Sustainability Brief for Acquisitions looks at flood risk as part of the due diligence process and we do not acquire assets with deemed high flood risks without a clear asset plan to mitigate the perceived risk.	
Change in mean (average) precipitation	Inability to get planning permission for new developments or increased capital costs arising from a requirement for flood defenses.		Up to 1 year	Direct	About as likely as not	Medium	The cost of mitigating flood risk varies for each asset; however, by way of an example before renewing the insurance at one of our assets we had to demonstrate improved flood defenses at a cost of £1m.	assessments required for insurance purposes, we carry out	renewing the insurance at one of our assets we had to demonstrate improved flood defences at a cost of £1m. Many of the

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								reviewed two of these assets in 2015 and we are now evaluating recommendations from these surveys. Our publically available management procedures – Sustainability Briefs for Development and Acquisition – also include prescriptions for asset-level flood risk assessment and mitigation. For example, the Sustainability Brief for Development prescribes a Flood Risk Assessment and site-wide water balance calculation at RIBA Stage 2 (Concept Stage). Furthermore, the Sustainability Brief for Acquisitions looks at flood risk as part of the due diligence process and we do not acquire assets with deemed high flood risks without a clear asset plan to mitigate the perceived risk.	
Change in mean (average) precipitation	Inability to sell or rent property assets at book value because of real or perceived increased risks arising from flooding.	Other: s Reduced valuation of assets	Up to 1 year	Direct	Unlikely	High	Tenants and investors are becoming more alive to the risk of flooding, with some no longer purchasing or renting assets at book value with high flood risk. The cost of mitigating flood risk varies for each asset; however, by way of an example before renewing the insurance at one of our assets we had to demonstrate improved	opportunities to improve flood risk assessment and protection for our assets and developments. In 2011/12, we commissioned a flood consultant to perform an in-	renewing the insurance

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							flood defenses at a cost of £1m.	classified as high flood risk (e.g. fully/partially Flood Zone 3); we reviewed two of these assets in 2015 and we are now evaluating recommendations from these surveys. Our publically available management procedures – Sustainability Briefs for Development and Acquisition – also include prescriptions for asset-level flood risk assessment and mitigation. For example, the Sustainability Brief for Development prescribes a Flood Risk Assessment and site-wide water balance calculation at RIBA Stage 2 (Concept Stage). Furthermore, the Sustainability Brief for Acquisitions looks at flood risk as part of the due diligence process and we do not acquire assets with deemed high flood risks without a clear asset plan to mitigate the perceived risk.	2011/12 portfolio-wide flood review cost approximately £280,000.
Change in mean (average) temperature	New developments will need to consider possible increases in temperature and its implications to facades and cooling plants.	capital cost	Up to 1 year	Direct	Likely	Low	becoming more alive to the impacts of climate change. It is possible that in future, some might no longer purchase or rent assets at book value if there is an actual or	As outlined in our publically available Sustainability Brief for Developments, we prescribe that design and build standards must meet BREEAM Very Good/Excellent. As BREEAM requirements are updated in order to track emerging climate change related issues and encourage evaluation of climate change impacts through design modelling. We believe	Many of the management procedures mentioned (e.g. Sustainability Brief for Development) do not represent additional costs as actions are integrated within our business activities.

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect		Magnitude of impact	Estimated financial implications	Management method	Cost of management
								prescribing these rating tools goes some way towards mitigating potential issues such as those from overheating.	
Sea level rise	Increased risk of tidal flooding from assets situated close to the coast where regional flood defenses are inadequate.	Increased capital cost	>6 years	Direct	More likely than not	Medium- high		opportunities to improve flood risk assessment and protection for our assets and developments. In 2011/12, we commissioned a flood consultant to perform an indepth review of our entire portfolio. At that time we had several assets deemed to be at risk; many of these assets were supermarkets and flood risk management measures have since been developed. At present, we have 25 assets classified as high flood risk (e.g. fully/partially Flood Zone 3); we reviewed two of these assets in 2015 and we are now evaluating recommendations from these surveys. Our publically available management procedures – Sustainability Briefs for Development and Acquisition – also include prescriptions for asset-level flood risk assessment and mitigation. For example, the Sustainability Brief for	renewing the insurance at one of our assets we had to demonstrate improved flood defences at a cost of £1m. Many of the management procedures mentioned (e.g. Sustainability Brief for Acquisitions) do not represent additional costs as actions are integrated within our business activities. Our 2011/12 portfolio-wide flood review cost approximately £280,000.

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect		Estimated financial implications	Management method	Cost of management
							flood risk as part of the due diligence process and we do not acquire assets with deemed high flood risks without a clear asset plan to mitigate the perceived risk.	

### 5.1.c Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other drivers	Triad charges relate to National Grid's transmission charges. They measure maximum demand readings three times a year and use the average of these readings to calculate Transmission Network Use of System (TNUoS) charges. There is a risk of higher energy costs if our energy use coincides with one of the three half-hour peaks in demand.		Up to 1 year	Direct	Virtually certain	Low	Triad costs for 2015/16 were in excess of £1m.	Our energy measurement and management programme and (including our recent portfolio-wide EPC review) reduce our overall energy consumption profile and ultimately our exposure to TRIAD charges. We are also exploring the possibility of using on-site generation to reduce grid usage during these peaks.	We invested over £6.2 million in energy management improvements since 2011/12. Cost of conducting an EPC review across our portfolio was in excess of £1m. Likely costs to improve under-performing EPCs was estimated at just over £6m (based on estimated cost of £110 per square metre to improve a rating from an F or G to a C or D).
Other drivers	Energy cost volatility: If energy costs increase, they impact on service charge and rent affordability.	Reduced demand for goods/services	Up to 1 year	Indirect (Client)	About as likely as not	Low	Energy cost volatility: If energy costs increase, they impact on service charge	Our energy measurement and management programme and (including our recent portfolio-wide EPC review) reduce our overall energy consumption profile and ultimately our exposure to energy	We invested over £6.2 million in energy management improvements since 2011/12. Cost of conducting an EPC

