

C0. Introduction

C0.1

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

BHP is a world-leading resources company. We are one of the world's largest mining companies by market capitalisation. We extract and process minerals, oil and gas, with more than 62,000 employees and contractors (in FY2018), primarily in Australia and the Americas. Our products are sold worldwide, with sales and marketing led through Singapore and Houston, United States. Our global headquarters are in Melbourne, Australia.

We operate under a Dual Listed Company structure with two parent companies (BHP Group Limited and BHP Group Plc) operated as if we were a single economic entity, which we refer to as BHP. We are run by a unified Board and management. Our Executive Leadership Team (ELT) is responsible for the day-to-day management of the Group and for leading the delivery of our strategic objectives.

We are among the world's top producers of major commodities, including iron ore, metallurgical coal and copper. We also have substantial interests in oil, gas, energy coal and nickel. A number of by-products are produced by our copper operations, including gold, silver, zinc, lead and uranium. We have operations and projects in Australia, Chile, Peru, Brazil, Colombia, Canada, the US, Trinidad and Tobago, and Algeria. Our principal office locations are in Australia, Chile, Canada, the US, Singapore, Malaysia, and the UK.

Our purpose is to bring people and resources together to build a better world. Our strategy is to have the best capabilities, best commodities and best assets, to create long-term value and high returns. We have a simple and diverse portfolio of tier one assets. They are long life, low cost and expandable. To extract the most value and the highest returns from our assets we apply our values and culture, operate them safely and productively, and deploy technology. We also have broad development options and exploration licences in many of the world's premier basins, which could create significant shareholder value over the long term. These options cover a range of risk, return and optionality metrics and are diversified by commodity and geography.

Assets are a set of one or more geographically proximate operations (including open-cut mines, underground mines and onshore and offshore oil and gas production and processing facilities). We safely produce a broad range of commodities through these assets. Our operated assets include assets that are wholly owned and operated by BHP and assets that are owned as a joint operation and operated by BHP. Our non-operated assets include interests that are owned as a joint venture but not operated by BHP. Note that we report our GHG emissions on an operational control basis.

We disclose GHG emissions and other climate data at the Group level. In addition, CDP requests that we report our operational emissions by region, 'business division', and 'business facility'. In order to ensure consistency between this CDP response and our mainstream financial reporting, our reporting by 'business division' in this response corresponds to the commodity-based 'reportable segments' applied in our Annual report, namely Petroleum, Copper, Iron Ore, and Coal. Similarly, we report by 'business facility' in this response using the definitions of our Assets given in our Annual report.

For additional detail on our commodities, assets, locations, financial results and operating performance as they relate to this CDP response, refer to our 2018 Annual Report, available online at <https://www.bhp.com/investor-centre/annual-report-2018>.

Note that our financial year runs from July to June, and this CDP response relates to FY2018. Because of the timing of the CDP disclosure cycle relative to our financial year, more recent information on the topics covered in this CDP response is available for FY2019 in our 2019 Sustainability and Annual reports and online at <https://www.bhp.com>.

Note for example that during FY2018, we announced that we had entered into agreements for the sale of our entire interests in our Eagle Ford, Haynesville, Permian and Fayetteville Onshore US oil and gas assets. This sales process was subsequently completed during FY2019.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	July 1 2017	June 30 2018	No	<Not Applicable>

C0.3

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

- Algeria
- Australia
- Brazil
- Canada
- Chile
- Colombia
- Malaysia
- Mexico
- Peru
- Singapore
- Trinidad and Tobago
- United Kingdom of Great Britain and Northern Ireland
- United States of America

C0.4

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

- USD

C0.5

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

- Operational control

C-CO0.7

(C-CO0.7) Which part of the coal value chain and other areas does your organization operate in?

Row 1

Coal value chain

- Underground coal mining
- Surface coal mining

Other divisions

- Other minerals mining
- Metal ore mining

C-MM0.7

(C-MM0.7) Which part of the metals and mining value chain does your organization operate in?

Row 1

Mining

- Copper
- Gold
- Silver
- Iron ore
- Nickel
- Zinc
- Lead
- Other mining (please specify) (Uranium)

Processing metals

- Copper
- Gold
- Silver
- Nickel
- Zinc

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Director on board	Responding to climate change is a priority governance and strategic issue for us. The Board is the highest level of authority at BHP and is responsible for overseeing the Group's approach making strategic decisions in the best interests of the company. The Directors' responsibilities include taking into account the potential impact of climate change on company strategy including its portfolio of assets and investments. Oversight of climate-related issues therefore lies with the Board Directors. Climate change is a multi-faceted issue that affects investment decisions, our portfolio, oversight of the sustainability of our operations and engagement with government, investors, suppliers and customers. The Board Directors include an appropriate mix of skills and experience to understand the implications of climate change on our operations, market and society.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	<ul style="list-style-type: none"> Reviewing and guiding strategy Reviewing and guiding risk management policies Reviewing and guiding business plans Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues 	Climate change is treated as a Board-level governance issue and is discussed regularly. In term of reviewing and guiding strategy, this includes during Board strategy discussions, portfolio review and investment decisions, and in the context of scenario triggers and signposts, including specific climate-related triggers and signposts such as physical climate impacts. Our Board is actively engaged in the setting of strategy and governance of climate change issues, supported by the Sustainability Committee, which assists with governance and monitoring. The Sustainability Committee spends a significant amount of time considering systemic climate change matters relating to the resilience of, and opportunities for, BHP's portfolio. Non-executive Directors must have a clear understanding of the Group's overall strategy, together with knowledge about BHP and the industries in which it operates. Framed as a Board-level governance issue requiring experience of managing in the context of uncertainty and an understanding of the risk environment of the Group, all of the Non-executive Directors bring relevant experience to bear in our climate change discussions. To enhance that experience, the Board has taken a number of measures to ensure that its decisions are appropriately informed by climate change science and expert advisers. The Board seeks the input of management (including from our Vice President Sustainability and Climate Change), our Forum on Corporate Responsibility (which advises the Board on sustainability issues) and other independent advisers.
Scheduled – some meetings	<ul style="list-style-type: none"> Reviewing and guiding major plans of action Reviewing and guiding annual budgets Setting performance objectives Overseeing major capital expenditures, acquisitions and divestitures 	Climate change is treated as a Board-level governance issue and is discussed regularly, including during Board strategy discussions, portfolio review and investment decisions, and in the context of scenario triggers and signposts. Our Board is actively engaged in the setting of strategy and governance of climate change issues, supported by the Sustainability Committee, which assists with governance and monitoring. The Sustainability Committee spends a significant amount of time considering systemic climate change matters relating to the resilience of, and opportunities for, BHP's portfolio. Non-executive Directors must have a clear understanding of the Group's overall strategy, together with knowledge about BHP and the industries in which it operates. Framed as a Board-level governance issue requiring experience of managing in the context of uncertainty and an understanding of the risk environment of the Group, all of the Non-executive Directors bring relevant experience to bear in our climate change discussions. To enhance that experience, the Board has taken a number of measures to ensure that its decisions are appropriately informed by climate change science and expert advisers. The Board seeks the input of management (including from our Vice President Sustainability and Climate Change), our Forum on Corporate Responsibility (which advises the Board on sustainability issues) and other independent advisers.

C1.2

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

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

C1.2a

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

Climate change is a priority governance and strategic issue for BHP. Our Board is actively engaged in the setting of strategy and governance of climate change issues, supported by the Sustainability Committee. Management has primary responsibility for the design and implementation of our response to climate change.

(1) Sustainability & climate change governance: Our approach to sustainability is reflected in Our Charter, which defines our values, purpose and how we measure success, and in our sustainability performance targets, which define our public commitments to safety, health, environment – including climate change – and community. Our approach to HSEC and sustainability governance is characterised by (i) the Sustainability Committee assisting the Board in its oversight of material HSEC matters and risks across BHP, including seeking continuous improvement and policy advocacy as applicable; (ii) management having primary responsibility for the design and implementation of an effective HSEC Management System; (iii) management having accountability for HSEC performance; (iv) the External Affairs function (includes Sustainability & Climate Change) providing advice and guidance directly to the Sustainability Committee and the Board; (v) the Board, Sustainability Committee and management seeking input and insight from external experts, such as the BHP Billiton Forum on Corporate Responsibility (FCR); (vi) clear links between executive remuneration and HSEC performance.

The Group's HSEC framework - including climate change - consists of (i) the CEO limits set out in the Board Governance Document, which establishes the remit of the Board and delegates authority to the CEO, including in respect of the HSEC Management System, subject to CEO limits; (ii) the Sustainability Committee, which is responsible for assisting the Board in overseeing the adequacy of the Group's HSEC Framework and HSEC Management System (among other things); (iii) the HSEC Management System, established by management in accordance with the CEO's delegated authority, which provides the processes, resources, structures and performance standards for the identification, management and reporting of HSEC risks and the investigation of any HSEC incidents; (iv) a robust and independent internal audit process overseen by the Risk & Audit Committee; and (v) independent advice on HSEC matters, which may be requested by the Board and its Committees where deemed necessary in order to meet their respective obligations.

(2) Management: Our approach to addressing climate change is managed within the Executive Leadership Team by the CEO and the Chief External Affairs Officer (equivalent to the COO). Reducing operational emissions is a key performance indicator for our business and our performance against our targets is reflected in senior executive and leadership remuneration. Within the External Affairs function, the Head of Sustainability & Public Policy and Vice President Sustainability & Climate Change have direct responsibility for identifying emerging trends, developing climate change strategies, coordinating activity across the businesses and external reporting. In developing our approach to climate change, input is sought from the Assets, Regions and Functions (including Finance, Commercial, Technology and External Affairs).

(3) Sustainability Committee: The role of the Sustainability Committee is to assist the Board in its oversight of the Group's HSEC performance – including climate change – and the adequacy of the Group's HSEC Framework, and in relation to various other governance responsibilities related to sustainability and climate change. Members of the Sustainability Committee are Non-executive Directors, each of whom is appropriately skilled in HSEC and related matters as determined by the Board. The Sustainability Committee provides oversight of the preparation and presentation of the Sustainability Report by management, and reviews and recommends to the Board the approval of the report for publication. The Sustainability Report identifies our targets for HSEC matters – including GHG emissions - and our performance against those targets. The Sustainability Committee met four times during FY2018, including receiving updates on BHP's climate change strategic priorities. In addition, the Committee met with the FCR and discussed a range of topics. Members of the Sustainability Committee also visited a number of operations during FY2018.

(4) External engagement: Our climate change strategy is supported by active engagement with our stakeholders, and we regularly hold one-on-one and group meetings with investors and their advisers. The Board, Sustainability Committee and Management also seek input and insight from external experts, such as the FCR. The FCR, which is composed of civil society leaders and BHP executives, has played a critical role in the development of our position on climate change.

C1.3

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

Yes

C1.3a

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

Who is entitled to benefit from these incentives?

Chief Executive Officer (CEO)

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

The Remuneration Committee sets the remuneration policy for the CEO based on a number of strategic drivers, including sustainability. Sustainable HSEC and financial performance measures are built into incentive plans. Components of the CEO's remuneration are base salary, pension contributions, benefits, long-term incentive (LTI) and short-term incentive (STI). The STI is at-risk. The STI operates as follows: - Setting performance measures and targets: The Remuneration Committee sets a balanced scorecard of HSEC (including climate change), financial and individual performance measures, with targets and relative weightings, at the beginning of the financial year in order to appropriately motivate the CEO to achieve outperformance that contributes to the long-term sustainability of the Group and shareholder wealth creation.

Appropriate HSEC measures and weightings are determined by the Remuneration Committee with the assistance of the Sustainability Committee. In FY2018, HSEC

measures carried a 25% weighting in the STI scorecard. This included performance against GHG emissions reduction targets. - The target level of STI is worth 160 per cent of base salary but, importantly there is a significant amount of stretch incorporated into the levels of performance required for a 'target' outcome. The maximum STI is worth 240 per cent of base salary but is only realisable in circumstances of significant outperformance. The minimum STI outcome is zero. - Assessment of performance: At the conclusion of the financial year, the CEO's achievement against each measure is assessed by the Remuneration Committee and the Board, with guidance provided by other relevant Board Committees in respect of HSEC (including GHG metrics) and other measures and an STI award determined. The Board believes this method of assessment is transparent, rigorous and balanced, and provides an appropriate, objective and comprehensive assessment of performance. The Board and Committee determined that the STI outcome for the CEO for FY2018 to be 90 per cent against the target of 100 per cent (which represents an outcome of 60 per cent against maximum), and believe this outcome is appropriately aligned with the shareholder experience and the interests of the Group's other stakeholders. This outcome took into account HSEC performance, including performance against GHG emissions reduction targets.

Who is entitled to benefit from these incentives?

Corporate executive team

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

An individual STI scorecard of measures is set for each executive in the Executive Leadership Team (ELT) at the commencement of each financial year. These measures and their relative weightings are chosen by the Remuneration Committee in order to appropriately drive overall performance in the current year, including achievement of financial outcomes and delivery against measures that impact the long-term sustainability of the Group. The Sustainability Committee assists the Remuneration Committee in determining appropriate HSEC metrics to be included in ELT scorecards. Delivery of GHG emission reduction projects and achievement of GHG emissions reduction targets are included in these HSEC metrics. At the conclusion of the financial year, each executive's achievement against their measures is assessed by the Committee and the Board, and their STI award determined. The Remuneration Committee is assisted by the Sustainability Committee and by the Risk and Audit Committee in relation to assessment of performance against HSEC (including GHG metrics) and financial measures, respectively. The Board believes this method of assessment is transparent, rigorous and balanced, and provides an appropriate, objective and comprehensive assessment of performance.

Who is entitled to benefit from these incentives?

Business unit manager

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

Senior executives adopt annual performance indicators aligned with meeting HSEC targets, including GHG emissions reduction targets. The responsibility of BHP's Business Presidents is to ensure their Business GHG emission reduction target is achieved for the operations under their control.

Who is entitled to benefit from these incentives?

Environment/Sustainability manager

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

Senior managers adopt annual performance indicators aligned with meeting HSEC targets that include GHG emissions reduction targets. It is their responsibility to ensure that performance against GHG emissions reduction targets is tracked at the operational level and reported on an annual basis.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

As an organisation we hold our people accountable to our Charter Values of Sustainability, Integrity, Respect, Performance, Simplicity and Accountability. We annually review and remunerate based on consideration of the performance of employees with respect to each of these values. Furthermore, the short-term incentive (STI) pool includes consideration of HSEC metrics (including GHG emissions performance).

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Recognition (non-monetary)

Activity incentivized

Emissions reduction project

Comment

Every year we hold HSEC Awards, where all employees can nominate or be nominated to receive an award in recognition of their achievements in any area related to HSEC, including GHG emissions reductions. We believe these awards constitute an added incentive to our employees to do their utmost in promoting sustainability and action on climate change.

C2. Risks and opportunities

C2.1

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

	From (years)	To (years)	Comment
Short-term	0	2	BHP has a two-year budget, a five-year outlook and a 20-year strategic planning horizon. Our forecasts and scenarios extend to 2050 and beyond, with longer term outcomes considered qualitatively, consistent with longer time horizons over which many climate-related risks likely to fully manifest.
Medium-term	2	5	BHP has a two-year budget, a five-year outlook and a 20-year strategic planning horizon. Our forecasts and scenarios extend to 2050 and beyond, with longer term outcomes considered qualitatively, consistent with longer time horizons over which many climate-related risks likely to fully manifest.
Long-term	5		BHP has a two-year budget, a five-year outlook and a 20-year strategic planning horizon. Our forecasts and scenarios extend to 2050 and beyond, with longer term outcomes considered qualitatively, consistent with longer time horizons over which many climate-related risks likely to fully manifest.

C2.2

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

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

C2.2a

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

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	BHP identifies and assesses climate-related risks that may occur over multiple time horizons. We have a two-year budget, a five-year outlook and a 20-year strategic planning horizon. Our forecasts and scenarios extend to 2050 and beyond, with longer term outcomes considered qualitatively. Risks are monitored on an ongoing basis via a number of different mechanisms. We incorporate climate considerations into our scenario analysis and these are taken into account by the Board when making investment decisions. We regularly review policy, market, technological changes, updates to scientific literature, & community, investor & regulatory standards and expectations, as they develop, to provide insights into possible risks & opportunities and inform appropriate management actions We also conduct annual performance reviews against our GHG emission reduction targets. The Sustainability Committee monitors the actions being taken to manage a range of climate change impacts and policy responses.

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

We embed risk management in our critical business activities, functions, processes and systems through the following mechanisms:

- Risk assessments – we regularly assess known, new and emerging risks.
- Risk controls – we put controls in place over material risks, and periodically assess the effectiveness of those controls.
- Risk materiality and tolerability evaluation – we assess the materiality of a risk based on the degree of financial and non-financial impacts, including HSE impacts. We assess the tolerability of a risk based on a combination of residual risk and control effectiveness.

Climate-related risks are monitored and managed on an ongoing basis via a number of different mechanisms and at a number of different levels within the organization.

The Board, supported by the Risk and Audit Committee (RAC), is responsible for overseeing our approach to managing risk, including climate risk. The RAC regularly reviews the material risk management framework as part of its responsibility to ensure our system of control for identification and management of risks is operating and effective.

At Group level, our approach to corporate planning, investment decision-making and portfolio management provides a focus on the identification, assessment and management of climate change risks. We use a broad range of scenarios to consider how divergent policy, technology, market and societal outcomes could impact our portfolio, including low plausibility, extreme shock events. We also continually monitor the macro environment for climate change-related developments that would serve as a call to action for us to reassess the resiliency of our portfolio. The impacts of climate change are considered in our Capital Allocation Framework. Our investment evaluation process includes an assessment of non-quantifiable risks such as those impacts on people and the environment that underpin our licence to operate. The process has also incorporated market and sector based carbon prices for more than a decade.

At Asset level, the Our Requirements for Risk Management standard provides the framework for risk management relating to climate change and material HSE risks. We conduct internal audits to test compliance with Our Requirements standards and develop action plans to address any gaps. Key findings are reported to senior management and reports are considered by relevant Board committees.

With respect to physical risk, we take a robust, risk-based approach to adapting to the physical impacts of climate change. We work with globally recognised agencies to obtain regional analyses of climate science to inform resilience planning at an asset level and improve our understanding of the climate vulnerabilities our operations may face. Our operations are required to build climate resilience into their activities through compliance with the Our Requirements for Environment and Climate Change standard. We also require new investments to assess and manage risks associated with the forecast physical impacts of climate change. We recognise the body of scientific knowledge about the potential impacts of climate change is rapidly expanding and continue to review our adaptation approach to account for the latest climate science.

To effectively manage and prioritise our material risks, we operate an enterprise-wide risk system that provides an overarching and consistent framework for the assessment and management of risks both at the Group and Asset level. We mandate criteria to identify risks we consider material to our business and take into consideration the potential HSE (including climate change) and other impacts. The severity of any particular risk is assessed according to a matrix that describes the degree of harm, injury or loss from the most severe impact associated with a specific risk, assuming reasonable effectiveness of controls. Risks are considered material if they meet either of the maximum foreseeable loss (MFL) or residual risk rating (RRR) criterion. MFL is the plausible worst-case scenario for any risk when all active risk controls are assumed to be ineffective. The RRR represents the level of residual risk associated with the particular material risk after taking into account the controls that are already in place and have had their effectiveness tested. The materiality criteria are set at the Group level. Tolerance criteria additionally assess the control effectiveness of material risks.

This framework ensures:

- Potential impacts on business plans are identified and supported by clear accountabilities and adequate risk resources
- Risks are ranked using appropriate methodology described in Our Requirements
- Material risks are recorded in the enterprise wide data base and reviewed by senior management
- Risk controls must be designed, implemented, operating and assessed.

Note that this CDP response relates to FY2018, and we have since revised our risk framework. More recent information is available in our 2019 Annual report.

