

C0. Introduction

C0.1

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

Taylor Wimpey plc is a customer-focused residential developer building and delivering homes and communities across the UK and in Spain.

We are one of the UK's leading residential developers. We do much more than build homes - we add social, economic and environmental value to the wider communities in which we operate.

We are first and foremost a local business and an important contributor to the local communities.

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
Reporting year	January 1 2019	December 31 2019	No	<Not Applicable>

C0.3

(C0.3) Select the countries/areas 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 chosen approach for consolidating your GHG inventory.

Financial control

C-CN0.7/C-RE0.7

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

New construction or major renovation of buildings

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	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. Taylor Wimpey's Divisional Chair of our London and South East Division, 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 with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and 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	<Not Applicable>	The Chief Executive Officer leads the board and is ultimately responsible for environmental matters within the organisation. The CEO puts in place the personnel structures to ensure that climate-related issues reported in the Annual Report and Sustainability Report are complete and accurate. Responsibility cascades down from the CEO to the Divisional Chair of our London and South East Division, a representative of the General Management Team who chairs the Legacy, Engagement and Action for the Future (LEAF) committee. Climate-related issues are reported to the board on a monthly basis in the form of an internal Sustainability Report, which is reviewed by the board in meetings. Key elements of this include emerging regulation, updates on progress against goals and targets and financial planning in relation to resources.

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Other, please specify (Director of Sustainability)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

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

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 initiatives, and developing, reviewing and guiding climate 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.

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, chaired by the Divisional Chair of our London and South East Division, which are attended by the Director of Sustainability. The Director of Sustainability also is responsible for developing and delivering the business’s Environment Strategy, which is due to be launched in 2020/21. Climate-related issues including climate change and other sustainability risks are included on the Company Risk Register. These risks are discussed at quarterly LEAF group meetings.

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	No, not currently but we plan to introduce them in the next two years	

C2. Risks and opportunities

C2.1

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

Yes

C2.1a

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

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

C2.1b

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

Our Company Risk Register defines impact to the business in terms of % profit before tax (PBIT). Over five years, an impact to PBIT of greater than 20% is defined as a moderate impact. An impact to PBIT of greater than 50% is defined as a major impact. An event is considered ‘very likely’ if the probability of occurring is more than 80%, and ‘likely’ if the probability of occurring is greater than a 50% chance.

C2.2

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

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

The 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 is chaired by our Divisional Chair for London and the South East, who is a member of the GMT (General Management Team) and who raises 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 several categories, including financial impact, brand impact, health, and safety and environment. The risks assessments take account of all stages of the value chain and time horizons. Physical risk case study: 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. 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. Transition risk case study: We have recently explored how the financial impact and likelihood of potential climate-related risks & opportunities might change in the future to reflect market, technological, and regulatory changes over the next decade and beyond. We considered potential impacts on the housebuilding sector, and covered the range of responses from a relatively orderly transition aligned with the Paris Agreement, to insufficient action and a failure to act, leading to climate breakdown and chaos. The risk assessment focussed primarily on a 'disorderly transition' scenario to a low carbon economy; to examine and quantify risks and opportunities across the business and value chain, and how homes and developments will need to be designed differently to take changes in climate into account. This allowed us to update the Risk and Opportunity Register, and set new priorities for business planning purposes.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	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 and SECR (Streamlined Energy and 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. An increase in fuel taxes would lead to increased operational costs if everything else were to remain constant. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS Regulatory Standards including Building Regulations and Local Government requirements through planning all drive improvements in the energy efficiency of the homes we build. Two-thirds of LPAs (Local Planning Authorities) have declared climate emergencies and climate and carbon reduction is increasingly featuring in LPA planning requirements. In January 2019 the Greater Manchester Combined Authority (GMCA) pledged to ensure that all new buildings erected in the city region will be 'net-zero' carbon by 2028. This follows pledges by Manchester City Council (2038) and Bristol City Council (2030). 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	EXAMPLE OF RISK TYPE It is vital that we stay on top of environmental legislation. The Future Homes Standard (FHS) will reduce carbon emissions of new homes by 75-80% and is likely to remove traditional fossil-fuel based heating systems from all new housing by 2025. We are awaiting the result of a government consultation on the implementation of taking a step towards the requirements of the FHS and much more energy efficient homes through building regulations, which may commence in 2020. New regulations are pending which may require an EV (electric vehicle) charging point on every new home. The FHS combined with the EV changes will change the ways homes are designed and run, and will require a step change in the electrical infrastructure needed for housing developments. Other government policy and regulation relating to housing and building includes the UK Government's 25-year Environment Plan which has the potential to impact on Taylor Wimpey's operations. The UK Governments Industrial Strategy sets out Grand Challenges to put the UK at the forefront of the industries of the future. This includes maximising the advantages for UK industry from the global shift to clean growth. For homes this will mean halving the total use of energy compared to today's standards for new build. This will include a building's use of energy for heating and cooling and appliances, but not transport. 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.
Technology	Relevant, always included	EXAMPLE OF RISK TYPE Technology has already transformed the way we live and work, and this will continue. We are looking at a range of technologies to help us meet the requirements of the FHS including air source heat pumps and wastewater heat exchangers. 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 Taylor Wimpey's customer service and giving customers more personalised information and support throughout the homebuying processes. 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	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, SECR 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 and other bodies 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. For example, we annually reviewed compliance with our supply chain policy and confirm that timber 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	EXAMPLE OF RISK TYPE There is potentially a shift in consumer preferences around low carbon homes, energy efficiency and environment in general. With the Extinction Rebellion Protests and School Strikes inspired by Swedish Schoolgirl Greta Thunberg, climate change has moved up the political agenda. The government have declared a 'climate emergency', which while largely symbolic, is the portent for tougher action. Three quarters of the UK's greenhouse gas emissions either directly or indirectly attributable to consumer actions. Seven out of ten people already feel a sense of responsibility to do something about climate change. We need to understand what this means for consumer choice and spending and adapt our business accordingly. Another risk is that customers may find the controls and maintenance of energy technologies such as heat pumps, solar photovoltaics and solar thermal problematic or costly. A lack of familiarity with these technologies may exacerbate these risks. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS We are about to issue a questionnaire to 1000 prospective house purchasers to identify their climate and environmental preferences. We are investigating the green mortgages market where there may be benefit for new build homes with low energy bills over the second-hand market. We have adopted a customer centric 'fabric-first' approach to home energy efficiency to minimise complexity and maintenance liability for energy management in the home.
Reputation	Relevant, always included	EXAMPLE OF RISK TYPE Failure to mitigate climate risk impacts on Taylor Wimpey's brand, reputation, and licence to operate, and may ultimately result in reduced demand for our products and services. Conversely proactive brand differentiation and enhanced marketing presents opportunities for our climate program to be aligned with our stakeholders values. Since the Paris Conference of Parties (COP) agreement there is a higher international profile and greater onus on organisations who do not manage climate risks effectively. The Paris Agreement has reaffirmed our commitment to promoting sustainability and influences the context in which business decisions are made. Our prototype house project, named 'Project 2020', (see section C-CN9.6a/C-RE9.6a) is an example of how we are addressing this risk. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS Project 2020 includes research into alternative build methodologies that promote resource efficiency as well as our increasing preference for renewable energy installations.
Acute physical	Relevant, always included	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 and bricklaying. 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. 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 HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS 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	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 net 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 over-heat and suffer from 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. 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. HOW IT IS INCLUDED IN CLIMATE-RELATED RISK ASSESSMENTS 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.

