Taylor Wimpey Plc - Climate Change 2018



C0. Introduction

C0.1

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

Taylor Wimpey plc is a UK-focused residential developer which also has operations in Spain. Our vision is to become the UK's leading residential developer for creating value and delivering quality within the UK housebuilding sector. We are committed to being a responsible homebuilder and are continuing to integrate sustainability into our business practices. This approach helps us to create better homes and communities and a stronger business for the long term. Sustainability information and performance data is integrated in our Annual Report and Accounts through each part of our Business Model.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2017	December 31 2017	No	<not applicable=""></not>
	<not Applicable></not 	<not Applicable></not 	<not applicable=""></not>	<not applicable=""></not>
	<not Applicable></not 	<not Applicable></not 	<not applicable=""></not>	<not applicable=""></not>
Row 4	<not Applicable></not 	<not Applicable></not 	<not applicable=""></not>	<not applicable=""></not>

C0.3

(C0.3) Select the countries/regions for which you will be supplying data.

Spain

United Kingdom of Great Britain and Northern Ireland

C0.4

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

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Financial control

C1.1

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

C1.1a

(C1.1a) Identify the position(s) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
	The Chief Executive Officer leads the board and is ultimately responsible for climate change within the organisation. The CEO puts in place the personnel structures to ensure that greenhouse gas emissions reported in the Annual Report and Sustainability Report are complete and accurate.
Officer	Taylor Wimpey's Major Developments Director (C-Suite Officer), a representative of the General Management Team who chairs the Legacy, Engagement and Action for the Future (LEAF) committee, also holds responsibility for climate-related issues.

C1.1b

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

Frequency	Governance	Please explain
with which	mechanisms	ricase capitali
climate-	into which	
related	climate-	
issues are	related issues	
	are integrated	
a scheduled	are integrateu	
agenda		
item		
Scheduled	Reviewing and	The Chief Executive Officer leads the board and is ultimately responsible for environmental matters within the organisation. The CEO
- some	guiding	puts in place the personnel structures to ensure that climate-related issues reported in the Annual Report and Sustainability Report
meetings	strategy	are complete and accurate. Responsibility cascades down to our Major Developments Director, a representative of the General
	Reviewing and	Management Team who chairs the Legacy, Engagement and Action for the Future (LEAF) committee. Climate-related issues are
	guiding major	reported to the board on a monthly basis in the form of an internal Sustainability Report, which is reviewed by the board in meetings.
	plans of action	Key elements of this include emerging regulation, updates on progress against goals and targets and financial planning in relation to
	Reviewing and	resources.
	guiding risk	
	management	
	policies	
	Reviewing and	
	guiding annual	
	budgets	
	Reviewing and	
	guiding	
	business plans	
	Setting	
	performance	
	objectives	
	Monitoring	
	implementation	
	and	
	performance of	
	objectives	
	Overseeing	
	major capital	
	expenditures,	
	acquisitions	
	and	
	divestitures	
	Monitoring and	
	overseeing	
	progress	
	against goals	
	and targets for	
	addressing	
	climate-related	
	issues	

C1.2

(C1.2) Below board-level, provide the highest-level management position(s) or committee(s) with responsibility for climaterelated issues.

Name of the position(s) and/or committee(s)		Frequency of reporting to the board on climate-related issues
Other, please specify (Director of Sustainability)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored.

POSITION WITHIN THE ORGANISATIONAL STRUCTURE

Below board-level the Director of Sustainability is responsible for climate-related issues at Taylor Wimpey. The Director of Sustainability reports to the board on climate-related issues on a monthly basis and leads a team to ensure items highlighted are cascaded down throughout the organisation.

WHY RESPONSIBILITY LIES WITH THIS INDIVIDUAL + COMPANY-SPECIFIC DESCRIPTION OF RESPONSIBILITIES

The Director of Sustainability is responsible for a broad range of climate-related issues at Taylor Wimpey, including corporate responsibility, environmental reporting, the implementation of energy and carbon reduction, reviewing and guiding the strategy. The Director of Sustainability supports the production of Taylor Wimpey's Annual Sustainability Report that includes sections on building sustainable homes and communities, managing land, protecting the environment, sourcing responsibly and governance, management and performance. Responsibility for climate-related issues lies with the Director of Responsibility given the substantial experience they have in this area.

PROCESS FOR MONITORING CLIMATE-RELATED ISSUES

Climate-related issues are monitored throughout Taylor Wimpey. Specifically, the Director of Sustainability monitors climate-related issues as part of the overall risk management process. Climate-related issues including any climate change and sustainability risks on the Sustainability and Climate Change Risk and Opportunity Register are discussed at quarterly LEAF Group Meetings, which are attended by the Director of Sustainability as well as the Major Developments Director (C-Suite Officer).

C1.3

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

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.

Who is entitled to benefit from these incentives? All employees

Types of incentives Other non-monetary reward

Activity incentivized

Emissions reduction project

Comment

Taylor Wimpey promote healthier journeys to work and incentivise all employees to reduce emissions by cycling to work rather than using alternative transport methods such as driving or public transport. The government Cycle to Work scheme offers significant savings on the cost of bikes and related safety equipment. Cycle to Work is a salary sacrifice scheme that allows employees to pay in monthly instalments whilst saving through tax and National Insurance exemptions.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	0	3	
Medium-term	3	10	
Long-term	10	100	

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	

C2.2b

DESCRIPTION OF PROCESS FOR IDENTIFYING AND ASSESSING CLIMATE-RELATED RISKS:

The Sustainability and Climate Change Risk and Opportunity Register was developed by senior members of staff who sit on the Legacy, Engagement and Action for the Future (LEAF) committee. The register is a standing item on the LEAF committee agenda.

Our LEAF committee includes a member of the GMT (General Management Team) who raise sustainability issues at board level.

Risks are assessed based on key criteria that rank risks in relation to their impact on the business and the required level of involvement by management to limit the effect of the risk. This is assessed over a number of categories, including financial impact, brand impact, health and safety and environment.

The risk from flooding is still deemed to be our biggest climate change adaptation risk and was a major focus in 2017. We conducted a review of key processes around land acquisition, planning and environmental management, and have strengthened the processes where needed. We conducted additional work on emergency procedures for flooding and communication with customers.

DEFINITION OF 'SUBSTANTIVE FINANCIAL IMPACT' WHEN IDENTIFYING AND ASSESSING CLIMATE-RELATED RISKS:

Risks are ranked from 1 to 5 based on their impact on the business and the required level of involvement by management to limit the effect of the risk. 'Insignificant' risks score a 1 up to 'Catastrophic' risks that score a 5. Anything above a 3 - 'Moderate' - would have a significant impact on the business and would require serious additional management effort.

Risks are assessed across a number of categories to ensure the full business impact has been taken into consideration. One of these metrics is the financial impact. Impact to business is measured in % of profit before tax (PBIT). A % PBIT greater than 20% is considered a major impact (substantive financial impact). A large risk in terms of likelihood is greater than 50% chance.

C2.2c

(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	COMPANY-SPECIFIC EXAMPLE OF RISK TYPE It is vital that we stay on top of environmental legislation. The majority of our operations are in the UK. As a result, Taylor Wimpey is required to report on its carbon emissions as part of the UK Mandatory Carbon reporting. We also fulfilled our requirements under ESOS (Energy Savings Opportunity Scheme) through our existing measurement processes, identifying opportunities and sending in a declaration to the Environment Agency. We have used the ESOS process to drive additional emissions reductions. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS Regulatory Standards including Building Regulations, Local Government requirements through planning, and the Code for Sustainable Homes all drive improvements in the energy efficiency of the homes we build. From 1 October 2016 the Mayor of London applied a zero carbon standard to new residential development in the GLA area. This means we make an 'offset payment' to the local authority for every home we build in Greater London. Risks associated with regulation and compliance are monitored and assessed by heads of functions and are always considered as part of risk assessments.
Emerging regulation	Relevant, always included	COMPANY-SPECIFIC EXAMPLE OF RISK TYPE It is vital that we stay on top of environmental legislation. Emerging government policy and regulation relating to housing and building such as the UK Government's 25-year Environment Plan has the potential to impact on Taylor Wimpey's operations. The EU Energy Performance of Buildings Directive requires all new buildings to be nearly zero-energy by the end of 2020. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS Risks associated with emerging regulation and compliance are monitored and assessed by heads of functions and are always considered as part of risk assessments. In particular our design team works with industry bodies to identify and specify changes to our homes in line with regulatory requirements.