C2.2c

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

Relevance & inclusion	Please explain
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	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Transitioning to a lower carbon economy may entail extensive policy and regulatory changes to address mitigation and adaptation requirements related to climate change. Policy and regulatory risk is particularly relevant for resource-intensive organizations with high GHG emissions within their value chains, such as BHP, where regulations aimed at reducing emissions may have a particularly direct effect on our operations, value chain, and demand for our products. We produce fossil fuels (energy coal, oil and gas) used primarily in the transport and electricity generation sectors, as well as fossil fuels and other commodities used as inputs to emissions-intensive industrial processes (including metallurgical coal and iron ore used in steelmaking). We also use fossil fuels in our operations either directly or through the purchase of fossil fuel-based electricity. We can therefore be impacted by both current and emerging policies and regulations to reduce GHG emissions from the resources, electricity generation, transport and industrial sectors. We have operations and projects in many geographic locations including Australia, Chile, Peru, Brazil, Colombia, Canada, the US, Mexico, Trinidad and Tobago, and Algeria; and similarly sell our products into numerous markets, particularly in Asia. We also operate under a Dual Listed Company structure, being listed in London and Australia. The policy and regulatory landscape varies significantly between jurisdictions, increasing the challenge that climate-related regulation poses to BHP. Examples of regulatory change include the launch of an emissions trading scheme in China in 2017 and the introduction of a carbon tax in Chile in 2017. Uncertainty around current regulations in some of the jurisdictions in which we operate creates additional risk. For example, in the US, the current administration has sought to roll back regulations on a number of environmental issues, including climate change. On a subnational level, many states and cities are continuing to develop and expand initiatives to reduce emissions, leaving companies facing differing regulations across the country and subsequent compliance challenges. For example, in Australia, a carbon tax introduced in 2011 by a Labor government was repealed in 2014 by the Abbott Coalition administration, and the energy and climate policy landscape remains uncertain.
Emerging regulation	Relevant, always included	Transitioning to a lower carbon economy may entail extensive policy and regulatory changes to address mitigation and adaptation requirements related to climate change. Policy and regulatory risk is particularly relevant for resource-intensive organizations with high GHG emissions within their value chains, such as BHP, where regulations aimed at reducing emissions may have a particularly direct effect on our operations, value chain, and demand for our products. We produce fossil fuels (energy coal, oil and gas) used primarily in the transport and electricity generation sectors, as well as fossil fuels and other commodities used as inputs to emissions-intensive industrial processes (including metallurgical coal and iron ore used in steelmaking). We also use fossil fuels in our operations either directly or through the purchase of fossil fuel-based electricity. We can therefore be impacted by both current and emerging policies and regulations to reduce GHG emissions from the resources, electricity generation, transport and industrial sectors. We have operations and projects in many geographic locations including Australia, Chile, Peru, Brazil, Colombia, Canada, the US, Mexico, Trinidad and Tobago, and Algeria; and similarly sell our products into numerous markets, particularly in Asia. We also operate under a Dual Listed Company structure, being listed in London and Australia. The regulatory landscape varies significantly between jurisdictions, increasing the challenge that climate-related regulation poses to BHP. The Paris Agreement requires countries to implement their NDCs, and to ratchet up their ambitions over time. This will require countries either to introduce policies, or to revise and strengthen their existing policies. In the jurisdictions in which we operate, and in our key markets, emerging regulation is varied. For example, the energy and climate policy landscape in both Australia and the US remains uncertain.
Technology	Relevant, always included	Transition risk arises from a variety of technological and market responses to the challenges posed by climate change and the transition to a lower carbon economy; these are often interconnected with the policy and regulatory risks discussed separately, with more ambitious emissions reduction targets or GHG regulations likely to accelerate the adoption of lower emissions technologies. The substitution of existing technologies with lower emissions options, particularly in the electricity generation and transport sectors, has the potential to reduce demand for our fossil fuel products. For example, switching from coal to gas or renewables for electricity generation may lead to reduced demand for our energy coal products. The development of low emissions technologies also presents opportunity for BHP. Our copper products have application in a variety of low emissions products in energy generation and transport, for example electric vehicles, that are likely to see growth driven by technology developments. Likewise nickel is a key raw material for batteries, with battery producers expected to match electric vehicle growth rates. Carbon capture and storage (CCS) is another key technology that offers opportunity for BHP as it has the potential to play a pivotal role in decarbonizing industrial processes such as steel production (steelmaking, which uses both iron ore and metallurgical coal, currently accounts for the majority of our scope 3 emissions). Technology developments also have the potential to impact our operations, with the potential requirement for increased capital expenditure or investment in research and development into low emissions technologies. The deployment of low emissions technologies at our operations also presents opportunities to reduce costs and improve productivity. For example, deploying electric vehicles at our mine sites has the potential to lower operating costs, as well as to reduce worker exposure to diesel particulate matter.
Legal	Relevant, always included	Legal risk is relevant to BHP in that applications for licences, permits and authorisations required to develop our assets and projects may face greater scrutiny and be contested by third parties due to climate-related concerns. Legal risk is also relevant to BHP in the form of the potential for enhanced emission-reporting obligations. This is particularly relevant for us, as we have operations and projects in many geographic locations including Australia, Chile, Peru, Brazil, Colombia, Canada, the US, Mexico, Trinidad and Tobago, and Algeria; and similarly sell our products into numerous markets, particularly in Asia. We also operate under a Dual Listed Company structure, being listed in London and Australia. Similarly to the regulatory landscape more broadly, the climate-related reporting and disclosure obligations to which we are subject vary significantly between jurisdictions, increasing the challenge of managing this issue. Any potential developments in emissions-reporting obligations are likely to be especially relevant to resource-intensive organizations such as BHP with high GHG emissions at their operations or within their value chains, BHP may be subject to or impacted by climate-related litigation (including class actions). There has been a recent escalation of climate-related litigation involving companies, particularly in the US.
Market	Relevant, always included	Market risk can take the form of changing customer behaviour or uncertainty in market signals. The ways in which markets could be affected by climate change are varied and complex. For BHP, market risk is intimately connected with the technology, policy and regulatory risks described separately and is likely to manifest in similar ways; changes in public expectations may also play a role. For example China, one of our major product markets, officially launched its national emissions trading scheme in 2017 and work is underway to prepare for its implementation, with the potential to impact demand for our products. This represents both risk for our fossil fuel products such as energy coal, and opportunity for products such as copper that are likely to benefit from the accelerated adoption of low emissions technologies as a result of more stringent climate policies. More broadly, the substitution of existing technologies with lower emissions options, particularly in the electricity and transport sectors, has the potential to reduce demand for our fossil fuel products. For example, switching from coal to gas or renewables for electricity generation may lead to reduced demand for our energy coal products (though it may increase demand for our natural gas). The development of low emissions technologies also presents opportunity for BHP. Our copper products have application in a variety of low emissions products in energy generation and transport, for example electric vehicles, that are likely to see market growth driven by both technology and policy developments. Likewise nickel is a key raw material for batteries, with battery producers expected to match electric vehicle growth rates. The structure of existing markets may change as a result of the transition to a lower carbon economy. For example, as the energy sector decarbonizes, product quality and cost of production will be increasingly important in determining which coal reserves are brought to market. In terms of direct impacts on our operations, another form of market risk is the potential for increases in the cost of fuels or other raw materials as a result of developments in climate regulations. As a major energy consumer, this is of relevance to our business, and managing energy use and cost at our operations is a priority for BHP.
Reputation	Relevant, always included	Climate change has been identified as a potential source of reputational risk tied to changing customer or community perceptions of an organization's contribution to or detractor from the transition to a lower-carbon economy. This may manifest shifts in consumer preferences, as discussed separately in the context of market risk, and as such is of relevance to BHP. This also represents an opportunity for BHP due to the broader social value of the commodities we produce and their contribution to economic development. For example, though they are emissions-intensive to produce, steel products (not to mention products manufactured using steel equipment) are ubiquitous in society and integral to transport, housing, agriculture, manufacturing, energy production, and water supply systems. Developing societies need steel to meet their infrastructure and construction needs, and steel is critical to the sectors and technologies on which a lower carbon economy will be based, such as energy and resource efficient buildings, renewable energy infrastructure, and low emissions transport. Reputational risk may also manifest in the form of stigmatization of certain sectors or increased stakeholder concern. The production and use of fossil fuels receives scrutiny from a range of stakeholders, including governments, investors, NGOs and communities, and stakeholder expectations in relation to climate change continue to increase. For BHP, there is the potential for reputational risks with investors and other stakeholders if our performance and policy commitments on climate and other ESG issues fall short of expectations for a leading resources company.
Acute physical	Relevant, always included	Risks related to the physical impacts of climate change include acute risks resulting from increased severity of extreme weather events and chronic risks resulting from longer-term changes in climate patterns. Both forms of physical risk are relevant to BHP. We have onshore and offshore extractive, processing and logistical operations in many geographic locations and as such a wide variety of physical climate impacts are potentially relevant to our business. Physical risks could impact production at our operations and materially and adversely affect the financial performance of our assets. They also have the potential to impact our supply chain, our customers' facilities, and our transport and distribution networks. Physical risk scenarios generally identify extreme weather threats of moderate or higher risk before 2030 and a larger number and range of physical threats between 2030 and 2050. These timeframes are of relevance given the long lifetimes of our assets. Mining operations are also typically capital intensive, and require investments in plant and equipment that are relatively fixed in terms of location. With respect to acute physical risks, our Western Australia Iron Ore, Queensland Coal and Gulf of Mexico oil and gas assets in particular are located in areas subject to cyclones or hurricanes.
Chronic physical	Relevant, always included	Risks related to the physical impacts of climate change include acute risks resulting from increased severity of extreme weather events and chronic risks resulting from longer-term changes in climate patterns. Both forms of physical risk are relevant to BHP. We have onshore and offshore extractive, processing and logistical operations in many geographic locations and as such a wide variety of physical climate impacts are potentially relevant to our business. Physical risks could impact production at our operations and materially and adversely affect the financial performance of our assets. They also have the potential to impact our supply chain, our customers' facilities, and our transport and distribution networks. Physical risk scenarios generally identify extreme weather threats of moderate or higher risk before 2030 and a larger number and range of physical threats between 2030 and 2050. These timeframes are of relevance given the long lifetimes of our assets. Mining operations are also typically capital intensive, and require investments in plant and equipment that are relatively fixed in terms of location. Chronic physical risks include longer-term shifts in climate patterns that may cause sea level rise, changing precipitation patterns, or chronic heat waves. Storm surges and sea level rise have the ability to affect our port facilities, offshore Petroleum operations and onshore operations located near coastlines. Our key port facilities are located at Coloso and Antofagasta in Chile and Port Hedland and Hay Point in Australia. Changing precipitation patterns can exacerbate water stress and impact availability of water for our operations. Some of our assets, such as those producing copper, are water intensive. Others, for example Queensland Coal, are located in areas that have already experienced significant changes in precipitation patterns in recent years. Temperature extremes could affect the performance of our workforce.
Upstream	Relevant, always included	In addition to affecting our operations directly, many of the regulatory, technology, legal, market, reputational, and physical risks discussed separately may affect our upstream supply chain. We have onshore and offshore extractive, processing and logistical operations in many geographic locations. Acute and chronic physical climate risks have the potential to affect the supply chains servicing these locations. The risk driver for the potential for increases in the cost of fuels or other raw materials purchased by our operations as a result of developments in climate regulations, as described previously, also occurs in our upstream supply chain. As a major energy consumer, this is of relevance to our business, and managing energy use and cost at our operations is a priority for BHP.

	Relevance & inclusion	Please explain
Downstream	Relevant, always included	<p>In addition to affecting our operations directly, many of the regulatory, technology, legal, market, reputational, and physical risks discussed separately may affect our downstream supply chain. We have onshore and offshore extractive, processing and logistical operations in many geographic locations. Acute and chronic physical climate risks have the potential to affect our product transport and distribution networks. In particular, BHP is one of the largest global shippers of bulk commodities, and rising sea levels and increasing storm intensities have the potential to impact our ports and ocean freight networks. Likewise we sell our products into numerous markets in many geographic locations, and physical climate risks have the potential to impact our customers' facilities. For BHP, the drivers for many of the key policy, technology and market risks and opportunities described separately occur in our downstream value chain. Most notably, this includes those transition risks arising from policy, technological and market responses that impact demand for our products. As described separately, the substitution of existing technologies with lower emissions options, particularly in the electricity generation and transport sectors, has the potential to reduce demand for our fossil fuel products. For example, switching from coal to gas or renewables for electricity generation may lead to reduced demand for our energy coal products (though it may increase demand for our natural gas). The development of low emissions technologies also presents opportunity for BHP. Our copper products have application in a variety of low emissions products in energy generation and transport, for example electric vehicles, that are likely to see market growth driven by both technology and policy developments. Likewise nickel is a key raw material for batteries, with battery producers expected to match electric vehicle growth rates.</p>

C2.2d

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

We embed risk management in our critical business activities, functions, processes & systems through the following mechanisms:

- Risk assessments – we regularly assess known, new and emerging risks.
- Risk controls – we put controls in place over material risks, and periodically assess the effectiveness of those controls.
- Risk materiality and tolerability evaluation – we assess the materiality of a risk based on the degree of financial and non-financial impacts, including HSE impacts. We assess the tolerability of a risk based on a combination of residual risk and control effectiveness.

Climate risks & opportunities are monitored and managed on an ongoing basis via a number of different mechanisms and at a number of different levels within the organization.

The Board, supported by the Risk and Audit Committee (RAC), is responsible for overseeing our approach to managing risk, including climate risk. The RAC regularly reviews the material risk management framework as part of its responsibility to ensure our system of control for identification and management of risks is operating and effective.

At Group level, our approach to corporate planning, investment decision-making and portfolio management provides a focus on the identification, assessment and management of transition risks. We use a broad range of scenarios to consider how divergent policy, technology, market and societal outcomes could impact our portfolio, including low plausibility, extreme shock events. We also continually monitor the macro environment for climate change-related developments that would serve as a call to action for us to reassess the resiliency of our portfolio. The impacts of climate change are considered in our Capital Allocation Framework. Our investment evaluation process includes an assessment of non-quantifiable risks such as those impacts on people and the environment that underpin our licence to operate. The process has also incorporated market and sector based carbon prices for more than a decade.

At Asset level, the Our Requirements for Risk Management standard provides the framework for risk management relating to climate change and material HSE risks. We conduct internal audits to test compliance with Our Requirements standards and develop action plans to address any gaps. Key findings are reported to senior management and reports are considered by relevant Board committees.

With respect to physical risk, we take a robust, risk-based approach to adapting to the physical impacts of climate change. We work with globally recognised agencies to obtain regional analyses of climate science to inform resilience planning at an asset level and improve our understanding of the climate vulnerabilities our operations may face. Our operations are required to build climate resilience into their activities through compliance with the Our Requirements for Environment and Climate Change standard. We also require new investments to assess and manage risks associated with the forecast physical impacts of climate change. We recognise the body of scientific knowledge about the potential impacts of climate change is rapidly expanding and continue to review of our adaptation approach to account for the latest climate science.

To effectively manage and prioritise our material risks, we operate an enterprise-wide risk system that provides an overarching and consistent framework for the assessment and management of risks both at the Group and Asset level. We mandate criteria to identify risks we consider material to our business and take into consideration the potential HSE (including climate change) and other impacts. The severity of any particular risk is assessed according to a matrix that describes the degree of harm, injury or loss from the most severe impact associated with a specific risk, assuming reasonable effectiveness of controls. Risks are considered material if they meet either of the maximum foreseeable loss (MFL) or residual risk rating (RRR) criterion. MFL is the plausible worst-case scenario for any risk when all active risk controls are assumed to be ineffective. The RRR represents the level of residual risk associated with the particular material risk after taking into account the controls that are already in place and have had their effectiveness tested. The materiality criteria are set at the Group level. Tolerance criteria additionally assess the control effectiveness of material risks.

This framework ensures:

- Potential impacts on business plans are identified and supported by clear accountabilities and adequate risk resources
- Risks are ranked using appropriate methodology described in Our Requirements
- Material risks are recorded in the enterprise wide data base and reviewed by senior management
- Risk controls must be designed, implemented, operating and assessed.

Note that this CDP response relates to FY2018, and we have since revised our risk framework. More recent information is available in our 2019 Annual report.

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?

Customer

Risk type

Transition risk

Primary climate-related risk driver

Technology: Substitution of existing products and services with lower emissions options

Type of financial impact

Reduced demand for products and services

Company- specific description

Potential reduced demand for our energy coal products. As well as being a major producer of iron ore, metallurgical coal and copper, we also have interests in energy coal. Our energy coal production in FY2018 totalled 29,158 kt (Annual Report 2018, p.248); in comparison our metallurgical coal production was 42,640 kt. Our scenario analysis suggests downside for energy coal under a 2 degrees transition due to a switch from coal to gas in power generation and renewables capacity additions driven by climate policy and technology developments, including in our key product markets such as China. The development of an economic carbon capture and storage solution would minimize this downside.

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2423000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The high degree of uncertainty around the timing and magnitude of the risk makes it difficult to determine the potential financial impact with precision. The risk relates to a number of different markets (geographically and product) and there is variability in the magnitude and timing of the opportunity across and within markets. Potential financial impact is further dependent on our approach to managing the risk. In order to provide an indication of order of magnitude of potential financial impact, the figure provided is the total revenue for our energy coal assets reported for FY2018 (Annual Report 2018, p.91). This compares to total revenue for the Group in FY2018 of US\$43,638 million (Annual Report 2018, p.70). If energy coal demand were to decrease, this revenue, as well as existing asset values, may decrease proportionally. However, our analysis suggest that our diversification results in the resilience and strength of our overall valuation through all plausible scenarios.

Management method

Our approach to managing this risk should be considered in the context of our strategy to have a simple & diverse portfolio of tier one assets that are long life, low cost & expandable, and future options diversified by commodity & geography; and of broader trends in the sector. We manage risk by remaining financially disciplined within the framework of our differentiated & proven strategy. We take a portfolio approach as the quality and breadth of our business across geography, commodity & market reduces earnings volatility and ensures that our portfolio is robust across a range of scenarios. We anticipate that potential downside for energy coal will be mitigated by upside for other commodities in our portfolio such as copper. As the energy sector decarbonizes, product quality & cost of production will be increasingly important in determining which coal reserves are brought to market, and we expect high quality & low cost sources of supply such as ours to be advantaged, further mitigating this risk. Energy coal makes up a relatively small part of our portfolio, representing around 4% of EBITDA and around 1% of Group capital expenditure on a cash basis in FY2018, mitigating the potential financial impact of this risk. In addition, we have not invested in any new greenfield thermal coal assets for the past decade. Recent examples of how we continue to reshape our portfolio to focus on long-life, tier one assets include the divestment of New Mexico Coal & IndoMet Coal.

Cost of management

1500000

Comment

Costs associated with modelling and predicting our portfolio response to climate risk, including the demand outlook for thermal coal are expected to be low, estimated at between US\$1 million and US\$2 million for personnel.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

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

Type of financial impact

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

Company- specific description

Increased likelihood of greater intensity and more frequent storm systems including tornados, hurricanes and cyclones. These could impact production at our operations and

materially and adversely affect the financial performance of our assets. We have onshore and offshore extractive, processing and logistical operations in many geographic locations. In particular, our Western Australia Iron Ore, Queensland Coal and Gulf of Mexico oil and gas assets are located in areas subject to cyclones or hurricanes. A specific example from FY2018 relates to conventional petroleum unit costs, which were higher due to lower volumes as a result of the impact of Hurricanes Harvey and Nate on US Petroleum assets, as well as natural field decline. As is the case with many climate-related risks and opportunities, this risk may present over short-, medium- and long-term time horizons. Physical risk scenarios generally identify extreme weather threats of moderate or higher risk before 2030 and a larger number and range of physical threats between 2030 and 2050. Mining operations are typically capital intensive, and require investments in plant and equipment that are relatively fixed in terms of location. This reduces the flexibility of approaches to adapting to these risks.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

100000000

Potential financial impact figure – maximum (currency)

500000000

Explanation of financial impact figure

The high degree of uncertainty around the frequency and severity of the events described by this risk makes it difficult to determine the potential financial impact with precision. Potential financial impact is further dependent on our approach to managing the risk. In order to provide an indication of order of magnitude of potential financial impact, the figure we have provided is the mid-point in the typical range of financial impacts from cyclones and hurricanes based on past events, which is US\$100 million to US\$500 million (including loss of production). The frequency and severity of these events will proportionally determine the long-term financial implication.