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 & Primary climate-related risk driver

Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

In the UK fuel tax equates to a cost of 57.95p for every litre of petrol and diesel we purchase. Value Added Tax at 20% is also charged on the price of the fuel and on the duty. 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 did not take part in the UK Government CRC Energy Efficiency scheme (CRC) after Phase 1, however now the government has abolished the CRC the Climate Change Levy (CCL) has increased. During 2019 our consumption of electricity, natural gas and LPG was ~57,609 MWh, which will be impacted by the increase in CCL. This will also be felt throughout Taylor Wimpey's supply chain.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1650000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

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 to Taylor Wimpey 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 2019 consumption of electricity, natural gas and LPG (~57,609 MWh), 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.

Cost of response to risk

0

Description of response and explanation of cost calculation

EXAMPLE/CASE STUDY: We have been 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. One example is that we've been adjusting thermostats in our show homes, previously left on factory settings to reduce show-home gas consumption by about 40%. We promote car sharing and provide a higher mileage rate to members of staff that travel with one or more passengers. 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. 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, so we have estimated no additional response cost.

Comment**Identifier**

Risk 2

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Acute physical	Increased severity and frequency of extreme weather events such as cyclones and floods
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Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Build cost inflation, including materials, was elevated in 2019. For timber 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 likely attributable to forest fires.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

4456000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Our total 2019 spend on timber and timber products, excluding items such as fencing, is £89,130,000 and so assuming an average across the board 5% increase in timber costs the total financial impact would be £4,456,000. . Given the high level of forest fires globally some of the increase is likely attributable to forest fires.

Cost of response to risk

0

Description of response and explanation of cost calculation

EXAMPLE/CASE STUDY: . We have seen moderately increased costs for timber products. We are using our good supplier relationships and purchasing scale to secure as good a commercial outcome as we can. 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, so we have estimated no additional response cost.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Changes in precipitation patterns and extreme variability in weather patterns
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Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

We recognise the need to address physical climate risks 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 weather extremes disrupt our supply chain, 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

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

127000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

A potential 2.5% decrease in market value caused by physical climate change impacts would mean a negative £127m financial impact (Market Capitalisation as of July 14th, 2020, 18:00 PM).

Cost of response to risk

0

Description of response and explanation of cost calculation

We have management methods and processes in place for the above. EXAMPLE/CASE STUDY: We are managing this risk 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. 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 and bricklaying. 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. 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 cost of management is included in the overall management of energy, which is part of business as usual and is thus difficult to define, so we have estimated no additional response cost.

Comment

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Approximately 13.6% of our housing completions in 2019 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 directly 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 ROE (Return On Capital Employed). 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 and aim to have 20% of our homes built in timber frame by the end of 2020.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

540000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

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 £30 million. The cost of timber frame compared with conventional brick and block build 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.

Cost to realize opportunity

540000

Strategy to realize opportunity and explanation of cost calculation

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 sequesters 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 have also trialled the use of cross-laminated panels and timber frame through our Project 2020 pilots, as well as measures designed to improve internal air quality. We are working closely with several 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. Our annual Timber frame spend is currently around £30 million. The cost compared with conventional brick and block build ranges from 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 several 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.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Detailed polling commissioned by HBF in December 2019 on home buyers and the environment identified that 20% of people put environmental concerns in their top three biggest issues (higher than terrorism, education, taxation or transport); that 67% think new builds are more energy efficient; and that 37% of people said they would be willing to pay more for a 'zero carbon' new home (56% to save money and 39% for the environment). Over two thirds of people are positive about the Government's net zero emissions target, and 29% think mortgage providers should factor in energy bills when assessing a mortgage application. This and other research is challenging the claim that consumer demand for greener living is limited. We have started to look at this including through our new and pending environment strategy, which considers brand, customer communication and construction technologies. We are about to conduct our own customer research. We are also considering green options such as solar panels, solar thermal and air source heat pumps.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

5000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

This is an estimate to an order of magnitude. Within 5 years we could generate £5 million in revenue per year from selling green options for homes.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

CASE STUDY/EXAMPLE: Project 2020 is a long-term initiative looking at trends and industry innovations to future-proof our product range for 2020 and beyond. It reflects evolving customer lifestyles and expectations. Several 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. The cost to realise this would be covered by in house personnel and so is included in our overhead.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resilience

Primary climate-related opportunity driver

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

Primary potential financial impact

Other, please specify (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 presents to the design of our homes and developments. We have already reduced the direct carbon intensity of our business by 43% in five years and have set a carbon intensity reduction target of 50% by 2023. We have committed to set Science Based Targets. We have conducted a review of TCFD and a scenario analysis. 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

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

127000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

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 £127m financial impact (Market Capitalisation as of July 14th 2020 18:00 PM).