		Please explain
	& inclusion	
Technology	Relevant, always included	COMPANY-SPECIFIC EXAMPLE OF RISK TYPE Technology has already transformed the way we live and work, and this will continue. Smart technology is starting to have an impact in our homes and this looks set to increase. Changes in other sectors can have an impact too. For example, increases in electric and hybrid car ownership or a switch to driverless cars could affect how we plan our developments and the electrical supplies and connections. Off site construction of homes with a greater proportion of timber provide opportunities for construction methods with less embodied carbon. Technology is also helping us improve our customer service and giving customers more personalised information and support throughout the homebuying processes. We began to roll out our online customer portal 'Touchpoint' during 2017. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS One of the aspects of technology that is considered within our company risk assessments is information security. Risk impact is considered in line with our company-wide risk assessment procedures and ranked on a scale ranging from insignificant risks (1) to catastrophic risks (5).
Legal	Relevant, always included	COMPANY-SPECIFIC EXAMPLE OF RISK TYPE There are a number of legal risks associated with environmental legal compliance that Taylor Wimpey must comply with (e.g. ESOS and MCR), changing and more extreme weather patterns (e.g. water pollution, health and safety), and engineering works failures (e.g. slope stability, flooding, drainage and remediation). HOW IT IS INCLUDED IN CLIMATE- RELATED RISK ASSESSMENTS We routinely liaise with law firms, consultancies professional bodies, trade associations etc to understand the legal landscape in which we operate. Our health and safety and environmental management systems cover construction site risks. Our land, technical, planning, commercial and production processes cover engineering risks. We reviewed compliance with our policy in 2017 and confirmed that chain of custody evidence is in place for all our key suppliers, accounting for around 95% of timber used on our sites. Legal and regulatory compliance is considered in line with our company-wide risk assessment procedures and ranked on a scale ranging from insignificant risks (1) to catastrophic risks (5).
Market	Relevant, always included	COMPANY-SPECIFIC EXAMPLE OF RISK TYPE The 'performance gap' is a term commonly used to denote the disparity that is found between the energy use predicted in the design stage of buildings and the energy use of those buildings in operation. This can relate to skills/workmanship and build quality. Lack of post-construction and post-occupancy monitoring means that there is no strong feedback loop for improvement. The performance gap is not well understood by the house buying public and so could cause some frustration to Taylor Wimpey's customers, but the issue is open and well documented and so there is a low risk that this will be the developers ' Volkswagen' moment. Another risk is that customers may find the controls and maintenance of energy technologies such as heat pumps, solar and solar thermal problematic or costly. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS To improve the quality and accuracy SAPs and EPCs for our purchasers it was agreed the SAP and Energy assessors are now required to enter into an amended framework contract and agree to have their SAP assessments audited. We have adopted a customer centric 'fabric-first' approach to home energy efficiency to minimise complexity and maintenance liability.
Reputation	Relevant, always included	COMPANY-SPECIFIC EXAMPLE OF RISK TYPE Failure to mitigate risk impacts on Taylor Wimpey's brand, reputation, and licence to operate, and may ultimately result in reduced demand for our products and services. Since the Paris COP agreement in December 2015 there is a higher international profile and greater onus on organisations who do not manage these risks well. Paris has reaffirmed our commitment to promoting sustainability and influences the context in which business decisions are made. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS A number of the Project 2020 workstreams have come to fruition as an indirect result of the adoption of the Paris Climate Agreement in 2015. These include research into alternative build methodologies that promote resource efficiency as well as our increasing preference for renewable energy installations. Our brand and reputation forms a core part of our company-wide risk assessment procedures and is ranked on a scale ranging from insignificant risks (1) to catastrophic risks (5).
Acute physical	Relevant, always included	COMPANY-SPECIFIC EXAMPLE OF RISK TYPE Changing precipitation may alter the conditions at our construction sites, including geology, the risk of slope instability, soil shrinkage, erosion and water table height. There are design risks around guttering capacity, building material permeability, sealants etc. There are site specific risks around flooding, drainage, and water pollution. There are production risks around extreme weather, especially for earthworks. There are supply chain risks e.g. flooding of roads. There are health and safety risks e.g. around the geographical range of certain insect-borne diseases. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS Our Land Assessment and Management Process (LAMP) enables us to identify and manage risks and technical issues and will play an increasing role as the effects of climate change are experienced. We are highly selective with regard to the types of sites that we buy, focusing on the quality of the land rather than the number of plots acquired. We employ dedicated Land Teams in each of our 24 regional businesses who use their expertise and local knowledge to identify potential high-quality, sustainable sites. We have other processes in place to control design, production, procurement and health and safety risks.
Chronic physical	Relevant, always included	COMPANY-SPECIFIC EXAMPLE OF RISK TYPE Adaptation requirements relating to climate change such as overheating, 'heat island effect', extreme weather, and mitigation requirements such as low and nearly zero energy buildings mean that it is essential that we ensure that the homes and developments we build are fit for the future. Air tight buildings can experience air quality problems including condensation, mould and the build-up of toxic substances. Other examples of chronic physical risks that could affect Taylor Wimpey are dehydration of clay soils due to drought and long-term water shortages. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS Our Land Assessment and Management Process (LAMP) enables us to identify and manage risks and technical issues and will play an increasing role as the effects of climate change are experienced. The way we design our homes and neighbourhoods can influence the health and wellbeing of future residents, for example, landscaping water bodies and shadowing can cool public spaces. Our design processes help us to manage solar gain and ventilation to manage thermal comfort and air quality in the indoor environment.
Upstream	Please select	COMPANY-SPECIFIC EXAMPLE OF RISK TYPE Here we consider upstream risks to be risks within the supply chain relating to any of the risk types above (regulation, technology, legal, market, acute and chronic physical). Our suppliers facilities and logistics could be disrupted by flooding and extreme weather events. Certain energy intensive materials could become more expensive e.g. brick, cement and tiles. Other materials may become less available due to drought or fires e.g. timber. Regulation could make energy more expensive and increased costs pass up through the supply chain. Our supply chain may not have skills or capacity in relation to new technologies at scale, for example car charging points or battery storage. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS Upstream risks are assessed as part of our company-wide risk assessment procedures and are ranked on a scale ranging from insignificant risks (1) to catastrophic risks (5).

	Relevance	Please explain
	& inclusion	
	Inclusion	
Downstream	Relevant,	COMPANY-SPECIFIC EXAMPLE OF RISK TYPE Here we consider downstream risks to be risks within our downstream value chain
	always	(e.g. our products in use) relating to any of the risk types above (regulation, technology, legal, market, acute and chronic physical). There
	included	is a risk that Building Regulations may not keep up with climate change requirements e.g. for overheating or ventilation. We are
		sometimes required by planning to include developments in district heating schemes, and it is not always clear these represent the
		lowest carbon and best value solutions in the medium and long term. A changing climate may increase risks for homes and
		developments, for example we are seeing soils and foundations being compromised leading to increased claims against developers and
		the National House-Building Council (NHBC). HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS Downstream risks
		are assessed as part of our company-wide risk assessment procedures and are ranked on a scale ranging from insignificant risks (1) to
		catastrophic risks (5).

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

DESCRIPTION OF PROCESS FOR MANAGING CLIMATE-RELATED RISKS AND OPPORTUNITIES

Taylor Wimpey's corporate risk management framework consists of risk registers at every organisational level which identify key strategic, operational and financial risks. The operational business units' risk registers account for the climate change risks relevant to the business units. Climate change risks are included as a specific section in two central risk registers: the Land and Commercial and the Technical Risk Registers. The business unit Risk Registers and the Central Risk Registers feed into a Group Material risk register. In addition, we maintain a separate Climate Change and Sustainability Risk and Opportunity Register to specifically monitor non-financial issues; this register is a standing item on every LEAF Group agenda. The Taylor Wimpey Energy and Carbon Strategy provides an assessment of strategic carbon-related risks and opportunities to be tackled via a series of action plans.

At the asset level there are a variety of processes which manage risks and identify opportunities. Every asset or investment approval contains a Risk and Opportunity register listing the areas where cost savings or increased revenues could be delivered to enhance the submitted and approved financial returns.

We prioritise our climate change risks and opportunities based on their materiality to our business. Impact to business is measured in % of profit before tax (PBIT). A % PBIT greater than 20% is considered a major impact. A large risk in terms of likelihood is greater than 50% chance.

CASE STUDY/EXAMPLE OF HOW PROCESS IS APPLIED TO PHYSICAL RISKS AND OPPORTUNITIES

Our Land Assessment and Management Process (LAMP) enables us to identify and manage risks and technical issues and will play an increasing role as the effects of climate change are experienced. For example, changing precipitation may alter the conditions of our construction sites, including geology, the risk of slope instability, soil shrinkage, erosion and water table height. We are highly selective with regard to the types of sites that we buy, focusing on the quality of the land rather than the number of plots acquired. We employ dedicated Land Teams in each of our 24 regional businesses, who use their expertise and local knowledge to identify potential high-quality, sustainable sites. Risks and opportunities are added to the risk register and, where necessary, escalated throughout the business.

CASE STUDY/EXAMPLE OF HOW PROCESS IS APPLIED TO TRANSITIONAL RISKS AND OPPORTUNITIES

The ratification of the Paris Agreement represents a positive step towards combating global temperature increases, becoming climate resilient and moving to a low carbon economy. Alongside this it is expected that there will be an increase in climate-related regulation and compliance measures. For example, the UK government's response to the consultation on the Streamlined Energy and Carbon Reporting (SECR) in the UK has indicated that this upcoming legislation will affect both quoted companies and large UK incorporated companies and the reporting vehicle is their company accounts. As a quoted company Taylor Wimpey already reports on its carbon performance in its mainstream financial filings, but SECR will affect a significant portion of our supply chain. Taylor Wimpey is also affected by current Regulatory Standards including Building Regulations, Local Government requirements through planning and the Code for Sustainable Homes, which all drive improvements in the energy efficiency of the homes we build. Risks associated with current and emerging regulation and compliance are monitored and assessed by heads of functions and are always considered as part of risk assessments. Risks and opportunities are added to the risk register and, where necessary, escalated throughout the business.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur? Direct operations

Risk type Transition risk

Primary climate-related risk driver

Policy and legal: Mandates on and regulation of existing products and services

Type of financial impact driver

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

In the UK fuel tax equates to a cost of 57.95p for every litre of petrol and diesel we purchase. It is the biggest element of the price we pay at the pumps. There is uncertainty around how this will change in coming years. An increase in the fuel tax would lead to increased operational costs if everything else were to remain constant. Increased carbon taxes on energy intensive materials and activities will be reflected in increased costs of materials and services through the supply chain. Taylor Wimpey does not currently take part in the CRC scheme, however under government plans to abolish CRC the Climate Change Levy (CCL) will increase. During 2017 our consumption of electricity, natural gas and LPG was ~86 million kWh which will be impacted by the increase in CCL. This will also be felt throughout Taylor Wimpey's supply chain and there it potential for part of this cost to be passed on.

Time horizon Medium-term

Likelihood Very likely

Magnitude of impact Medium

Potential financial impact 1650000

Explanation of financial impact

Since its inception the fuel tax has increased by 0.5p per year on average. If the tax were to increase by 0.5p a year in line with the average increase this would equate to a cost of roughly £650,000 over the next 5 years. The CCL will increase by 45% for electricity and 67% for LPG and Natural gas (£ per kWh) between the 2018-19 financial year and 2019-20. Based on Taylor Wimpey's 2017 consumption of electricity, natural gas and LPG (~86 million kWh), it is estimated that there will be an increase in tax of £200,000 per year or £1,000,000 over five years. These costs combined will be about £1,650,000 over 5 years.

Management method

EXAMPLE/CASE STUDY: We are exploring other opportunities to reduce energy use, looking at areas such as building sites, sales areas, plots before sale, portacabins, efficient plant machinery and the fuel efficiency of our car fleet. We promote car sharing and provide a higher mileage rate to members of staff that travel with one or more passengers. We adjust thermostats in our show homes, previously left on factory settings to reduce show-home gas consumption by about 40%. We are working with suppliers to reduce the carbon impact of our value chain. This includes designing our homes to be energy efficient, selecting materials with lower embodied carbon and piloting off-site construction techniques.

