**Disclaimer**

**Forward-looking statements**

This presentation contains forward-looking statements, which may include, without limitation, statements regarding: (i) our strategy, our values and how we define success; (ii) our commitment to generating social value; (iii) our commitments under sustainability frameworks, standards and initiatives; (iv) our expectations, commitments and objectives with respect to sustainability, decarbonisation, natural resource management, climate change and portfolio resilience and timelines and plans to seek to achieve or implement such objectives, including our strategies, goals, targets, milestones and metrics to seek to reduce or support the reduction of greenhouse gas emissions, and related perceived costs, benefits and opportunities for BHP; (v) the assumptions, beliefs and conclusions in our climate change related statements and strategies, for example, in respect of future temperatures, energy consumption and greenhouse gas emissions, and climate-related impacts; (vi) trends in commodity prices and currency exchange rates; (vii) demand for commodities and our expectations of a competitive advantage for our business or certain products; (viii) reserves and resources and production forecasts; (ix) expectations, plans, strategies and objectives of management; (x) climate scenarios; (xi) assumed long-term scenarios; (xii) potential global responses to climate change; (xiii) the potential effect of possible future events on the value of the BHP portfolio; (xiv) approval of certain projects and consummation of certain transactions; (xv) closure or divestment of certain assets, operations or facilities (including associated costs); (xvi) anticipated production or construction commencement dates; (xvii) capital costs and scheduling; (xviii) operating costs and supply (including shortages) of materials and skilled employees; (xix) anticipated productive lives of projects, mines and facilities; (xx) provisions and contingent liabilities; and (xxi) tax and regulatory developments.

Forward-looking statements may be identified by the use of terminology, including, but not limited to, ‘intend’, ‘aim’, ‘project’, ‘see’, ‘anticipate’, ‘estimate’, ‘plan’, ‘objective’, ‘believe’, ‘expect’, ‘commit’, ‘may’, ‘should’, ‘need’, ‘must’, ‘will’, ‘would’, ‘continue’, ‘annualised’, ‘forecast’, ‘guidance’, ‘outlook’, ‘prospect’, ‘target’, ‘goal’, ‘ambition’, ‘aspiration’, ‘trend’ or similar words. These statements discuss future expectations concerning the results of assets or financial conditions, or provide other forward-looking information. Forward-looking statements are based on management’s current assumptions and reflect judgments, assumptions, estimates and other information available at the date of this presentation and/or the date of BHP’s planning processes or scenario analysis processes. There are inherent limitations with scenario analysis and it is difficult to predict which, if any, of the scenarios might eventuate. Scenarios do not constitute definitive outcomes for us. Scenario analysis relies on assumptions that may or may not be, or prove to be, correct and may or may not eventuate, and scenarios may be impacted by additional factors to the assumptions disclosed.

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Other factors that may affect the actual construction or production commencement dates, revenues, costs or production output and anticipated lives of assets, mines or facilities include: (i) our ability to profitably produce and transport the minerals and/or metals extracted to applicable markets; (ii) the impact of foreign exchange rate changes on the market prices of the minerals and/or metals we produce; (iii) activities of government authorities in the countries where we sell our products and in the countries where we are exploring or developing projects, facilities or mines, including increases in taxes and the imposition of or increase in carbon pricing; (iv) changes in environmental and other regulations; (v) the duration and severity of the Ukrainian conflict and any resurgence of the COVID-19 pandemic and their impact on our business; (iv) political or geopolitical uncertainty; (viii) labour unrest; and (vii) other factors identified in the risk factors discussed in section 9.1 of BHP’s Annual Report for the year ended 30 June 2022. Except as required by applicable regulations or by law, BHP does not undertake to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance.

**Presentation of information and data**

Numbers presented may not add up precisely to the totals provided due to rounding. Due to the inherent uncertainty and limitations in measuring greenhouse gas (GHG) emissions and operational energy consumption under the calculation methodologies used in the preparation of such data, all GHG emissions and operational energy consumption data or references to GHG emissions and operational energy consumption volumes (including ratios or percentages) in this presentation are estimates. Emissions calculation and reporting methodologies may change or be progressively refined over time resulting in the need to restate previously reported data. There may also be differences in the manner that third parties calculate or report GHG emissions or operational energy consumption data compared to BHP, which means that third-party data may not be comparable to our data. For information on how we calculate our GHG emissions and operational energy consumption data, see our Methodology tab in our ESG Standards and Databook (for the applicable year), available at bhp.com. Unless expressly stated, information and data in this presentation does not reflect BHP’s acquisition of Oz Minerals Limited on 2 May 2023.