Management method

We take a robust, risk-based approach to adapting to the physical impacts of climate change. We work with globally recognised agencies to obtain regional analyses of climate science to inform resilience planning at an asset level and improve our understanding of the climate vulnerabilities our operations may face. Our operations are required to build climate resilience into their activities through compliance with the Our Requirements for Environment and Climate Change standard. We also require new investments to assess and manage risks associated with the forecast physical impacts of climate change. For example, cyclone management is already a critical requirement for our West Australian Iron Ore asset and maintaining adaptive management practices will allow WAIO to respond to an expected increase in cyclone intensity in the Pilbara region. Our Petroleum business has specifically designed severe weather mitigation systems for Floating Production and Storage Offtake vessels (FPSOs). Although the FPSOs are connected to subsea oil and gas infrastructure, they have the capability to disconnect from this infrastructure, and can sail away from impending cyclonic or extreme weather events. We recognise the body of scientific knowledge about the potential impacts of climate change is rapidly expanding and we continue to review of our adaptation approach to account for the latest climate science.

Cost of management

2000000

Comment

Part of our adaptation approach is continuing to learn and test the likely impacts on our businesses. By undertaking climate change resilience deep dives with our businesses, there are a number of areas where we are continuing to build on our understanding. The anticipated total costs of undertaking these deep dives are estimated at less than US\$2 million based on personnel and consulting costs.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Enhanced emissions-reporting obligations

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

Increasing requirements for mandatory reporting and disclosure of GHG emissions and other climate-related topics in the jurisdictions in which we operate. We have operations and projects in many geographic locations including Australia, Chile, Peru, Brazil, Colombia, Canada, the US, Trinidad and Tobago, and Algeria. We are also operate under a Dual Listed Company structure with two parent companies (BHP Group Limited and BHP Group Plc), being listed in London and Australia. We are therefore subject to climate-related reporting and disclosure obligations in a number of jurisdictions, and already report against a number of standards and protocols in compliance with local regulatory requirements, including participation in the Australian National Greenhouse and Energy Reporting scheme (NGER), as detailed separately. The Paris Agreement requires countries to implement their NDCs, and to ratchet up their ambitions over time. This will require countries either to introduce new laws and policies, or to revisit, revise and strengthen their existing policies to keep up with increased ambition. Corporate GHG reporting is an essential component to underpin effective climate change policy design and emissions management, and parallel developments in reporting obligations to support the introduction of new regulations are to be expected. In addition, during 2017 the Task Force on Climate-related Financial Disclosures (TCFD) released its recommendations. Subsequently, there have been indications that elements of the TCFD recommendations, or similar, will be incorporated into mandatory disclosure requirements in some jurisdictions. For example, during FY2018 the UK government-commissioned Green Finance Taskforce published its findings calling on financial regulators to integrate the TCFD recommendations into the UK corporate governance and reporting framework, and the European Commission adopted a sustainable finance action plan that included the proposal to incorporate the TCFD recommendations into the EU corporate disclosure regime. Such potential developments are likely to be especially relevant to resource-intensive organizations with high GHG emissions within their value chains, such as BHP. As is the case with many climate-related risks and opportunities, this issue may develop over short-, medium- and long-term time horizons.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

1000000

Potential financial impact figure – maximum (currency)

2000000

Explanation of financial impact figure

In order to provide an indication of order of magnitude of potential financial impact, we have assumed that the potential financial impact corresponds to the anticipated additional cost of managing compliance with enhanced reporting obligations, which we estimate at between US\$1 million and US\$2 million, based on personnel and audit costs.

Management method

We recognise both the risks and opportunities posed by enhanced reporting obligations. We support mandatory GHG reporting as an essential component to underpin effective climate change policy design and emissions management. We believe reporting obligations should balance technical accuracy with the time and investment required to meet expectations. Our management approach involves engagement with the relevant stakeholders in the jurisdictions in which we operate, including policy makers. For example, we undertook detailed engagement on the application of and technical amendments to the Australian National Greenhouse and Energy Reporting scheme (NGER). With respect to the TCFD, and the possibility that elements of the TCFD recommendations will be incorporated into mandatory disclosure requirements, our Vice President of Sustainability and Climate Change is a member of the TCFD, and we were one of the first companies to voluntarily align our disclosures (in our 2017 Annual Report) with its recommendations. The Sustainability and Climate Change team, part of the External Affairs function, has responsibility for identifying emerging reporting trends, and for external reporting at the Group level. Our operating Businesses have specific roles dedicated to reporting responsible for the systems and procedures associated with the capture and recording of data and compliance. In addition to internal audit requirements, third party verification of emissions is already required annual

Cost of management

1500000

Comment

It is anticipated that the additional cost of managing compliance with enhanced reporting obligations will be between US\$1 million and US\$2 million, based on personnel and audit costs.

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?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Type of financial impact

Increased revenue through demand for lower emissions products and services

Company-specific description

Potential increased demand for our copper products. BHP is one of the world's top producers of copper. Our total copper production (concentrate and cathode) in FY2018 was 1,753 kt (Annual Report 2018, p.247). Our copper products have application in a variety of low emissions products in energy generation and transport that are likely to see growth driven by climate policy and technology developments. Our scenario analysis suggests copper will offer growth opportunities under a 2 degrees transition as a result of more energy efficient machinery, renewables capacity additions for power generation and increased adoption of electric vehicles. Our copper products are ideally placed to support the electrification of energy demand. Our projections assume that the demand for electricity will outstrip the growth in total primary energy demand between now and mid-century. The production, distribution and transmission of that power will require a great deal of copper. Copper is particularly well placed to support the electrification of transport – with a battery-powered electric car requiring three times as much copper as a conventional car. Copper is also required to support build out of renewables capacity – both wind and solar. From a copper point of view, the per MWh demand coefficient associated with offshore wind generation is almost five times that associated with coal generation. For solar, the coefficient is around two and a half. This opportunity should be considered in the context of broader trends in the sector. In the near term, incremental mine production from committed projects, combined with increased scrap availability, will be sufficient to cover steady growth in copper demand. In the longer term, we expect demand growth to remain solid. China is expected to transition to a consumption-based economy, continued growth is expected from other emerging markets, and technological trends (including those related to this opportunity) point to greater copper intensities in key sectors. A deficit is expected to

emerge early next decade as grade declines, a rise in costs and a scarcity of high-quality future development opportunities are likely to constrain the industry's ability to cheaply meet this demand growth.

Time horizon

Long-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)

13287000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The high degree of uncertainty around the timing and magnitude of the opportunity makes it difficult to determine the potential financial impact with precision. The opportunity relates to a number of different markets and there is variability in the magnitude and timing of the opportunity across and within markets. Potential financial impact is further dependent on implementation of our strategy to realise the opportunity. In order to provide an indication of order of magnitude of potential financial impact, the figure provided is the total revenue for our Copper business reported for FY2018 (Annual Report 2018, p.87). This compares to total revenue for the Group in FY2018 of US\$43,638 million (Annual Report 2018, p.70). If copper demand were to increase, this revenue, as well as existing asset values, may increase proportionally. However, our analysis suggest that our diversification results in the resilience and strength of our overall valuation through all plausible scenarios.

Strategy to realize opportunity

Our strategy to realise this opportunity should be considered in the context of our strategy to have a simple & diverse portfolio of tier one assets that are long life, low cost & expandable, & future options diversified by commodity & geography; & of broader trends in the sector. We manage opportunity by remaining financially disciplined within the framework of our differentiated & proven strategy. We take a portfolio approach as the quality & breadth of our business across geography, commodity & market reduces earnings volatility and ensures that our portfolio is robust across a range of scenarios. Our scenario analysis has demonstrated that our strategy to invest in copper remains sound due to depletion of existing resource base, scarcity of high-quality development opportunities & expected demand growth. Our Olympic Dam asset in Australia comprises one of the world's largest ore bodies. In Chile, the Escondida asset is a leading producer of copper concentrate & cathodes, & Pampa Norte consists of two wholly owned assets in northern Chile – Spence & Cerro Colorado. During FY2018, the Board approved an investment of US\$2.5 billion for the Spence Growth Option, which will extend the life of the mine by > 50 years & is expected to increase capacity by approx.185 ktpa, with first production expected in FY2021. During 2018, we also announced we had acquired a 6.1% interest in SolGold Plc, majority owner & operator of the Cascabel porphyry copper-gold project in Ecuador.

Cost to realize opportunity

2428000000

Comment

In order to provide an indication of the order of magnitude of the potential cost to realise the opportunity, the figure provided for 'cost to realise opportunity' is the total capital expenditure reported for our Copper assets for FY2018 (Annual Report 2018, p.87). Looking ahead the expected capital expenditure of the Spence Growth option is US\$2.46 billion.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Type of financial impact

Increased revenue through demand for lower emissions products and services

Company-specific description

Potential increased demand for our nickel products. Our Nickel West asset is a fully integrated mine-to-market nickel business. All nickel operations (mines, concentrators, a smelter and refinery) are located in Western Australia. The integrated business adds value throughout our nickel supply chain. Our total nickel production in FY2018 was 90.6 kt (Annual Report 2018, p.248). Nickel is a key raw material for batteries. We expect significant growth in electric vehicle sales, with battery producers expected to match electric vehicle growth rate while responding to growing demand from other areas i.e. stationary storage. Virtually all battery producers are moving to higher nickel-rich chemistries, which are preferred due to their superior energy density, lighter weight for any given battery size, increased vehicle range, and lower metal cost. This opportunity should be considered in the context of broader trends in the sector. As is the case with many climate-related risks and opportunities, this opportunity may present over short-, medium- and long-term time horizons.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

130000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The high degree of uncertainty around the timing and magnitude of the opportunity makes it difficult to determine the potential financial impact with precision. The opportunity relates to a number of different markets and there is variability in the magnitude and timing of the opportunity across and within markets. Potential financial impact is further dependent on implementation of our strategy to realise the opportunity. In order to provide an indication of order of magnitude of potential financial impact, the figure provided is the revenue for Nickel West reported for FY2018 (Annual Report 2018, p.93). This compares to total revenue for the Group in FY2018 of US\$43,638 million (Annual Report 2018, p.70). If nickel demand were to increase, this revenue, as well as existing asset values, may increase proportionally. However, our analysis suggests that our diversification results in the resilience and strength of our overall valuation through all plausible scenarios.

Strategy to realize opportunity

Our strategy to realise this opportunity should be considered in the context of our strategy to have a simple & diverse portfolio of tier one assets that are long life, low cost & expandable, & future options diversified by commodity & geography; & of broader trends in the sector. We manage opportunity by remaining financially disciplined within the framework of our differentiated and proven strategy. We take a portfolio approach as the quality and breadth of our business across geography, commodity and market reduces earnings volatility and ensures that our portfolio is robust across a range of scenarios. We are investing in our Nickel West asset to enable production of downstream battery chemicals like nickel sulphate to support our transition to become a globally significant battery materials supplier. In FY2018, Nickel West began its transition to become a global supplier to the battery materials market, approving funding and beginning preparatory works for the first phase of a nickel sulphate plant which will be located at the Kwinana Nickel Refinery. Stage 1 is expected to produce 100 ktpa of nickel sulphate. A mini-plant has been constructed to deliver samples of nickel sulphate product to customers. First production from the nickel sulphate plant at the Kwinana Nickel Refinery is expected at the end of FY2019. We continue to explore options for a Stage 2, 200 kt nickel sulphate facility.

Cost to realize opportunity

43000000

Comment

In order to provide an indication of the order of magnitude of the potential cost to realise the opportunity, the figure provided for 'cost to realise opportunity' is the investment that has been announced to build a new facility at Nickel West to produce nickel sulphate for the battery market.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Type of financial impact

Increased revenue through demand for lower emissions products and services

Company-specific description

Potential increased demand for our natural gas products. As well as being a major producer of iron ore, metallurgical coal and copper, we also have substantial interests in oil and gas. Our natural gas production in FY2018 totalled 635.5 billion cubic feet (Annual Report 2018, p.249). CO2 emissions from the combustion of natural gas are lower than those from other fossil fuels, with the potential for avoided emissions from fuel switching. The introduction of more stringent climate policy and GHG regulations, including carbon pricing, has the potential to provide a cost advantage for lower carbon energy sources and could increase the market for natural gas. Our scenario analysis suggests natural gas will offer growth opportunities under a 2 degrees transition due to a switch from coal to gas in power generation and increased use of gas in transportation. The development of an economic carbon capture and storage solution would provide additional upside. This opportunity should be considered in the context of broader trends in the sector. In the case of liquefied natural gas (LNG), despite strong demand growth in Asia and Europe, new supply is likely to weigh on the market in the near term. However, in the long run, the outlook for LNG remains positive, underpinned by rising energy demand from emerging economies and the need for low-emission and flexible fuels to supplement intermittent renewables. Depleting indigenous gas supplies will also increase the dependence of some major consumers on the export market. As is the case with many climate-related risks and opportunities, this opportunity may present over short-, medium- and long-term time horizons.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1124000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The high degree of uncertainty around the timing and magnitude of the opportunity makes it difficult to determine the potential financial impact with precision. The opportunity relates to a number of different markets and there is variability in the magnitude and timing of the opportunity across and within markets. Potential financial impact is further dependent on implementation of our strategy to realise the opportunity. In order to provide an indication of order of magnitude of potential financial impact, the figure provided is the total revenue from natural gas reported for FY2018 (Annual Report 2018, p.83). This compares to total revenue for the Group in FY2018 of US\$43,638 million (Annual Report 2018, p.70). If natural gas demand were to increase, this revenue, as well as existing asset values, may increase proportionally.

However, our analysis suggest that our diversification results in the resilience and strength of our overall valuation through all plausible scenarios.

Strategy to realize opportunity

Our strategy to realise this opportunity should be considered in the context of our strategy to have a simple & diverse portfolio of tier one assets that are long life, low cost & expandable, & future options diversified by commodity & geography; & of broader trends in the sector. We manage opportunity by remaining financially disciplined within the framework of our differentiated and proven strategy. We take a portfolio approach as the quality and breadth of our business across geography, commodity and market reduces earnings volatility and ensures that our portfolio is robust across a range of scenarios. Our scenario analysis has demonstrated that our strategy to invest in our petroleum business, which includes natural gas, remains sound. Our Petroleum unit comprises conventional and unconventional (Onshore) oil and gas assets, and includes exploration, development and production activities. We have a high-quality resource base concentrated in the United States and Australia. During FY2018, we announced that we had entered into agreements for the sale of our entire interests in its Eagle Ford, Haynesville, Permian and Fayetteville Onshore US oil and gas assets. Natural gas is a key transition fuel, providing opportunities to invest in the quality gas resources in our portfolio. Examples of developments during FY2018 include the progression of development planning for the large Scarborough gas field (located offshore from Western Australia).

Cost to realize opportunity

656000000

Comment

In order to provide an indication of the order of magnitude of the potential cost to realise the opportunity, the figure provided for 'cost to realise opportunity' is the total capital expenditure reported for our Petroleum business – which includes natural gas – for FY2018 (Annual Report 2018, p.83).

C2.5

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

	Impact	Description
Products and services	Impacted for some suppliers, facilities, or product lines	A variety of policy, technological and market risks and opportunities resulting from the transition to a lower carbon economy could lead to the substitution of existing products and services with lower emissions options, thereby affecting demand for a variety of our products. In particular, a switch from coal to gas in power generation combined with renewables capacity additions could lead to potential reduced demand for our energy coal products; the introduction of more stringent climate policy has the potential to provide a cost advantage for lower carbon energy sources and could increase the market for our natural gas; there is potential increased demand for our copper products due to the increasing electrification of the energy system and increasing adoption of renewables and electric vehicles; and there is potential increased demand for our nickel products due to growth in the battery market. As is the case with many climate-related risks and opportunities, these risks and opportunities are likely to manifest over multiple time horizons. In the case of nickel, the potential opportunity has already impacted our business: we are investing in new facilities at our Nickel West asset to enable production of downstream battery chemicals like nickel sulphate to support our transition to become a globally significant battery materials supplier, and in FY2018 approved funding and began preparatory works for the first phase of a nickel sulphate plant. Similarly for copper we are increasing exploration and investigating options for expanding production, and during FY2018 approved an investment of US\$2.5 billion for the development of the Spence Growth Option to extend the life of the Spence copper mine in Chile by over 50 years to support expected demand growth. In the case of energy coal, demand for our products has not yet been impacted. We consider this a longer term risk. It is also low in magnitude given energy coal makes up a relatively small part of our portfolio. As discussed separately, as the energy sector decarbonizes, product quality and cost of production will be increasingly important in determining which coal reserves are brought to market, and we expect high quality and low cost sources of supply such as ours to be advantaged, further mitigating this risk.
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	In addition to affecting our operations directly, many of the regulatory, technology, legal, market, reputational, and physical risks discussed separately have the potential to affect both our upstream supply chain and downstream value chain, including our customers and the end users of our products. We are already seeing an impact for some value chain participants from some of these risks, though of a low magnitude. For example, policy and regulatory risk was identified as being particularly relevant for resource-intensive companies such as BHP. This is also the case for many of our customers, for example the steel producers who buy our iron ore and metallurgical coal. We already work directly with our customers to help them improve the productivity and environmental performance of their processes based on the quality characteristics of our products. In the case of emissions from steelmaking, for example, we produce premium low volatile (PLV) coking coals that can be processed into high strength metallurgical coke, allowing our customers to increase productivity and lower external energy requirements in the blast furnace. There is opportunity to build on these relationships to identify strategic opportunities to partner in implementing projects with the potential to achieve more material emissions reductions. The global shipping sector is also emissions intensive. Another example of how climate issues are impacting our value chain is the work we have been doing to reduce emissions from the transport and distribution of our products. During FY2018 we implemented vetting criteria on the marine fleet we charter to exclude vessels with poor GHG emissions performance. We have already started to see a response from the shipping industry. Examples of actions taken by our strategic partners (ship owners) include engagement with engine manufacturers to carry out engineering modifications; and a variety of technical adjustments to reduce emissions including limiting engine power output, installing propulsion improvement devices, and applying advanced silicon paints.
Adaptation and mitigation activities	Impacted	Risks related to the physical impacts of climate change include acute risks resulting from increased severity of extreme weather events, including the increased likelihood of greater intensity and more frequent storm systems, and chronic risks resulting from longer-term changes in climate patterns. Both forms of physical risk are relevant to BHP. Physical risk has impacted our business, though at a low magnitude to date, in that it has affected our adaptation approach. As discussed separately, we take a robust, risk-based approach to adaptation. We work with globally recognised agencies to obtain analyses of climate science to inform asset-level resilience planning & improve our understanding of the climate vulnerabilities our operations may face. Our operations are required to build climate resilience into their activities through compliance with the Our Requirements for Environment & Climate Change standard. We also require new investments to assess & manage risks associated with forecast physical climate impacts. Note also that our Western Australia Iron Ore, Queensland Coal and Gulf of Mexico oil and gas assets are located in areas already subject to cyclones or hurricanes. Transition risks, for example the potential for increases in the cost of energy inputs to our operations as a result of developments in climate regulations, have also impacted our mitigation activities. As a major energy consumer, managing energy use & reducing emissions are key components of our mitigation strategy. FY2018 was the first year of a new five-year target to maintain operational emissions in FY2022 below FY2017 levels while growing our business. FY2018 was also the first year of our longer-term goal of achieving net-zero operational emissions in the latter half of this century, consistent with the Paris Agreement. Our five-year target & longer-term goal underpin our strategy & drive internal performance. We require our assets to identify, evaluate & implement projects that prevent/minimise emissions, including in project design & equipment selection.
Investment in R&D	Impacted	Technology risk and opportunities were identified as having the potential to impact our operations, with the potential requirement for increased investment in research and development into low emissions technologies, though the magnitude of this impact to date is low. These considerations have impacted our business in that they have informed our low emissions technology strategy. Our strategy is to develop emerging & deploy existing technologies that have the potential to make step-change emissions reductions. We have a suite of initiatives underway aimed at achieving reductions across operational emissions sources (electricity, fuel use, fugitives). In evaluating investments, we emphasise technologies with potential to deliver material emissions savings across time horizons & to leverage our global operating model. For example, during FY2018 we commenced a trial to deploy light electric vehicles powered by lithium ion batteries in the underground fleet at our Olympic Dam copper mine. Carbon capture and storage (CCS) is another key technology that has been identified as offering opportunity for BHP as it has the potential to play a pivotal role in decarbonizing industrial processes such as steel production (which consumes our metallurgical coal and iron ore). This has impacted our business in that it has informed our product stewardship approach. Our CCS investments form a key part of our approach to product stewardship. Our CCS investments focus on reducing costs & accelerating development timeframes, and include knowledge sharing from commercial-scale projects & funding for R&D. E.g., in FY2018 we progressed work with Peking University and other partners to identify the key policy, technical and economic barriers to CCS deployment in the industrial sector, with a particular focus on the iron and steel industry in China.
Operations	Impacted	Many of both the transition (policy, technology, market) and physical risks identified as already having impacted our business in the form of impacts on our products, value chain, adaptation and mitigation activities, and investment in R&D (all of which are described separately) affect our operations either directly or indirectly, though at a low magnitude to date, as noted elsewhere. For example, as part of our adaptation approach, our operations are required to build climate resilience into their activities through compliance with the 'Our Requirements for Environment & Climate Change' standard, and we also require new investments to assess and manage risks associated with forecast physical climate impacts. Another example is that as part of our mitigation approach, designed in part to address the risk resulting from increasingly stringent emissions regulations in the jurisdictions in which we operate, we have set the long-term goal of achieving net-zero operational emissions in the latter half of this century, consistent with the Paris Agreement. Our long-term goal, together with our five-year emissions reduction target, is intended to drive internal performance at our operations. We require our operations to identify, evaluate & implement projects that prevent/minimise emissions, including in project design & equipment selection. Numerous individual improvement projects at our operations have contributed to emissions reductions to date, as well as improvements in technology and productivity at our operations. The risk identified from enhanced emissions-reporting obligations also affects our operations directly. Our operations have specific roles dedicated to reporting responsible for the systems and procedures associated with the capture and recording of data and compliance. In addition to internal audit requirements, third party verification of emissions is already required annually.
Other, please specify	Please select	