Cost to realize opportunity

1424000

Strategy to realize opportunity and explanation of cost calculation

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 43% in five years and have set a carbon intensity reduction target of 50% by 2023. We have committed to set Science Based Targets. We have conducted a review of TCFD and a scenario analysis. We have developed a methodology for measuring all the key scope 3 emissions categories including the carbon emissions from our products in use. CASE STUDY/EXAMPLE: We have retrofitted building sites to make them more energy efficient and have designed an eco-specification portacabin. We will be trialling an 'eco plus' specification cabin in 2020. 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 an adaptation review and some detailed work on flooding. The flood work covered a review of several processes, an analysis of 47 sites in relation to Climate Change Allowances, and training of our technical personnel. At the start of 2019, we launched a network of Sustainability Champions who will be responsible for energy usage reduction and other sustainability initiatives within their regional businesses. We would envisage that climate change resilience measures will ultimately touch every part of the business. The single biggest item of expenditure was the energy efficient retrofit of building sites estimated to be £1.4m. In addition, we have invested £24,000 in the Sustainability Champions network in the form of an annual salary increment. We have not estimated the other elements but it is envisaged they will be low in comparison.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.1b

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

Climate-related scenarios and models applied	Details
2DS	Taylor Wimpey worked with external consultants using 2DS scenario analysis to explore how the financial impact and likelihood of potential climate-related risks & opportunities might change in the future, as far as a 2100 timescale, and relative potential financial impact and likelihood over the short to medium term (5-15yrs). These timescales are relevant to Taylor Wimpey to reflect the longevity of the homes it builds, and on a strategic planning basis, to reflect market, technological, and regulatory changes over the next decade and beyond. The scenarios considered potential impacts on the housebuilding sector, and covered the range of responses from a relatively orderly transition aligned with the Paris Agreement, to insufficient action and a failure to act, leading to climate breakdown and chaos. The analysis focussed primarily on a 'disorderly transition' scenario to a low carbon economy. Disorderly transition was defined as the UK taking stronger regulatory action than much of the rest of the world, and so UK businesses such as ours would need to account for high regulatory plus adaptation costs, risks and opportunities Examination and quantification of risks and opportunities across the business and value chain, and how homes and developments will need to be designed differently to take changes in climate into account, were considered. The analysis considered customers, investors and other stakeholders, and business functions including Planning, Land Purchase, Design, Production, Supply Chain, Commercial and Sales. Risk and opportunity assessments were carried out using survey inputs and cross-functional team workshop analysis. The results are being used to help develop an environment strategy for the business, and to explore Taylor Wimpey's business model resilience to the different climate change scenarios, and how it can proactively respond to the various risks and opportunities.
Other, please specify (Environment Agency based assessments plan for flood and coastal risk up to 2065)	Based on changes the Environment Agency made to climate change allowances Taylor Wimpey appointed specialist flooding consultant BWB to conduct a detailed review of the implications for flood risk assessments, net developable area and flood mitigation works scope and costs. The Environment Agency based assessments plan for flood and coastal risk up to 2065. They use climate change, population and mapping data to set out future flood risk scenarios and an economic assessment to aid planning flooding and coastal management resources for the next 50 years. These time-scales are well within the typical lifetimes of Taylor Wimpey built housing developments. The scenario analysis reviewed 44 flood risk assessments and conducted a more detailed assessment on 16 of these. The project found that Taylor Wimpey is not currently significantly exposed to the risk of increased fluvial flood levels or extents in future climate change scenarios. As a result of this scenario analysis, during 2017 we updated our land-buying processes to reflect the new climate change allowances. We 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.

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	As a UK-focused residential developer, both physical risks and transition risks associated with climate change have impacted on our housing products, with impacts across medium to long-term time horizons. One of the key transition risks and opportunities are 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. The Future Homes Standard (FHS) and UK Government's Industrial Strategy will, for example, halve the total use of energy compared to today's standards for new build. Pending regulation on EVs (electric vehicles) may require a charging point in every home. EV and FHS regulation combined will substantively increase the electrical infrastructure needed on development sites. Case Study: 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 meant 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.
Supply chain and/or value chain	Yes	Addressing deforestation is important for meeting our environmental ambitions over the short to medium-term. We use a lot of timber on our developments and we expect this will increase further in the coming years. Case Study: We have committed to building more timber frame homes which have multiple benefits. This includes carbon sequestration, speed of construction, reducing reliance on trades with skills shortages, and build quality. 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. There are also supply chain risks from energy cost increases due to climate regulation increasing material costs and hence build costs.
Investment in R&D	Yes	Medium to long-term investment in R&D is driven by Taylor Wimpey's strategy around sustainable homes. Case Study: As part of our continued work on Project 2020 we have invested in research and development relating to sustainable build technologies. We have built prototype houses in both timber-frame and cross-laminated timber (CLT). In addition, we are using wood fibre insulation in the CLT houses. Smart and sustainable technologies applicable to homes have been investigated in some detail. For example, several of the Project 2020 houses use mechanical ventilation and heat recovery (MVHR) systems; one prototype house built by our West Scotland business contains SunAmp thermal battery technology.
Operations	Yes	Our operations in the short-term are also impacted by transition risks that manifest themselves in the form of increased tax and regulation associated with climate change. In the UK fuel tax equates to a cost of 57.95p for every litre of petrol and diesel we purchase. Value Added Tax at 20% is also charged on the price of the fuel and on the duty. 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. Changes to the Climate Change Levy (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. Case Study: Taylor Wimpey decided to put Sustainability Champions in place across its UK operations. They have already implemented initiatives including a process to dry out buildings more effectively and to change heating settings in show rooms. We have also promoted car sharing and provide a higher mileage rate to members of staff that travel with one or more passengers, and we are exploring opportunities to improve the fuel efficiency of the Taylor Wimpey car fleet. We are exploring opportunities to reduce energy use, looking at areas such as efficient plant machinery. We've worked hard to reduce direct carbon emissions intensity by 43% since 2013, and 97% of our construction waste is now recycled.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Access to capital Assets Liabilities	<p>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. The main focus is on revenue generation in the short and medium term. Direct and Indirect 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. 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. These costs have a short to medium term time horizon. 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. These expenditures have a short to medium term time horizon. 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 scenario analysis work means that we have moved closer to TCFD requirements. We have not identified problems associated with access to capital due to climate change. The main focus is on the short and medium term. 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. Liabilities The risk from flooding is still deemed to be our biggest climate change adaptation risk and has been a major focus. 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. The main focus is on medium and long term time horizons. Case Study: Changing precipitation may alter the conditions of our construction sites, including geology, water table height, the risk of slope instability, soil shrinkage, erosion, and may compromise remedial measures for contaminated soil. 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 appointed specialist flooding consultants to conduct a detailed review of the implications for flood risk assessments, net developable area and flood mitigation works scope and costs. The Environment Agency based assessments plan for flood and coastal risk up to 2065. They use climate change, population and mapping data to set out future flood risk scenarios and an economic assessment to aid planning flooding and coastal management resources for the next 50 years. These time-scales are well within the typical lifetimes of Taylor Wimpey built housing developments. 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.</p>