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**BHP and its subsidiaries**

In this presentation, the terms ‘BHP’, the ‘Company’, the ‘Group’, ‘BHP Group’, ‘our business’, ‘organisation’, ‘we’, ‘us’ and ‘our’ refer to BHP Group Limited and, except where the context otherwise requires, our subsidiaries. Refer to note 28 ‘Subsidiaries’ of the Financial Statements in BHP’s Annual Report for the year ended 30 June 2022 for a list of our significant subsidiaries. Those terms do not include non-operated assets. Notwithstanding that this presentation may include production, financial and other information from non-operated assets, non-operated assets are not included in the Group and, as a result, statements regarding our operations, assets and values apply only to our operated assets unless otherwise stated.
Operational decarbonisation
Overview

Dr. Graham Winkelman
Head of Carbon Management, Sustainability & Climate Change
Our focus on operational decarbonisation

Working with global partners and other stakeholders in the value chain

On track to reduce our operational emissions by at least 30% by FY30 from FY20 levels

We have an aspirational goal to achieve net zero operational emissions by 2050

To succeed:
- technology must advance quickly from where it is now
- we must collaborate with our vendors and industry
- we must effectively integrate decarbonisation into all aspects of our business

The pathway to **net zero will be non-linear** as we grow the business

Working hard to find the **most capital efficient carbon abatement solutions**
Enabling the world's response to climate change

Metals and minerals are essential for the world to develop and achieve its decarbonisation ambitions

Large cumulative demand increases across commodities
(%, next 30 years compared to the last 30 years)

- Crude steel
- Primary copper
- Primary nickel
- Potash

Source: BHP analysis; Vivid Economics.

1. Demand for crude steel does not infer equal demand for steel making raw materials.
2. Would require up to 10 Mtpa global mine capacity addition post depletion and grade decline.
3. BHP’s 1.5°C scenario requires steep global annual emissions reduction, sustained for decades, to stay within a 1.5°C carbon budget. 1.5°C is above pre-industrial levels. For more information about the assumptions, outputs and limitations of our 1.5°C scenario refer to the BHP Climate Change Report 2020 available at bhp.com. Signposts do not yet indicate the appropriate measures are in place to drive decarbonisation at the pace or scale required for us to assess achieving the aims of the Paris Agreement (including our 1.5°C scenario) as the most likely future outcome.
Good progress versus our competitors

Early action places BHP amongst the lowest absolute operational emissions relative to other major miners

Progress to date and operational emissions intensity

Note: Average % change from baseline represents average annual decline of individual companies’ emissions from baseline year to FY/CY22. Companies may have inherently different decarbonisation pathways, and timelines for those pathways, due to factors such as the composition of their business, the location of their operations, their mining methods, and their growth plans. BHP’s business activity is expected to grow to FY30, which under the current circumstances would lead to some growth in operational emissions.

BHP is delivering on operational decarbonisation

We are working towards decarbonising our operations while supplying the minerals the world needs to deliver the energy transition

<table>
<thead>
<tr>
<th>Focus</th>
<th>Our FY30 target and 2050 goal set the direction to guide and challenge the business and provide clarity to suppliers, shareholders, and customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>We are actively working to develop and implement commercially feasible decarbonisation solutions</td>
</tr>
<tr>
<td>Integration</td>
<td>Decarbonisation is factored into every business plan and portfolio management decision as we seek to ensure growth is compatible with a net zero world</td>
</tr>
</tbody>
</table>

Our Purpose
To bring people and resources together to build a better world
Positive steps taken towards our FY30 target

BHP is firmly focused on reducing operational emissions and has made good progress to date

Operational GHG emissions
(Mt CO₂-e)

- Diesel (42%)
- Electricity (43%)
- Other (15%)

FY20: 16 Mt CO₂-e (▼24%)

Operational decarbonisation
21 June 2023

Note: Based on latest annual business plans. Excludes OZ Minerals assets and plans. FY20 GHG emissions data has been adjusted for divestments and methodology changes. PPA – Power Purchase Agreement. Organic growth represents increase in emissions associated with our operations. New PPAs refers to emissions reductions from renewable PPAs already entered and/or intended to be signed with reductions occurring post FY22 and before FY30. Emissions calculation methodology changes may affect the information presented in this chart.
BHP’s operational decarbonisation trajectory

Decarbonisation will be non-linear and will require significant effort to overcome emissions growth and technology challenges

BHP’s net zero trajectory: significant early action with future range of uncertainty

14.5 Mt CO$_2$-e

Electricity

Diesel

Natural Gas

Fugitives / Other

Organic growth with no decarbonisation

Decarbonisation pathway

Range of uncertainty

BHP’s net zero cumulative emissions trajectory

Decarbonisation pathway

Range of uncertainty

Note: Future GHG emissions estimates are based on latest annual business plans. Excludes OZ Minerals assets and plans. FY20 GHG emissions data has been adjusted for divestments and methodology changes. Decarbonisation pathway represents planned decarbonisation activities to reach BHP’s operational emissions target and goal. Organic growth with no decarbonisation represents business-as-usual emissions forecast without abatement projects. Range of uncertainty refers to higher risk options currently identified that may enable faster or more substantive decarbonisation, but which currently have a relatively low Technology Readiness Level (TRL) or are not yet commercially available. BHP’s net zero trajectory refers to a straight line between our FY20 baseline, FY30 medium-term target, and 2050 net zero goal. Negative emissions solutions include carbon credits (avoidance, reductions or removals), or other technologies that result in emissions reductions; this shows the requirement in order to reach net zero if decarbonisation at the lower line of the ‘Range of uncertainty’ were achieved (but does not reflect probability). Emissions calculation methodology changes may affect the information presented in these charts. ‘Fugitives/Other’ estimated in accordance with the Australian National Greenhouse and Energy Reporting (NGER) measurement methodology and does not reflect the tendency for methane density to increase as coal mines deepen, due to current uncertainty with respect to future opportunities to manage methane at our BMA mines.