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

	Relevance	Description
Revenues	Impacted for some suppliers, facilities, or product lines	The physical and non-physical impacts of climate change may affect our assets, productivity, the markets in which we sell our products, and the communities in which we operate. Transition risks in particular may affect demand for our products. As discussed separately, the substitution of existing technologies with lower emissions options, particularly in the electricity and transport sectors, has the potential to reduce demand for our fossil fuel products. For example, switching from coal to gas or renewables in electricity generation may lead to reduced demand for our energy coal products (though it may increase demand for our natural gas). The development of low emissions technologies also presents opportunity for BHP. Our copper products have application in a variety of low emissions products in energy generation and transport, for example electric vehicles, that are likely to see market growth driven by both technology and policy developments. Likewise nickel is a key raw material for batteries, with battery producers expected to match electric vehicle growth rates. We consider the potential impact of such change in demand on revenues and identify potential opportunities for enhancing or developing new revenues. The potential impact on revenue of climate-related risks and opportunities is not always clear or direct, and will be dependent on the strategic approach taken to managing risk and seizing opportunities. We manage potential risk to our revenue by remaining financially disciplined within the framework of our differentiated and proven strategy, and as such the aggregate magnitude of this risk is low. We take a portfolio approach as the quality and breadth of our business across geographies, commodity and market reduces earnings volatility and ensures that our portfolio is robust across a range of scenarios. We also engage with governments and other key stakeholders to make sure the potential adverse impacts of proposed policy and regulatory changes are understood and, where possible, mitigated.
Operating costs	Impacted for some suppliers, facilities, or product lines	The physical and non-physical impacts of climate change may affect our assets, productivity, the markets in which we sell our products, and the communities in which we operate. There are costs associated with managing the resulting risks and opportunities. For example, climate policy and regulation may increase the costs associated with our assets. Climate change may also increase competition for, and the regulation of, limited resources, such as power and water, which are critical to the operation of our business, which could impact the costs associated with our assets. Applications for licences, permits and authorisations required to develop our assets and projects may face greater scrutiny and be contested by third parties, which could delay, limit or prevent future development of our assets and impact the costs associated with our assets. We may be subject to or impacted by climate-related litigation (including class actions), and the associated costs. Climate policy and regulatory changes may also lead to increased operating costs in the form of higher compliance costs or increased insurance premiums. For example, there is a risk of increasing requirements for mandatory reporting and disclosure of GHG emissions and other climate-related topics in the jurisdictions in which we operate, which would increase personnel and audit costs. We have onshore and offshore extractive, processing and logistical operations in many geographic locations and as such a wide variety of physical climate impacts are potentially relevant to our business, with the aggregate magnitude of the risk being low. Physical risks could impact production at our operations and materially and adversely affect the financial performance of our assets. Existing business continuity plans may not provide protection for all the costs that arise from such events, including clean-up costs, litigation and other claims. The impact of these events could lead to disruptions in production, increased costs and loss of facilities. Where external insurance is purchased, third party claims arising from these events may exceed the limit of liability of the insurance policies we have in place. Additionally, any uninsured or underinsured losses could have a material adverse effect on our financial position or results of assets.
Capital expenditures / capital allocation	Impacted for some suppliers, facilities, or product lines	The physical and non-physical impacts of climate change may affect our assets, productivity, the markets in which we sell our products, and the communities in which we operate. We consider the impacts of climate change in our strategy process. We use a broad range of scenarios to consider how divergent climate-related policy, technology, market and societal outcomes could impact our portfolio, including low plausibility, extreme shock events. We also continually monitor the macro environment for climate-related developments that would serve as a call to action for us to reassess the resiliency of our portfolio, with the aggregate magnitude of the risk being low. Climate issues are considered in our capital allocation framework. Our investment evaluation process includes an assessment of non-quantifiable risks and has also incorporated market & sector based carbon prices for more than a decade. Recent examples of how portfolio evaluation has informed investment decisions are the approval during FY2018 of an investment of US\$2.5 billion for the development of the Spence Growth Option to extend the life of the Spence copper mine in Chile by over 50 years to support expected demand growth, and the approval of funding for the first phase of a nickel sulphate plant at Nickel West to enable production of battery chemicals. As regards energy coal, careful consideration would be required before pursuing growth opportunities given the current returns and growing regulatory and societal pressures that could impact future asset values.
Acquisitions and divestments	Impacted for some suppliers, facilities, or product lines	The physical and non-physical impacts of climate change may affect our assets, productivity, the markets in which we sell our products, and the communities in which we operate. Climate change is treated as a Board-level governance issue and is discussed regularly, including during Board strategy discussions, portfolio review and investment decisions. We regularly review the composition of our asset portfolio and from time-to-time may add assets to, or divest assets from, the portfolio, with the aggregate magnitude of the risk being low. Examples during FY2018 of how portfolio evaluation has informed investment decisions include the announcements that we had entered into agreements for the sale of our entire interests in its Eagle Ford, Haynesville, Permian and Fayetteville Onshore US oil and gas assets; and that we had acquired a 6.1% interest in SolGold Plc, the majority owner and operator of the Cascabel porphyry copper-gold project in Ecuador. In addition, we have not invested in any new greenfield thermal coal assets for the past decade.
Access to capital	Impacted for some suppliers, facilities, or product lines	The physical and non-physical impacts of climate change may affect our assets, productivity, the markets in which we sell our products, and the communities in which we operate. The Group's reputation and financial performance may be impacted by concerns regarding the contribution of fossil fuels to climate change. Impacts could include a reduction in investor confidence and constraints on our ability to access capital from financial markets, with the aggregate magnitude of the risk being low. We seek to maintain a strong balance sheet, however if our key financial ratios and credit ratings are not maintained, our liquidity and cash reserves, interest rate costs on borrowed debt, future access to financial capital markets and the ability to fund current and future major capital projects could be adversely affected.
Assets	Impacted for some suppliers, facilities, or product lines	, with the aggregate magnitude of the risk being low
Liabilities	Impacted for some suppliers, facilities, or product lines	The physical and non-physical impacts of climate change may affect our assets, productivity, the markets in which we sell our products, and the communities in which we operate. Transition risks in particular may affect demand for our products. As discussed separately, the substitution of existing technologies with lower emissions options, particularly in the electricity and transport sectors, has the potential to reduce demand for our fossil fuel products, with the aggregate magnitude of the risk being low. For example, switching from coal to gas or renewables for electricity generation may lead to reduced demand for our energy coal products (though it may increase demand for our natural gas). The development of low emissions technologies also presents opportunity for BHP. Our copper products have application in a variety of low emissions products in energy generation and transport, for example electric vehicles, that are likely to see market growth driven by both technology and policy developments. Likewise nickel is a key raw material for batteries, with battery producers expected to match electric vehicle growth rates. Decreasing or increasing demand for our products or other market dynamics related to climate change could affect the valuation of our assets and liabilities. We may not fully recover our investments in mining, oil and gas assets, which may require financial write-downs. Long-lived assets may be particularly affected by climate-related issues. BHP produces fossil fuels including oil and gas and energy coal. There is a potential gap between the current valuation of fossil fuel reserves on the balance sheets of companies and in global equities markets and the reduced value that could result if a significant proportion of reserves were rendered incapable of extraction in an economically viable fashion due to technology, regulatory or market responses to climate change. In such a scenario, stranded reserve assets held on our balance sheet may need to be impaired or written off and our inability to make productive use of such assets may also negatively impact our financial condition and results.
Other	Please select	

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

Yes

C3.1a

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

Yes, qualitative and quantitative

C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.

Yes

C3.1c

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

Climate issues are integrated into our business objectives & strategy via a variety of mechanisms. Our approach focuses on (1) reducing operational emissions, (2) product stewardship, (3) managing climate risk & opportunity, and (4) working with others to enhance the global response.

(1) Operational emissions: As a major energy consumer, managing energy use & reducing emissions are key components of our strategy. Reducing operational emissions is a key performance indicator for our business and performance against our targets is reflected in senior executive and leadership remuneration.

(1.a) Emissions reduction targets: In FY2018, we began working towards a new five-year GHG emissions reduction target to maintain total operational emissions in FY2022 at or below FY2017 levels. Our new target builds on our success in achieving our previous five-year target. FY2018 was also the first year of our longer-term goal of achieving net-zero operational emissions in the latter half of this century, consistent with the Paris Agreement. Our five-year target & longer-term goal underpin our strategy & drive internal performance. We require our assets to identify, evaluate & implement projects that prevent/minimise emissions, including in project design & equipment selection.

(1.b) Low emissions technologies (LET) investments: Our strategy is to develop emerging & deploy existing technologies that make step-change emissions reductions. We have a suite of initiatives underway aimed at achieving reductions across operational emissions sources (electricity, fuel use, fugitives). In evaluating investments, we emphasise technologies with potential to deliver material emissions savings across time horizons & to leverage our global operating model. E.g., during FY2018 we commenced a trial to deploy light electric vehicles powered by lithium ion batteries in the underground fleet at our Olympic Dam copper mine. .

(2) Product stewardship: While reducing operational emissions is vital, scope 3 emissions are significantly higher than those from our operations. Our strategy recognises we have a stewardship role in working with our customers, suppliers & others in our value chain to influence emissions reductions across the life cycle of our products.

(2.a) Scope 3 emissions: By definition, scope 3 emissions occur from sources that are not owned or controlled by BHP. For some emissions sources, we have the ability to influence suppliers to reduce emissions, as demonstrated by activities to reduce our freight emissions where we worked with an external partner during FY2018 to implement vetting criteria on the marine fleet we charter to exclude vessels with poor GHG emissions performance. For other emissions sources, such as the downstream processing of our products, we work with customers (e.g. steelmakers) to help them improve productivity & environmental performance.

(2.b) Carbon capture & storage (CCS) investments: We also work with others to develop technologies such as CCS with the potential to deliver step-change emissions reductions from the use of our products over a longer time horizon. Our CCS investments focus on reducing costs & accelerating development timeframes, and include knowledge sharing from commercial-scale projects & funding for R&D. E.g., in FY2018 we progressed work with Peking University and other partners to identify the key policy, technical and economic barriers to CCS deployment in the industrial sector, with a particular focus on the iron and steel industry in China.

(3) Climate risk & opportunity management: Our strategy recognises the physical & non-physical impacts of climate change may affect our assets, productivity, markets and communities.

(3.a) Adaptation: We take a robust, risk-based approach to adaptation. We work with globally recognised agencies to obtain analyses of climate science to inform asset-level resilience planning & improve our understanding of the climate vulnerabilities our operations may face. Our operations are required to build climate resilience into their activities through compliance with the Our Requirements for Environment & Climate Change standard. We also require new investments to assess & manage risks associated with forecast physical climate impacts.

(3b) Portfolio evaluation: We consider the impacts of climate change in our strategy process. We use a broad range of scenarios to consider how divergent climate-related policy, technology, market and societal outcomes could impact our portfolio, including low plausibility, extreme shock events. We also continually monitor the macro environment for climate-related developments that would serve as a call to action for us to reassess the resiliency of our portfolio. Climate issues are considered in our capital allocation framework. Our investment evaluation process includes an assessment of non-quantifiable risks and has also incorporated market & sector based carbon prices for more than a decade. Recent examples of how portfolio evaluation has informed investment decisions is the Board approval during FY2018 of US\$2.5 billion in capex to extend the life of the Spence copper mine in Chile by over 50 years, and the announcement that we had entered into agreements for the sale of our entire interests in our

Eagle Ford, Haynesville, Permian and Fayetteville Onshore US oil and gas assets.

(4) Contributing to the global response: Climate change is a global challenge that requires collaboration. Our strategy prioritises working with others to enhance the global policy & market response.

(4.a) Public policy engagement: We believe an effective policy framework should include a complementary set of measures, including a price on carbon, support for LET & measures to build resilience. We are a signatory to the World Bank's Putting a Price on Carbon statement & a partner in the Carbon Pricing Leadership Coalition. We contribute to policy reviews throughout our global operating regions.

(4.b) Promoting market mechanisms: We support the development of market mechanisms that reduce global emissions through projects that generate carbon credits. Our strategy focusses on support for REDD+. E.g., in partnership with the International Finance Corporation (IFC) and Conservation International we developed a first-of-its-kind US\$152 million Forests Bond, issued by the IFC in 2016. We provide a price-support mechanism for the bond, which supports the Kasigau Corridor REDD project in Kenya. During FY2018, we purchased additional carbon credits from the Kasigau Corridor project, continued our support of the Alto Mayo REDD+ project in Peru, and in partnership with CI and Baker McKenzie, launched the Finance for Forests (F4F) initiative.

We regularly review our approach to integrating climate change into our business objectives & strategy in response to emerging scientific knowledge, changes in global climate policy & regulation, developments in LET, and evolving stakeholder expectations.

C3.1d

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

Climate-related scenarios	Details
Other, please specify (4 x internal scenarios incl. 2 degrees)	<p>Approach: We use a range of scenarios to consider how divergent climate-related policy, technology, market and societal outcomes could impact our portfolio, including low plausibility, extreme shock events. As a diversified miner there are no 'reference' scenarios to describe our business; we use internally-developed scenarios. Our analysis considers a range of external sources, including IPCC and IEA mitigation pathways. Our planning process starts with construction of a 'central case' through in-depth, bottom-up analysis. We optimise our 20-yr plan based on this, and use scenarios to test the portfolio resilience across range of possible futures. We also track signals, including signposts (trends) and triggers (events), in the external environment; these indicate which scenarios are becoming dominant over time, and serve as calls to action for us to reassess our portfolio. Disclosure: Our Climate Change: Portfolio Analysis (2015) and Climate Change: Portfolio Analysis – Views after Paris (2016) reports, available at https://www.bhp.com, describe in more detail how we use scenario analysis to evaluate the resilience of our portfolio to a 2 degrees transition. Boundary and time horizon: We use 4 scenarios, designed to be divergent, plausible and internally consistent. The scenarios apply across our whole business and full range of commodities. Our Portfolio Analysis reports describe quantitatively the impact on our portfolio over a 20-year time horizon (to 2035) consistent with our strategic planning horizon. Scenarios extend to 2050 and beyond, with longer term outcomes considered qualitatively, consistent with time horizons over which climate-related risks likely to manifest. Assumptions: All 4 scenarios assume climate change occurs but vary in the extent of the global response. 'Global Accord' scenario describes a unified focus on limiting climate change, leading to an orderly transition to 2 degrees. Emissions in Global Accord align with levels indicated by IPCC after 2030. Along with scenario analysis, we also test the portfolio against unlikely and extreme shock events that are typically short-term but may have associated longer-term impacts. Our shock event based on Global Accord describes a much more rapid shift to 2 degrees where emissions align with levels indicated by IPCC by 2030, driven by aggressive policy measures and technology developments. Our analysis includes assumptions on carbon pricing. In the central case, the long-term carbon price forecast is US\$24/tCO2e by 2030; US\$50/tCO2e by 2030 in Global Accord; and US\$80/tCO2e by 2030 in the shock event. Outcomes: Our current portfolio is robust under both an orderly and more rapid transition to 2 degrees. In Global Accord, there is likely upside for uranium, met coal and iron ore; we expect copper and natural gas to offer growth opportunities. We anticipate these commodities mitigate potential negative impacts on other commodities, e.g. energy coal. We anticipate impact on current portfolio value will be minimal due to portfolio diversification and the diminishing contribution of fossil fuels as a proportion of portfolio value. We project carbon price impact on portfolio value of < 2%. In the shock event there is likely more downside, but our portfolio will still be resilient, and carbon price impact on total portfolio value <5%. Influence on strategy: Analysis has demonstrated that our strategy to invest in copper and oil remains sound due to depletion of existing resource base, scarcity of high-quality development opportunities and expected demand growth. Our portfolio is not static, and the Board continues to consider attractiveness and potential addition of new commodities. Recent examples of how we continue to shape our portfolio are the Board approval during FY2018 of US\$2.5 billion in capex to extend the life of the Spence copper mine in Chile by over 50 years.</p>

C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e

(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization's low-carbon transition plan.

Consideration of the low carbon transition forms part of our broader approach to climate change and focuses on (1) reducing operational emissions, (2) product stewardship, and (3) evaluating the risks & opportunities to our portfolio resulting from the low carbon transition.

(1) Operational emissions: As a major energy consumer, managing energy use & reducing emissions are key components of our strategy. Reducing operational emissions is a key performance indicator for our business and performance against our targets is reflected in senior executive and leadership remuneration.

(1.a) Emissions reduction targets: In FY2018, we began working towards a new five-year GHG emissions reduction target to maintain our total operational emissions in FY2022 at or below FY2017 levels while we continue to grow our business. Our new target builds on our success in achieving our previous five-year target. FY2018 was also the first year of our longer-term goal of achieving net-zero operational emissions in the latter half of this century, consistent with the Paris Agreement. Our five-year target & longer-term goal underpin our strategy & drive internal performance.

(1.b) Low emissions technologies (LET) investments: Our strategy is to develop emerging & deploy existing technologies that make step-change emissions reductions. We have a suite of initiatives underway aimed at achieving reductions across operational emissions sources (electricity, fuel use, fugitives). In evaluating investments, we emphasise technologies with potential to deliver material emissions savings across time horizons & to leverage our global operating model. E.g., during FY2018 we commenced a trial to deploy light electric vehicles powered by lithium ion batteries in the underground fleet at our Olympic Dam copper mine.

(2) Product stewardship: While reducing operational emissions is vital, scope 3 emissions – the majority of which come from the steelmaking process (i.e. use & processing of our metallurgical coal & iron ore) – are significantly higher than those from our operations. Our strategy recognises we have a stewardship role in working with our customers, suppliers & others in our value chain to influence emissions reductions across the life cycle of our products.

(2.a) Scope 3 emissions: By definition, scope 3 emissions occur from sources that are not owned or controlled by BHP. For some emissions sources, we have the ability to influence suppliers to reduce emissions, as demonstrated by activities to reduce our freight emissions where we worked with an external partner during FY2018 to implement vetting criteria on the marine fleet we charter to exclude vessels with poor GHG emissions performance. For other emissions sources, such as the downstream processing of our products, we work with customers (e.g. steelmakers) to help them improve productivity & environmental performance.