Cost of management

0

Comment

The cost of management is included in the overall management of energy, which is part of business as usual and is thus difficult to define.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Supply chain

Risk type Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact driver

Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

Company- specific description

We are already experiencing a shortage of certified timber and as a consequence costs increase for certain types of timber. Year on year we have seen significant increases on TR26 Roof Truss timbers (up to 60%) meaning we pay between 25-30% more overall on Trusses compared to two years ago. This is the outlier but we have seen increased costs on other timber products. It is hard to know how much of these increases are due to factors such as forest fires and drought, and how much to other factors such as increased demand. However given the high level of forest fires globally some of the increase is no doubt due to forest fires.

Time horizon Short-term

Likelihood Very likely

Magnitude of impact Medium

Potential financial impact 5827502

Explanation of financial impact

Our total spend on timber and timber products is £116,550,037 and so assuming an average across the board 5% increase in timber costs the total financial impact would be £5,827,502.

Management method

EXAMPLE/CASE STUDY: Year on year we have seen significant increases on TR26 Roof Truss timbers (up to 60%) meaning we pay between 25-30% more overall on Trusses compared to two years ago. We use our good supplier relationships and purchasing scale to secure as good a commercial outcome as we can in the circumstances.

Cost of management

0

Comment

The cost of management is included in the overall management of energy, which is part of business as usual and is thus difficult to define.

Identifier

Risk 3

Where in the value chain does the risk driver occur? Direct operations

Risk type Physical risk

Primary climate-related risk driver

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

Type of financial impact driver

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

Company- specific description

We recognise the need to address the physical risks climate through the design of our homes and developments. This is assessed through our land acquisition, development design and build processes and includes engineering, groundworks, infrastructure, landscaping, environment, drainage, utilities, foundations and superstructure. However, if climate weather extremes disrupt our supply chains, add cost through infrastructure upgrades, or cause significant delays, this will impact our financial performance which in turn could impact share price.

Time horizon

Long-term

Likelihood About as likely as not

Magnitude of impact

Medium

Potential financial impact

142000000

Explanation of financial impact

A potential 2.5% decrease in market value caused by physical climate change impacts would mean a negative £142m financial impact (Market Capitalisation as of August 8th, 2018, 18:00 PM).

Management method

We have management methods and processes in place for the above and are managing this through our land acquisition, development design and build processes including engineering, groundworks, infrastructure, landscaping, environment, drainage, utilities, foundations and superstructure. We will need to ensure that these are kept relevant and up to date as the physical consequences of climate change become increasingly apparent.

Cost of management

0

Comment

The cost of management is included in the overall management of energy, which is part of business as usual and is thus difficult to define.

C2.4

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

Yes

C2.4a

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

Identifier Opp1

Where in the value chain does the opportunity occur? Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver Development and/or expansion of low emission goods and services

Type of financial impact driver

Other, please specify (Reduced reliance on key trades)

Company- specific description

Approximately 7.6% of our housing completions in 2017 were timber frame and therefore the second most common build method after conventional brick and block. Use of timber encourages sustainable forestry which has the capability to sequester carbon at scale. Currently embodied carbon is not regulated, but this could change in the future. Our sector faces a serious skills shortage, and we are taking action on several fronts to help address this. Timber frame presents an opportunity to reduce reliance on critical trades such as brick layers which can prevent project delays. It also has the benefit of faster construction times. Both can impact ROCE. Moreover because timber frames are factory built there will be quality benefits which will include greater air tightness and better insulation. More sustainable build methods also enhances our reputation as a responsible homebuilder. We plan to increase timber frame use again next year.

Time horizon

Short-term

Likelihood Very likely

Magnitude of impact Low

Potential financial impact 540000

Explanation of financial impact

We believe that the financial benefits will at least balance the opportunity costs, plus there will be a range of additional benefits (described above). Our annual Timber frame spend is currently around £10.8 million. The cost compared with conventional brick and block build construction timber frame ranges from broadly comparable to slightly more expensive. If we conservatively assume that the costs are 5% greater than conventional build the opportunity cost is £540K.

Strategy to realize opportunity

CASE STUDY/EXAMPLE: Our goal to increase the proportion of homes built using timber frame will reduce greenhouse gas emissions as wood from renewable sources takes carbon from the atmosphere, and will replace more energy intensive materials. We are increasing the proportion of homes built using timber frame which can have a significantly lower carbon footprint than traditional 'brick and block' building techniques due to the materials and the use of off-site construction techniques. We will also be trialling the use of cross-laminated panels and timber frame through our Project 2020 pilots, as well as a living roof system and measures designed to improve internal air quality. We are working closely with a number of timber frame providers so that we can embed their products into our standard house type range. We are using learnings from our Scottish businesses who have built predominantly in timber frame for many years. Our design, technical, commercial and production functions centrally and regionally are working on this. We would anticipate extra costs to reduce over time.

Cost to realize opportunity

540000

Comment

Our annual Timber frame spend is currently around £10.8 million. The cost compared with conventional brick and block build construction timber frame ranges from broadly comparable to slightly more expensive. If we conservatively assume that the costs are 5% greater than conventional build the opportunity cost is £540K. We are working closely with a number of timber frame providers so that we can embed their products into our standard house type range. We are using learnings from our Scottish businesses who have built predominantly in timber frame for many years. Our design, technical, commercial and production functions centrally and regionally are working on this. We would anticipate extra costs to reduce over time.

Identifier

Opp2

Where in the value chain does the opportunity occur? Customer

Opportunity type

Products and services

Primary climate-related opportunity driver Shift in consumer preferences

Type of financial impact driver

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

Company- specific description

A survey of would-be homebuyers in 2017 found that 63% want to purchase a more environmentally friendly home, while 82% said they were willing to pay more for one. 1,730 people were surveyed to find out their views on going greener and the factors that influence their choice of home. Participants ranked lower energy bills as very important when choosing a home. More than a quarter were willing to pay about 6% premium for a home with sustainable features. This and other research is starting to challenged the long-held claim that consumer demand for greener living is limited. We have started to look at this in terms of smart home technologies. Other green options could include items such as solar panels, solar thermal and ground and air source heat pumps.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact Medium

Potential financial impact 50

Explanation of financial impact

Within 5 years we could generate £5 million in revenue per year from selling green options for homes.

Strategy to realize opportunity

Project 2020 is a long-term initiative looking at trends and industry innovations to future-proof our product range for 2020 and beyond which reflects evolving customer lifestyles and expectations. A number of the Project 2020 work streams have been influenced by climate related policy and regulation including the Clean Growth Strategy, the Climate Change Act and the Paris Climate Agreement. This has influenced research into alternative build methodologies that promote resource efficiency as well as our increasing preference for renewable energy installations. Development of new technology presents an opportunity for Taylor Wimpey, for example we have reviewed: shading systems; glazing and film technologies for solar exclusion; reflective building materials to reflect heat from building surfaces; night time ventilation systems to allow buildings to be purged of hot air; better use of ground and air for temperature mitigation; and acoustically attenuated natural and mechanical ventilation systems.

Cost to realize opportunity

0

Comment

This would be covered by in house personnel and so is included in our overhead.

Identifier

Opp3

Where in the value chain does the opportunity occur? Direct operations

Opportunity type

Resilience

Primary climate-related opportunity driver Other

Type of financial impact driver

Increased market valuation through resilience planning (e.g., infrastructure, land, buildings)

Company- specific description

Staying ahead of climate regulation and guidance has future proofing, financial and reputation benefits. Early action on climate change adaptation issues will help address the physical risks climate present to the design of our homes and developments. Action on mitigation and adaptation will make us a more robust and resilient business, and be more attractive to key stakeholders such as investors, customers and employees. This will impact our financial performance which in turn could impact share price.

Time horizon

Long-term

Likelihood About as likely as not

Magnitude of impact Medium

Explanation of financial impact

Action on mitigation and adaptation will make us a more robust and resilient business, and be more attractive to key stakeholders such as investors, customers and employees. This will impact our financial performance which in turn could impact share price. A potential 2.5% increase in market value caused by adaptation and mitigation resilience would mean a positive £142m financial impact (Market Capitalisation as of August 8th, 2018, 18:00 PM).

Strategy to realize opportunity

Action on climate change requires tackling multiple issues across many parts of the business. We have already commenced with a number of initiatives and have others planned. We have already reduced the direct carbon intensity of our business by about 39% in four years and have set an industry leading carbon intensity reduction target of 50% by 2023. We have committed to reviewing Science Based Targets. We will conduct a review of TCFD and will develop a methodology for measuring the carbon emissions from our products in use. We have retrofitted building sites to make them more energy efficient and have designed an ecospecification portacabin. We have completed a detailed materiality assessment with all our key stakeholder groups including interviews covering issues such as energy bills, carbon emissions, efficient homes and renewable technologies. We have completed and adaptation review and some detailed work on flooding. The flood work covered a review of several our processes, an analysis of 47 sites in relation to Climate Change Allowances, and training of our technical personnel. Next year we will launch a network of sustainability champions who will be responsible for energy usage reduction within their regional business. We would envisage that climate change resilience measures will ultimately touch every part of the business.

Cost to realize opportunity

1600000

Comment

The single biggest item of expenditure was the energy efficient retrofit of building sites estimated to be £1.4m. We have not estimated the other elements but it is envisaged they will be low in comparison.