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

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

Year target was set

2013

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Intensity metric

Other, please specify (Tonnes CO2e per 100m2 completed build)

Base year

2013

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

2.82

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2023

Targeted reduction from base year (%)

50

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

1.41

% change anticipated in absolute Scope 1+2 emissions

18

% change anticipated in absolute Scope 3 emissions

0

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

1.62

% of target achieved [auto-calculated]

85.1063829787234

Target status in reporting year

Underway

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)

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 38.8% reduction. In 2019, we reduced our emissions a further 6.4% compared to 2018, meaning total emissions intensity reductions since 2013 were 42.6%. In 2017, we set a new intensity reduction target for direct carbon emissions (scope 1 and 2) of 50% by 2023 with a 2013 baseline. In addition, we have committed to setting a science-based carbon reduction target by the end of 2020/early 2021. We have also reduced absolute emissions by 18.1% 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 0.24% over the last year.

C4.2

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

No other climate-related targets

C4.3

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

Yes

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	3	0
To be implemented*	1	3937.5
Implementation commenced*	5	4935.4
Implemented*	4	7225
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Low-carbon energy consumption	Low-carbon electricity mix
-------------------------------	----------------------------

Estimated annual CO2e savings (metric tonnes CO2e)

452

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

The proportion of green electricity purchased increased from 32 to 40% of total MWh consumption. There is no additional investment required as this part of normal operating costs. The estimated annual CO2e savings are based on the additional MWh purchases made in 2019 compared to 2018.

Initiative category & Initiative type

Energy efficiency in buildings	Building Energy Management Systems (BEMS)
--------------------------------	---

Estimated annual CO2e savings (metric tonnes CO2e)

0

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

Sub-metering projects in TW West Scotland and TW Southern Counties – no carbon savings from this as purely a data collection exercise.

Initiative category & Initiative type

Non-energy industrial process emissions reductions	Process material substitution
--	-------------------------------

Estimated annual CO2e savings (metric tonnes CO2e)

6701

Scope(s)

Scope 3

Voluntary/Mandatory

Voluntary

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

0

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

6400000

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

Investment required is based on average on-cost of £4K per plot and ca. 2,114 timber-framed build. Our design, technical, commercial and production functions centrally and regionally are working on reducing the costs of timber build. We would anticipate extra costs to reduce over time. Approximately 13.6% of our housing completions (ca. 15,519 total homes built, excluding Joint Ventures) in 2019 were timber frame. Spear et al. (2019) suggest a detached timber frame house has 15.3% less embodied carbon than a detached masonry house (17.55 tCO2e compared to 20.72 tCO2e). Full reference is Spear et al. (2019) Wood in construction in the UK: an analysis of carbon abatement potential. BioComposites Centre. Report reference no. BC-1383-2018-ES.

Initiative category & Initiative type

Other, please specify	Other, please specify (Materials with lower embodied carbon)
-----------------------	--

Estimated annual CO2e savings (metric tonnes CO2e)

0

Scope(s)

Scope 3

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

Project 2020 – we completed two timber frame prototypes in West Scotland in 2019. No carbon savings from this as prototype assessment.

Initiative category & Initiative type

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)
--------------------------------	--

Estimated annual CO2e savings (metric tonnes CO2e)

72

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

No payback

Estimated lifetime of the initiative

1-2 years

Comment

Taylor Wimpey has put in place Sustainability Champions across its UK operations. They have implemented initiatives to dry out buildings more effectively and to change heating settings in show rooms. This has led to a reduction in natural gas consumption of 370,747 kWh, equivalent to 72 tonnes CO2e.

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 and Local Government requirements through planning 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 did not qualify for Phase 2 and so there was no requirement to participate in 2017. From 2018 we continued to fulfil the requirements of Mandatory Carbon reporting, and from 2019 SECR (Streamlined Energy and Carbon Reporting). We also fulfilled our requirements under ESOS (Energy Savings Opportunities Scheme), submitting our second ESOS report to the Environment Agency in December 2019. This included collating data from our existing measurement processes, completing site energy audits and identifying energy saving opportunities. We have used the ESOS process to drive additional direct 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 2018 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 fitted to an energy efficient 'eco' specification; and that existing building sites with a significant time to run must be retrofitted to an energy efficient standard. We continue to work on an 'eco plus' porta-cabin specification that is even more energy efficient than the existing 'eco' specification. By improving the thermal efficiency and heating technologies of onsite cabins, canteens and drying rooms, we can save an estimated 80-90% of energy use, and will order our first eco plus cabins for pilot in 2020. 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).
Other (Sustainability strategy)	Policy and strategy: Within our Sustainability Strategy, we identify that 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 and Local Government requirements through planning 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 and SECR (Streamlined Energy and Carbon Reporting) requirements. Over two thirds of local planning authorities have declared climate emergencies, and this is starting to result in more stringent planning requirements for our developments.

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 2019 we completed 1,154 homes to Code level three (2018: 1,762) and 598 homes to Code level four (2018: 501). Taylor Wimpey is exploring the 'homes in use' space and further information can be found in the Sustainability Report, published in March 2019. 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 partners 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 on highly efficient walls and windows. We make all of our homes airtight and use mechanical ventilation to maintain good air quality and comfort. Finally, where appropriate, we use low carbon and renewable technologies. We completed construction on our Project 2020 research and innovation initiative in 2019. Project 2020 will help us future-proof our product for our next generation of customers. Amongst the Project 2020 houses, five have been built using cross-laminated timber panels and two have been built with timber-frame. The CLT houses also have wood fibre insulation, while one of the timber-frame houses has been built to be 'Gold compliant' under Scottish Building Standards.

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 (Industry research)

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

3.3

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

3.3% 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 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 supplier's 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 2019, in addition to the usual model, we have extracted all actual consumption by supplier and included where known the specific tariff name. These are included on the Taylor Wimpey Carbon Reporting Methodology Statement 2019 available on our corporate website .

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 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 2019, in addition to the usual model, we have extracted all actual consumption by supplier and included where known the specific tariff name. These are included on the Taylor Wimpey Carbon Reporting Methodology Statement 2019 available on our corporate website.

C5.2

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

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

21018

Start date

<Not Applicable>

End date

<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?