(2.b) Carbon capture & storage (CCS) investments: We also work with others to develop technologies such as CCS with the potential to deliver step-change emissions reductions from the use of our products over a longer time horizon. CCS has the potential to play a pivotal role in reducing emissions from industrial processes such as steelmaking. Our CCS investments focus on reducing costs & accelerating development timeframes, and include knowledge sharing from commercial-scale projects & funding for R&D. E.g., in FY2018 we progressed work with Peking University and other partners to identify the key policy, technical and economic barriers to CCS deployment in the industrial sector, with a particular focus on the iron and steel industry in China.

(3) Portfolio evaluation: 'Transition' climate risks arise from a variety of policy, legal, technological & market responses to the challenges posed by climate change and the transition to a lower carbon economy. We consider the impacts of transition risk in our strategy process. We use a broad range of scenarios to consider how divergent climate-related policy, technology, market and societal outcomes could impact our portfolio, including low plausibility, extreme shock events. We also continually monitor the macro environment for climate-related developments that would serve as a call to action for us to reassess the resiliency of our portfolio. Climate issues are considered in our capital allocation framework. Our investment evaluation process includes an assessment of non-quantifiable risks and has also incorporated market & sector based carbon prices for more than a decade. Recent examples of how portfolio evaluation has informed investment decisions is the Board approval during FY2018 of US\$2.5 billion in capex to extend the life of the Spence copper mine in Chile by over 50 years, and the announcement that we had entered into agreements for the sale of our entire interests in our Eagle Ford, Haynesville, Permian and Fayetteville Onshore US oil and gas assets.

C4. Targets and performance

C4.1

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

Absolute target

C4.1a

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

Target reference number

Abs 1

Scope

Scope 1 +2 (market-based)

% emissions in Scope

100

Targeted % reduction from base year

0

Base year

2017

Start year

2017

Base year emissions covered by target (metric tons CO2e)

16300000

Target year

2022

Is this a science-based target?

No, but we are reporting another target that is science-based

% of target achieved

0

Target status

Underway

Please explain

In FY2018, we began working towards a new five-year GHG emissions reduction target. Our new target, which took effect from 1 July 2017, is to maintain our total operational emissions in FY2022 at or below FY2017 levels (16.3 million tonnes CO2e) while we continue to grow our business. The FY2017 baseline will be adjusted for any material acquisitions and divestments based on GHG emissions at the time of the transaction and carbon offsets will be used as required. Our operational emissions (Scopes 1 and 2 combined) in FY2018 totalled 16.5 million CO2-e. This is a one per cent increase compared to the FY2017 baseline, and is primarily due to an increase in Scope 2 emissions from our Minerals Americas business as a result of increased production at our Escondida and Pampa Norte copper assets in Chile, as well as the commissioning of a new desalination plant at Escondida. Note that this CDP response relates to FY2018. More recent information on our new targets and progress against them during FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>

Target reference number

Abs 2

Scope

Scope 1 +2 (market-based)

% emissions in Scope

100

Targeted % reduction from base year

100

Base year

2017

Start year

2017

Base year emissions covered by target (metric tons CO2e)

16300000

Target year

2050

Is this a science-based target?

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

% of target achieved

0

Target status

Underway

Please explain

In addition to our new five-year target (as detailed separately), we have set the longer-term goal of achieving net-zero operational GHG emissions in the latter half of this century. While there is no generally accepted 'science-based' target setting methodology applicable to the diversified mining sector that has been approved by the Science Based Targets initiative, our long-term net-zero goal is consistent with the goals of the Paris Agreement, and as such we consider it to be science-based. Our five-year target and our longer-term net-zero goal underpin our strategy and are an important driver of internal performance. Note that this CDP response relates to FY2018. More recent information on our new targets and progress against them during FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>.

C4.2

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

C-CO4.2a

(C-CO4.2a) If you do not have a methane-specific emissions reduction target for your coal mining activities or do not incorporate methane into your target(s) reported in C4.2 please explain why not and forecast how your methane emissions will change over the next five years.

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	9	0
To be implemented*	2	65000
Implementation commenced*	0	0
Implemented*	1	2000
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 type

Energy efficiency: Processes

Description of initiative

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

2000

Scope

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

No payback

Estimated lifetime of the initiative

1-2 years

Comment

Ramp down of insitu leaching at closed sites.

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	National energy and emissions reporting and compliance programs can drive investment in emissions reduction opportunities and energy efficiency at our operations. For example, the National Greenhouse and Energy Reporting and Clean Energy Acts in Australia have resulted in some operations moving to higher order calculation methodologies for fugitive methane emissions and significantly improved the accuracy of emissions accounting. Similarly, in the USA, GHG legislative requirements have led to improved measurement methods at our operations. Internal requirements and standards can also drive investment in emissions reduction opportunities. Our internal Our Requirements for Environment and Climate Change standard mandates that all our operations identify, evaluate and implement all suitable projects that prevent and/or minimise GHG emissions, encompassing all major sources of emissions, and embed these projects into their 5 year business plans. For new projects the standard also mandates that GHG emission reduction opportunities are included in project design and equipment selection.
Marginal abatement cost curve	We use marginal abatement cost curves (MACCs) to evaluate GHG emissions reduction opportunities across our business. MACCs allow our assets to evaluate projects for consideration for inclusion in their 5 year planning process.
Internal incentives/recognition programs	Our five-year emissions reduction target underpins our strategy and drives internal performance. Reducing operational emissions is a key performance indicator for our business and performance against our targets is reflected in senior executive and leadership remuneration. Our Executive Leadership Team, Business and Functional employees all have annual performance indicators that are aligned with meeting HSEC targets, including delivery of GHG emission reduction projects.
Internal price on carbon	Our investment evaluation process has incorporated market and sector based carbon prices for more than a decade through the mandated use of our Carbon Pricing Protocol. The Protocol tracks the progress of policy commitments to address climate change in different jurisdictions, including our major operating regions and customer demand centres. We look at the potential for reductions in emissions and the cost associated with those reductions to determine an appropriate price level for each relevant country or region. In doing so, we consider the effectiveness of different policies, political situations required to pass legislation, timing to implement reductions and the interaction between policy mechanisms.
Dedicated budget for low-carbon product R&D	Our low emissions technology strategy is to develop emerging and deploy existing technologies that make step-change reductions in GHG emissions, both from our own operations and from the downstream processing and use of our products. We have a suite of initiatives currently underway aimed at achieving reductions across our major operational emissions sources (electricity, fuel use, fugitives). In evaluating low emissions technology investment opportunities, we consider technologies with the potential to deliver results across a range of time horizons; emphasise investments that can deliver material GHG savings; consider the ability of projects and technologies to leverage our global operating model (replicability, scale and market power); and evaluate the potential for building capacity, capability and internal awareness across our business. We also work with others to develop technologies such as CCS with the potential to deliver step-change emissions reductions from the use of our products. CCS has the potential to play a pivotal role in reducing emissions from industrial processes such as steelmaking, and our CCS investments focus on reducing costs and accelerating development timeframes, and include knowledge sharing from commercial-scale projects and funding for R&D.

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

Product

Description of product/Group of products

Copper

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

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Fuel Switching)

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

30.4

Comment

Avoided emissions from the use of our copper products throughout their lifecycle in a variety of low carbon applications. For example, our copper products are ideally placed to support the electrification of energy demand. Our projections assume that the demand for electricity will outstrip the growth in total primary energy demand between now and mid-century. The production, distribution and transmission that power will require a great deal of copper. Copper is particularly well placed to support the electrification of transport – with a battery-powered electric car requiring three times as much copper as a conventional car. Copper is also required to support build out of renewables capacity – both wind and solar. From a copper point of view, the per megawatt hour demand coefficient associated with offshore wind generation is almost five times that associated with coal generation. For solar, the coefficient is around two and a half.

Level of aggregation

Product

Description of product/Group of products

Nickel

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

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Fuel Switching)

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

3

Comment

Avoided emissions from the use of our nickel products throughout their lifecycle in a variety of low carbon applications. In particular nickel is a key material for batteries, and investments in our Nickel West asset to enable production of downstream battery chemicals like nickel sulphate are supporting our transition to become a globally significant battery materials supplier. We expect significant growth in electric vehicle sales, with battery producers expected to match electric vehicle growth rate while responding to growing demand from other areas i.e. stationary storage. Virtually all battery producers are moving to higher nickel-rich chemistries, which are preferred due to their superior energy density, lighter weight for any given battery size, increased vehicle range, and lower metal cost.

Level of aggregation

Product

Description of product/Group of products

Natural gas

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

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Fuel Switching)

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

2.6

Comment

Avoided emissions from fuel switching resulting from CO2 emissions from combustion of natural gas being lower than those from other fossil fuels (specific emission reductions differ from case to case and should consider total value chain emissions of natural gas vs. alternatives, however, implied emission factors from electricity generation given by the IEA ('CO2 Emissions from Fuel Combustion', 2017) are natural gas 400 g CO2/kWh; lignite 1,020 gCO2/kWh, sub-bituminous coal 940 g CO2/kWh; other bituminous coal 870 g CO2/kwh).

Level of aggregation

Product

Description of product/Group of products

Uranium

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

Low-carbon products and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Fuel Switching)

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

Comment

Uranium is produced at our Olympic Dam asset, the primary activity being copper production; percent revenue not reported separately. Nuclear energy is a low emission alternative to conventional fossil fuel energy generation. Our annual uranium production (3,364 tonnes in FY2018) is estimated to avoid emissions of almost 85 million tonnes CO2 per annum when compared to base load electricity production generated using the global average mix of energy sources (estimates prepared by Allen Consulting based on global average of emissions from electricity generation (730 tonnes CO2 per GWh); average emissions from nuclear energy generation (40kg CO2 per MWh); approx. 27.7 tonnes uranium (U308) produces 1 TWh electrical energy; all uranium we produce used for electricity generation).

C-CO4.6

(C-CO4.6) Describe your organization's efforts to reduce methane emissions from your activities.

C-CO4.7

(C-CO4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from coal mining activities?

Please select

C-CO4.8

(C-CO4.8) If flaring is relevant to your coal mining operations, describe your organization's efforts to reduce flaring, including any flaring reduction targets.

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

July 1 2016

Base year end

June 30 2017

Base year emissions (metric tons CO2e)

10500000

Comment

Scope 2 (location-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 2 (market-based)

Base year start

July 1 2016

Base year end

June 30 2017

Base year emissions (metric tons CO2e)

5800000

Comment

C5.2

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

Australia - National Greenhouse and Energy Reporting Act

Environment Canada, Metal Mining, Guidance Manual for Estimating Greenhouse Gas Emission

European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

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

US EPA Mandatory Greenhouse Gas Reporting Rule

Other, please specify (BHP internal requirements)

C5.2a

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

We have developed the Group level document Our Requirements for HSEC Reporting. BHP's Our Requirements documents are internal standards which outline accountabilities and minimum requirements across the Company. Our Requirements for HSEC Reporting prescribes how our Assets should account for and report GHG and energy data (along with other HSEC metrics). It states that in the absence of national regulation, the 2006 IPCC Guidelines for National Greenhouse Gas Inventories is to be used.

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)

10600000

Start date

July 1 2017

End date

June 30 2018

Comment

Note this CDP response relates to FY2018. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>.

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

Unless otherwise noted, our scope 2 emissions are calculated using the market-based method, using supplier specific emissions factors, in line with the GHG Protocol Scope 2 Guidance. A residual mix is currently unavailable to account for voluntary purchases and this may result in double counting between electricity consumers. We also provide our scope 2 emissions calculated on a location-basis for reference.

C6.3

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

Reporting year

Scope 2, location-based

6000000

Scope 2, market-based (if applicable)

5900000

Start date

July 1 2017

End date

June 30 2018

Comment

Our market-based Scope 2 emissions were 5.9Mt CO2e which compares to 6.0Mt CO2e if calculated using the location-based method. A residual mix is currently unavailable to account for voluntary purchases and this may result in double counting between electricity consumers. Note this CDP response relates to FY2018. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>.

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?

No

C6.5

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

Purchased goods and services

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

8200000

Emissions calculation methodology

Inclusions: Upstream production and transport of purchased goods and services for the reporting year. Exclusions: Spend associated with activities reported under other scope 3 categories. These cover fuel consumption, upstream transport, business travel and employee commuting activities. Data used: Annual spend data is extracted from the internal system which tracks all external spend. Emission factors are sourced from the Quantis Scope 3 Evaluator tool, as recommended by the GHG Protocol. Calculation methodology: The 'Spend-based' method from the GHG Protocol Scope 3 Guidance is used. Spend data is broken down by BHP's internal taxonomy codes and allocated to the most appropriate product group category available within the GHG Protocol Scope 3 Evaluator tool (Quantis). The emissions factors from this tool are then used to generate an overall emissions figure for this category.

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

100

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. This is an immaterial source of scope 3 emissions for the business (approximately 1% of total scope 3 emissions), however a high level estimate has been calculated for completeness and transparency.

Capital goods

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>

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. As described in the GHG Protocol calculation guidance, this category can be difficult to segregate from the Purchased goods and services category. Given all of our spend data (which would include purchases of capital goods) has been captured in category 1, the scope 3 emissions from capital goods are not reported out separately. The scope 3 emissions reported under category 1 includes purchased goods and services and purchases of capital goods.

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

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

1400000

Emissions calculation methodology

Inclusions: Upstream production and distribution of fuels and electricity consumed on the facilities over which the company holds operational control. Exclusions: A small quantity of fuel reported internally under a mixed category (representing less than 2% of total energy). This quantity has been excluded due to the difficulty in assigning a meaningful scope 3 emissions factor to the variety involved. Data used: Fuel and energy consumption data is sourced from BHP's internal database. Consumption of each type of fuel and energy is recorded by each operation. Factors are sourced from the Australian National Greenhouse Accounts for both Australian and non-Australian operations. Calculation methodology: The GHG Protocol's 'average-data' method is used. Scope 3 emission factors for each fuel type consumed are applied to the total consumption volumes.

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

0

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. Although this is an immaterial source of scope 3 emissions for the business (much less than 1% of total scope 3 emissions), consumption of fuels and energy represent a material contribution to our scope 1 and 2 operating emissions; the associated scope 3 emissions are therefore also of interest.

Upstream transportation and distribution

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

3600000

Emissions calculation methodology

Inclusions: Purchased third party transportation services. Includes product transport where marine, road and rail freight costs are covered by the business (e.g. under CFR or similar terms). Also includes purchased transport services for process inputs to operations. Exclusions: The transport of process inputs to BHP's operations where spend data is not available (i.e. transport costs are incorporated into the supplier price). These scope 3 emissions are likely to be captured under category 1 – purchased goods and services. Data used: Data is sourced from BHP's Freight team, including (for each product cargo) loading and destination ports, tonnage of the cargo, and the size of the vessel if freight was by sea (deadweight in kg). For emissions from transport of inputs to our operations, data is sourced from the internal system that tracks all external spend. Scope 3 emission factors are sourced from RightShip methodology (see Calculation Methodology) for all marine freight excluding Nickel, Zinc, NGLs and Crude. For all remaining freight (including road and rail), UK Defra emission factors were used (in tonne.km units). For other purchased transport services, factors are sourced from the Quantis Scope 3 Evaluator tool, as recommended by the GHG Protocol. Calculation methodology: For all marine cargoes other than Nickel, Zinc, NGLs and Crude, the external engineering consultancy RightShip was contracted to develop an accurate scope 3 emissions estimate based on their certified methodology. For the remaining marine cargoes, the 'Distance-based' method from the GHG Protocol Scope 3 Guidance was used to calculate these emissions. For purchased transport services for process inputs to our operations, the spend-based method is used to calculate these emissions, as described in the calculation methodology for the Purchased goods and services category.

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

100

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. Although this is an immaterial source of scope 3 emissions for the business (less than 1% of total scope 3 emissions), emissions associated with the freight of our products to customers are of increasing interest as a component of our supply chain.

Waste generated in operations

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>

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. This category has been identified as immaterial to BHP's inventory and an emissions figure is not calculated. BHP operations do not generate waste resulting in GHG emissions other than minimal quantities of domestic waste. This assessment will be periodically reviewed.

Business travel

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

100000

Emissions calculation methodology

Inclusions: Emissions from domestic and international flights, hotel accommodation and car rental for business travel purposes. Exclusions: Business travel activities for which distance or spend data is not available. Data used: Flight mileage data is sourced from BHP's corporate travel services provider. Hotel and car rental spend data is sourced from the internal system that tracks all external spend. Scope 3 emission factors for flights are referenced from the latest US EPA Centre for Corporate Climate Leadership GHG Emission Factors Hub. Factors for hotel and car rental are sourced from the Quantis Scope 3 Evaluator tool, as recommended by the GHG Protocol. Calculation methodology: For flights, the 'distance-based' method from the GHG Protocol Scope 3 Guidance is used, with industry-average emission factors applied based on whether the flight distance is categorised as a short, medium or long-haul flight. For hotel accommodation and car rental emissions, the 'spend-based' method is used as described in the calculation methodology for the Purchased goods and services category.

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

100

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. This is an immaterial source of scope 3 emissions for the business (much less than 1% of total scope 3 emissions), however a high level estimate has been calculated for completeness and transparency.

Employee commuting

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

100000

Emissions calculation methodology

Inclusions: Emissions from FIFO flights and bus services utilised by employees for commuting purposes. Exclusions: Employee commuting activities for which spend data is unavailable. Data used: FIFO flight and bus service spend data is sourced from the internal system that tracks all external spend. Scope 3 emission factors are sourced from the Quantis Scope 3 Evaluator tool, as recommended by the GHG Protocol. Calculation methodology: This estimate uses the 'spend-based' method as described in the calculation methodology for the Purchased goods and services category.

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

100

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. This is an immaterial source of scope 3 emissions for the business (much less than 1% of total scope 3 emissions), however a high level estimate has been calculated for completeness and transparency.

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>

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. This is an immaterial source of scope 3 emissions for the business (much less than 1% of total scope 3 emissions), however a high level estimate has been calculated for completeness and transparency. An emissions figure is not calculated for this category as BHP does not lease upstream assets in our normal operations. This assessment will be periodically reviewed.

Downstream transportation and distribution

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

5000000

Emissions calculation methodology

Inclusions: Third party transportation services where freight costs are not covered by the business (e.g. under FOB or similar Terms). Exclusions: None Data used: Data is sourced from BHP's Freight team, including tonnage, loading and destination ports for each cargo, and the size of the vessel if freight was by sea (deadweight). Factors are sourced from vessel-specific UK Defra Freight emission factors which are the latest available (in tonne.km units) Calculation methodology: Product freight emissions are calculated using the GHG Protocol's 'distance-based' method, as described in the calculation methodology for the Upstream transportation and distribution category. For some FOB cargoes, destination ports are not available and an assumption is used based on known product market locations by customer.

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

100

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. Although this is an immaterial source of scope 3 emissions for the business (approximately 1% of total scope 3 emissions), emissions associated with the freight of our products to customers are of increasing interest as a component of our supply chain.

Processing of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

322600000

Emissions calculation methodology

Inclusions: Processing of BHP's produced iron ore to steel and produced copper cathode to copper wire. Exclusions: Processing of BHP's nickel, zinc, gold, silver, ethane and uranium oxide. Excluded as production volumes are much lower than iron ore/copper and a large range of possible end uses apply. Processing/refining of petroleum products also excluded as these emissions are considered immaterial compared to their end-use combustion reported in the Use of sold products category. Data used: Produced volumes in tonnes are sourced from BHP's publicly available Operational Review Report. Calculations have been performed on an equity basis. For iron ore processing, factors are sourced from the World Steel Association 'Sustainability Indicators' publication'. For copper processing, factors are sourced from the European Copper Institute - Copper Alliance's 2012 publication 'The Environmental Profile of Copper Products'. Calculation methodology: The GHG Protocol's 'average-data' method is used, with industry-wide emission factors applied to production volumes (on an equity basis) to estimate emissions. All iron ore production assumed to be processed to steel and all copper metal production assumed to be processed into copper wire for end-use. The copper emission factor is for the full cradle-to-grave life cycle of the end-product. As such there is a degree of double counting with the scope 1 and 2 emissions generated from copper mining activities (which BHP also reports). This represents 1% of the total scope 3 emissions from this category.