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted	COMPANY-SPECIFIC DESCRIPTION OF IMPACT ON PRODUCTS AND SERVICES As a UK-focused residential developer, both physical risks and transition risks associated with climate change have impacted on our business. One of the key transition risks and opportunities are the changes to the design of our homes and developments due to energy efficiency or renewable energy requirements. These can arise through Building Regulations, the planning system and other routes. Requirements can include a more efficient building fabric, the application of renewable technologies or district heating schemes. One of the key physical risks that we have investigated were the changes to the Climate Change Allowances which altered, amongst other things, the peak river flows in Flood Risk Assessments. This means changes to developments such as raising the site levels so they won't flood or providing additional areas for flood compensation so other areas of land won't be impacted. MAGNITUDE OF THE IMPACT The magnitude of this risk is medium.
Supply chain and/or value chain	Impacted	COMPANY-SPECIFIC DESCRIPTION OF IMPACT ON SUPPLY CHAIN Addressing deforestation is important for meeting our environmental ambitions. We use a lot of timber on our developments and we expect this will increase further in the coming years. We require all suppliers to provide timber from legally logged sources in line with our policy and the EU Timber Regulation. We are committed to buying timber from responsibly managed forests certified by recognised certification schemes such as the Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC) or Sustainable Forestry Initiative (SFI). This has impacted our supply chain as it dictates who we do business with. We are committed to building more timber frame homes which have multiple benefits. This includes carbon sequestration, speed of construction, key trades skills mitigation, and build quality. There are also supply chain risks from energy cost increases due to climate regulation increasing material costs and hence build costs. MAGNITUDE OF THE IMPACT The magnitude of this impact is medium.
Adaptation and mitigation activities	Impacted	COMPANY-SPECIFIC DESCRIPTION OF IMPACT ON ADAPTATION AND MITIGATION ACTIVITIES Taylor Wimpey recognises the urgent need to mitigate and adapt to climate change. This is reflected in our investment in sustainable build technologies. During 2017 we continued our Project 2020 pilot projects and integrated successful new approaches into our developments. We have looked in depth at flooding as this was identified as our key adaptation risk. We have also put a big focus on direct emissions reduction as part of our mitigation efforts and have made good progress. During 2017 we met and exceeded our intensity reduction target for direct carbon emissions (scope 1 and 2) of 25% by 2018 with a 2013 baseline, achieving a 38.7% reduction. We have also reduced absolute emissions by 21.9% since 2013. MAGNITUDE OF THE IMPACT The magnitude of this impact is medium.
Investment in R&D	Impacted	COMPANY-SPECIFIC DESCRIPTION OF IMPACT ON INVESTMENT IN R&D As part of our continued work on Project 2020 we have invested in research and development relating to sustainable build technologies. As part of this we have and will be testing a number of technologies in both standard house types and the prototype homes as part of our ongoing Project 2020 research initiative. This includes the use of timber frame to replace block work and cross-laminated panels with wood fibre insulation. Smart and sustainable technologies applicable to homes have been investigated in some detail. MAGNITUDE OF THE IMPACT The magnitude of this impact is medium as it driven Taylor Wimpey's strategy around sustainable homes.
Operations	Impacted	COMPANY-SPECIFIC DESCRIPTION OF IMPACT ON OPERATIONS In the UK fuel tax equates to a cost of 57.95p for every litre of petrol and diesel we purchase. It is the biggest element of the price we pay at the pumps. There is uncertainty around how this will change in coming years. An increase in the fuel tax would lead to increased operational costs if everything else were to remain constant. We are exploring opportunities to reduce energy use, looking at areas such as efficient plant machinery and the fuel efficiency of our car fleet. We promote car sharing and provide a higher mileage rate to members of staff that travel with one or more passengers. Our operations are also impacted by transition risks that manifest themselves in the form of increased tax and regulation associated with climate change, such as changes to the CCL that could lead to an estimated increase in tax of £113,000 per annum. Changes in the frequency and magnitude of extreme weather events can also impact on our ability to build homes, for example, extreme cold or hot weather can lead to reduced building activity. MAGNITUDE OF THE IMPACT The magnitude of this impact is medium.
Other, please specify	Please select	

C2.6

(C2.6) Describe where and how the identified risks and opportunities have factored into your financial planning process.

	Relevance	Description
Revenues	Impacted	COMPANY SPECIFIC DESCRIPTION OF THE IMPACT ON REVENUE Revenues are largely determined by the health of the housing market, which itself depends on factors like employment, the economy, mortgage availability and interest rates. Site specific factors such as location and transport connectivity are important and related to site selection. There are some opportunities to increase revenue through design and place making, which is linked to climate change adaptation and mitigation. There is some revenue generating potential through selling green options such as renewable energy technologies, but this is modest compared with the other factors. MAGNITUDE OF THIS IMPACT We manage this as part of our company-wide financial risk and opportunity planning and management processes, therefore the impact to revenue is low.
Operating costs	Impacted	COMPANY SPECIFIC DESCRIPTION OF THE IMPACT ON OPERATING COSTS Risks associated with the transition to a low-carbon economy including uncertainty around environmental legislation and energy taxation can also impact on operating costs. These can be amplified through the supply chain. For example, the changes to the CCL are expected to cost Taylor Wimpey around £1,000,000 over the next 5 years, based on 2017 consumption of electricity, natural gas and LPG. In addition changes in Building Regulations or planning, driven by environmental requirements, have the potential to increase operating costs. These are managed by staying abreast of the changes, ensuring they are embedded in our processes, and factoring them into the land value when purchasing sites. MAGNITUDE OF THIS IMPACT We manage this as part of our company-wide risk/opportunity assessment and commercial processes, therefore the impact on operating costs is low.
Capital expenditures / capital allocation	Impacted	COMPANY SPECIFIC DESCRIPTION OF THE IMPACT ON CAPITAL EXPENDITURES Almost all our spend is operational, predominantly on land, goods and services, and construction. In recent years we have been buying regional offices and refurbishing them, or building new offices (to good energy and environmental standards). This is the main area of capital expenditure and is modest compared with our development activities. For example, the cost of energy efficient retrofitting of our building sites is estimated to be £1.4m. MAGNITUDE OF THIS IMPACT The impact on capital expenditure is low.
Acquisitions and divestments	Not yet impacted	COMPANY SPECIFIC DESCRIPTION OF THE IMPACT ON ACQUISITIONS AND DIVESTMENTS There have been few significant acquisitions or divestments in the UK home building sector in recent years. We do not believe that this is likely to be relevant to us in the short term. We have no stated acquisition plans but should we buy a business we would ensure that they met our standards in full on climate. We expect that if any risk were to develop it would have a low impact.
Access to capital	Impacted	COMPANY SPECIFIC DESCRIPTION OF THE IMPACT ON ACCESS TO CAPITAL Investors are increasingly interested in the climate performance of companies and will increasingly look for 'investor grade' climate information to inform their investment decisions. We have been contacted by both ethical and mainstream investors on the topic. Our pro-active approach to climate means that we believe we are currently satisfying investor needs, and our planned review of the TCFD requirements means that we believe that will continue. We have not identified problems associated with access to capital due to climate change. MAGNITUDE OF THIS IMPACT We manage this as part of our company-wide risk and opportunity assessment processes, therefore the impact on access to capital is low.
Assets	Impacted	COMPANY SPECIFIC DESCRIPTION OF THE IMPACT ON ASSETS The main asset we purchase is land. Changing precipitation may alter the conditions of our construction sites, including geology, the risk of slope instability, soil shrinkage, erosion and water table height. We are highly selective with regards to the types of sites that we buy, focusing on the quality of the land rather than the number of plots acquired. We employ dedicated Land Teams in each of our 24 regional businesses, who use their expertise and local knowledge to identify potential high-quality, sustainable sites. We have instigated an asset data base so that we can capture the key characteristics of our assets. MAGNITUDE OF THIS IMPACT We manage this as part of our company-wide risk and opportunity assessment processes, therefore the impact on assets is low.
Liabilities	Impacted	COMPANY SPECIFIC DESCRIPTION OF THE IMPACT ON LIABILITIES The risk from flooding is still deemed to be our biggest climate change adaptation risk and was a major focus in 2017. The implications of this risk will be to individual sites. Without proper assessment it could result in decreased developable areas, increased flood mitigation costs and could potentially result in a decreased land value. We do not buy land unless we can mitigate any flood risk, and flood risk will be factored into the land value. Changing precipitation may alter the conditions of our construction sites, including geology, the risk of slope instability, soil shrinkage, compromise contaminated soil remedial measures, erosion and water table height. If there are subsequent problems with homes, the usual arrangement is for the developer to pick up liabilities in years 0-2, and insurance for years 3-10. We are highly selective with regard to the types of sites that we buy, focusing on the quality of the land rather than the number of plots acquired. We employ dedicated Land Teams in each of our 24 regional businesses, who use their expertise and local knowledge to identify potential high-quality, sustainable sites. MAGNITUDE OF THIS IMPACT We manage this as part of our company-wide risk and opportunity assessment processes, therefore the magnitude of this impact is low.
Other	Please select	

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy? Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy? Yes, qualitative

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

i. HOW THE BUSINESS STRATEGY HAS BEEN INFLUENCED AND EXAMPLES:

Taylor Wimpey's core business model is based on a value cycle with each component feeding into the achievement of our strategic objectives: 1) Customer service; 2) Land selection; 3) Managing the planning and community engagement process; 4) Health & safety/energy reduction; 5) Strategic human resources management; and 6) Optimising value through social contribution.

Our Co-ordinated Measurement of Business Information System (COMBINE) and other processes collect key sustainability information on each part of the business model. Our Sustainability Strategy supports and influences this integrated approach and sets out a range of strategic commitments that relate to key social, environmental and economic issues. For example, the principles in our Business, Sustainability and Energy & Climate Change Strategies led us to adopt a carbon reduction target which commits us to reducing the carbon intensity of our operations by 25% by 2018. In 2017 we exceeded this target, achieving a 38.7% reduction. In terms of energy data collection, we invested in a robust energy data process to provide confidence for decision making, and we worked on embedding our energy cost model to improve confidence in financial decisions around energy.

The vast majority of our new homes were fitted with smart meters as standard. Smart meters come with an energy monitor that shows homeowners their consumption and cost to encourage energy savings. We continued to evaluate leading smart energy systems with a view to undertaking a wider roll out. This included installing the product HIVE, smart thermostats by British Gas into our show homes as a customer option on particular developments and in six regional businesses as an option. In the future, this will allow our customers to remotely control their heating and hot water, helping them to save energy and money.

We collect and report on greenhouse gas emissions under Section 7 of The Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 and produce a dedicated annual sustainability report.

ii. ASPECTS OF CLIMATE CHANGE THAT HAVE INFLUENCED THE STRATEGY:

As a public company, we are subject to regulation and scrutiny by our stakeholders, be they investors, customers, trading partners, employees or the wider community. We aim to control and manage our business responsibly, and to analyse operational risk.

Physical climate change aspects: We understand the likely material impacts that the physical effects of climate change will have on our customers, including the impacts of significant changes in temperature variations, extreme weather and flooding. Climate change represents the single biggest risk to our business and adaptation is necessary to mitigate this.

Regulatory climate change aspects: We understand that in order for the UK Government to reach its binding carbon targets additional regulation will be needed which will impact our business operations.