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Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							and rent affordability. Last year (2015/16), energy costs increased 7% - this represents a potentially significant increase in underlying costs.	price fluctuations. For example, in 2015/16 energy costs increased 7%, however due to energy efficiency improvements our costs remained neutral. We trade energy generated on-site, which to a degree hedges are position on energy costs – for example in 2015/16 we generated £14,106 from on-site renewable energy income. We have also forward-purchased our energy supply to 2018.	review across our portfolio was in excess of £1m. Likely costs to improve under-performing EPCs was estimated at just over £6m (based on estimated cost of £110 per square metre to improve a rating from an F or G to a C or D).
	Energy security - Heightened risk of brownouts and blackouts as power stations come off line impacting business of our occupiers, management of our properties and occupier and investment appeal of UK/London		1 to 3 years	Indirect (Supply chain)	More likely than not	Low	British Land/occupier costs - enhanced power source back-up provision required; British Land management time - property management contingency plans required; Investment valuations: reduced occupier and investment appeal of UK/London properties.	The Sustainability Committee are monitoring and gathering information on this issue. We commissioned an external consultant to conduct a review of the resilience of electricity supply (including back up energy provision) across the managed office portfolio. The review determined that existing back up generation was sufficient.	additional costs as yet as actions are integrated within our business activities.

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- 5.1.d Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure
- 5.1.e Please explain why you do not consider your company to be exposed to inherent risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure
- 5.1.f Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

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## **6 Climate Change Opportunities**

## 6.1 Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation

Opportunities driven by changes in physical climate parameters

Opportunities driven by changes in other climate-related developments

#### 6.1.a Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Product efficiency regulations and standards	The Energy Savings Opportunity Scheme (ESOS), launched in December 2014, requires all large companies to undertake organisation-wide audits of their energy use and identify costed energy efficiency opportunities every four years. By treating ESOS audits as a real opportunity and not just a tick box exercise, we've identified efficiency opportunities that could deliver cost savings, building	Reduced operationa I costs	Up to 1 year	Direct	Virtually certain	Low		By treating ESOS audits as a real opportunity and not just a tick box exercise, we've identified efficiency opportunities that could deliver cost savings, building performance improvements and carbon reductions. Through ESOS, we've increased focus on capital investment opportunities. We also negotiated with a single supplier to carry out audits across our entire office portfolio, Cavendish Engineers. This means that, where they identified something that works well in one building, they could explore the feasibility of rolling it out elsewhere. In addition, thanks to our smart metering systems, they had access to	however, we were not required to assess all assets. To realise the benefits identified from

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Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	performance improvements and carbon reductions.							robust, detailed energy data for each building, so they could accurately forecast savings for potential innovations. Broadgate Estates Ltd (our in house property management partner) is now engaging with occupiers on opportunities in each building.	
Product efficiency regulations and standards	Opportunities potentially exist around British Land performing well in terms of outperforming building energy efficiency regulations, including Building Regulation Part L requirements and minimum energy efficiency standards around EPCs.	Increased demand for existing products/s ervices	Up to 1 year	Direct	More likely than not	Medium	affect the future	On our developments, we have a set of top down targets to get design teams to meet green building standards. We have an ongoing target to achieve: a minimum BREEAM Excellent rating on all major office developments and refurbishments; BREEAM Very Good or Excellent rating on all major retail developments and refurbishments. We also have requirements to: achieve an Energy Performance Certificate (EPC) rating of B or better (projects over £5m) and carry out energy modelling in accordance with CIBSE TM54 to predict operational energy performance (projects >£50m). We ensure that these targets are met through our sustainability guidance document, the Sustainability Brief for Developments. In our managed assets, the first step to manage this risk has been for British Land to undertake an EPC review of our portfolio to	business activities. In our managed portfolio,

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Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							increased demand for existing products/services presents a large	understand exposure to E, F and G rated properties. Where appropriate, the results of these analyses feed directly into our asset specific management plans – a procedure which enables us to work closely with managing agents to improve energy use and rating performance at our properties. In 2015/16, 30% of our assets are EPC rated A or B. Our Sustainability Brief for Acquisitions identifies the EPC rating of a potential new acquisition as investment critical information. During the due diligence phase consultants are required to investigate energy supply and EPC recommendations further.	underperforming EPCs above an E rating was estimated at just over £6m (based on estimated cost of £110 per square metre to improve a rating from an F or G to a C or D).
Product efficiency regulations and standards	Opportunities lie in the acquisition, development and management of strongly rated properties such as BREEAM, Code for Sustainable Homes, EcoHomes, LEED and EPCs. We are increasingly seeing demand for energy labelling and hearing our customers asking for BREEAM certification as part of	demand for existing products/s ervices		Direct	More likely than not	Medium	affect the future	On our developments, we have a set of top down targets to get design teams to meet green building standards. We have an ongoing target to achieve: a minimum BREEAM Excellent rating on all major office developments and refurbishments; BREEAM Very Good or Excellent rating on all major retail developments and refurbishments. We also have requirements to: achieve an Energy Performance Certificate (EPC) rating of B or better (projects over £5m) and carry	We estimate that generally, the cost of achieving a green label certification on developments is less than 1% of the project cost. Project construction costs can range from £200,000 to £200,000,000. Many of the management procedures mentioned (e.g. Sustainability Brief for Acquisitions) do not represent additional costs as actions are

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Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	quality commercial development. We continue to require BREEAM Excellent on all major office developments and Very Good or Excellent on major retail developments. We believe this helps our buildings let quicker, and we increasingly hear our customers asking for BREEAM certification as part of quality commercial development.						increased demand for existing products/services presents a large	out energy modelling in accordance with CIBSE TM54 to predict operational energy performance (projects >£50m). We ensure that these targets are met through our sustainability guidance document, the Sustainability Brief for Developments. In our managed assets, the first step to manage this risk has been for British Land to undertake an EPC review of our portfolio to understand exposure to E, F and G rated properties. Where appropriate, the results of these analyses feed directly into our asset specific management plans – a procedure which enables us to work closely with managing agents to improve energy use and rating performance at our properties. In 2015/16, 30% of our assets are EPC rated A or B. Our Sustainability Brief for Acquisitions identifies the EPC rating of a potential new acquisition as investment critical information. During the due diligence phase consultants are required to investigate energy supply and EPC recommendations further.	of conducting an EPC review across our portfolio was in excess of £1m. Cost of improving underperforming EPCs above an E rating was estimated at just over £6m (based on estimated cost of £110 per square metre to improve a rating from a F or G to a C or D).