Reporting year

Scope 2, location-based

6172

Scope 2, market-based (if applicable)

3563

Start date

<Not Applicable>

End date

<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 this 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 this source is excluded

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

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 this source is excluded

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

Source

Certain emissions from District Heating Schemes

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 relevant

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

Emissions are not relevant

Explain why this source is excluded

Certain emissions from District Heating Schemes where we are receiving a rebate from customers prior to handover to the long term operator.

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

2242225

Emissions calculation methodology

Emissions estimated using multiplying spend with environmental extended input-output (EEIO) method. 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. e.g. 1.52 kg CO2e/£ spent on Brickwork/Blockwork; 1.75 kg CO2e/£ spent on Roads and Sewers; 0.48 kg CO2e/£ spent on Plumbing and Heating.

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

100

Please explain

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'. Emissions estimated using multiplying spend with environmental extended input-output (EEIO) method. 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. e.g. 1.75 kg CO2e/£ spent on Roads and Sewers.

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

100

Please explain

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

5679

Emissions calculation methodology

These emissions have been estimated on the basis of energy consumption data and BEIS conversion factors. Source - UK Government GHG Conversion Factors for Company Reporting: WTT- UK electricity (generation) 0.03565 kg CO2e/kWh; WTT- UK electricity (T&D) 0.00303 kg CO2e/kWh

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

100

Please explain

Recommended methodology for GHG reporting companies (GHG Protocol)

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

64827

Emissions calculation methodology

Partially estimated from Taylor Wimpey Logistics actual distance data, e.g. 0.86654 kg CO2e/ km Average Laden HGV (all diesel) (Source - UK Government GHG Conversion Factors for Company Reporting); the rest calculated from PG&S data.

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

100

Please explain

Improved by separating emissions out from PG&S emissions and estimating emissions from TW Logistics using actual distance data. The figure has been rounded to show an order of magnitude.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

17550

Emissions calculation methodology

Information on demolition, earthworks and excavations based on 2008 survey, and normalised against build numbers for 2019

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

100

Please explain

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

6303

Emissions calculation methodology

Car fleet emissions excluded Rail, taxi and flight distance data derived from staff surveys (both present and past) and extrapolated to cover the whole company Emissions factors: Source - UK Government GHG Conversion Factors for Company Reporting

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

100

Please explain

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

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

21034

Emissions calculation methodology

We estimated commuting distances by collecting anonymised data from 10% of the employees in each of our 24 BUs. We gathered the home post codes of these employees and the post codes of their usual place of work (regional office or construction site) and calculated the distance between these two locations.

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

0

Please explain

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

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

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

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

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

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

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1476066

Emissions calculation methodology

Estimated emissions using TW Bristol, TW East London and TW Manchester DER data and extrapolating to entire TW portfolio.

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

0

Please explain

Estimated emissions using TW Bristol, TW East London and TW Manchester DER data and extrapolating to TW entire portfolio.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

33242

Emissions calculation methodology

End-of-life calculated using the end-of-life emissions for a typical TW three-bedroom semi-detached home and extrapolating to all of TW homes built in 2019.

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

0

Please explain

End-of-life calculated using the end-of-life emissions for a typical TW three-bedroom semi-detached home and extrapolating to all of TW homes built in 2019.

Downstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

2656

Emissions calculation methodology

Downstream leased assets estimated emissions from TW's freehold land using average emissions of agricultural land

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

0

Please explain

Downstream leased assets estimated emissions from TW's freehold land using average emissions of agricultural land

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Taylor Wimpey does not have franchises.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

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

Other (upstream)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

N/A

Other (downstream)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

N/A

C-CN6.6/C-RE6.6

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

	Assessment of life cycle emissions	Comment
Row 1	No, but we plan to for upcoming projects	We plan to do so in future, and towards meeting our scope 3 Science-based emissions targets.

C6.7

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

Yes

C6.7a

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

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	0	We plant trees, shrubs, hedgerows, plants and turf on almost every site as part of our landscaping design. We have developed a tool to help quantify the sequestration, but do not have data of sufficient quality or reliability to calculate our total sequestration.

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

0.0000056619

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

24581

Metric denominator

unit total revenue

Metric denominator: Unit total

4341400000

Scope 2 figure used

Market-based

% change from previous year

6.88

Direction of change

Decreased

Reason for change

In 2019, despite our revenue increasing by 6.4%, our absolute scope 1 and 2 carbon emissions reduced slightly. This is due to a number of factors including our emissions reduction initiatives and lower carbon intensity of purchased electricity.

Intensity figure

1.79

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

27191

Metric denominator

Other, please specify (Completed floor area 100m2)

Metric denominator: Unit total

15216

Scope 2 figure used

Location-based

% change from previous year

5.5

Direction of change

Decreased

Reason for change

In 2019, despite our completed floor area increasing by 5.8%, our absolute scope 1 and 2 carbon emissions reduced slightly. This is due to a number of factors including our emissions reduction initiatives and lower electricity carbon intensity at the UK national grid level.

Intensity figure

1.62

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

24581

Metric denominator

Other, please specify (Completed floor area 100m2)

Metric denominator: Unit total

15216

Scope 2 figure used

Market-based

% change from previous year

6.4

Direction of change

Decreased

Reason for change

In 2019, despite our completed floor area increasing by 5.8%, our absolute scope 1 and 2 carbon emissions reduced slightly. This is due to a number of factors including our emissions reduction initiatives and lower carbon intensity of purchased electricity.

C7. Emissions breakdowns

C7.1

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

No

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
United Kingdom of Great Britain and Northern Ireland	20825
Spain	193

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	473.92
Taylor Wimpey Central London	6.87
Taylor Wimpey East Anglia	1129.7
Taylor Wimpey East London	925.13
Taylor Wimpey East Midlands	569.14
Taylor Wimpey East Scotland	1061.7
Taylor Wimpey Exeter	1003.22
Taylor Wimpey Manchester	1572.67
Taylor Wimpey Midlands	715.43
Taylor Wimpey North East	1524.99
Taylor Wimpey North Midlands	555.82
Taylor Wimpey North Thames	539.14
Taylor Wimpey North West	977.84
Taylor Wimpey North Yorkshire	979.03
Taylor Wimpey Oxfordshire	770.37
Taylor Wimpey South East	813.4
Taylor Wimpey South Midlands	975.94
Taylor Wimpey South Wales	467.96
Taylor Wimpey South Thames	1517.85
Taylor Wimpey Southern Counties	545.94
Taylor Wimpey West London	971.4
Taylor Wimpey West Midlands	972.67
Taylor Wimpey West Scotland	615.14
Taylor Wimpey Yorkshire	622.05
Taylor Wimpey Head Office	383.86
Taylor Wimpey Logistics	134.47
Taylor Wimpey Europe	193