To support and evidence this intent, the Board of Taylor Wimpey plc has mandated a series of decisive policies. We use our Climate Policy in particular to guide our business practices, guide the adaptation of the homes and communities we build, to inform our mitigation measures and to benefit from commercial opportunities accessible in a low carbon economy.

iii. HOW THE SHORT TERM STRATEGY HAS BEEN INFLUENCED:

a) In 2014, we outsourced energy data management to the specialist AJR to support more consistent and accurate carbon data. AJR read our meter estate, populate a specialist data base, and provide reports. We continue to evolve the methodology for measuring Scope 3 emissions. We have analysed resource intensity in the supply chain including energy, carbon, water, waste and resource cost. This will be used to mitigate risks of future resource costs as part of a wider sustainable procurement strategy.

b) A combination of factors including business, sustainability strategies, carbon reduction and cost supported our commitment to a carbon reduction target. We take part in many working groups, and contribute to changes to planning policy (e.g. National Planning Policy Framework). We continue to research our 'fabric first' approach, concentrating on highly insulated walls and windows and limiting linear thermal bridging and have adopted the new standard plasterboard measure to minimise waste from our constructions. Energy efficient and renewable energy technologies are used to meet regulatory requirements.

IV HOW THE LONG TERM STRATEGY HAS BEEN INFLUENCED:

a) Project 2020 is a long term initiative looking at trends and industry innovations to future-proof our product range for 2020 and beyond which reflects evolving customer lifestyles and expectations. It explores and evaluates trends, design innovations, technology, materials and build methodology. As part of this process we are engaging with organisations such as BRE and RIBA as well as academics, suppliers, industry and research bodies. Work streams include product design, customer demographics, alternative build methodologies, new technologies and build materials, supply chain and more. We are looking at a range of environmental issues including energy efficiency, zero-energy buildings, renewable energy technologies, resource efficiency and carbon reduction.

A number of the Project 2020 work streams have come to fruition as an indirect result of the adoption of the Paris Climate Agreement in 2015. These include research into alternative build methodologies that promote resource efficiency as well as our increasing preference for renewable energy installations. Paris has reaffirmed our commitment to promoting sustainability and influences the context in which business decisions are made.

v. HOW THIS IS GAINING TAYLOR WIMPEY STRATEGIC ADVANTAGE:

Our approach to climate offers us competitive advantages such as cost savings through energy efficient operations, and in future in our supply chain. This includes a better chance of securing planning permission, lower energy bills for customers and engagement of younger staff who wish to work for a sustainable organisation.

vi. THE MOST SUBSTANTIAL BUSINESS DECISION MADE RELATING TO CLIMATE CHANGE:

We have decided to switch part of our electricity tariff to a low carbon electricity tariff. We now procure 30.5% of our total electricity supply (some 22,305MWh in 2017 from REGO-backed supplies, which has saved around 2,395 tonnes CO2e.

C3.1d

(C3.1d) Provide details of your organization's use of climate-related scenario analysis.

Climate- related scenarios	Details
Other,	Based on changes the Environment Agency made to climate change allowances Taylor Wimpey appointed specialist flooding consultant BWB to
please	conduct a detailed review of the implications for floor risk assessments, net developable area and flood mitigation works scope and costs. The
specify	scenario analysis reviewed 44 flood risk assessments and conducted a more detailed assessment on 16 of these. The project found that the Taylor
(Env	Wimpey business as a whole is not currently significantly exposed to the risk of increased fluvial flood levels or extents in future climate change
Agency	scenarios. As a result of this scenario analysis, during 2017 we updated our land-buying processes to reflect the new climate change allowances. We
Climate	also held a series of training webinars on flood risk for all our technical teams as well as colleagues in our land and planning departments.
Change	
Allowances)	

C4. Targets and performance

C4.1

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

C4.1b

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

Target reference number Int 1

Scope Scope 1 +2 (market-based)

% emissions in Scope 100

% reduction from baseline year 25

Metric Other, please specify (tCO2e per 100 sq m completed home)

Base year

2013

Start year

2013

Normalized baseline year emissions covered by target (metric tons CO2e) 2.82

Target year 2018

Is this a science-based target? No, but we anticipate setting one in the next 2 years

% achieved (emissions) 38.7

Target status Underway

Please explain

In 2014 we introduced an intensity reduction target for direct carbon emissions (scope 1 and 2) of 25% by 2018 with a 2013 baseline. We met and exceeded this goal in 2017, achieving a 38.7% reduction. We have also reduced absolute emissions by 21.9% since 2013. We achieved our reduction in our carbon emissions intensity a year ahead of schedule thanks to an increase in the proportion of electricity we buy from renewable sources and an improvement in energy efficiency on our sites and offices. Our energy use intensity decreased by 4.3% over the last year and by 14% since 2013.

% change anticipated in absolute Scope 1+2 emissions 0

% change anticipated in absolute Scope 3 emissions

0

Target reference number

Int 2

Scope Scope 1 +2 (market-based)

% emissions in Scope 100

% reduction from baseline year 50

Metric

Other, please specify (tCO2e per 100 sq m completed home)

Base year 2013

Start year

2017

Normalized baseline year emissions covered by target (metric tons CO2e) 1.73

Target year

2023

Is this a science-based target? No, but we anticipate setting one in the next 2 years

% achieved (emissions)

0

Target status

New

Please explain

We worked with the Carbon Trust during 2017 to set a new target. Our goal is now to achieve a 50% reduction in our direct emissions (scope 1 and 2) intensity by 2023 against our 2013 baseline.

% change anticipated in absolute Scope 1+2 emissions

18

% change anticipated in absolute Scope 3 emissions

0

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

Target

Waste

KPI – Metric numerator

tonnes waste

KPI – Metric denominator (intensity targets only) 100 square metres build

Base year 2017

Start year 2017

Target year 2018

KPI in baseline year 5.38

KPI in target year 5.38

% achieved in reporting year 0

Target Status New

Please explain

Waste is a cost to our business and the environment. We aim to use resources efficiently, to reuse and recycle where possible and to treat waste materials as a potential resource. We reuse large volumes of soil and aggregates on our sites during the development process but we do not have comprehensive data for this. Our planned appointment of a network of Resource Champions will help us promote the importance of resource efficiency, waste and recycling in our regional businesses. In 2018 our aim as a minimum is to maintain construction waste at 2017 levels.

Part of emissions target N/A

Is this target part of an overarching initiative? No, it's not part of an overarching initiative

C4.3

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

C4.3a

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

	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	4	3254.41
Not to be implemented	0	0

C4.3b

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

Activity type

Energy efficiency: Processes

Description of activity Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

461.46

Scope 1

Voluntary/Mandatory Voluntary

Annual monetary savings (unit currency – as specified in CC0.4) 100000

Investment required (unit currency - as specified in CC0.4)

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

We found that thermostats in many of our show homes were left on factory settings, so heating stayed on during the evenings, wasting energy. Our Sustainability Team met with Sales Executives at many of our show homes to show how adjusting the thermostat timer can save energy and money. Reducing gas usage in our Sales Show homes by reprogramming the thermostat could save 40% gas usage.

Activity type

Energy efficiency: Building fabric

Description of activity Other, please specify (New equipment)

Estimated annual CO2e savings (metric tonnes CO2e) 249.24

Scope 2 (location-based)

Voluntary/Mandatory Voluntary

Annual monetary savings (unit currency – as specified in CC0.4) 161779 Investment required (unit currency – as specified in CC0.4) 1600000

Payback period

4 - 10 years

Estimated lifetime of the initiative Ongoing

Comment

Retrofitted 169 site compounds that >3 years remaining life.

Activity type

Energy efficiency: Building fabric

Description of activity Other, please specify (New equipment)

Estimated annual CO2e savings (metric tonnes CO2e) 148.71

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in CC0.4) 70200

Investment required (unit currency – as specified in CC0.4) 320000

Payback period 4 - 10 years

Estimated lifetime of the initiative Ongoing

Comment Buying of new eco-spec compounds.

Activity type Low-carbon energy purchase

Description of activity

Other, please specify (Low-carbon energy purchase)

Estimated annual CO2e savings (metric tonnes CO2e) 2395

Scope 2 (market-based)

Voluntary/Mandatory Voluntary

Annual monetary savings (unit currency – as specified in CC0.4) 308503

Investment required (unit currency - as specified in CC0.4)

0

Payback period

<1 year

Estimated lifetime of the initiative Ongoing

Comment

We have decided to switch part of our electricity tariff to a low carbon electricity tariff. We now procure 30.5% of our total electricity supply (some 22,305MWh in 2017 from REGO-backed supplies, which has saved around 2,395 tonnes CO2e. Cumulative savings to date, in regards to tariff savings achieved overall have been > \pm 300,000. There is no additional investment required as this part of normal operating costs.

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	Regulatory Standards including Building Regulations, Local Government requirements through planning and the Code for Sustainable Homes all drive improvements in the energy efficiency of the homes we build. In 2014 we completed our responsibilities under the Carbon Reduction Commitment (CRC) and do not qualify for Phase 2 and so there was no requirement to participate in 2017. In 2017 we continued to fulfil the requirements of Mandatory Carbon reporting, and we also fulfilled our requirements under ESOS (Energy Savings Opportunities Scheme) though our existing measurement processes, identifying opportunities and sending in a declaration to the Environment Agency. We have used the ESOS process to drive additional emissions reductions.
Financial optimization calculations	In our Energy and Carbon Strategy (2012) we identified significant areas for annual energy and carbon cost saving opportunities within Taylor Wimpey and our supply chain. In 2017 we continued a number of projects to reduce the direct use of energy (Scope 1 and 2) that was influenced by financial optimisation. These included decisions made during the purchase and refurbishment of new offices; that all new porta-cabins on building sites must be to an energy efficient standard; and that existing building sites with a significant time to run must be retrofitted to an energy efficient standard. In our Energy and Carbon Strategy we projected value at risk from energy and carbon cost increases and continue to work on an analysis of the energy and carbon costs in the supply chain. Through reviewing and highlighting the costs of Allowable Solutions, we continued research into alternatives for carbon offsetting. We have looked at various options through our Carbon Futures research (sequestration in public open space, energy embodied in water and design over building regulations) and continue to expand this research.
Other	Policy and strategy: Within our Sustainability Strategy, sustainability is both good for business and the right thing to do. We introduce six sustainability principles, one of which is as follows: 'We seek to embrace sustainable principles in order to achieve our business objectives, which include including delivering greater efficiencies, less waste, more certain planning outcomes, better relationships with stakeholders and communities based on trust, and an enhanced reputation'. By linking sustainability with traditional business objectives, we have set a policy position which could be used to encourage investment in emission reduction.
Compliance with regulatory requirements/standards	Regulatory Standards including Building Regulations, Local Government requirements through planning and the Code for Sustainable Homes drive improvements in the energy efficiency of the homes we build. ESOS (Energy Savings Opportunities Scheme) helped to provide data to help make the case for reduction in emissions, and this was enhanced by Mandatory Carbon reporting requirements.