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### 6.1.b Please describe the inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) precipitation	Increased demand for properties better able to cope with physical variations from climate change. This may provide opportunities for increased rents and quicker take up of lettings at British Land properties.	products/ser vices	>6 years	Direct	More likely than not	Unknown	change) command higher rents and transactions. In 2007, two flood events within our portfolio resulted in insurance losses of some £25 million. In this example insurance premiums on those assets were	opportunities to improve flood risk assessment and protection for our assets and developments. In addition to flood risk assessments required for insurance purposes, we carry out regular portfolio-wide assessments. For example, in 2011/12, we commissioned a flood consultant to perform an in-depth review of our entire portfolio. At that time we had several assets deemed to be at risk; many of these assets were supermarkets and flood risk management measures have since been developed. At present, we have 25 assets classified as high flood risk (e.g. fully/partially Flood Zone 3); we reviewed two of these assets in 2015 and we are now evaluating recommendations from these	varies for each asset; however, by way of an example before renewing the insurance at one of our assets we had to demonstrate improved flood defences at a cost of £1m. Many of the management procedures mentioned (e.g. Sustainability Brief for Acquisitions) do not represent additional costs as actions are integrated within our business activities.

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Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Management prescribes a Flood Risk Assessment and site-wide water balance calculation at RIBA Stage 2 (Concept Stage). Furthermore, the Sustainability Brief for Acquisitions looks at flood risk as part of the due diligence process and we do not acquire assets with deemed high flood risks without a clear asset plan to mitigate the perceived risk.	
Change in mean (average) temperature	Increased demand for properties better able to cope with physical variations from climate change. This may provide opportunities for increased rents and quicker take up of lettings at British Land properties.	products/ser vices	>6 years	Direct	More likely than not	Unknown	Climate change adaptation and mitigation provides opportunities to offer to the market buildings that are future-proofed and adaptable. Financial opportunities are difficult to quantify; however, industry studies suggest that buildings which have a green certification (and are therefore designed to cope with climate change) command higher rents and transactions. With a commercial property portfolio worth £20 billion (of which our share is £14.6 billion) and a gross rental income of £654m in 2015/16, increased demand for future-proofed products/services presents a large opportunity for British Land.	have a set of top down targets to get design teams to meet green building standards (and therefore design to cope better with climate change). We have an ongoing target to achieve: a minimum BREEAM Excellent rating on all major office developments and	mentioned (e.g. Sustainability Brief for Acquisitions) do not represent additional costs as actions are integrated within our business activities.

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### 6.1.c Please describe the inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other drivers	The possibility of a so called 'Commitment Agreement' or 'Design for Performance' approach (as promoted by the Better Buildings Partnership) to energy efficiency in new office developments presents an opportunity to realise energy efficiency during operation. This in turn presents an opportunity as property developers/investors become increasingly aware of how future property capital/rental values may reflect inuse energy performance. This may ultimately provide opportunities for increased rents and quicker take up of lettings at British Land properties.	demand for existing products/s ervices	1 to 3 years	Direct	About as likely as not	Medium	Being able to market our assets as having been built under a 'Commitment Agreement' or through a 'Design for Performance' approach has the potential to positively affect the future value of our portfolio as there may be financial opportunities from an increased demand from occupiers for our space, contributing to reduced void rates and increased investment yields. As a proxy, through our comprehensive approach to sustainability and in particular energy efficiency so far, we have made demonstrable savings in energy costs for our occupiers - approximately £3m since 2011/12. With a commercial property portfolio worth £20billion (of which our share is £14.6billion) and a gross rental income of £654m in 2015/16, increased demand for existing products/services presents a large opportunity for British Land.	UK implementation of a Design for Performance approach has recently been published (May 2016). The proposed next step is an 18-month pilot phase to consider each major element of the Commitment Agreement I separately on one or more real projects.	other procedures involved do not represent additional costs as actions are integrated within our business activities.
Other drivers	We are expanding our onsite renewables energy generation and	Premium price	Up to 1 year	Direct	Virtually certain	Low-medium	We trade energy generated on-site – for example in 2015/16 we generated	We are expanding our onsite renewables energy generation and the	The costs of solar PV set up are however

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Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	yielding increasing associated revenue. To date we have installed solar PV on a number of sites and are currently exploring the feasibility of making similar interventions on a number of other retail assets.						£14,106 from on-site renewable energy income. The costs of solar PV set up are however considerable and so return on investment analysis is critical. For example, we are currently considering installation of solar PV at one of our shopping centres. Set up costs are estimated at £340,000. However, pay back over 25 years is expected to be £1,500,000.	and so return on	shopping centres. Set up costs are
Reputation	Some of our occupiers have their own corporate responsibility programmes addressing climate change matters. British Land can work with them in partnership to address their and our own objectives in this area.	Other: Strong occupier relations	Up to 1 year	Direct	Virtually certain	Low-medium	It is hard to quantify the financial implication of reputational opportunities. We undertake occupier surveys and include questions on delivery of occupiers' own environmental commitments as well as our performance. In 2012/13 our office occupiers rated us 8.2/10 for interaction on environmental issues. According to our research, workers think these issues are becoming more important in the office. In our survey, 72% of UK workers said that working in an eco-friendly/ sustainable building is important, this figure rising to 77% in London. Only 58% say they are satisfied with the green credentials of their	social and environmental issues. We aim to exceed regulatory requirements, striving to improve consistently by setting medium-term and annual targets. We publish comprehensive performance data and progress statements against our targets each year, with regular updates throughout the year. We hold environmental	majority of the above

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Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							large opportunity for British Land. Another indicator is our	surveys every 2 years to understand how our customers believe we are performing so that we can identify where we can improve. Furthermore, we market the environmental	

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- 6.1.d Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure
- 6.1.e Please explain why you do not consider your company to be exposed to inherent opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure
- 6.1.f Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

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# Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

## 7 Emissions Methodology

7.1 Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO₂e)
Scope 1	Mon 01 Apr 2013 - Mon 31 Mar 2014	7335
Scope 2 (location-based)	Mon 01 Apr 2013 - Mon 31 Mar 2014	38619
Scope 2 (market-based)	Mon 01 Apr 2013 - Mon 31 Mar 2014	38619