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

0

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. The most significant contributors to scope 3 emissions associated with our business are those resulting from our customers' processing and use of our products, which in FY2018 accounted for around 96% of the total. In particular, emissions emanating from the steelmaking process (the processing and use of our iron ore and metallurgical coal) made up over 70% of the total scope 3 emissions for our business. Emissions from the combustion of our energy commodities (energy coal, natural gas and petroleum products) were estimated at around 25% of the total in FY2018. The breakdown of emissions from the Processing of sold products category (322.6 million tonnes CO₂e total) is as follows: - Iron ore to steel: 317.4 million tonnes CO₂e - Copper cathode to copper wire: 5.2 million tonnes CO₂e There is an element of double counting across emissions categories for our iron ore and metallurgical coal products; both are used in the same process (steelmaking) further downstream, which inflates the total scope 3 emissions figure.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

253800000

Emissions calculation methodology

Inclusions: Combustion of BHP's produced crude oil, natural gas and coal products. Exclusions: None Data used: Produced volumes in tonnes, barrels or bcf are sourced from BHP's publicly available Operational Review Report. Calculations have been performed on an equity basis. Factors are sourced from the Australian National Greenhouse and Energy Reporting Determination; scope 1 factors for each fuel are applied as the scope 3 factor to BHP's on-sold products. Calculation methodology: The GHG Protocol's direct use-phase method is used, applied to production volumes (on an equity basis) to estimate emissions. All crude oil, natural gas and coal production is assumed to be combusted. All crude oil produced is assumed to be combusted as diesel as a reasonable basis for emissions calculation.

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

0

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. There is an element of double counting across emissions categories for our iron ore and metallurgical coal products; both are used in the same process (steelmaking) further downstream, which inflates the total scope 3 emissions figure. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. The most significant contributors to scope 3 emissions associated with our business are those resulting from our customers' processing and use of our products, which in FY2018 accounted for around 96% of the total. In particular, emissions emanating from the steelmaking process (the processing and use of our iron ore and metallurgical coal) made up over 70% of the total scope 3 emissions for our business. Emissions from the combustion of our energy commodities (energy coal, natural gas and petroleum products) were estimated at around 25% of the total in FY2018. The breakdown of emissions from the Use of sold products category (253.8 million tonnes CO₂e total) is as follows: - Metallurgical coal: 112.3 million tonnes CO₂e - Energy coal: 71.0 million tonnes CO₂e - Natural gas: 36.4 million tonnes CO₂e - Crude oil and condensates: 29.6 million tonnes CO₂e - Natural gas liquids (NGL): 4.5 million tonnes CO₂e

End of life treatment 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>

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. This category has been identified as immaterial to BHP's inventory and an emissions figure is not calculated. BHP's products which are not incorporated into the assessment of scope 3 emissions from 'Use of sold products' include metals and minerals with minimal emissions at end of life. This assessment will be periodically reviewed.

Downstream 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>

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. An emissions figure is not calculated for this category as BHP does not lease downstream assets in our normal operations. This assessment will be periodically reviewed.

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>

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. An emissions figure is not calculated for this category as BHP does not have franchised operations. This assessment will be periodically reviewed.

Investments

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

1700000

Emissions calculation methodology

Inclusions: All of BHP's non-operated investments. Exclusions: None Data used: Annual emissions for each of BHP's investments are sourced from the public domain wherever possible, including government-published data (US EPA and LEPIID registry in Australia) and Sustainability Reports published by the operating entities. Where required, production volumes from investments in tonnes, barrels or bcf are sourced from BHP's publicly available Operational Review Report. Calculation methodology: The accounting approach for 'Equity investments' in the GHG Protocol Scope 3 Guidance is used. Scope 1 and 2 emissions for each investment (which form the basis for scope 3 emissions from BHP) are sourced from publicly available information. If the available figure is for a previous reporting year, it is adjusted for the current year's production levels. This approach covered approximately 90% of the emissions reported for this category. For investments which do not have publicly available emissions data, the emissions intensity from a similar operation in BHP's portfolio is applied to the current year's production to generate an estimate.

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

0

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. Although this is an immaterial source of scope 3 emissions for the business (less than 1% of total scope 3 emissions), emissions associated with BHP's investments are relevant in risk identification and management.

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>

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. An emissions figure has not been calculated for this category; no other upstream scope 3 emissions sources have been identified.

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>

Explanation

Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). For further detail on the basis of preparation of the FY2018 scope 3 inventory for our business please refer to <https://www.bhp.com/-/media/documents/investors/annual-reports/2018/bhpscope3emissionscalculationmethodology2018.pdf>. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. An emissions figure has not been calculated for this category; no other downstream scope 3 emissions sources have been identified.

C6.7

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

No

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

0.000378

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

16500000

Metric denominator

unit total revenue

Metric denominator: Unit total

43638000000

Scope 2 figure used

Market-based

% change from previous year

11

Direction of change

Decreased

Reason for change

Our GHG intensity per unit of revenue decreased as a result of (i) an increase in revenue realized from the sale of our products, primarily as a result of higher realized commodity prices for FY2018 and increased production levels of iron ore, copper and coal (ii) an ongoing focus on emissions reduction initiatives limiting the resulting increase in combined scope 1 and 2 emissions. With respect to emissions intensity management, numerous individual reduction projects contributed, as well as improvements in productivity and technology, and changes in production profile. Note that intensity per unit revenue is not an ideal comparative measure for BHP given that our revenue can vary significantly year on year due to the volatility of commodity prices for the products that we sell.

Intensity figure

2.3

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

16500000

Metric denominator

Other, please specify (Tonnes of copper equivalent)

Metric denominator: Unit total

7029000

Scope 2 figure used

Market-based

% change from previous year

7.6

Direction of change

Increased

Reason for change

Copper equivalent production has been calculated based on FY2018 average realised product prices for FY2018 production, and FY2017 average realised product prices for FY2017 production. Production figures used are consistent with energy and emissions reporting boundaries i.e. BHP operational control. The increase in intensity on this basis is largely due to relative commodity price movements in our products across the portfolio from FY17 to FY18, combined with the effect of a small increase in total emissions. Note this CDP response relates to FY2018. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>. Note that intensity per unit of copper equivalent production is not an ideal comparative measure for BHP given that copper equivalent production is calculated using the realised prices for our various commodities, which can vary significantly year on year due to the volatility of commodity prices for the products that we sell.

C7. Emissions breakdowns

C7.1

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

Yes

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	8314000	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	2253000	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	18000	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	2000	IPCC Fourth Assessment Report (AR4 - 50 year)
PFCs	0	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	0	IPCC Fourth Assessment Report (AR4 - 100 year)

C-CO7.1b

(C-CO7.1b) Break down your total gross global Scope 1 emissions from coal mining activities in the reporting year by greenhouse gas type.

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Total gross Scope 1 GHG emissions (metric tons CO2e)	Comment
Fugitives (Underground coal mining)				
Fugitives (Surface coal mining)				
Fugitives (Post-mining and abandoned coal mines)				
Flaring				
Utilized methane				
Combustion (Underground coal mining, excluding flaring and utilization)				
Combustion (Surface coal mining, excluding flaring and utilization)				
Combustion (Electricity generation)				
Combustion (Other)				
Emissions not elsewhere classified				

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Australasia	7218000
North America	1979000
South America	1390000

C7.3

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

- By business division
- By facility

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Coal	4284000
Copper (includes Nickel)	1780000
Iron Ore	1941000
Petroleum and Potash	2582000
Group and Unallocated (includes Marketing and Functions)	0

C7.3b

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

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Olympic Dam (Australia, copper)	178000	-30.440514	136.802759
Western Australia Iron Ore (Australia, iron ore)	1938000	-23.531299	117.223958
Queensland Coal (Australia, metallurgical coal)	3828000	-26.402614	149.670159
New South Wales Energy Coal (Australia, energy coal)	459000	-32.532366	150.659224
Nickel West (Australia, nickel)	386000	-28.95385	120.523355
Escondida (Chile, copper)	890000	-27.922911	-72.764376
Pampa Norte (Chile, copper)	326000	-25.099567	-70.987772
Jansen Potash Project (Canada, potash)	11000	51.88665	-104.739435
Gulf of Mexico production (US, conventional oil and gas)	221000	24.358456	-93.972518
Onshore US production (US, unconventional oil and gas)	1679000	33.489844	-113.868094
Australia production (Australia, conventional oil and gas)	429000	-38.517462	145.556653
Trinidad and Tobago production (Trinidad and Tobago, conventional oil and gas)	174000	10.550464	-61.512486
Other (includes Marketing and Functions)	67000		

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	4287000	<Not Applicable>	
Electric utility generation activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	5055000	<Not Applicable>	
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

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 in market-based approach (MWh)
Australasia		2368000	3522503	93688
North America		65000	101913	12325
South America		3517000	5965110	0

C7.6

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

- By business division
- By facility

C7.6a

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

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Coal		1144000
Copper (includes Nickel)		4474000
Iron Ore		260000
Petroleum and Potash		69000
Group and Unallocated (includes Marketing and Functions)		2000

C7.6b

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

Facility	Scope 2 location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Olympic Dam (Australia, copper)		420000
Western Australia Iron Ore (Australia, iron ore)		260000
Queensland Coal (Australia, metallurgical coal)		1063000
New South Wales Energy Coal (Australia, energy coal)		82000
Nickel West (Australia, nickel)		538000
Escondida (Chile, copper)		3039000
Pampa Norte (Chile, copper)		477000
Jansen Potash Project (Canada, potash)		29000
Onshore US production (US, unconventional oil and gas)		11000
Australia production (Australia, conventional oil and gas)		4000
Trinidad and Tobago production (Trinidad and Tobago, conventional oil and gas)		1000
Other (includes Marketing and Functions)		26000

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities			
Metals and mining production activities	4608000	4608000	
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

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?

Increased

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		<Not Applicable>		
Other emissions reduction activities		<Not Applicable>		
Divestment	40330	Decreased	0.2	IndoMet Coal and Navajo coal divestments. Calculation: (43,000/16,300,000)*100 = 0.2%
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	483000	Increased	3	Full year production at Escondida in FY18 (44 day shutdown in FY17). Calculation: (483,000/16,300,000)*100 = 3.0%
Change in methodology	1377000	Decreased	8.4	Reduction in electricity emissions factor for Minerals America. Calculation: (1,377,000/16,300,000)*100 = 8.4%
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other	734330	Increased	4.5	Numerous changes in productivity and technology, and changes in production profiles, contributed to the remainder of the change in emissions from FY2017 to FY2018. Calculation: (734,330/16,300,000)*100 = 4.5%

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 10% but less than or equal to 15%

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	31922500	31922500
Consumption of purchased or acquired electricity	<Not Applicable>	106111	9583333	9689444
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>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	106111	41505833	41611944

C-MM8.2a

(C-MM8.2a) Report your organization's energy consumption totals (excluding feedstocks) for metals and mining production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstocks)	LHV (lower heating value)	15658555
Consumption of purchased or acquired electricity	<Not Applicable>	8073075
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0
Total energy consumption	<Not Applicable>	23731630

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	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

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

Fuels (excluding feedstocks)

Coal

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

178056

MWh fuel consumed for self-generation of electricity

178056

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>

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

22583333

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>

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

8611111

MWh fuel consumed for self-generation of electricity

8611111

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>

Comment

Fuels (excluding feedstocks)

Other, please specify (Other)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

550000

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>

Comment

C8.2d

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

Coal

Emission factor

0.09023

Unit

metric tons CO2e per GJ

Emission factor source

Australian National Greenhouse and Energy Reporting (NGER)

Comment

Diesel

Emission factor

0.0702

Unit

metric tons CO2e per GJ

Emission factor source

Australian National Greenhouse and Energy Reporting (NGER)

Comment

Natural Gas

Emission factor

0.05163

Unit

metric tons CO2e per GJ

Emission factor source

Australian National Greenhouse and Energy Reporting (NGER)

Comment

Other

Emission factor

Unit

Please select

Emission factor source

Comment

C8.2e

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	836761	123709	713051	239
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C-MM8.2e

(C-MM8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed for metals and mining production activities.

	Total gross generation (MWh) inside metals and mining sector boundary	Generation that is consumed (MWh) inside metals and mining sector boundary
Electricity	829304	116253
Heat	0	0
Steam	0	0
Cooling	0	0

C8.2f

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

Basis for applying a low-carbon emission factor

Other, please specify (Contracts with third parties)

Low-carbon technology type

Other low-carbon technology, please specify (Mix)

Region of consumption of low-carbon electricity, heat, steam or cooling

Asia Pacific

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

93688

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

0.6

Comment

Basis for applying a low-carbon emission factor

Other, please specify (Contracts with third parties)

Low-carbon technology type

Other low-carbon technology, please specify (Mix)

Region of consumption of low-carbon electricity, heat, steam or cooling

North America

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

12423

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

0.6

Comment

C9. Additional metrics

C9.1

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

C-CO9.2a

(C-CO9.2a) Disclose coal reserves and production by coal type attributable to your organization in the reporting year.

Thermal coal

Proven reserves (million metric tons)

Probable reserves (million metric tons)

Production (million metric tons)

Energy content of production (GJ per metric ton)

Heating value

Please select

Emission factor of production (metric tons CO2e per metric ton)

Comment

Metallurgical coal

Proven reserves (million metric tons)

Probable reserves (million metric tons)

Production (million metric tons)

Energy content of production (GJ per metric ton)

Heating value

Please select

Emission factor of production (metric tons CO2e per metric ton)

Comment

Other coal

Proven reserves (million metric tons)

Probable reserves (million metric tons)

Production (million metric tons)

Energy content of production (GJ per metric ton)

Heating value

Please select

Emission factor of production (metric tons CO2e per metric ton)

Comment

Total coal

Proven reserves (million metric tons)

Probable reserves (million metric tons)

Production (million metric tons)

Energy content of production (GJ per metric ton)

Heating value

Please select

Emission factor of production (metric tons CO2e per metric ton)

Comment

C-CO9.2b

(C-CO9.2b) Disclose coal resources by coal type attributable to your organization in the reporting year.

Thermal coal

Measured resources (million metric tons)

Indicated resources (million metric tons)

Inferred resources (million metric tons)

Total resources (million metric tons)

Comment

Metallurgical coal

Measured resources (million metric tons)

Indicated resources (million metric tons)

Inferred resources (million metric tons)

Total resources (million metric tons)

Comment

Other coal

Measured resources (million metric tons)

Indicated resources (million metric tons)

Inferred resources (million metric tons)

Total resources (million metric tons)

Comment

Total coal

Measured resources (million metric tons)

Indicated resources (million metric tons)

Inferred resources (million metric tons)

Total resources (million metric tons)

Comment

C-CO9.3a

(C-CO9.3a) Break down the coal production attributed to your organization in the reporting year by grade.

	Production (%)	Comment
Lignite		
Subbituminous		
Bituminous		
Anthracite		
Other		

C-MM9.3a

(C-MM9.3a) Provide details on the commodities relevant to the mining production activities of your organization.

Output product

Iron ore

Capacity, metric tons

290000000

Production, metric tons

275091000

Production, copper-equivalent units (metric tons)

2279619

Scope 1 emissions

1935000

Scope 2 emissions

260000

Scope 2 emissions approach

Market-based

Pricing methodology for copper-equivalent figure

Copper-equivalent production calculated based on FY2018 average realised product prices. Our FY2018 average realised sales price for copper was US\$3.12 per pound. Our FY2018 average realised sales price for iron ore was US\$57 per wet metric ton (wmt).

Comment

Production reported on a 100% basis. Production reported on a wet metric ton (wmt) basis. For additional detail on our commodities, assets, locations, financial results and operating performance as they relate to this CDP response, refer to our 2018 Annual Report (<https://www.bhp.com/investor-centre/annual-report-2018>) and 2018 Operational Review (<https://www.bhp.com/media-and-insights/news-releases/2018/07/bhp-operational-review-for-the-year-ended-30-june-2018>). Note this CDP response relates to FY2018. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>.

C-CO9.3b

(C-CO9.3b) Break down the coal production attributed to your organization in the reporting year by mine type.

	Production (%)
Underground	
Surface	

C-MM9.3b

(C-MM9.3b) Provide details on the commodities relevant to the metals production activities of your organization.

Output product

Copper

Capacity (metric tons)

140000

Production (metric tons)

138177

Annual production in copper-equivalent units (thousand tons)

138177

Scope 1 emissions (metric tons CO2e)

1068000

Scope 2 emissions (metric tons CO2e)

3459000

Scope 2 emissions approach

Market-based

Pricing methodology for-copper equivalent figure

N/A

Comment

Production reported on a 100% basis for operated assets only (does not include Antamina). Production reported on payable metal basis. Production is from integrated operations and includes mining as well as processing activities. For additional detail on our commodities, assets, locations, financial results and operating performance as they relate to this CDP response, refer to our 2018 Annual Report (<https://www.bhp.com/investor-centre/annual-report-2018>) and 2018 Operational Review (<https://www.bhp.com/media-and-insights/news-releases/2018/07/bhp-operational-review-for-the-year-ended-30-june-2018>). Note this CDP response relates to FY2018. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>.

Output product

Nickel

Capacity (metric tons)

110000

Production (metric tons)

90600

Annual production in copper-equivalent units (thousand tons)

165857

Scope 1 emissions (metric tons CO2e)

386000

Scope 2 emissions (metric tons CO2e)

538000

Scope 2 emissions approach

Market-based

Pricing methodology for-copper equivalent figure

Copper-equivalent production calculated based on FY2018 average realised product prices. Our FY2018 average realised sales price for copper was US\$3.12 per pound. Our FY2018 average realised sales price for nickel was US\$12,592 per metric ton.

Comment

Production reported on a 100% basis. Production reported on a saleable product basis. Production is from integrated operations and includes mining as well as processing activities. For additional detail on our commodities, assets, locations, financial results and operating performance as they relate to this CDP response, refer to our 2018 Annual Report (<https://www.bhp.com/investor-centre/annual-report-2018>) and 2018 Operational Review (<https://www.bhp.com/media-and-insights/news-releases/2018/07/bhp-operational-review-for-the-year-ended-30-june-2018>). Note this CDP response relates to FY2018. More recent data for FY2019 is available in our 2019 Sustainability Report and online at <https://www.bhp.com>.

C-CO9.4a

(C-CO9.4a) Explain which listing requirements or other methodologies you have used to provide reserves data in C-CO9.2a. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this.

C-CO9.6/C-EU9.6/C-OG9.6

(C-CO9.6/C-EU9.6/C-OG9.6) Disclose your investments in low-carbon research and development (R&D), equipment, products, and services.

C-MM9.6

(C-MM9.6) Disclose your organization's low-carbon investments for metals and mining production activities.

Investment start date

July 1 2017

Investment end date

June 30 2018

Investment area

Products

Technology area

Green metals

Investment maturity

Large scale commercial deployment

Investment figure

2428000000

Low-carbon investment percentage

61 - 80%

Please explain

Capital expenditure for our copper assets. Investment figure represents total capital expenditure reported for our Copper assets for FY2018 (Annual Report 2018, p.87). Investment percentage figure represents copper's contribution to total capex for metal & mining assets (copper, nickel, and iron ore according to CDP sector classification). Looking ahead, the Spence Growth option, with approved investment of US\$2.5 billion, will extend the life of the Spence copper mine at our Pampa Norte asset in Chile by over 50 years. The project will increase copper production capacity by approximately 185 ktpa and is expected to deliver first production in FY2021. Copper classified as a 'green metal' due to potential for avoided emissions from the use of copper products throughout their lifecycle in a variety of low carbon applications. For example, our copper products are ideally placed to support the electrification of energy demand. Our projections assume that the demand for electricity will outstrip the growth in total primary energy demand between now and mid-century. The production, distribution and transmission that power will require a great deal of copper. Copper is particularly well placed to support the electrification of transport – with a battery-powered electric car requiring three times as much copper as a conventional car. Copper is also required so support build out of renewables capacity – both wind and solar. From a copper point of view, the per megawatt hour demand coefficient associated with offshore wind generation is almost five times that associated with coal generation. For solar, the coefficient is around two and a half.