C4.5

(C4.5) 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

C4.5a

(C4.5a) 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

Group of products

Description of product/Group of products

Taylor Wimpey builds homes that achieve high levels of energy efficiency, allowing homeowners to reduce their Scope 1 and 2 carbon emissions by using less energy in their homes. In addition, the location of houses near to public transport nodes, cycle routes and increased cycle storage facilities means that our customers can also lead to savings on our Scope 3 transportation emissions. The UK Government has now phased out 'The Code for Sustainable Homes' regulations which was replaced nationally by new Building Regulations. Although it is anticipated the number of new homes we build to the Code will reduce, in 2017 we completed 2,451 homes to Code level three (2016: 3,667) and 906 homes to Code level four (2016: 1,282). Taylor Wimpey is thinking about going into the 'homes in use' space and further information can be found in the sustainability report, published in March 2017. Taylor Wimpey is actively participating in policy development to facilitate positive changes in this area. Improvements made to current building regulations include improved insulation and air tightness, and the use of more thermally efficient products and linear thermal bridging designs. Taylor Wimpey also carries out work with our manufacturing partner which has led to the introduction of new, easy-to-use products into the marketplace. These help to prevent heat loss and reduce energy demand in homes. Taylor Wimpey employs a 'fabric first' approach to energy efficiency, concentrating in highly efficient walls and windows. We make all of our homes airtight and use mechanical ventilation to maintain good air guality and comfort. Finally, where appropriate, we use low carbon and renewable technologies. In 2017 we delivered significant progress with our Project 2020 research and innovation initiative, and are due to start a number of exciting pilots on our sites in 2018, to help us future-proof our product for the next generation of customers including the the use of timber frame to replace block work and cross-laminated timber panels with wood fibre insulation.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions Other, please specify (Code for Sustainable Homes Code Level 4)

% revenue from low carbon product(s) in the reporting year 7.2

Comment

7.2% is an estimate based on % of low carbon homes built.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start January 1 2013

Base year end December 31 2013

Base year emissions (metric tons CO2e) 16107

Comment

Scope 2 (location-based)

Base year start January 1 2013

Base year end December 31 2013

Base year emissions (metric tons CO2e) 10526

Comment

Under the new GHG Protocol Scope 2 Guidance, organisations wishing to report their carbon emissions are now required to publish two numbers for their Scope 2 emissions. The first of these is calculated under the location-based method, using a national or regional emission factor, as in previous years. The second is generated using the market-based method. This method enables organisations to report the carbon emissions of the electricity they have chosen to purchase based on specific suppliers fuel mix disclosure, and/or on the emissions from specific tariffs and/or based on a residual grid mix. Both the 'location based' and 'market-based' Scope 2 emissions are published in our Annual Report and Accounts and our Sustainability Report. The calculation methodology for the market-based Scope 2 emissions is given below. For 2017, in addition to the usual model, we have extracted all actual consumption by supplier and included where known the specific tariff name. In this extract we have not included carbon emissions factors as these will be obtained by the carbon trust through dialogue with suppliers. Please note that where there have been changes of supplier, the supplier quoted is the one in place at the commencement of that quarter

Scope 2 (market-based)

Base year start January 1 2013

Base year end December 31 2013

Base year emissions (metric tons CO2e) 14229

Comment

Under the new GHG Protocol Scope 2 Guidance, organisations wishing to report their carbon emissions are now required to publish two numbers for their Scope 2 emissions. The first of these is calculated under the location-based method, using a national or regional emission factor, as in previous years. The second is generated using the market-based method. This method enables organisations to report the carbon emissions of the electricity they have chosen to purchase based on specific suppliers fuel mix disclosure, and/or on the emissions from specific tariffs and/or based on a residual grid mix. Both the 'location based' and 'market-based' Scope 2 emissions are published in our Annual Report and Accounts and our Sustainability Report. The calculation methodology for the market-based Scope 2 emissions is given below. For 2017, in addition to the usual model, we have extracted all actual consumption by supplier and included where known the specific tariff name. In this extract we have not included carbon emissions factors as these will be obtained by the carbon trust through dialogue with suppliers. Please note that where there have been changes of supplier, the supplier quoted is the one in place at the commencement of that quarter

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

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

Row 1

Gross global Scope 1 emissions (metric tons CO2e) 18889

End-year of reporting period <Not Applicable>

Comment

C6.2

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

Row 1

Scope 2, location-based We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

C6.3

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

Row 1

Scope 2, location-based 8236

Scope 2, market-based (if applicable) 4794

End-year of reporting period <Not Applicable>

Comment

C6.4

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

C6.4a

(C6.4a) 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 Fugitive emissions (refrigerant gases) Relevance of Scope 1 emissions from this source Emissions are not relevant Relevance of location-based Scope 2 emissions from this source Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why the source is excluded

Currently excluded on the basis of expected immateriality and difficulty in acquiring.

Source

Gas and electricity of part-exchange properties

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable) Emissions are not relevant

Explain why the source is excluded

Excluded on the basis of immateriality due to very few completions of this type

Source

Certain joint venture properties

Relevance of Scope 1 emissions from this source Emissions are not evaluated

Relevance of location-based Scope 2 emissions from this source

Emissions are not evaluated

Relevance of market-based Scope 2 emissions from this source (if applicable) Emissions are not evaluated

Explain why the source is excluded

This source if emissions was excluded where Taylor Wimpey was not part of the handover process. In these cases other house builders have captured MCR-related data

C6.5

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e 1097671

1097671

Emissions calculation methodology

Purchased goods and services is broken down into two categories: overheads and construction materials. Overheads: Each business unit in Taylor Wimpey enters their financial figures monthly onto a centralised portal. The total annual spend for each overhead category is multiplied by the relevant environmentally extended input-output (EEIO) factor to calculate Scope 3 emissions. Construction: Taylor Wimpey takes the actual spend on construction materials across the business from COINS, an enterprise software solution, which provides actual spend on construction materials for 49 building material categories, plus some additional categories. The overall spend for each of the Coins categories is then multiplied by environmentally extended input output (EEIO) emission factors to calculate the Scope 3 emissions of construction materials.

Percentage of emissions calculated using data obtained from suppliers or value chain partners 100

Explanation

Extended Input Output (EEIO) analysis is a pragmatic method for identifying emission hotspots, and leverages Taylor Wimpey's financial procurement records.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

0

Emissions calculation methodology

Included in 'Purchased goods and services'

Percentage of emissions calculated using data obtained from suppliers or value chain partners 100

Explanation

Included in 'Purchased goods and services'

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

Evaluation status Relevant, calculated

Metric tonnes CO2e

6290

Emissions calculation methodology

Defra (Department for Environment, Food and Rural Affairs) have recently clarified that carbon emissions associated with extraction, production, transportation or transmission losses of energy should be considered within Scope 3 emissions. These emissions have been estimated on the basis of energy consumption data and Defra conversion factors. All input data was primary, although a small number of data points were rationalised by Taylor Wimpey to replace outliers.

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

100

Explanation

Recommended methodology for GHG reporting companies (GHG Protocol)

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

0

Emissions calculation methodology

Included in 'Purchased goods and services'

Percentage of emissions calculated using data obtained from suppliers or value chain partners 100

Explanation

Included in 'Purchased goods and services'

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1314

Emissions calculation methodology

Data are split into multiple categories, the most important of which are general waste, compactable waste, wood and inert waste. A further dataset covers plasterboard waste. Other waste streams (i.e., soil, remediation and demolition wastes) are not estimated due to the difficulty in obtaining the data. The total volume of waste in each category measured is multiplied by the latest waste emission factors published by BEIS in order to calculate Scope 3 emissions.

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

100

Explanation

It should be noted that waste data is for the UK only and excludes Spain. However, given the size of operations in Spain, its contribution to total waste is considered to be negligible.

Business travel

Evaluation status Relevant, calculated

Metric tonnes CO2e 6812

Emissions calculation methodology

Rail, taxi and flight distance activity data were gathered through staff surveys and extrapolated to cover all of Taylor Wimpey. 'Grey fleet' (where staff have the benefit of a company car allowance) emissions are included. Whilst the regional business have different processes for purchasing business travel, Taylor Wimpey collects a sample of staff expenses from four to five business units. Mileage is converted to kgCO2e using the latest BEIS emissions factors.

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

100

Explanation

Car fleet emissions are already included in Scope 1 and 2 footprint. Data on business travel was not available for the entire year for all offices, and secondary data is less accurate

Employee commuting

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

We do not currently have data to estimate this.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

These emissions from offices / equipment leased by Taylor Wimpey have already been taken into account in our Scope 1 and 2 emissions as we take the operational control approach.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Taylor Wimpey does not procure the services of third parties to undertake downstream transportation activities.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Sold products (houses) are not subsequently processed and therefore this category is not relevant.

Use of sold products

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

The use of the homes we sell is not assessed. Although this is not assessed, we understand the responsibility we have to ensure that our properties perform as efficiently as possible for our customers during their operational lifetimes.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

The demolition or disassembly of the homes we build is not assessed. Due to the long term design life of our properties and their sale to third parties, in practice responsibility for demolition of the homes we build falls to demolition contractors and therefore data collecting is not undertaken.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Taylor Wimpey does not have any downstream leased assets of significance

Franchises

Evaluation status Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Taylor Wimpey does not have franchises

Investments

Evaluation status Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Taylor Wimpey does not have equity or debt investments of significance.

Other (upstream)

Evaluation status Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

n/a

Other (downstream)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

n/a

C6.7

C6.7a

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

C6.10

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

Intensity figure 0.0000059727

Metric numerator (Gross global combined Scope 1 and 2 emissions) 23683

Metric denominator unit total revenue

Metric denominator: Unit total 3965200000

Scope 2 figure used Market-based

% change from previous year 23

Direction of change Decreased

Reason for change

Intensity figure: 0.00000597271 We have undertaken a number of emissions reduction initiatives during the reporting year including switching some of our electricity supplies to renewable electricity and reducing gas usage in our show homes by reprogramming the thermostats. In addition we have seen a 7.9% increase in revenue. Overall this has led to a 23% decrease in Scope 1+2 emissions per unit currency total revenue.