7.2 Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
EPRA (European Public Real Estate Association) guidelines, 2011
Defra Voluntary Reporting Guidelines
Other

7.2.a If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

UK Government Conversion Factors for Company Reporting 2015

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Please note re. the EPRA guidelines listed above, we have used the latest guidelines: 2014 The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard Global Reporting Initiative [GRI] G4 and Construction and Real Estate Sector Supplement

#### 7.3 Please give the source for the global warming potentials you have used

Gas	Reference
CH <sub>4</sub>	IPCC Fourth Assessment Report (AR4 - 100 year)
N <sub>2</sub> O	IPCC Fourth Assessment Report (AR4 - 100 year)
CO <sub>2</sub>	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
PFCs	IPCC Fourth Assessment Report (AR4 - 100 year)

## 7.4 Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	<b>Emission Factor</b>	Unit	Reference

#### **Further Information**

We have attached two Excel files: 1. the template provided by CDP 2. An extract from our Sustainability Accounts 2016 - Reporting Criteria. This is the full list of factors, including sources/activities not included in CDP spreadsheet.

#### **Attachments**

https://www.cdp.net/sites/2016/97/2297/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC7.EmissionsMethodology/CC7.4 British Land Sustainability Accounts 2016 Emissions Factors.xlsx

https://www.cdp.net/sites/2016/97/2297/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC7.EmissionsMethodology/CDP-worksheet-for-question-CC7.4.xlsx

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## 8 Emissions Data - (1 Apr 2015 - 31 Mar 2016)

8.1 Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

8.2 Please provide your gross global Scope 1 emissions figures in metric tonnes CO<sub>2</sub>e

7927

8.3 Does your company have any operations in markets providing product or supplier specific data in the form of contractual instruments?

Yes

#### 8.3.a Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location- based	Scope 2, market- based (if applicable)	Comment
38710	36734	The market-based method reflects emissions from electricity that we have purchased. We used supplier specific emission rates where the information was available and the residual mix emissions factor for the remaining supplies. A specific tariff for British Land was not available from Npower (our main supplier); therefore, an emissions factor for Npower's total fuel mix is used. Npower supplier specific emission rate was provided to us by email. Npower have provided verbal confirmation of how their specific emissions factor meets the Scope 2 quality criteria. Residual mix emission factor is sourced from RE-DISS European Residual Mixes 2014, Version 1.0corr2. Market-based emissions data is reported as carbon dioxide (CO <sub>2</sub> ).

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8.4 Are there are 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

8.4.a Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source Relevance of Scope 1	Relevance of location-based Scope 2	Relevance of market-based Scope 2 emissions	Explain why the
emissions from this source	emissions from this source	from this source (if applicable)	source is excluded

8.5 Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data				
Scope 1 More than 2% but less than or equal to 5% Measurement Constraints		Measurement	95% of our managed retail portfolio and 80% of our offices managed portfolio energy use is recorded via AMR (Automated Meter Readings). The remaining consumption is recorded via our online reporting platform via manual meter reads and data input files. This data has various checks completed on it and is third party assured however, there is still a small chance of inaccuracy.				
Scope 2	More than 2% but	Metering/	95% of our managed retail portfolio and 80% of our offices managed portfolio energy use is recorded via AMR (Automated Meter Readings). The remaining consumption is recorded via our online reporting platform via manual meter reads and data input files. This data has various checks completed on it and is third party assured however, there is still a small chance of inaccuracy.				
(location-	less than or equal to	Measurement					
based)	5%	Constraints					
Scope 2	More than 2% but	Metering/	95% of our managed retail portfolio and 80% of our offices managed portfolio energy use is recorded via AMR (Automated Meter Readings). The remaining consumption is recorded via our online reporting platform via manual meter reads and data input files. This data has various checks completed on it and is third party assured however, there is still a small chance of inaccuracy.				
(market-	less than or equal to	Measurement					
based)	5%	Constraints					

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#### 8.6 Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance process in place

## 8.6.a Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference		Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2016/97/2297/Climate Change 2016/Shared Documents/Attachments/CC8.6a/Assurance Doc.pdf	All	ISAE3000	100

## 8.6.b Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
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## 8.7 Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

Third party verification or assurance process in place

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## 8.7.a Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location- based or market- based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location- based	Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2016/97/2297/Climate Change 2016/Shared Documents/Attachments/CC8.7a/Assurance Doc.pdf	All	ISAE3000	100
Market-based	Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2016/97/2297/Climate Change 2016/Shared Documents/Attachments/CC8.7a/Assurance Doc.pdf	All	ISAE3000	100

## 8.8 Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
Year on year emissions intensity figure	Carbon intensity index; Greenhouse gas intensity from building energy consumption. For further information please see the following sections of our Sustainability Full Data Report 2016 <a href="https://www.britishland.com/data">www.britishland.com/data</a> : Performance Data - tables which include an 'A' symbol against assured data and the Independent Assurance section.
Other:	Like-for-like total direct (scope 1) greenhouse gas emissions; Like-for-like total indirect (scope 2) greenhouse gas emissions; Total electricity consumption; Like-for-like total electricity consumption; Total district heating and cooling consumption; Total fuel consumption; Like-for-like fuel consumption; Energy intensity index; Building energy intensity - floor area. For further information please see the following sections of our Sustainability Full Data Report 2016 <a href="https://www.britishland.com/data">www.britishland.com/data</a> : Performance Data - tables which include an 'A' symbol against assured data and the Independent Assurance section.