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United Kingdom of Great Britain and Northern Ireland	5898	3192	23077	9344.04
Spain	274	371	829.8	829.8

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 (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Taylor Wimpey Head Office	17.29	11.3
Taylor Wimpey Europe	274	371
Taylor Wimpey Logistics	39.42	25.75
Taylor Wimpey Bristol	174.38	105.53
Taylor Wimpey Central London	20.79	30.99
Taylor Wimpey East Anglia	261.36	140.71
Taylor Wimpey East London	308.47	310.08
Taylor Wimpey East Midlands	268.09	165.97
Taylor Wimpey East Scotland	244.94	88.72
Taylor Wimpey Exeter	142.91	114.4
Taylor Wimpey Manchester	279.58	149.13
Taylor Wimpey Midlands	160.66	81
Taylor Wimpey North East	219.85	92.56
Taylor Wimpey North Midlands	201.85	130.75
Taylor Wimpey North Thames	271.75	150.03
Taylor Wimpey North West	226.16	153.36
Taylor Wimpey North Yorkshire	257.61	130.78
Taylor Wimpey Oxfordshire	323.06	191.02
Taylor Wimpey South East	301.18	91.97
Taylor Wimpey South Midlands	394.64	186.63
Taylor Wimpey South Wales	249.93	140.83
Taylor Wimpey South Thames	321.81	72.08
Taylor Wimpey Southern Counties	309.68	181.28
Taylor Wimpey West London	261.46	159.81
Taylor Wimpey West Midlands	179.8	96.53
Taylor Wimpey West Scotland	262.29	84.64
Taylor Wimpey Yorkshire	199.53	105.2

C7.9

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

Decreased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	452	Decreased	1.82	The proportion of green electricity purchased increased from 32 to 40% of total MWh consumption. There is no additional investment required as this part of normal operating costs. The estimated annual CO2e savings of 452 tonnes CO2e are based on the additional MWh purchases made in 2019 compared to 2018. Scope 1 & 2 (market-based) emissions in 2018 were 24837 CO2e $= (452/24837) * 100 = 1.82$
Other emissions reduction activities	1235	Decreased	4.97	Combined Scope 1 and Scope 2 (market-based) emissions reduced by 256 tCO2e in 2019 compared to 2018. Consumption for most of the material emission sources have all decreased despite an increase in completions. This includes electricity, natural gas, and car fleet. However, site diesel and natural gas consumption has increased. Estimated emissions from implemented reduction initiatives in 2019 (attributed to Scope 1 and 2 emissions) = 72 tCO2e (See C4.3b). The total reduction in emissions to balance the increase in output and not accounted for by additional green energy procurement = 1,235 tCO2e $(= 1431 - 452 - 72 - 256)$. Scope 1 & 2 (market-based) emissions in 2018 were 24837 CO2e, therefore the emissions change value $= (1235/24837) * 100 = 4.97$ Changes due to variation of Scope 1 emission factors and the type and stage of site projects during the year may also have contributed to the decrease in emissions.
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	1431	Increased	5.76	Completed area (100m2) has increased by 5.76% from 14,387 in 2018 to 15216 in 2019. If this was the only factor determining emissions, this would have meant an increase in emissions from 24837 in 2018 to 26,268 (An increase in emissions of 1,431 tonnes CO2e). In 2019 the change in emissions attributed to change in output only $= (1431/24837) * 100 = 5.76\%$. However, there are many factors that feed in from a change in output to emissions increases - including the type and stage of site projects during the year.
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

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

Market-based

C8. Energy

C8.1

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

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

C8.2

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

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	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 (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	92300	92300
Consumption of purchased or acquired electricity	<Not Applicable>	9344	14563	23907
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	9344	106863	116207

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)

Butane

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

412

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

412

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>

Emission factor

2936.86

Unit

kg CO2e per metric ton

Emissions factor source

www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

Value for 'LPG'

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

8728

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

8728

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>

Emission factor

2.758

Unit

kg CO2e per liter

Emissions factor source

www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

Used Gas Oil Factor as Site Consumption is Red Diesel

Fuels (excluding feedstocks)

Gas Oil

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

34920

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

34920

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>

Emission factor

2.758

Unit

kg CO2e per liter

Emissions factor source

www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

Fuels (excluding feedstocks)

Kerosene

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

16

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

16

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>

Emission factor

2.54042

Unit

kg CO2e per liter

Emissions factor source

www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

110

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

110

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>

Emission factor

2.93686

Unit

kg CO2e per metric ton

Emissions factor source

www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

Fuels (excluding feedstocks)

Propane Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

497

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

497

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>

Emission factor

2936.86

Unit

metric tons CO2e per metric ton

Emissions factor source

www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

Value for 'LPG'

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

33593

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

33593

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>

Emission factor

0.18385

Unit

kg CO2e per kWh

Emissions factor source

www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

Fuels (excluding feedstocks)

Petrol

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

1616

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

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>

Emission factor

2.20904

Unit

kg CO2e per liter

Emissions factor source

www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

Fuels (excluding feedstocks)

Other, please specify (Average biofuel blend forecourt diesel)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

11620.3

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

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>

Emission factor

2.59411

Unit

kg CO2e per liter

Emissions factor source

www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

C8.2e

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

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/region of consumption of low-carbon electricity, heat, steam or cooling

United Kingdom of Great Britain and Northern Ireland

MWh consumed accounted for at a zero emission factor

65.84

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/region of consumption of low-carbon electricity, heat, steam or cooling

United Kingdom of Great Britain and Northern Ireland

MWh consumed accounted for at a zero emission factor

9278.2

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/region of consumption of low-carbon electricity, heat, steam or cooling

United Kingdom of Great Britain and Northern Ireland

MWh consumed accounted for at a zero emission factor

0.34

Comment

C9. Additional metrics

C9.1

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

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

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

	Investment in low-carbon R&D	Comment
Row 1	Yes	

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

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

Technology area

Construction methods

Stage of development in the reporting year

Large scale commercial deployment

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

21 - 40%

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

Comment

We built 7 modular houses, known as the I-House, as part of a trial in our Oxfordshire and West Scotland business units, testing off site construction techniques such as cross-laminated timber. We are increasing the proportion of homes built using timber frame. This can have a significantly lower carbon footprint than traditional 'brick and block' building techniques due to the materials and use of off-site construction techniques. 13.6% of the houses we built in 2019 were timber frame, and we are aiming for 20% by 2020. Overall average low-carbon % of total R&D investment over the last 3 years is estimated to be in the order of 80%