Intensity figure

1.73

Metric numerator (Gross global combined Scope 1 and 2 emissions) 23683

Metric denominator

Other, please specify (100 square meters of completed home)

Metric denominator: Unit total

Scope 2 figure used Market-based

% change from previous year 19.1

Direction of change

Decreased

Reason for change

We have undertaken a number of emissions reduction initiatives during the reporting year including switching some of our electricity supplies to renewable electricity and reducing gas usage in our show homes by reprogramming the thermostats. In addition we have seen an increase in build completion rate. Overall this has led to a 19.1% decrease in Scope 1+2 emissions per 100 square meters of completed home.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide? No

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

Country/Region	Scope 1 emissions (metric tons CO2e)	
United Kingdom of Great Britain and Northern Ireland	18651	
Spain	238	

C7.3

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

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Taylor Wimpey Bristol	412.2
Taylor Wimpey Central London	6.6
Taylor Wimpey East Anglia	828.1
Taylor Wimpey East London	1005.3
Taylor Wimpey East Midlands	514
Taylor Wimpey East Scotland	997.2
Taylor Wimpey Exeter	802
Taylor Wimpey Manchester	916.3
Taylor Wimpey Midlands	659.5
Taylor Wimpey North East	1395.1
Taylor Wimpey North Midlands	591.9
Taylor Wimpey North Thames	438.7
Taylor Wimpey North West	935.7
Taylor Wimpey North Yorkshire	1001.9
Taylor Wimpey Oxfordshire	729
Taylor Wimpey South East	1045.9
Taylor Wimpey South Midlands	867.8
Taylor Wimpey South Wales	472.7
Taylor Wimpey South Thames	1100
Taylor Wimpey Southern Counties	378.3
Taylor Wimpey West London	989.3
Taylor Wimpey West Midlands	937.1
Taylor Wimpey West Scotland	580.3
Taylor Wimpey Yorkshire	542
Taylor Wimpey Europe	238.2
Taylor Wimpey Head Office	408.9
Taylor Wimpey Logistics	94.5

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

Country/Region		I ' '	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United Kingdom of Great Britain and Northern Ireland	7842	4248.1	
Spain	395	546.15	

C7.6

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

C7.6a

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

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Taylor Wimpey Head Office	16.16	12.87
Taylor Wimpey Spain	394.7	546.15
Taylor Wimpey Logistics	46.98	37.42
Taylor Wimpey Bristol	338.26	185.95
Taylor Wimpey Central London	30.04	33.58
Taylor Wimpey East Anglia	350.87	210.81
Taylor Wimpey East London	357.49	248.98
Taylor Wimpey East Midlands	370.64	192.92
Taylor Wimpey East Scotland	313.74	122.62
Taylor Wimpey Exeter	203.59	117.05
Taylor Wimpey Manchester	339.02	236.74
Taylor Wimpey Midlands	283.2	172.07
Taylor Wimpey North East	294.41	142.41
Taylor Wimpey North Midlands	257.19	156.69
Taylor Wimpey North Thames	439.82	211.49
Taylor Wimpey North West	331.2	155.95
Taylor Wimpey North Yorkshire	383.67	214.66
Taylor Wimpey Oxfordshire	347.04	154.09
Taylor Wimpey South East	253.64	156.17
Taylor Wimpey South Midlands	460.31	268.98
Taylor Wimpey South Wales	361.33	185.08
Taylor Wimpey South West Thames	323.02	166.65
Taylor Wimpey Southern Counties	355.67	205.37
Taylor Wimpey West London	413.49	244.21
Taylor Wimpey West Midlands	329.57	115.81
Taylor Wimpey West Scotland	314.81	123.86
Taylor Wimpey Yorkshire	326.27	175.61

C7.9

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	2395	Decreased	8.31	Emissions value has been calculated as follows: Change in emissions due to emissions reduction activities/2016 scope 1 + 2 emissions = 2395/28809x100 = 8.31%
Other emissions reduction activities	859	Decreased	2.98	Emissions value has been calculated as follows: Change in emissions due to emissions reduction activities/2016 scope 1 + 2 emissions = 859/28809x100 = 2.98%
Divestment		<not Applicable></not 		
Acquisitions		<not Applicable></not 		
Mergers		<not Applicable></not 		
Change in output		<not Applicable></not 		
Change in methodology		<not Applicable></not 		
Change in boundary		<not Applicable></not 		
Change in physical operating conditions		<not Applicable></not 		
Unidentified	1872	Decreased	6.5	Emissions value has been calculated as follows: Unidentified change in emissions/2016 scope 1 + 2 emissions = 1871.59/28,809x100 = 6.50%. The activities that have contributed to the decrease are identified but their relative quantified contribution is not known, and hence we have put these together under 'unidentified'. They include behaviour change and refurbishing offices.
Other		<not Applicable></not 		

C7.9b

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

Market-based

C8. Energy

C8.1

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

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	81461.44	81461.44
Consumption of purchased or acquired electricity	<not applicable=""></not>	6813	16857.32	23670.32
Consumption of purchased or acquired heat	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>	<not Applicable></not
Consumption of purchased or acquired steam	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>	<not Applicable></not
Consumption of purchased or acquired cooling	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>	<not Applicable></not
Consumption of self-generated non-fuel renewable energy	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>	<not Applicable></not
Total energy consumption	<not applicable=""></not>	6813	98318.76	105131.76

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks) Butane

Heating value HHV (higher heating value)

Total fuel MWh consumed by the organization 337.48

MWh fuel consumed for the self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration <Not Applicable>

Fuels (excluding feedstocks) Diesel

Heating value HHV (higher heating value)

Total fuel MWh consumed by the organization 22287.99

MWh fuel consumed for the self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration <Not Applicable>

Fuels (excluding feedstocks) Gas Oil

Heating value HHV (higher heating value)

Total fuel MWh consumed by the organization 26210.57

MWh fuel consumed for the self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration <Not Applicable>

Fuels (excluding feedstocks)

Petrol

76,456 MWh associated with Unknown fuel included in Petrol figure

Heating value HHV (higher heating value)

Total fuel MWh consumed by the organization 931.48

MWh fuel consumed for the self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration <Not Applicable>

Fuels (excluding feedstocks) Natural Gas

Heating value HHV (higher heating value)

Total fuel MWh consumed by the organization 31080.79

MWh fuel consumed for the self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks) Liquefied Petroleum Gas (LPG)

Heating value HHV (higher heating value)

Total fuel MWh consumed by the organization 203

MWh fuel consumed for the self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

Fuels (excluding feedstocks) Propane Gas

Heating value HHV (higher heating value)

Total fuel MWh consumed by the organization 410.14

MWh fuel consumed for the self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration <Not Applicable>

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Butane

Emission factor 2.94043

Unit metric tons CO2e per MWh

Emission factor source DEFRA 2017

Comment LPG CO2e

Diesel

Emission factor 2.67193

Unit kg CO2e per liter

Emission factor source

DEFRA (2017)

Comment

Multiple emission factors used: UK Diesel Site 100% mineral diesel = 2.67193 kgCO2e/litre UK Diesel (Car) Average biofuel blend = 2.60016 kgCO2e/litre Spain Diesel = 0.17887 kgCO2e/km

Gas Oil

Emission factor 2.95351

Unit kg CO2e per liter

Emission factor source

DEFRA (2017)

Comment

Liquefied Petroleum Gas (LPG)

Emission factor

2.94043

Unit metric tons CO2e per Mg

Emission factor source DEFRA (2017)

Comment

Multiple emission factors used: 2.94043753 kgCO2e/kg 1.50807 kgCO2e/litre 5.8060695 kgCO2e/m3

Natural Gas

Emission factor 0.18416

Unit metric tons CO2e per MWh

Emission factor source DEFRA (2017)

Comment Natural Gas CO2e

Petrol

Emission factor 2.19835

Unit kg CO2e per liter

Emission factor source DEFRA (2017)

Comment

Multiple emission factors used: Petrol (Car) Average biofuel blend = 2.19835 kgCO2e/litre Unleaded Petrol = 0.18568 kgCO2e/km

Propane Gas

Emission factor

2.94043

Unit metric tons CO2e per Mg

Emission factor source DEFRA (2017)

Comment

Multiple emission factors used: 2.940438 kgCO2e/kg 1.508070 kgCO2e/litre

C8.2f

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

 Basis for applying a low-carbon emission factor

 Energy attribute certificates, Guarantees of Origin

 Low-carbon technology type

 Solar PV

 Wind

 Hydropower

 MWh consumed associated with low-carbon electricity, heat, steam or cooling

 6813

 Emission factor (in units of metric tons CO2e per MWh)

 0

 Comment

C9. Additional metrics

C9.1

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

C10. Verification

C10.1

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

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	No third-party verification or assurance

C10.1a

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

Scope 1

Verification or assurance cycle in place Annual process

Status in the current reporting year Complete

Type of verification or assurance Limited assurance

Attach the statement

Carbon Trust Standard Verification Letter - Taylor Wimpey UK Ltd - 2018.02.pdf Carbon Trust Standard Verification Diploma - Taylor Wimpey UK Ltd - 2018.02.pdf

Page/ section reference

1

Relevant standard Verification as part of Carbon Trust standard certification

Proportion of reported emissions verified (%) 100

100

Scope 2 market-based

Verification or assurance cycle in place Annual process

Status in the current reporting year Complete

Type of verification or assurance Limited assurance

Attach the statement

Carbon Trust Standard Verification Diploma - Taylor Wimpey UK Ltd - 2018.02.pdf Carbon Trust Standard Verification Letter - Taylor Wimpey UK Ltd - 2018.02.pdf

Page/ section reference

1

Relevant standard Verification as part of Carbon Trust standard certification

Proportion of reported emissions verified (%) 100

C10.2

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

Yes

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	, 0	The Carbon Trust review year on year change in Scope 1 + 2 emissions	The Carbon Trust review year on year change in Scope 1 + 2 emissions

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)? No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period? No

C11.3

(C11.3) Does your organization use an internal price on carbon? No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers

Yes, other partners in the value chain

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number 83.35

% total procurement spend (direct and indirect) 90

% Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

Of our 90 group suppliers, 75 are registered with the school – 83.35%. In the past 12 months, 93 delegates from these organisations have attended a training session with the SCSS. Since the School began in 2012, 392 delegates from these organisations have attended training.