#### 8.9 Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

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8.9.a Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO<sub>2</sub>

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## 9 Scope 1 Emissions Breakdown - (1 Apr 2015 - 31 Mar 2016)

#### 9.1 Do you have Scope 1 emissions sources in more than one country?

No

#### 9.1.a Please break down your total gross global Scope 1 emissions by country/region

Country/Region Scope 1 metric tonnes CO<sub>2</sub>e

#### 9.2 Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division

#### 9.2.a Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO <sub>2</sub> e)
Offices: landlord influenced area: common parts and shared service	es 7391
British Land: Head Office occupied space	0
Broadgate Estates: offices	0
Shopping centres: common parts	345
Retail parks: common parts	73
Residential: common parts	0
Fuel use: British Land owned vehicles	119

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9.2.b Please break down your total gross global Scope 1 emissions by facility

Facility Scope 1 emissions (metric tonnes CO<sub>2</sub>e) Latitude Longitude

9.2.c Please break down your total gross global Scope 1 emissions by GHG type

GHG type Scope 1 emissions (metric tonnes CO<sub>2</sub>e)

9.2.d Please break down your total gross global Scope 1 emissions by activity

Activity Scope 1 emissions (metric tonnes CO<sub>2</sub>e)

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## 10 Scope 2 Emissions Breakdown - (1 Apr 2015 - 31 Mar 2016)

#### 10.1 Do you have Scope 2 emissions sources in more than one country?

No

## 10.1.a Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-	Scope 2, market-	Purchased and consumed	Purchased and consumed low carbon electricity,
	based (metric tonnes	based (metric tonnes	electricity, heat, steam or cooling	heat, steam or cooling accounted in market-based
	CO <sub>2</sub> e)	CO <sub>2</sub> e)	(MWh)	approach (MWh)

#### 10.2 Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division

#### 10.2.a Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions, location based (metric tonnes CO <sub>2</sub> e)	Scope 2 emissions, market-based (metric tonnes CO₂e)
Offices: landlord influenced area: common parts and shared services	28612	26282
British Land: Head Office occupied space	296	268
Broadgate Estates: Offices	323	309
Shopping centres: common parts	7377	7415
Retail parks: common parts	2056	2412
Residential: common parts	47	48

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#### 10.2.b Please break down your total gross global Scope 2 emissions by facility

Facility Scope 2 emissions, location based (metric tonnes CO<sub>2</sub>e) Scope 2 emissions, market-based (metric tonnes CO<sub>2</sub>e)

#### 10.2.c Please break down your total gross global Scope 2 emissions by activity

Activity | Scope 2 emissions, location based (metric tonnes CO<sub>2</sub>e) | Scope 2 emissions, market-based (metric tonnes CO<sub>2</sub>e)

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## 11 Energy

11.1 What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

11.2 Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	Energy purchased and consumed (MWh)				
Heat	0				
Steam	0				
Cooling	0				

11.3 Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

34823

11.3.a Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Diesel/Gas oil	612
Natural gas	34211

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## 11.4 Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Comment
Contract with suppliers or utilities, with a supplier-specific emission rate, not backed by electricity attribute certificates	72809	The market-based method reflects emissions from electricity that we have purchased. We used supplier specific emission rates where the information was available and the residual mix emissions factor for the remaining supplies. A specific tariff for British Land was not available from Npower (our main supplier); therefore, an emissions factor for Npower's total fuel mix is used. Npower supplier specific emission rate was provided to us by email. Npower have provided verbal confirmation of how their specific emissions factor meets the Scope 2 quality criteria. Residual mix emission factor is sourced from RE-DISS European Residual Mixes 2014, Version 1.0corr2. Market-based emissions data is reported as carbon dioxide (CO <sub>2</sub> ).

#### 11.5 Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

- · · · · · · · · · · · · · · · · · · ·	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)		Consumed renewable electricity that is produced by company (MWh)	Comment
84493	84430	1126	379	63	

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### **12 Emissions Performance**

12.1 How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Decreased

## 12.1.a Please 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

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	4	Decrease	Last year an estimated 2091 tonnes of emissions were reduced by our emission reduction projects (AMR/BMS/lighting and other initiatives) and our total Scope 1 and 2 emissions in the previous year was 50022 tonnes, therefore we arrived at 4% through (2091/50022)*100=4%.
Divestment	2	Decrease	Last year 1246 tonnes of emissions were reduced by divestment from our portfolio and our total Scope 1 and 2 emissions in the previous year was 50022 tonnes, therefore we arrived at 2% through (1246/50022)*100=2%
Acquisitions	6	Increase	Last year 3102 tonnes of emissions were added due to acquisitions and our total Scope 1 and 2 emissions in the previous year was 50022 tonnes, therefore we arrived at 6% through (3102/50022)*100=6%.
Mergers			
Change in output			
Change in methodology	5	Decrease	Last year an estimated 2400 tonnes of emissions were reduced due to changes in the carbon intensity of the UK GRID (DEFRA factors) and our total Scope 1 and 2 emissions in the previous year was 50022 tonnes, therefore we arrived at 5% through (2400/50022)*100=5%.
Change in boundary			
Change in physical operating conditions	1.5	Decrease	Last year an estimated 750 tonnes of emissions were reduced due to changes in weather conditions and our total Scope 1 and 2 emissions in the previous year was 50022 tonnes, therefore we arrived at 1.5% through (750/50022)*100=1.5%.
Unidentified			
Other			

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## 12.1.b Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

## 12.2 Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO₂e per unit currency total revenue

Intensity figure	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
74.98	metric tonnes CO <sub>2</sub> e	587000000	Location- based	9	Decrease	Scope 1 and 2 carbon emissions intensity reduced this year due to several factors, notably the decarbonisation of the UK grid, emissions reduction activities deployed through our ongoing efficiency programme and changes (acquisitions/divestments) in our portfolio affecting energy use and associated emissions. Combustion of fuel increased slightly due to occupier fit outs, notably in The Leadenhall Building. Revenue expressed is gross rental income from our managed portfolio. Our revenue (the denominator) has also increased since last year. Examples of energy reduction measures include: installation of new cooling towers and recommisioning chiller systems to improve performance; installation of LED lighting across our portfolio to improve energy efficiency; installation of Solar Panels across the roof of one of our Shopping Centre's; ongoing monitoring of EP&T systems and Building Management Systems to better utilise energy usage; replacement of pneumatic heating valves to electronic.

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### 12.3 Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.073	metric tonnes CO₂e	Other: m <sup>2</sup> of retail (enclosed) space	100923	Location- based	17	Decrease	Scope 1 and 2 carbon emissions intensity reduced this year due to several factors, notably the decarbonisation of the UK grid, emissions reduction activities deployed through our ongoing efficiency programme and changes in our portfolio (acquisitions/divestments) affecting energy use and associated emissions The floor area (denominator) has also increased since last year. Examples of energy reduction measures include: installation of new cooling towers and recommisioning chiller systems to improve performance; installation of LED lighting across our portfolio to improve energy efficiency; installation of Solar Panels across the roof of one of our Shopping Centre's; ongoing monitoring of EP&T systems and Building Management Systems to better utilise energy usage; replacement of pneumatic heating valves to electronic.