Technology area

Architectural or constructional elements improving the thermal performance of buildings

Stage of development in the reporting year

Pilot demonstration

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

21 - 40%

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

Comment

We built our Project 2020 prototype homes during 2019 and gathered feedback from the first occupants. These were developed from the winning entry to our design competition with the Royal Institute of British Architects (RIBA) and built on developments in Oxfordshire, Manchester and West Scotland. We used the process to test sustainable build technologies, including cross-laminated panels with wood fibre insulation and energy efficiency solutions. Our Project 2020 homes in Scotland meet the rigorous Scottish Buildings Standards Gold label for sustainability. The homes incorporate high performance insulation, a whole house ventilation system, battery powered hot water heating, PV panels and other technology. We are also working with Strathclyde University to develop a new model for measuring the energy efficiency and air tightness of our homes enabling us to more easily assess the impact of new technologies and different design approaches. Overall average low-carbon % of total R&D investment over the last 3 years is estimated to be in the order of 80%

C-CN9.10/C-RE9.10

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

No, but we plan to in the future

C-CN9.11/C-RE9.11

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

This is something we are starting to investigate as part of our Environment Strategy. The Environment Strategy is going to be released later in 2020.

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 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Carbon Trust Verification Letter - Taylor Wimpey - 02.2020.pdf
Carbon Trust Verification Diploma - Taylor Wimpey - 02.2020.pdf

Page/ section reference

p1-3

Relevant standard

Verification as part of Carbon Trust standard certification

Proportion of reported emissions verified (%)

100

C10.1b

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

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Carbon Trust Verification Letter - Taylor Wimpey - 02.2020.pdf
Carbon Trust Verification Diploma - Taylor Wimpey - 02.2020.pdf

Page/ section reference

p1-3

Relevant standard

Verification as part of Carbon Trust standard certification

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

Carbon Trust Verification Letter - Taylor Wimpey - 02.2020.pdf
Carbon Trust Verification Diploma - Taylor Wimpey - 02.2020.pdf

Page/ section reference

p1-3

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	Year on year change in emissions (Scope 1 and 2)	The Carbon Trust Standard	The Carbon Trust review year on year change in Scope 1 + 2 emissions Carbon Trust Verification Letter - Taylor Wimpey - 02.2020.pdf Carbon Trust Verification Diploma - Taylor Wimpey - 02.2020.pdf

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

% total procurement spend (direct and indirect)

90

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

88

Rationale for the coverage of your engagement

We look for sustainably sourced materials and aim to partner with suppliers on resource efficiency. This is important because the environmental footprint of our supply chain including energy and water use, carbon emissions and waste is many times greater than that of our direct operations. Sourcing sustainably can also reduce costs and risks to the business and may help us to increase resilience to future resource shortages or price rises. 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, reducing waste and piloting off-site construction techniques. We are increasing the proportion of homes built using timber frame, targeting 20% of our total. This will reduce emissions as wood from renewable sources takes carbon from the atmosphere and replaces more energy intensive materials such as blocks and bricks. 90% of total spend refers to supplies that are centrally procured (regional procurement is separate), and where there is greatest influence from our centralised operations. Of our 90 group suppliers, 68 are registered with the Supply Chain Sustainability School (76%).

Impact of engagement, including measures of success

We are engaging our suppliers on sustainability issues including climate change through the Supply Chain Sustainability School (SCSS). As part of the SCSS Carbon Group, we are working on an ambitious project to collect energy and carbon data from construction suppliers. A digital portal was developed in 2019. Through the Supply Chain Sustainability School (SCSS), suppliers can complete a sustainability self-assessment, create an action plan and use free resources to address gaps in their approach. 37 of our suppliers re-assessed themselves during 2019, achieving an average 17% improvement in their score. This is one measure of success. Our suppliers also used the School's online resources over 1,000 times during 2019 covering topics such as waste, modern slavery, sustainable materials, biodiversity, supplier diversity and wellbeing. 82 attended an SCSS event or workshop. This level of engagement is another measure of success. Our suppliers also used the School's online resources over 400 times during 2019 covering topics such as waste, modern slavery, sustainable materials, biodiversity, supplier diversity and wellbeing. 82 attended an SCSS event or workshop. Our suppliers have used the SCSS to access information and resources relating to waste, modern slavery, sustainable materials, biodiversity, supplier diversity and other sustainability topics.

Comment

C12.1b

(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)

% of customers by number

100

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

100

Portfolio coverage (total or outstanding)

<Not Applicable>

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

We aim to engage with 100% of our customers, all of whom will have significant influence and impact on energy use, and carbon emissions, over the lifetimes of their homes. Our new integrated Taylor Wimpey website contains a dedicated customer service section with useful information for new and existing homeowners. All our customers receive information on their new home via our 'From House to Home' manual. This was updated in 2019 and we added advice on living sustainably including tips to help customers save energy, reduce waste, and encourage nature in their gardens. We also give all our customers details on how to use and maintain the environmental features in their homes through our Maintenance Guide. We want to deliver every customer a high-quality home. We are investing in our processes to ensure consistency across business regions. Getting things right first time is not just good for customers, it reduces costs and is important from an environmental perspective as fewer mistakes mean less waste, fewer deliveries to site and homes perform to the energy efficiency standards we expect. Our Production Academy training and our Production Manual help our teams to understand and apply our quality and finishing standards. Build quality on site is overseen by our Head of Production who works closely with our Customer Director. Progress is reviewed monthly by our Group Operations Team of senior leaders. We agree a quality improvement plan where business units are not meeting our standards and our Head of Production and Technical Director work with commercial and production teams to implement improvements. We have recruited Quality Managers across our regional businesses. They work closely with our Production Directors to review performance and identify and address quality issues. In some businesses we are also trialling Finisher roles, to assess whether this speeds up the process of addressing snagging issues. Our Consistent Quality Approach (CQA) guidelines ensure our Site Managers, subcontractors, production and customer service teams have a consistent understanding of the finishing standards we expect on all our homes. In 2020, we plan to produce a customer-facing version so our customers know what to expect from us. In 2020 we will complete a survey of 1000 customers and their attitudes to the environment including climate, carbon and energy efficiency.