Impact of engagement, including measures of success

90% of total spend refers to supplies that are centrally procured (regional procurement is separate). At our request, 75/90 of our suppliers have registered for Sustainability Supply Chain School and have reviewed a combined 1080 documents on the portal showing that they are engaging rather than box-ticking. We conducted a workshop with our sub-contractors in early 2017 and anticipate doing more of these in the future.

Comment

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

Type of engagement

Education/information sharing

Details of engagement

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

Size of engagement

100

% Scope 3 emissions as reported in C6.5

100

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

The rationale for engaging with these suppliers is that we aim to enagage with 100% of our customers. Our new integrated Taylor Wimpey website contains a dedicated customer service section with useful information for new and existing homeowners.

Impact of engagement, including measures of success

Our sales and marketing materials include details of the sustainability and community features of developments as well as the environmental features of our homes, allowing us to communicate these features to our customers. This is one way in which success is measured. Our new integrated Taylor Wimpey website contains a dedicated customer service section with useful information for new and existing homeowners. There are step-by-step guides to help the buying process as well as living in a Taylor Wimpey home, information on how we build and how to contact us, advice on warranty issues and details of our Customer Charter and Customer Journey. Our website also includes a section on sustainable living, explaining what our customers can do to live a sustainable life and how to take steps to improve our environmental, social and economic impact on our planet. Advice ranges from energy-efficiency tips to growing your own vegetables, getting to know your neighbours and supporting your local shops and services. Taylor Wimpey has installed Sustainability Boards at sales areas to inform prospective customers of our work in the sustainability area, including placing a high priority on insulation to enable customer's feedback once they have moved in terms of their new home, the development, and any other general issues. We also engage extensively with local communities in the areas in which we operate. Many of our customers come from these local communities - 75% of our customers move from a 5 mile radius of the Taylor Wimpey development they are purchasing on – and so by listening and responding to community requirements it will give communities confidence that Taylor Wimpey will behave responsibly, which can build both our reputation and brand.

C12.1c

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

Climate-related engagement strategy:

We work with many different stakeholders as we run our business. We strive to be open and honest about how we work and to listen and respond to our stakeholder views. This dialogue gives us access to new ideas and insights and helps us manage sustainability issues.

Example:

We carried out a formal materiality assessment which reviewed and ranked a wide range of issues. It took account of how important each issue is to our business strategy; which issues could represent a significant risk or opportunity for the business; how important each issue is to our key stakeholders; and whether our business operations could have a significant negative or positive impact on an issue. Details of the methodology are included on our website. Via the materiality review we engaged with partners in the value chain. We sought the views of investors, local and central government, suppliers, NGOs, industry groups, registered social landlords and sustainable business organisations.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers Trade associations Other

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Energy efficiency	Support	The 'Housing standards review' (HSR) was launched by the government in October 2012 following the housing and construction 'Red Tape Challenge', which began in Spring 2012. It was a review of the building regulations framework and housing standards, intended to consolidate and simplify codes, standards, rules, regulations and guidance in order to reduce unnecessary costs and complexities in the house building process. It was undertaken by a range of cross-sectoral working groups that made proposals on: - Accessibility; - Space; - Security; - Water efficiency; - Energy; - Indoor Environmental Standards; - Materials; - Process and compliance. Taylor Wimpey attended working groups on space, accessibility and security (UK Associate Techical Director, UK Design Director and Group Housing Portfolio Director). Following the Government's Housing Standards Review, a range of our house types now also comply with the new Nationally Described Space Standard and the optional higher level of accessibility in Building Regulations. Our regional businesses will be able to use these standard house types when local authorities request homes to be built to space standards or with enhanced accessibility. In addition, during 2017, Taylor Wimpey's Director of Sustainability met with Michael Gove prior to the publication of the 25-year Environment Plan.	view was to review
Other, please specify (Government and planning policy)	Support	Engagement with government and opposition on all emerging housing and planning policy. This includes participation in the Plans Management Group (PMG), via the Home Builders Federation (HBF), as well as the HBF committee working groups, e.g. National Planning Committee.	Ensure local plans are robust and Community Infrastructure Levy (CIL) charge schedules are appropriate; Starter Homes and the Housing and Planning Bill.
Other, please specify (Super- fast broadband)	Support	This is engaging with DCLG, specifically the Building Standards and Regulation department. There are a number of people now that are working from home - so this supports the ability to work from home by improving home-based internet connections. This should benefit commuter emissions/road congestion/energy efficiency. This work stream is undertaken with telecommunications providers in order to improve site technology infrastructure.	We support the roll out of super-fast broadband with no exceptions.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership? Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

HBF (Home Builders Federation)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

To be responsible in discussing how the housing industry can meet the UK Government's policy requirements with regards to climate change issues in a fair and proportionate way. For example, the HBF continues to collaborate with Government on low and zero carbon housing.

How have you, or are you attempting to, influence the position?

The HBF is the voice of the housebuilding industry and therefore reflects the opinion of its members. As Taylor Wimpey is very actively involved in working with and influencing industry bodies and regulators, we believe we are the leader among our peers in this space. Our CEO Pete Redfern is on the HBF board. Jennie Daly, UK Land Director attends the Plans Management Group, the Burden of Regulation Group and the Housebuilders Forum. Our UK Associate Technical Director, Dale Saunders, chairs the HBF National Technical and Sustainability Committee (NTSC) and the HBF Standard Assessment Procedures (SAP) working group. Ian Heasman, our Director of Sustainability chairs the HBF waste group. There are also other members of staff which participate in relevant working groups.

Trade association

National House Building Council (NHBC)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The organisation has been at the heart of industry engagement on sustainability for a number of years; raising the construction standards of new homes in the UK, and providing consumer protection for homebuyers through its 10-year Buildmark warranty. It provides training to house builders, and research to help the industry progress with the zero carbon homes agenda.

How have you, or are you attempting to, influence the position?

Our UK Associate Technical Director, Dale Saunders, is a member of the NHBC Standards Review Group, and the NHBC Building Control Industry Support Group.

Trade association

Futures Group

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

HBF joined the Modern Masonry Alliance to form the Futures Group in 2007. It aims to investigate the challenges of the Code for Sustainable Homes and the zero carbon agenda, and provides construction solutions and publications.

How have you, or are you attempting to, influence the position?

Our UK Associate Technical Director is a member of the Futures Group – run by the modern masonry alliance- which looks at building regulations, compliance issues and information for developers.

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

1. DvAB (Design vs. As-Built). Individuals within Taylor Wimpey are involved with the DvAB project examining the energy performance of new homes. This is a Department for Communities and Local Government (DCLG) funded project which is being led by the Zero Carbon Hub, a non-profit public/private partnership established to take day-to-day operational responsibility for coordinating delivery of low and zero carbon new homes in the UK. The project brings together leading housebuilders and industry experts to investigate the actual performance of homes and better understand how this compares to that expected by the original design.

Taylor Wimpey's Design Director and UK Associate Technical Director are both leading on working groups that form part of the project. DvAB considers the construction process as a whole, from design and planning to testing and verification, gathering evidence of areas where an energy use 'performance' gap' could occur. Priorities will be established and recommendations for change proposed so that industry can work to ensure that new homes deliver in practice the CO2 emission reductions that they are expected to. We support the Government's drive to reduce carbon emissions from both new homes and existing housing stock. We engage with Government and industry with the aim of achieving practical and implementable climate policies for Taylor Wimpey and the housebuilding industry as a whole. This has now come to a close earlier in 2015 and is leading to some in-house testing to this effect.

2. FEES. We are involved in a field trial with regard to the UK Government's proposed new requirements with regard to a new Fabric Energy Efficiency Standard (FEES) for new housing. This project is also being led by the Zero Carbon Hub. We are testing the postoccupancy energy performance of some of our homes at our Rowner regeneration scheme in Gosport, providing a key field trial site to assess the feasibility and practicality of the UK Government's proposed new requirements with regard to a new Fabric Energy Efficiency Standard (FEES).

3. APPCCG. Taylor Wimpey's Sustainability Director is a member of the All Party Parliamentary Climate Change Group (APPCCG). The group organises regular events in Whitehall on all aspects of Climate Change. The purpose of the APPCCG is to raise awareness of the threat of climate change and to promote policies to counter that threat. Taylor Wimpey fully supports the aims of the APPCCG.

4. UK Government. Our Group Operations Director communicates on a regular basis with Government, on behalf of Taylor Wimpey and on occasion on behalf of the Home Builders Federation (HBF). Topics include practical approaches to zero carbon housing, the Burden of Regulation for the housebuilding industry and planning issues that include sustainability.

5. All Party Parliamentary Group on Environment: In 2017 our Sustainability Director was a member of the All Party Parliamentary Group on Environment, which aims to raise interest on environmental issues in both the House of Commons and the House of Lords.

C12.3f

(C12.3f) 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?

We understand that the effects of climate change have significant potential to impact our business and the residential developments that we build. We recognise that in order for the UK Government to reach its binding carbon targets significant additional regulation will be needed which will impact our business. A dedicated team within Taylor Wimpey is responsible for overseeing engagement with policy makers and trade associations with regard to activities that may influence policy on climate change. The same team is also part of Taylor Wimpey's Legacy, Engagement and Action for the Future (LEAF) committee and/or those responsible for developing climate change related strategy within the Company. This streamlined communication process ensures that any engagement remains consistent with Taylor Wimpey's strategic approach to sustainability and climate change.

C12.4

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

Publication

In mainstream reports

Status

Complete

Attach the document

Annual Report 2017.pdf

Content elements

Governance Strategy Risks & opportunities Emissions figures Emission targets Other metrics

Publication

In voluntary communications

Status

Complete

Attach the document

Sustainability Report 2017.pdf

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics
Other, please specify (Materiality)

C14. Signoff

C-FI

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

N/A

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Director TWUK, Member of GMT, Chair of L.E.A.F as well as Major Developments Managing Director	Other C-Suite Officer

In which language are you submitting your response? English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to
I am submitting my response	Public	Investors

Please confirm below

I have read and accept the applicable Terms