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## 13 Emissions Trading

13.1 Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

13.1.a Please complete the following table for each of the emission trading schemes in which you participate

Scheme	Period for which data is	Allowances	Allowances	Verified emissions in metric tonnes	Details of
name	supplied	allocated	purchased	CO <sub>2</sub> e	ownership

- 13.1.b What is your strategy for complying with the schemes in which you participate or anticipate participating?
- 13.2 Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

13.2.a Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	 	(metric tonnes of	Number of credits (metric tonnes CO2e): Risk adjusted	Credits cancelled	Purpose, e.g. compliance
		CO2e)	volume		

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## **14 Scope 3 Emissions**

### 14.1 Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO <sub>2</sub> e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation	
Purchased goods and services	Relevant, calculated	Procurement emissions calculated by mapping spend to input-output carbon intensities to produce out-turn consumption based emissions. Mapped to 106 Standard Industrial Classification sectors which are then input to Arup's Scope 3 GHG emissions calculator tool ('Beacon'). The carbon intensity data in Beacon is supplied by the Centre for Sustainability Accounting LTD.			Figure updated since last year (emissions within this category first calculated in 2012 based on a 2011/12 study year and updated in 2016 based on a 2014/15 study year). Category references emissions associated with the embodied goods and services purchased by British Land. Examples include design and legal services, service charge expenditure, Head Office property outgoings such as hard and soft FM. Reported in Sustainability Accounts Figure 24. For further information refer to the Reporting Criteria on pages 86 – 91 of our Sustainability Accounts 2016.	
Capital goods	Relevant, calculated  131057 Embodied carbon study by Atkins of carbon associated with materials and systems for construction and potential wastage, on-site energy usage and transportation factors. The scope is limited to major developments which completed in the reporting year. The methodology used to create the embodied carbon quantities is based of the CEN TC350 / BS EN 15978: 2011 scopes A1, A2 and A3. Historic data from previous years was calculated differently. Additional supply chain emissions calculated as procurement emissions calculated by mapping spend to input-output carbon intensities to produce out-turn consumptio			Emissions associated with capital assets, namely construction of new developments in 2015/16 and embodied carbon in existing buildings purchased by British Land in 2014/15. Calculated and reported in Sustainability Accounts 2016 Figure 24 and 25. For further information refer to the Reporting Criteria on pages 86 to 91 of our Sustainability Accounts 2016.		

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Sources of Scope 3 emissions	Evaluation status	metric tonnes CO <sub>2</sub> e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			based emissions. Mapped to 106 Standard Industrial Classification sectors which are then input to Arup's Scope 3 GHG emissions calculator tool ('Beacon'). The carbon intensity data in Beacon is supplied by the Centre for Sustainability Accounting LTD.		
Fuel-and-energy- related activities (not included in Scope 1 or 2)	Relevant, calculated	46903	GHG emissions for energy and fuel are based on energy data presented earlier. This is primary data reported by Managing Agents into our central database Credit 360. Also includes GHG emissions associated with energy consumption in the landlord influenced areas of assets managed by Broadgate Estates Ltd and owned by a third party. Energy is converted to CO <sub>2</sub> e. Emission factors sourced from Defra/DECC's Guidelines.	100.00%	Upstream (scope 3) emissions of scope 1 & 2 energy and fuel related emissions reported by British Land in Sustainability Accounts Figure 25. Scope 1, 2 and 3 GHG emissions of assets managed by Broadgate Estates Ltd and owned by a third party reported by British Land in Sustainability Accounts Figure 24. For further information refer to the Reporting Criteria on pages 86 – 91 of our Sustainability Accounts 2016.
Upstream transportation and distribution	Relevant, calculated	0	Supply chain emissions calculated as procurement emissions calculated by mapping spend to input-output carbon intensities to produce out-turn consumption based emissions. Mapped to 106 Standard Industrial Classification sectors which are then input to Arup's Scope 3 GHG emissions calculator tool ('Beacon'). The carbon intensity data in Beacon is supplied by the Centre for Sustainability Accounting LTD.		Currently included in 'Purchased goods and services' and 'Capital goods'.
Waste generated in operations	Relevant, calculated	360	Emissions associated with waste water treatment: Based on primary data reported by Managing Agents into our central database Credit 360. Also includes GHG emissions associated with water consumption in the landlord influenced areas of assets managed by Broadgate Estates Ltd and	100.00%	Emissions associated with waste water treatment: Scope 3 of water treatment related emissions reported by British Land in Sustainability Accounts Figure 24 and 25. Scope 3 emissions of assets managed by Broadgate Estates Ltd and owned by a third party reported by British Land in Sustainability

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Sources of Scope 3 emissions	Evaluation status	metric tonnes CO <sub>2</sub> e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation	
			owned by a third party. Energy is converted to CO <sub>2</sub> e. Emission factors sourced from Defra/DECC's Guidelines. Emissions associated with waste management: Calculated as procurement emissions calculated by mapping spend to input-output carbon intensities to produce out-turn consumption based emissions. Mapped to 106 Standard Industrial Classification sectors which are then input to Arup's Scope 3 GHG emissions calculator tool ('Beacon'). The carbon intensity data in Beacon is supplied by the Centre for Sustainability Accounting LTD.		Accounts Figure 24. For further information refer to the Reporting Criteria on pages 86 – 91 of our Sustainability Accounts 2016. Emissions associated with waste treatment: Currently included in 'Purchased goods and services' and 'Capital goods'.	
Business travel	Relevant, calculated	231	British Land: Staff business travel emissions are calculated by converting expenditure to number of kilometres travelled and DEFRA/DECC carbon emission factors are applied. Expenditure from Barclaycard staff credit cards. Broadgate Estates: Calculated by applying a tonnes CO <sub>2</sub> -e/£ spend conversion factor developed from British Land business travel emissions to a Broadgate Estates expenditure figure.	0.00%	2015/16 employee business travel of British Land. Reported by British Land in Sustainability Accounts 2016 Figure 24 and 25.For further information refer to the Reporting Criteria on pages 86 to 91 of our Sustainability Accounts 2016. 2014/15 employee business travel of Broadgate Estates. Reported by British Land in Sustainability Accounts 2016 Figure 25.For further information refer to the Reporting Criteria on pages 86 to 91 of our Sustainability Accounts 2016.	
Employee commuting	Relevant, calculated	112	Calculated from Full Time Equivalent data and British Land Head Office travel survey data.	0.00%	Figure updated since last year (emissions within this category first calculated in 2012 based on a 2011/12 study year and updated in 2016 based on a 2014/15 study year). Reported by British Land in Sustainability Accounts Figure 24. For further information refer to the Reporting Criteria on pages 86 – 91 of our Sustainability Accounts 2016.	