Investment start date

July 1 2017

Investment end date

June 30 2018

Investment area

R&D

Technology area

Other, please specify (Carbon Capture and Storage)

Investment maturity

Applied research and development

Investment figure

10300000

Low-carbon investment percentage

81 - 100%

Please explain

Carbon capture & storage (CCS) investments. Investment figure represents investments in external CCS partnerships for FY2018. Investment percentage figure represents CCS contribution to total low emissions technology R&D spend. Investments comprise a mixture of basic academic/theoretical research; applied research and development; commercial-scale demonstration. CCS has the potential to play a pivotal role in reducing emissions from industrial processes such as steel production that are recognised as being technologically difficult to decarbonise. Emissions from the steelmaking process account for over 65% of our total scope 3 emissions. Our various CCS investments and partnerships focus on mechanisms to reduce the costs and accelerate deployment of this critical technology, and include activities aimed at knowledge sharing from commercial-scale projects, development of sectoral deployment roadmaps, and funding for R&D at leading universities and research institutes. For example, we have established the International CCS Knowledge Centre to share lessons from SaskPower's Boundary Dam CCS project in Saskatchewan, Canada. We are working with Peking University and other partners to identify the key policy, technical and economic barriers to CCS deployment in the industrial sector, with a particular focus on the iron and steel industry in China. We have also established the GeoCQuest research collaboration between the University of Melbourne, University of Cambridge and Stanford University to support fundamental research into the long-term storage mechanisms of CO2 in sub-surface locations.

Investment start date

July 1 2017

Investment end date

June 30 2018

Investment area

R&D

Technology area

Other, please specify (Low emissions technology R&D)

Investment maturity

Applied research and development

Investment figure

1600000

Low-carbon investment percentage

0 - 20%

Please explain

R&D investments in low emissions technologies targeted at our operational emissions. Investment figure represents R&D investments for FY2018. Investment percentage

figure represents operational emissions-focused R&D projects' contribution to total low emissions technology R&D spend (which includes CCS targeted at scope 3 emissions). Relevant R&D during FY2018 includes an ongoing trial to deploy light electric vehicles powered by lithium ion batteries in the underground fleet at our Olympic Dam copper mine; collaboration with Australia's national research agency, CSIRO, on a project designed to determine the viability of measuring fugitive methane emissions in near real time from open-cut coal mining environments; and our ongoing participation in the Lakeland Solar and Storage Project, a three-year knowledge sharing partnership to demonstrate connecting large-scale battery storage to a fringe-of-the-grid solar project in regional Queensland, Australia.

C10. Verification

C10.1

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

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

C10.1a

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

Scope

Scope 1

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

bhpsustainabilityreport2018.pdf

Page/ section reference

BHP Sustainability Report 2018 - Page 69

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

Scope

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

bhpsustainabilityreport2018.pdf

Page/ section reference

BHP Sustainability Report 2018 - Page 69

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

C10.1b

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

Scope

Scope 3- all relevant categories

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Attach the statement

bhpsustainabilityreport2018.pdf
BHP Sustainability Report 2018.pdf

Page/section reference

BHP Sustainability Report 2018 - Page 69

Relevant standard

ISAE 3410

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
C4. Targets and performance	Progress against emissions reduction target	ISAE 3410 Assurance on Greenhouse Gas Statements (Standards)	In addition to reasonable assurance over our GHG emissions. KPMG also provided limited assurance over the remaining contents of our Sustainability Report which includes: - Emissions intensity - Progress against emissions target - Emissions from use and processing of products - Level of emissions reductions achieved due to the implementation of emission reduction projects - Energy use. This assurance process is performed every financial year.
C4. Targets and performance	Emissions reduction activities	ISAE 3410 Assurance on Greenhouse Gas Statements (Standards)	In addition to reasonable assurance over our GHG emissions. KPMG also provided limited assurance over the remaining contents of our Sustainability Report which includes: - Emissions intensity - Progress against emissions target - Emissions from use and processing of products - Level of emissions reductions achieved due to the implementation of emission reduction projects - Energy use. This assurance process is performed every financial year.
C6. Emissions data	Product footprint verification	ISAE 3410 Assurance on Greenhouse Gas Statements (Standards)	In addition to reasonable assurance over our GHG emissions. KPMG also provided limited assurance over the remaining contents of our Sustainability Report which includes: - Emissions intensity - Progress against emissions target - Emissions from use and processing of products - Level of emissions reductions achieved due to the implementation of emission reduction projects - Energy use. This assurance process is performed every financial year.
C7. Emissions breakdown	Year on year change in emissions (Scope 1 and 2)	ISAE 3410 Assurance on Greenhouse Gas Statements (Standards)	In addition to reasonable assurance over our GHG emissions. KPMG also provided limited assurance over the remaining contents of our Sustainability Report which includes: - Emissions intensity - Progress against emissions target - Emissions from use and processing of products - Level of emissions reductions achieved due to the implementation of emission reduction projects - Energy use. This assurance process is performed every financial year.
C8. Energy	Other, please specify (Energy use)	ISAE 3410 Assurance on Greenhouse Gas Statements (Standards)	In addition to reasonable assurance over our GHG emissions. KPMG also provided limited assurance over the remaining contents of our Sustainability Report which includes: - Emissions intensity - Progress against emissions target - Emissions from use and processing of products - Level of emissions reductions achieved due to the implementation of emission reduction projects - Energy use. This assurance process is performed every financial year.

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, but we anticipate being regulated in the next three years

C11.1d

(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?

We recognise both the risks and opportunities posed by carbon pricing schemes and we continue to ensure our strategy minimises the risks and maximise opportunities. Internal carbon pricing (shadow price) is one of the tools we use to consider the impacts of climate change in our strategy. Our investment evaluation process has incorporated market and sector based carbon prices for more than a decade via the mandated use of our Carbon Pricing Protocol across all operations and projects.

Our Operations that participate in these schemes will be required to maintain an accurate emission and energy inventory through consistent data gathering and emissions reporting; provide timely, accurate and detailed data books for internal and external verifier review; understand the regulator's perspective and maintain awareness of future scheme requirements through government interaction and legal compliance registers; identify, evaluate and implement all suitable projects to reduce GHG emissions, including in project design and equipment selection.

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?

Yes

C11.3a

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

Objective for implementing an internal carbon price

Navigate GHG regulations
Stakeholder expectations
Change internal behavior
Drive energy efficiency
Drive low-carbon investment
Stress test investments
Identify and seize low-carbon opportunities
Supplier engagement

GHG Scope

Scope 1
Scope 2
Scope 3

Application

Our investment evaluation process has incorporated market & sector based carbon prices for over a decade via the mandated use of our Carbon Pricing Protocol across all operations & projects. In our carbon price modelling, the long-term demand for emissions reductions represents the difference between the current emissions trajectory & cuts needed to meet agreed climate goals. As such, we track progress of national commitments, including our major operating regions & demand centres. On the supply side, we undertake a granular assessment of cost & availability of emissions reduction potential. The assessment is carried out by sector & country, considering several detailed characteristics, such as ability to import & export emissions reductions in the form of tradable credits. The analysis output is an explicit carbon price, which is expected to rise as carbon markets are expanded. It represents the marginal inducement cost of emissions reductions needed to meet government targets.

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

24

Variance of price(s) used

Our scenario analysis includes assumptions on carbon pricing. In our central case forecast (constructed through in-depth, bottom-up analysis), the long-term carbon price forecast is US\$24/tCO₂e by 2030. In our Global Accord scenario (which describes an orderly transition to 2 degrees) it reaches US\$50/tCO₂e by 2030. This reflects key global economies such as China, the United States and the European Union going beyond their current climate commitments and significantly increasing demand for long-term emissions reductions. The higher ambitions are matched by stronger policy support to help deliver emissions reduction potential. Under a shock event describing a much more rapid shift to 2 degrees it reaches US\$80/tCO₂e by 2030. We apply internal carbon pricing in investment decisions and portfolio evaluation across all operations & projects. Further detail on how we use carbon pricing in our scenario analysis and portfolio evaluation is including in our Climate Change: Portfolio Analysis (2015) report, available online at <https://www.bhp.com>, which also describes more broadly how we use scenario analysis to evaluate the resilience of our portfolio to a 2 degrees transition.

Type of internal carbon price

Shadow price

Impact & implication

Carbon pricing is one of the tools we use to consider the impacts of climate change in our strategy process: For example, we use of scenarios to consider how divergent climate-related policy, technology, market and societal outcomes could impact our portfolio, including low plausibility, extreme shock events, and the impacts of climate change are considered in our capital allocation framework. Our investment evaluation process includes an assessment of non-quantifiable risks such as those impacts on people and the environment that underpin our licence to operate. Our investment decision-making and portfolio evaluation process has also incorporated market & sector based carbon prices for more than a decade, with carbon pricing assumptions being key to our scenario analysis. This analysis, described in more detail in our Climate Change: Portfolio Analysis (2015) and Climate Change: Portfolio Analysis – Views after Paris (2016) reports, available online at <https://www.bhp.com>, has demonstrated that our current portfolio is robust under both an orderly & more rapid transition to 2 degrees, and the commodities we produce remain attractive. In our Global Accord scenario (orderly transition), there is likely upside for uranium, metallurgical coal & iron ore; we expect copper and natural gas to offer growth opportunities. We anticipate these commodities mitigate potential negative impacts on other commodities such as energy coal. We anticipate the impact on current portfolio value will be minimal due to portfolio diversification & the diminishing contribution of fossil fuels as a proportion of portfolio value. We project carbon price impact on portfolio value would be less than 2%. In the shock event there is likely to be more downside, but our portfolio will still be resilient, and carbon price impact on total portfolio value <5%. This analysis has demonstrated that our strategy to invest in copper & oil remains sound. Recent examples of how portfolio evaluation has informed investment decisions is the Board approval during FY2018 of US\$2.5 billion in capex to extend the life of the Spence copper mine in Chile by over 50 years, and the announcement that we had entered into agreements for the sale of our entire interests in our Eagle Ford, Haynesville, Permian and Fayetteville Onshore US oil and gas assets.

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

Compliance & onboarding

Details of engagement

Climate change is integrated into supplier evaluation processes

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% Scope 3 emissions as reported in C6.5

2

Rationale for the coverage of your engagement

For all the goods and services we procure, we manage supplier relationships through a commercial framework aligned with Our Charter values and applicable regulatory frameworks. We require our direct suppliers to apply our standards of health, safety, anticorruption and environmental protection, including with respect to climate. To ensure sustainability in our supply chain, we take a risk-based approach to assessing suppliers that is based on a combination of questionnaires, due diligence and third-party data. In FY2018, we introduced new supplier management processes to strengthen our compliance controls (though our current focus is in relation to anti-corruption and sanctions rather than climate or other environmental issues). By better understanding and managing these risks, we provide greater certainty and confidence to our stakeholders regarding our choice of suppliers. We work with our suppliers through a variety of methods including face-to-face meetings, teleconferences, emails and contracts. Potential suppliers are assessed on their compliance with our requirements based on a combination of questionnaires, due diligence and third-party data. Contracted suppliers are assessed on a matrix of commercial dependency versus supplier risk and segmented on a tiered scale. Based on the determined level of risk, an approach to engage with each supplier is developed. If required, a development plan is jointly created to ensure the supplier continuously meets the business requirements. 'Significant suppliers' from a risk perspective represent approximately 2% of our supply base. We regularly review our internal risk register and assess any reported changes that have the potential to introduce a higher risk than what was previously assessed. We actively monitor our controls and actions for the assessed risks in our supply chain.

Impact of engagement, including measures of success

Measuring success: Environmental and climate change requirements are documented within BHPs Our Requirements internal standards, ensuring they are included and measured in all processes, both with suppliers engaged at our Assets and those engaged centrally. All suppliers must meet zero tolerance requirements. Suppliers must comply with our environmental and climate change requirements for work to work completed as part of the supply contract with BHP. Engagement impact: An example of engagement impact is that biofuels must only be sourced from global companies that have policies or standards for the sustainable sourcing of biofuel components; they must demonstrate that biofuels are not sourced in conflict with agricultural, biodiversity or other environmental values and have a positive lifecycle GHG emissions impact. Another example related to fuel and energy related activities is that we have driven improvements in engine combustion efficiency by working with key fuel suppliers to conduct research into fuel chemistry, cleanliness, infrastructure and handling. We are also participating in the International Council on Mining and Metals (ICMM)'s Innovation for Cleaner Safer Vehicles (ICSV) programme, which brings together 27 of the world's leading mining companies and some of the best-known truck and mining equipment suppliers to accelerate innovation to develop a new generation of mine vehicles, with one of the aims of the programme being to introduce greenhouse gas emission-free surface mining vehicles by 2040.

Comment

Figure for percent scope 3 emissions corresponds to emissions reported in the Purchased goods and services, Fuel and energy related activities and Business travel categories. Note that this is not a material source of scope 3 emissions for our business, representing approximately 2% of total scope 3 emissions (whereas over 97% of our scope 3 emissions are related to our customers' processing and use of our products).

C12.1b

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

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number

73

% Scope 3 emissions as reported in C6.5

73

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

Figure for percent scope 3 emissions corresponds to emissions emanating from the steelmaking (processing and use of our iron ore and metallurgical coal) and copper production processes. Note size of engagement figure estimated based on percent emissions from these sources as a proportion of total emissions from downstream processing and use of our products, rather than number of customers, given our products are traded commodities. Emissions from these processes represent our most significant sources of scope 3 emissions, therefore present commensurately significant opportunities for achieving emissions reductions. In addition, whereas reducing the scope 3 emissions from our energy commodities (energy coal, natural gas and petroleum products) could be achieved by diversifying towards lower carbon energy sources (including shifting from oil to gas), reducing the emissions intensity related to the processing of non-energy commodities (such as iron ore and copper) relies on the decarbonisation of the relevant industrial process (such as steelmaking or copper metal production) employed by our customers. Further, the emissions from industrial processes involved are more dependent on process route, raw material quality and eventual end use – and therefore more variable by individual facility – than combustion of fossil fuels for energy production, offering greater scope for customer engagement around the climate change impacts of using our products. We believe we have a shared role in engaging with our customers to address these emissions. Our engagement on climate forms part of our broader approach to product stewardship whereby we encourage the responsible design, use, reuse, recycling and disposal of our products throughout our value chain, in line with the ICMM Sustainable Development Framework. We also participate in product stewardship initiatives, such as Responsible Steel, as well as commodity and industry associations that seek to bring together the participants in a product's life cycle to improve sustainability performance, such as the International Copper Association.

Impact of engagement, including measures of success

While for some emissions sources, we have the ability to influence our suppliers or other service providers to reduce emissions from their activities, for the downstream processing of our products, the fact that these emissions occur 'outside the gate' makes them more challenging to address. Our technical marketing teams work directly with our customers to help them improve the productivity and environmental performance of their processes based on the quality characteristics of our products. In the case of emissions from steelmaking, for example, we produce premium low volatile (PLV) coking coals that can be processed into high strength metallurgical coke. This has allowed our customers to increase productivity and lower external energy requirements (and hence emissions) in the blast furnace. There is opportunity to build on these relationships to identify strategic opportunities to partner in implementing projects with the potential to achieve more material emissions reductions. We also work in partnership with others to accelerate the development of low emissions technologies such as Carbon Capture and Storage (CCS) with the potential to deliver step-change emissions reductions from the processing and use of our products over a longer time horizon. Our various CCS investments and partnerships focus on mechanisms to reduce the costs and accelerate deployment of this critical technology, and include activities aimed at knowledge sharing from commercial-scale projects, development of sectoral deployment roadmaps, and funding for R&D at leading universities and research institutes. Measures of success include: establishment of International CCS Knowledge Centre in Saskatchewan, Canada, to share lessons from SaskPower's Boundary Dam CCS project; establishment of partnership with Peking University and other partners to identify the key policy, technical and economic barriers to CCS deployment in the industrial sector, with a particular focus on the iron and steel industry in China; and establishment of research collaboration between the University of Melbourne, University of Cambridge and Stanford University to support fundamental research into the long-term storage mechanisms of CO₂ in sub-surface locations.

C12.1c

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

In addition to engaging with our suppliers and customers, we also have the ability to influence other partners in our value chain to reduce emissions from their activities. The benefit of using our influence to reduce emissions is demonstrated by recent activities to work with the owners of the ships we charter to reduce emissions from freight. BHP is one of the largest global shippers of bulk commodities and emissions resulting from the transportation and distribution of our products represent a material source of scope 3 emissions. We are working on initiatives to reduce our freight emissions, and seek to drive change more broadly within the shipping industry.

During FY2018 we implemented vetting criteria on the marine fleet we charter to exclude vessels with poor GHG emissions performance. This decision followed from a previous collaboration with RightShip, a leading maritime risk management and environmental assessment organisation, to develop a calculation methodology for measuring a vessel's GHG emissions. Using this Existing Vessel Design Index (EVDI) we can now measure, benchmark and track emissions performance across the freight associated with our business. Based on the EVDI, a practical GHG emissions rating on an A to G scale has also been developed for use across the industry. This allows transparent comparison of a ship's emissions performance relative to vessels of a similar size and type. We decided not to accept (almost without exception) vessels with the lowest F and G ratings. As an early adopter of the RightShip rating in our vessel vetting criteria, we are already seeing the impact on the scope 3 emissions profile for transport and distribution.

There are a number of examples where application of our vetting criteria has resulted in significant reductions in GHG emissions for individual voyages. For example, for a voyage involving approximately 180,000 tonnes of iron ore being shipped from Port Hedland to China, an F-rated vessel was rejected and an A-rated vessel was selected. In this case, the selection of a more efficient vessel resulted in an emissions saving of over 400 tonnes CO₂e, or 23 per cent of the total voyage emissions.

We have also started to see a response from the shipping industry. Examples of actions taken by our strategic partners (ship owners) include: A US-based ship owner, which operates 17 vessels, has engaged with its main engine manufacturer to carry out engineering modification to reduce emissions; a Greece-based ship owner, which operates over 40 vessels, has carried out a variety of technical adjustments to reduce emissions, including limiting engine power output, installing propulsion improvement devices and applying advanced silicon paints.

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
Funding research organizations
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
Mandatory carbon reporting	Support	Direct and indirect engagement with relevant government officials in the regions where we operate. For example, we undertook detailed review and engagement on the application of and technical amendments to the Australian National Greenhouse and Energy Reporting scheme (NGER).	We believe an effective policy framework should include a complementary set of measures, including a price on carbon, support for low emissions technology and energy efficiency, and measures to build resilience. We support mandatory GHG reporting as an essential component to underpin effective climate change policy design and emissions management. This should balance technical accuracy with the time and investment required to meet expectations.
Carbon tax	Support with minor exceptions	Direct and indirect engagement with relevant government officials and contribution to policy reviews in the regions where we operate. For example, in FY2018 we made a submission in response to the Australian Government's 2017 Review of Climate Change Policies. In this, we shared our views on key climate change policy design principles and policy instruments (including a carbon price). We also made a submission in response to the Australian Government's 2018 Consultation on the operation of the Emissions Reduction Fund Safeguard Mechanism.	We believe an effective policy framework should include a complementary set of measures, including a price on carbon, support for low emissions technology and energy efficiency, and measures to build resilience. We are a signatory to the World Bank's Putting a Price on Carbon statement and a partner in the Carbon Pricing Leadership Coalition, a global initiative that brings together leaders from industry, government, academia and civil society with the goal of putting in place effective carbon pricing policies. We believe carbon pricing should be implemented in a way that addresses competitiveness concerns and achieves lowest cost emissions reductions. We believe that to be effective and efficient, a carbon price should be (i) clear – the objectives and principles should be clearly defined and consistently applied; (ii) predictable – effective planning and investment requires certainty on the parameters, timelines and long term trajectory of policy; and (iii) measured – a measured transition requires a gradual approach in which there is time for preparation and adjustment.
Energy efficiency	Support	Direct and indirect engagement with relevant government officials in the regions where we operate. For example, during FY2018 we engaged with the Australian Energy Security Board, both directly and through our industry association memberships, on the design of the National Energy Guarantee.	We believe an effective policy framework should include a complementary set of measures, including a price on carbon, support for low emissions technology and energy efficiency, and measures to build resilience.
Clean energy generation	Support	Direct and indirect engagement with relevant government officials and contribution to policy reviews in the regions where we operate. For example, in FY2018 we made a submission in response to the Australian Government's 2017 Independent Review into the Future Security of the National Electricity Market (Finkel review).	We believe an effective policy framework should include a complementary set of measures, including a price on carbon, support for low emissions technology and energy efficiency, and measures to build resilience. We support policy design that (1) considers energy security, energy affordability and emissions reduction on an integrated basis; (2) includes technology neutral policy frameworks; and (3) supports open and transparent markets in energy. Policymakers should focus on providing clear and stable emissions reduction goals, allowing industry to determine the most effective and least cost means of achieving these goals. Such an approach would likely spur innovation and avoid a scenario where less-efficient technologies are 'locked in' and/or potentially more efficient technologies are 'locked out'.