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. 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 customers to save on their energy bills. In the future, Taylor Wimpey is planning to roll out a Post Occupancy Monitoring Review to gain customer's feedback once they have moved in. The feedback will cover 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 we listen and respond to community requirements. Academy of Customer Excellence: Training for our customer service teams covers our product range, Customer Journey, consumer protection legislation, technical standards, and health, safety and the environment. Role-specific modules are available for team leaders and Heads of Customer Service. Over 345 employees have enrolled in the training so far. In terms of success we lead the volume housebuilders in build quality as measured by the NHBC CQR score, which measures build quality at key build stages. In 2019, we scored an average of 4.13 (2018: 3.93) from a possible score of 6. This compares with an industry average score of 4.01. We are fifth nationally when ranked against all housebuilders who have more than 100 build stages (which excludes self-build and very small housebuilders). We aim to improve this further by ensuring our quality assurance processes are embedded at every stage of build. Our target is to achieve at least a four rating by 2020 in each regional business.

C12.1d

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

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.

We engage with local communities at every site, from planning and throughout construction, including through meetings, exhibitions, workshops, newsletters, information boards, social media and our website. Community priorities include: early delivery of infrastructure and facilities; managing local impacts during the construction process such as noise and dust; and provision of public and open spaces to help create a sense of place and support communities to adopt healthy lifestyles. We will apply our updated Community Engagement Toolkit and Community Communication Plan to make sure we communicate effectively with communities at every stage and reflect their needs in our plans. We are exploring how we can accelerate the development of new communities on our schemes through our connected communities trial.

We engage with investors on sustainability issues through meetings, our reporting and by participating in benchmarks and disclosure initiatives. We responded to numerous investor questions on environmental, social and governance aspects in 2019 including in relation to workplace culture, community engagement, affordability, modern slavery, environmental regulation and climate change and fire safety. We will continue to engage with investors and to disclose our performance to investors through initiatives including CDP, Dow Jones Sustainability Index, FTSE4Good and NextGeneration benchmark. We aim to align with the recommendations of the Task Force on Climate-related Financial Disclosures.

We engage with local authorities and parish councils and participate in the development of strategic frameworks, Local Plans and Neighbourhood Plans. Local governments prioritise schemes which reflect local priorities and feature high-quality design and placemaking. Efficient delivery and build quality are also key objectives. Many local authorities are exploring how best to respond to the climate emergency. We will continue to focus on community engagement, placemaking and the early delivery of community infrastructure.

We interact with the Ministry of Housing, Communities & Local Government, Homes England, the Department for the Environment, Food & Rural Affairs, the Scottish and Welsh Governments, and other institutions to understand their priorities and share our views. We engage directly and through trade associations such as the Home Builders Federation. Government priorities include placemaking, efficiency and fast delivery. The environmental impact of housing is rising up the agenda with expected legislation in the areas of biodiversity net gain and home energy and carbon efficiency. We will continue to engage with government and provide our input through public consultations on issues relating to planning and housebuilding.

NGOs (non-governmental organisations), academia and expert organisations provide insights into sustainability issues and trends. Examples of engagement in 2019 include: our membership of Business in the Community; our materiality assessment; and engagement with community groups and nature organisations at the local level, such as Butterfly Conservation.

Case Study: Our materiality assessment helps us to identify and focus on the sustainability issues and impacts that matter most to our business and our stakeholders, including customers, investors, our people and regulators. Details of the methodology are included on our website. Via the materiality review we engaged with partners in the value chain.

We updated our assessment in early 2020 and considered and ranked a wide range of issues. It took account of how important each issue is to business strategy; which issues could represent a significant risk or opportunity for the business; how important each issue is to our key stakeholders (including investors, customers, employees, communities and local government); and issues where our business operations could have a significant negative or positive impact on people or the environment.

The assessment showed that issues relating to the sustainability of our homes and developments – such as placemaking, community infrastructure, build quality, fire safety, affordability and environmental performance are among the key issues for our business. Health & safety also remains one of the most highly rated issues.

Compared with our previous materiality assessment, issues relating to environmental impacts including climate change, biodiversity and air quality have increased in importance.

We expanded the initial list of issues considered in the assessment, which means some issues (such as build quality) appear on the matrix for the first time.

We will use the results of the assessment to inform the development of our environmental strategy during 2020.

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 Technical 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. Under the Future Homes Standard we are part of the HBF working group and will be engaging with ministers on its future projection. In addition we have and will continue to engage with officials on changes to various approved documents and SAP methodology. During 2017, Taylor Wimpey's Director of Sustainability met with the Secretary of State for the Environment, Food and Rural Affairs, Michael Gove, prior to the publication of HM Government's 25-year Environment Plan. In January 2020 Taylor Wimpey's Director of Sustainability attended the Home Builders Federation Environment Summit, a meeting which planned to kick start a step change in the environmental performance of house building.	To simplify the range of local standards that currently exist into one set of standards which applies to all regions. The view was to review standards or put them into regulations where appropriate.
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. We have also engaged directly along with the HBF on Building a Safer Future consultation. Various Directors at the business recently engaged with BEIS on issues relating to the Future Homes Standard.	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. An increasing number of people now work from home - so this supports the ability to work from home by improving home-based internet connections. This should reduce commuter emissions and 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 influenced, or are you attempting to influence their position?

The HBF is the voice of the housebuilding industry and therefore reflects the opinion of its members. As Taylor Wimpey is 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, Group Operations Director, attends the HBF's Major Home Builder Group and the NHBC's Construction Quality Expert Panel and the New Homes Quality Board. Our UK Associate Technical Director, Dale Saunders, chairs the HBF National Technical and Sustainability Committee (NTSC) and the HBF Future Performance of New Homes 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 influenced, or are you attempting to influence their position?

Our UK Associate Technical Director is a member of the NHBC Standards Review Group, the NHBC Building Control Industry Support Group and the HBF's Robust Details Standards Review group and Tall Buildings sub-group.

C12.3e

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

1. 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.
2. 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.
3. 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

TW_ARA19_PDF.pdf

Page/Section reference

P15, P17, P23, P43, P44, P47, P48, P138

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Taylor Wimpey_Sustainability Report_2019.pdf

Page/Section reference

P33-38 P56-70

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

C15. 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.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Divisional Chair, London and South East	Business unit manager

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

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