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Sources of Scope 3 emissions	Evaluation status	metric tonnes CO <sub>2</sub> e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Upstream leased assets	Not relevant, explanation provided	0		0.00%	British Land does not lease buildings and so this category is not applicable.
Downstream transportation and distribution		0		0.00%	British Land does not manufacture products which are transported to an end consumer and so this category is not applicable.
Processing of sold products	Not relevant, explanation provided	0		0.00%	British Land does not manufacture intermediate products and so this category is not applicable.
Use of sold products	Not relevant, explanation provided	0		0.00%	This category is aimed at product manufacturers where products are used by the consumer which produce further emissions.
End of life treatment of sold products	Not relevant, explanation provided	0		0.00%	This category is typically focussed at product manufacturers, where emissions are associated with the disposal, recycling of sold products which are typically within 5-10 years of manufacture. For British Land this relates to demolition of buildings, For existing assets this is not currently calculated as the demolition phase is 40+ years after the construction.
Downstream leased assets	Relevant, calculated	635461	Office occupier energy consumption: This is primary data reported by Managing Agents into our central database Credit 360. Energy is converted to CO <sub>2</sub> e. Emission factors sourced from Defra/DECC's Guidelines. Retail/residential occupier energy consumption: Calculated based on energy use purchased directly by occupiers that was estimated using floor area and space use data, where available, annual energy usage data		Office occupier energy consumption: Reported by British Land in Sustainability Accounts Figure 24 and 25. Retail/residential occupier energy consumption: Figure updated since last year (emissions within this category first calculated in 2012 based on a 2011/12 study year and updated in 2016 based on a 2014/15 study year). 2014/15 downstream (scope 3) emissions of occupier/third party controlled energy/refrigerant emissions.

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Sources of Scope 3 emissions	Evaluation status	metric tonnes CO <sub>2</sub> e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			kWh/m² from 2012 CIBSE Guide F, and annual energy usage data kWh/m² from retail occupiers' websites.		Reported by British Land in Sustainability Accounts Figure 24. For further information refer to the Reporting Criteria on pages 86 – 91 of our Sustainability Accounts 2016.
Franchises	Not relevant, explanation provided	0		0.00%	British Land does not operate any franchises and so this category is not applicable.
Investments	Relevant, calculated	159	Procurement emissions calculated by mapping spend to input-output carbon intensities to produce out-turn consumption based emissions. Mapped to 106 Standard Industrial Classification sectors which are then input to Arup's Scope 3 GHG emissions calculator tool ('Beacon'). The carbon intensity data in Beacon is supplied by the Centre for Sustainability Accounting LTD.	0.00%	Figure updated since last year (emissions within this category first calculated in 2012 based on a 2011/12 study year and updated in 2016 based on a 2014/15 study year). Emissions associated with the interest charges paid to British Land on loans to other entities. Reported by British Land in Sustainability Accounts 2016 Figures 24. For further information refer to the Reporting Criteria on pages 86 – 91 of our Sustainability Accounts 2016.
Other (upstream)	Not evaluated	0 t		0.00%	
Other (downstream)	her Relevant, 2914903 Visitor travel emissions calculated based on visi		0%	Figure updated since last year (emissions within this category first calculated in 2012 based on a 2011/12 study year and updated in 2016 based on a 2014/15 study year). It is analogous to Category 13 [downstream leased assets] for British Land. We have chosen to include emissions estimated for 2014/15 'Visitor travel to our properties' here as it is the emission source most relevant to this category. Please see our Reporting Criteria on pages 86 – 91 of our Sustainability Accounts 2016 for further information.	

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#### 14.2 Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

Third party verification or assurance process in place

## 14.2.a Please provide further details of the verification/assurance undertaken, and attach the relevant statements

assurance cycle	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)
Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2016/97/2297/Climate Change 2016/Shared Documents/Attachments/CC14.2a/Assurance Doc.pdf	All	ISAE3000	3

## 14.3 Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

## 14.3.a Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Fuel- and energy-related activities (not included in Scopes 1 or 2)		11	Decrease	This is the result of ongoing emissions reduction initiatives, including: - Working closely with our managing agents to manage energy use at our properties, implementing environmental action plans at all major assets We have installed automatic meter reading (AMR) systems across 95% of our managed retail portfolio and 80% of our offices managed portfolio to enable our local teams to identify reduction opportunities on an ongoing basis, at the same time as improving billing accuracy. Examples of energy reduction measures include: -

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Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
				Matching heating and cooling plant run times with operational hours agreed with occupiers; - Increasing intake of external ambient air to reduce need for heating and cooling, and eliminating heating and cooling conflicts; - Installing motion sensors - Replacing lighting with energy efficient alternatives; - Adjusting temperature set points to reduce heating and cooling demands Working with our occupiers to reduce energy use and cut carbon emissions, notably through Green Building Management Groups in our multi-let officesWe have also completed Energy Performance Certificate assessments across our portfolio.
Other (downstream)	Other: Change in business strategy		Decrease	Visitor travel emissions have reduced by 41%. Key contributors are changes are: - the shift towards assets with strong public transport links and improved recognition of variation in the use of transport modes across the country – for example, 9% of total trips to supermarkets in London are made by car whilst this figure is much higher at 93% in Scotland; - increased availability of primary data – actual car count and footfall numbers at selected British Land retail parks and shopping centres were available for this study; - a reduction in the portfolio floor area (down 18%) of British Land assets, which affects the total number of trips per day as determined using a benchmark based on floor area; and, - improvements in vehicle efficiency.
Downstream leased assets	Other: Change in business strategy		Decrease	Managed and single-let occupier energy emissions have reduced due to: - a reduction in the size [floor area] of British Land's property portfolio; and, - improvements in the GHG emissions associated with UK grid electricity generation.
Capital goods	Change in output	22	Decrease	Emissions predominantly associated with development activities have reduced due to a reduction in the relative size of British Land's development pipeline, compared to previous years.
Purchased goods & services	Change in output	36	Increase	Emissions associated with these activities (managed portfolio service charges; developments and acquisitions purchase and legal fees; corporate administration and property outgoings etc.) increased predominantly to a substantial increase in finance costs and a change in scope of the assessment (the 2011/12 study included British Land Plc activities but did not include its share of subsidiaries and joint venture interest costs).
Fuel- and energy-related activities (not included in Scopes 1 or 2)		198	Increase	Emissions associated with landlord influenced (i.e. common parts, shared services) energy/fuel emissions increased largely due to the addition of Broadgate Estates-managed assets not owned by British Land to the scope of the assessment.
Investments	Change in methodology	99	Decrease	Change in the calculation methodology (previously some emissions associated with purchased goods and services were erroneously included within this category).