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

American Petroleum Institute

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The API represents the upstream and downstream oil and gas industry in the US. It facilitates the lifting of industry and member performance (through information sharing, standards development, guidance development, equipment certification, research, events and training). It has approximately 625 members. The API believes US climate policy must recognize the vital role of petroleum products in modern society, and the many benefits that oil and natural gas provide our nation and the world. Affordable energy helps to secure life's basic needs: clean water and sanitation; food production and storage; lighting, heating and cooling of homes; and transportation. Beyond their uses as fuels, oil and natural gas serve as the feedstocks for thousands of products like medical devices, cellphones, clothing, building materials and pharmaceuticals. Domestic production, refining and delivery of oil and natural gas strengthens the American economy, enhances national security and reduces our trade deficit, thus maintaining the competitive position of the US in the global marketplace. Modern life as we know it would be impossible without the fuels and products derived from oil and natural gas. As such, policy proposals must balance environmental, economic and security concerns. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of the API, and our employees also represent BHP on various working groups. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. Note that this CDP response relates to FY2018. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to

BHP's position strategy and/or policy advocacy. Further information on the Industry Association Review can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

Australian Industry Greenhouse Network

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The AIGN is a network of industry associations and individual businesses that contribute to the climate change policy debate and see value in joint industry action on climate change to promote sustainable industry development. It has approximately 25 members. The AIGN believes that Australia should engage the international community in pursuing identified and beneficial environmental outcomes through greenhouse gas emissions reduction action that allows for differentiated national approaches; promotes international cooperation; minimises the costs and distributes the burden equitably across the international community; is comprehensive in its coverage of countries, greenhouse gases, sources and sinks; recognises the economic and social circumstances and aspirations of all societies; and is underpinned by streamlined, efficient and effective administrative, reporting and compliance arrangements. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of the AIGN, and our employees also represent BHP on various working groups. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. Note that this CDP response relates to FY2018. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Further information on the Industry Association Review can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

Australian Petroleum Production and Exploration Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

APPEA represents Australia's oil and gas exploration and production industry. It facilitates the lifting of industry and member performance through information sharing, guidance development, research, events and training). It has approximately 60 full member companies and 140 associate member companies. APPEA believes that Australia should engage the international community in pursuing identified and beneficial environmental outcomes through greenhouse gas emissions reduction action that allows for differentiated national approaches; promotes international participation; minimises the costs and distributes the burden equitably across the international community; is comprehensive in its coverage, allows for the unrestricted flow of credible emissions units between international jurisdictions; and is underpinned by streamlined, efficient and effective administrative, reporting and compliance arrangements. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of APPEA, and our employees also represent BHP on various working groups. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. Note that this CDP response relates to FY2018. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Further information on the Industry Association Review can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

Business Council of Australia

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The BCA provides a forum for Australian business leaders to contribute to public policy debates. It promotes the contribution and social responsibility of the business community; and facilitates the lifting of industry and member performance (through information sharing, research and events). It has approximately 130 members. With extensive policy positions on energy and climate change, the BCA supports consideration of complementary measures to reduce greenhouse emissions focused on shifting the mix of power sources away from higher emission technologies and toward low or zero emission technologies while managing community transition; encouraging greater energy efficiency; better managing land use; an encouraging adoption of more fuel-efficient vehicles. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of the BCA, and our employees also represent BHP on various working groups. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. Note that this CDP response relates to FY2018. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Further information on the Industry Association Review can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

Chamber of Minerals and Energy of Western Australia

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The CME represents the mineral and energy resources sector in Western Australia. It facilitates the lifting of industry and member performance (through information sharing, research and events). It has approximately 70 ordinary members and 50 associate members. The CME, along with other minerals sector industry associations, published a Statement of Principles on Climate Change Policy in 2011. This document maintains that a measured transition to a low emissions global economy will require the alignment of three key policy pillars: (1) a global agreement for greenhouse gas emission abatement that includes emissions reduction commitments from all major emitting nations; (2) market-based policy measures that promote the abatement of greenhouse gas emissions at the lowest cost, while minimising adverse social and economic impacts, including on the competitiveness of the internationally traded sector; and (3) substantial investment in a broad range of low emissions technologies and adaptation measures. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of the CME, and our employees also represent BHP on various working groups. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. Note that this CDP response relates to FY2018. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Further information on the Industry Association Review can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

Consejo Minero de Chile

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

CM Represents Chile's mineral resources sector. It facilitates the lifting of industry and member performance (through information sharing, research, skills development, events and training). It has approximately 20 members. CM has adopted ten principles on climate change, outlined at <https://consejominero.cl/quienes-somos/principios-del-cm-sobre-cambio-climatico/> Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of CM, and our employees also represent BHP on various working groups. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. Note that this CDP response relates to FY2018. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Further information on the Industry Association Review can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

International Council on Mining and Metals

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The ICMM aims to strengthen the environmental and social performance of the mining industry, with members having to meet specified performance standards and sustainable development commitments to be eligible. It has 25 company members and approximately 30 association members. The ICMM supports development of greenhouse gas emission reduction strategies, implementation of economic emissions reductions opportunities, efficient use of natural resources and supports research and development into low emission technologies that are appropriate to the industry. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of the ICMM, including the ICMM Council, the Principal Liaison Committee and the Environment and Climate Change Program Committee. Our employees also represent BHP on various working groups related to water, biodiversity and climate change. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. Note that this CDP response relates to FY2018. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Further information on the Industry Association Review can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

International Emissions Trading Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

IETA is a member-led organisation that promotes market-based trading systems as a solution to climate change; participates in the design and implementation of national and international rules and guidelines; and disseminates information on emissions trading. It has approximately 120 members. IETA's objective is to build international policy and market frameworks for reducing greenhouse gases at lowest cost. IETA believes that emissions trading is one of the principal policy instruments available to manage industrial GHG emissions by encouraging operational excellence and the deployment of new and existing technologies. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of IETA, and our employees also represent BHP on various working groups. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. Note that this CDP response relates to FY2018. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Further information on the Industry Association Review can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

Minerals Council of Australia

Is your position on climate change consistent with theirs?

Mixed

Please explain the trade association's position

The MCA represents and promotes Australia's exploration, mining and minerals processing industry. It facilitates the lifting of industry and member performance (through information sharing, guidance development, research and events). It has approximately 50 member companies and 30 associate members. The MCA, along with other minerals sector industry associations, published a Statement of Principles on Climate Change Policy in 2011. This document maintains that a measured transition to a low emissions global economy will require the alignment of three key policy pillars: (1) a global agreement for greenhouse gas emission abatement that includes emissions reduction commitments from all major emitting nations; (2) market-based policy measures that promote the abatement of greenhouse gas emissions at the lowest cost, while minimising adverse social and economic impacts, including on the competitiveness of the internationally traded sector; and (3) substantial investment in a broad range of low emissions technologies and adaptation measures. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of the MCA, including the Board and the Energy and Climate Change Standing Committee. Our employees also represent BHP on various working groups related to water, biodiversity and environmental management. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Based on a case-by-case assessment, the Review identified two material differences between the climate and energy policy positions held by BHP and the MCA. In light of the identified material differences and assessment of broader activities of the association, we determined to remain a member of the MCA, subject to a number of actions, including requesting that the MCA refrain from policy activity or advocacy in relation to the identified material differences. Further information on the Industry Association Review, and the actions BHP has taken with respect to its membership of the MCA, can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

New South Wales Minerals Council

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The NSWMC represents the minerals industry in New South Wales, Australia. It facilitates the lifting of industry and member performance (through information sharing, research and events). It has approximately 30 full members and 60 associate members. The NSWMC, along with other minerals sector industry associations, published a Statement of Principles on Climate Change Policy in 2011. This document maintains that a measured transition to a low emissions global economy will require the alignment of three key policy pillars: (1) a global agreement for greenhouse gas emission abatement that includes emissions reduction commitments from all major emitting nations; (2) market-based policy measures that promote the abatement of greenhouse gas emissions at the lowest cost, while minimising adverse social and economic impacts, including on the competitiveness of the internationally traded sector; and (3) substantial investment in a broad range of low emissions technologies and adaptation measures. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of the NSWMC, and our employees also represent BHP on various working groups. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. Note that this CDP response relates to FY2018. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Further information on the Industry Association Review can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

Queensland Resources Council

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The QRC represents the mineral and energy resources sector in Queensland, Australia. It facilitates the lifting of industry and member performance (through information sharing, guidance development, research and events). It has approximately 75 full members and 85 service members. The QRC, along with other minerals sector industry associations, published a Statement of Principles on Climate Change Policy in 2011. This document maintains that a measured transition to a low emissions global economy will require the alignment of three key policy pillars: (1) a global agreement for greenhouse gas emission abatement that includes emissions reduction commitments from all major emitting nations; (2) market-based policy measures that promote the abatement of greenhouse gas emissions at the lowest cost, while minimising adverse social and economic impacts, including on the competitiveness of the internationally traded sector; and (3) substantial investment in a broad range of low emissions technologies and adaptation measures. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of the QRC, and our employees also represent BHP on various working groups. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. Note that this CDP response relates to FY2018. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Further information on the Industry Association Review can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

South Australian Chambers of Mines and Energy

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The SACOME represents the minerals, energy, extractive and oil and gas sectors in South Australia through advocacy, research and industry events. It has approximately 200 members. The SACOME, along with other minerals sector industry associations, published a Statement of Principles on Climate Change Policy in 2011. This document maintains that a measured transition to a low emissions global economy will require the alignment of three key policy pillars: (1) a global agreement for greenhouse gas emission abatement that includes emissions reduction commitments from all major emitting nations; (2) market-based policy measures that promote the abatement of greenhouse gas emissions at the lowest cost, while minimising adverse social and economic impacts, including on the competitiveness of the internationally traded sector; and (3) substantial investment in a broad range of low emissions technologies and adaptation measures. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP is represented in key governance bodies of the SACOME, and our employees also represent BHP on various working groups. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements. Note that this CDP response relates to FY2018. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Further information on the Industry Association Review can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. A further review of our industry associations was commenced during FY2019.

Trade association

World Coal Association

Is your position on climate change consistent with theirs?

Mixed

Please explain the trade association's position

The WCA is a member-led organisation that aims to demonstrate and gain acceptance for the role coal can play in achieving a sustainable and lower carbon energy future. It has 15 corporate members and more than 20 associate members. The WCA supports the use of high-efficiency, low-emissions coal combustion technologies, setting of an ambitious pathway to move the global average efficiency of coal-fired power generation plants to current state-of-the-art levels and support for developing countries in accessing clean coal technologies, including high-efficiency low-emissions coal combustion technologies. Note that this CDP response relates to FY2018.

How have you influenced, or are you attempting to influence their position?

BHP was previously represented in key governance bodies of the WCA, including the Executive Committee. BHP conducted an Industry Association Review during FY2018. This Review focused on 21 industry associations assessed as holding an active position on climate and energy policy, and 10 climate and energy policies identified as being of key importance to BHP's position strategy and/or policy advocacy. Based on a case-by-case assessment, the Review identified one material difference between the climate and energy policy positions held by BHP and the WCA. In light of the material difference identified by the review and the narrow range of activities of benefit to BHP from membership, we left the WCA during FY2018. Further information on the Industry Association Review, and the actions BHP has taken with respect to its membership of the WCA, can be found online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>. Note that this CDP response relates to FY2018.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

No

C12.3e

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

Industry has a key role to play in supporting policy development, and we engage with governments and other stakeholders to inform the development of an effective, long-term policy framework that can deliver a measured transition to a lower carbon economy.

While we plan for a range of climate scenarios, we continue to advocate for a less than 2 degrees outcome. We are signatories to the UNFCCC 'Paris Pledge' which brings together cities, regions, companies and investors in support of the Paris Agreement. We believe an effective policy framework should include a complementary set of measures, including a price on carbon, support for low emissions technology and measures to build resilience. We are a signatory to the World Bank's 'Putting a Price on Carbon' statement and a partner in the Carbon Pricing Leadership Coalition. We also advocate for a framework of policy settings that will accelerate the deployment of Carbon Capture and Storage (CCS), and are a member of the Global CCS Institute.

We engage directly with policy makers, participate in industry associations, and contribute to policy reviews throughout our global operating regions, as described separately. We recognise there is increasing stakeholder interest in the nature and role of industry associations and the extent to which the positions of industry associations on key issues are aligned with those of member companies. During FY2018, we completed a review of our membership of those industry associations which hold an active position on climate and energy policy (the review covered the previous three years, including the FY2017 reporting period covered by this CDP response). Our Industry Association Review report, published in December 2017, sets out a list of the material differences between the positions we hold on climate and energy policy and the advocacy positions on climate and energy policy taken by industry associations to which we belong. It also describes the outcomes of the review of our membership of those industry associations. More information on our approach to industry associations, including the Industry Association Review report, is available online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>.

We also engage in a number of other activities that could either directly or indirectly influence public policy on climate-related topics. These activities include participating in public forums on climate change-related topics, and publishing our views on climate change-related issues on BHP's blog, Prospects.

We also fund research into climate mitigation efforts. For example, BHP is a member of ACA Low Emissions Technologies (ACALET), which is focused on reducing GHG emissions from coal mining and use. We also partner with the Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC), a collaborative research organisation focused on CCS. Note that we conducted a review of our industry association memberships during FY2018. ACALET (which has since changed its name to COAL21) was not included in that review, but will be included in a forthcoming review commenced during FY2019.

In particular, as described separately, we fund research into CCS. Our CCS investments and partnerships focus on mechanisms to reduce costs and accelerate development timeframes. Our investments include activities aimed at knowledge sharing from commercial-scale projects, development of sectoral deployment roadmaps and funding for R&D at leading universities and research institutes. For example, we established the International CCS Knowledge Centre to share lessons from SaskPower's Boundary Dam CCS project in Saskatchewan, Canada. We are working with Peking University and other partners to identify the key policy, technical and economic barriers to CCS deployment in the industrial sector, with a particular focus on the iron and steel industry in China. We have also established a research collaboration between the University of Melbourne, University of Cambridge and Stanford University to support fundamental research into the long-term storage mechanisms of CO₂ in sub-surface locations.

In addition to our public policy engagement, our climate change strategy is supported by active engagement with a wide variety of stakeholders, including investors, peer companies and non-governmental organisations. We regularly hold one-on-one and group meetings with investors and their advisers. We also seek input and insight from external experts, such as the BHP Forum on Corporate Responsibility (FCR). The FCR, which is composed of civil society leaders and BHP executives, has played a critical role in the development of our position on climate change.

Informed by this engagement, we continue to regularly review our approach to climate change in response to emerging scientific knowledge, changes in global climate policy and regulation, developments in low emissions technologies and evolving stakeholder expectations.

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?

Our BHP Charter sets the minimum expectations on how we engage with both internal and external stakeholders, including governments. Our position on climate change is directly supported by Our Charter value of Sustainability and supporting Our Requirements documents (which define mandatory performance requirements for all our Businesses). In particular, governance of our engagement activities with internal and external stakeholders is provided in 'Our Requirements on Communications, Community and External Engagement'. This document prescribes standards of engagement with government, media, employees, equity analysts, investors and host communities. We recognize that engaging with our stakeholders in a consistent way is essential to build, protect and enhance our reputation, licence to operate and meet regulatory requirements.

We recognise there is increasing stakeholder interest in the nature and role of industry associations and the extent to which the positions of industry associations on key issues are aligned with those of member companies. Industry associations play a number of roles in civil society. They provide a platform for the sharing of global best practice in the interests of the industry and those with whom the industry works. They develop technical standards and public policy positions. They provide a forum for debate between members of a particular sector in developing those policy positions. They do not, however, and nor should they, represent the views of any single member. We have long held the view that active participation in industry associations provides a leadership opportunity. We believe that by working within associations, we can, with other like-minded members, seek to exert a positive influence on the industry as a whole. This does not mean, however, that we will always agree with every position or approach that every industry association to which we belong adopts on every issue. This is particularly the case where the association's membership is large and the mandate is broad, covering a wide range of issues. The role of each member of an association is to articulate its view in a clear and constructive way, and to seek to influence the association through free and open debate. This is certainly how we see BHP's role within the industry associations to which we belong - both in Australia and globally. It is not the role of any association to represent BHP and there are times when our views are not aligned. We keep under review our alignment with, and membership of, industry associations. We also communicate our own views directly, through submissions, media commentary, speeches, reports and other engagements.

During FY2018, we completed a review of our membership of those industry associations which hold an active position on climate and energy policy. Our Industry Association Review report, published in December 2017, sets out a list of the material differences between the positions we hold on climate and energy policy and the advocacy positions on climate and energy policy taken by industry associations to which we belong. It also describes the outcomes of the review of our membership of those industry associations. More information on our approach to industry associations, including the Industry association review report, is available online at <https://www.bhp.com/our-approach/operating-with-integrity/industry-associations-bhps-approach>.

C12.4

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

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

BHP - Annual Report 2018.pdf

Page/Section reference

P49-53

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

BHP - Annual Report 2018.pdf

Publication

In voluntary sustainability report

Status

Complete

Attach the document

BHP - Sustainability Report 2018.pdf

Page/Section reference

P51-57,67-68

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

BHP - Sustainability Report 2018.pdf

Publication

In voluntary communications

Status

Complete

Attach the document

BHP - Climate Change Position Statement.pdf

Page/Section reference

Whole document

Content elements

Governance

Strategy

Comment

BHP - Climate Change Position Statement.pdf

Publication

In voluntary communications

Status

Complete

Attach the document

BHP - Climate Change Portfolio Analysis 2015.pdf

Page/Section reference

Whole document

Content elements

Strategy

Risks & opportunities

Comment

BHP - Climate Change Portfolio Analysis 2015.pdf

Publication

In voluntary communications

Status

Complete

Attach the document

BHP - Climate Change Portfolio Analysis - Views After Paris 2016.pdf

Page/Section reference

Whole document

Content elements

Strategy

Risks & opportunities

Comment

BHP - Climate Change Portfolio Analysis - Views After Paris 2016.pdf

Publication

In voluntary communications

Status

Complete

Attach the document

BHP - Scope 3 Discussion Paper 2018.pdf

Page/Section reference

Whole document

Content elements

Strategy

Risks & opportunities

Emissions figures

Other, please specify (Methodology)

Comment

BHP - Scope 3 Discussion Paper 2018.pdf

Publication

In voluntary communications

Status

Complete

Attach the document

BHP - Scope 3 Emissions Calculation Methodology 2018.pdf

Page/Section reference

Whole document

Content elements

Emissions figures

Other, please specify (Methodology)

Comment

BHP - Scope 3 Emissions Calculation Methodology 2018.pdf

Publication

In voluntary communications

Status

Complete

Attach the document

BHP - Energy and GHG data 2013-2018.xlsx

Page/Section reference

Whole document

Content elements

Emissions figures

Comment

BHP - Energy and GHG data 2013-2018.xlsx

Publication

In voluntary communications

Status

Complete

Attach the document

BHP - Industry Association Review 2017.pdf

Page/Section reference

Whole document

Content elements

Governance

Comment

BHP - Industry Association Review 2017.pdf

Publication

In voluntary communications

Status

Complete

Attach the document

Australian Government 2017 Review of Climate Change Policies - BHP submission.pdf

Page/Section reference

Whole document

Content elements

Other, please specify (Policy submission)

Comment

Australian Government 2017 Review of Climate Change Policies - BHP submission.pdf

Publication

In voluntary communications

Status

Complete

Attach the document

Finkel Review - BHP submission.pdf

Page/Section reference

Whole document

Content elements

Other, please specify (Policy submission)

Comment

Finkel Review - BHP submission.pdf

Publication

In voluntary communications

Status

Complete

Attach the document

Safeguard Mechanism Consultation - BHP submission.pdf

Page/Section reference

Whole document

Content elements

Other, please specify (Policy submission)

Comment

Safeguard Mechanism Consultation - BHP submission.pdf

C14. Signoff

C-FI

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

C14.1

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

	Job title	Corresponding job category
Row 1	Chief External Affairs Officer	Chief Operating Officer (COO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

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