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Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Waste generated in operations	Change in boundary	85	Increase	Emissions associated with waste water treatment increased largely due to the addition of Broadgate Estates-managed assets not owned by British Land to the scope of the assessment.
Business travel	Change in boundary	37	Increase	Emissions associated with business travel increased largely due to the addition of Broadgate Estates Ltd (a 100% owned subsidiary) staff business travel to the scope of the assessment.
Employee commuting	Change in boundary	47	Increase	Emissions associated with employee commuting increased largely due to the addition of Broadgate Estates Ltd (a 100% owned subsidiary) staff commuting to the scope of the assessment.

## 14.4 Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers

Yes, our customers

Yes, other partners in the value chain

## 14.4.a Please give details of methods of engagement, your strategy for prioritizing engagement and measures of success

#### Methods of engagement:

On developments (suppliers):

We have been exploring embodied carbon on our developments since 2009, commissioning studies across our development programme and detailed studies, for example at 5 Broadgate, The Leadenhall Building, Regent's Place, Ropemaker Place, Whiteley Shopping and 100 Liverpool Street. These studies highlighted the significance of energy and material use on our developments, particularly the fabrication of steel and concrete, in relation to our other managed emissions. Building on this knowledge, we have been working with our supply chain partners to reduce embodied carbon since 2011, designing out material usage and specifying lower carbon sources of concrete, steel, rebar, aluminium and glass.

Managed portfolio (customers and suppliers):

We meet senior office building engineers each month, office management teams each quarter and retail centre managers biannually to discuss building environmental performance. We support office occupiers own energy reduction initiatives through Green Building Management Groups in each office building. We report occupier and building management performance and share best practice. We fund energy monitoring services for c20 office occupiers, providing half-hourly data, to give visibility on out-of-hours lighting use and small power demand in occupiers' demises. We have installed automatic meter reading at 95% of our

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managed retail portfolio and 80% of our offices managed portfolio cut energy costs and carbon emissions. We've applied a lighting standard to our retail portfolio, when appropriate; this year four retail parks are committed to refresh the lighting system including LEDs, zonal controlling, daylight hours saving, dimming at night etc. These initiatives also future proof our portfolio, particularly given increasingly stringent regulatory requirements, such as legislation emerging from the Energy Act. We are also expanding our onsite renewables portfolio in our retail portfolio – to date we have installed solar PV on a number of sites and are currently exploring the feasibility of making similar interventions on a number of other assets. Our RE100 commitment covers electricity consumption in the majority of our tenanted areas; currently 96% of the total managed portfolio is supplied with renewable energy and this will rise to 100% in 2017/18.

#### Other partners in the value chain:

In 2015 and in advance of COP21, we attended a CBI roundtable meeting with DECC to discuss what British business can do to support efforts to get a strong deal. In April 2014, we co-sponsored the UK Green Building Council's first Embodied Carbon Week. Sarah Cary, Head of Sustainable Places, chaired the UK GBC's Zero Carbon Buildings Task Force and is on Sustainability Committees with both the British Council of Offices and British Property Federation. Our Head of Futureproofing and Wellbeing, Matthew Webster, participated with the BBP in a working group to respond to early consultation regarding the heat metering directive.

#### ii) Prioritisation:

- On developments: We prioritise suppliers (contractors) at all developments above a construction value of £300,000.
- Managed portfolio: We prioritise working with customers (occupiers) in our office portfolio interested in joining our Green Building Working Groups. We also focus on our tier 1 supplier Broadgate Estates, our managing agent responsible for operational management of our portfolio.
- Other partners in the value chain: We prioritise industry engagement that support our company-level sustainability strategy.

#### iii) Measures of success:

- On developments: We achieved 30.9% better efficiency than regulations require in our new office, retail and residential developments, with our new buildings using up to 50% less energy than older buildings. At Aldgate Place our project team exceeded our 10% embodied carbon reduction target, achieving a 26% reduction compared to the project baseline. At 100 Liverpool Street, our design team has developed plans that re-use as much of the building structure as possible, cutting construction costs and reducing embodied carbon by 7,270 tonnes. Design improvements are also targeting a further 4,360 tonne saving versus the original concepts, at no extra cost. Furthermore, emissions related to operational energy use avoided on our current office and retail developments through design that exceeds Building Regulations are estimated [2014] at 4,135t CO<sub>2</sub>/year (or 69,400t CO<sub>2</sub> across a 20 year operational life and 208,300t across a 60 year development life).
- Managed portfolio: Over the past six years we have reduced the landlord-influenced (common parts and shared services) carbon intensity of our managed portfolio by 40% (2009 baseline). We have achieved a 38% reduction in landlord-influenced (common parts and shared services) energy intensity across our managed portfolio since 2009 and saved approximately £13million in energy costs since 2011/12.

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## 14.4.b To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Number of suppliers	% of total spend (direct and indirect)	Comment
187	100%	This represents our tier one suppliers: managing agents who look after our managed portfolio and project management contractors for our development projects.

## 14.4.c If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data

How you make use of the data	Please give details	
prioritize for reduction actions	We request our contractors provide environmental data, including carbon emissions for their activities at our development projects. This information is aggregated and reported in our annual Sustainability Accounts. This information informs our sustainability strategy, including targets.	

14.4.d Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

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**Module: Sign Off** 

## 15 Sign Off

15.1 Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Lucinda Bell	Chief Financial Officer	Chief Financial Officer (CFO)

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