Operational decarbonisation

21 June 2023
Operational decarbonisation
Minerals Americas

Alejandro Tapia
Vice President Planning and Technical
Minerals Americas
BHP at the forefront of the sector's sustainability efforts

Facilitated region's move to renewable power, positioning operations for further electrification

100% thermal coal power
- Highly concentrated market
- Supply risk

BHP response
- Develop new gas fired generation

Break status-quo
- Increase in power demand
- Development of LNG terminals

BHP response
- Induce competition through Kelar natural gas power station and access to spot market

First wave of optimisations
- Grid interconnection
- Increase in renewable penetration
- Power consumption increase triggered by growth and move to desal water

BHP response
- Early termination of coal fired PPAs
- Signed renewable PPAs

Next wave of optimisations
- Mine electrification challenges
- Power consumption to further increase

BHP response
- Exploring Behind the Meter solar generation and storage
- Potential new renewable PPAs

FY05 - FY11
FY12 - FY16
FY17 - FY19
FY20 +

Significant change to move to renewable power: Escondida and Spence account for ~9% of total Chilean power demand

1. Power Purchase Agreements (PPAs) started in FY22.

Operational decarbonisation
21 June 2023
Early progress enhances competitiveness of future Scope 1 reduction projects

FY20 emissions split by asset¹ (kt CO₂-e and %)

<table>
<thead>
<tr>
<th>Asset</th>
<th>FY20 Emissions (kt CO₂-e)</th>
<th>FY20 Emissions (% of Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pampa Norte</td>
<td>5,016</td>
<td>17%</td>
</tr>
<tr>
<td>Escondida</td>
<td>83%</td>
<td>83%</td>
</tr>
</tbody>
</table>

FY20 asset emissions split by source¹ (%)

<table>
<thead>
<tr>
<th>Source</th>
<th>FY20 Emissions</th>
<th>FY20 Emissions Split</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1: Diesel</td>
<td></td>
<td>79%</td>
</tr>
<tr>
<td>Scope 2: Purchased electricity</td>
<td></td>
<td>21%</td>
</tr>
</tbody>
</table>

FY20 asset emissions split by source¹ (%)

<table>
<thead>
<tr>
<th>Source</th>
<th>FY20 Emissions</th>
<th>FY20 Emissions Split</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1: Diesel</td>
<td></td>
<td>61%</td>
</tr>
<tr>
<td>Scope 2: Purchased electricity</td>
<td></td>
<td>39%</td>
</tr>
</tbody>
</table>

Scope 2 purchased electricity emissions² (CO₂-e)

<table>
<thead>
<tr>
<th>Year</th>
<th>FY20</th>
<th>FY23e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escondida</td>
<td>▼100%</td>
<td></td>
</tr>
<tr>
<td>Pampa Norte</td>
<td></td>
<td>▼100%</td>
</tr>
</tbody>
</table>

Future power requirements³ (TWh/y)

<table>
<thead>
<tr>
<th>Year</th>
<th>FY22</th>
<th>FY33e</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>~7</td>
<td>~12</td>
</tr>
</tbody>
</table>

1. FY20 is the baseline year for BHP’s Group-level FY30 operational emissions reduction target. Emissions are presented on a 100% basis as per the operational control approach described by the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, for example this includes 100% of Escondida’s emissions (while BHP’s ownership is 57.5%). Excludes projects, exploration, and legacy assets.

2. Escondida and Pampa Norte reported net-zero scope 2 GHG emissions throughout CY22 up until the end of May 2023. This position is expected to be maintained.

3. The expected increase in future power requirements includes growth projects and partial electrification to FY33. Forecast electricity consumption reflects our latest forecast and is subject to change as our estimates and mine plans evolve.

Operational decarbonisation
21 June 2023
Displace 100% of diesel in boilers at cathode operations

First major step to displacing Scope 1 emissions at Escondida and Spence in Chile

**Project impact**

- Displace diesel consumption from CY25 in stationary equipment with zero-emission heat sources based on thermo-solar and electric boilers solution

- **~30 ML** Diesel displaced per year
- **~7%** Scope 1 emissions displaced per year
- **~1,000** Round trips by diesel trucks avoided per year
- **~US$85m** Total capex

**Project scope**

- **Solar collectors** use solar radiation to heat a glycol-water fluid
- **Electric solution** maintains stored fluid at 90°C in steel tanks
- The heated water is connected to the existing boiler circuit in the Electrowinning plants
- Escondida’s project would be one of the largest thermo-solar production facilities in the world

**Copper rollout**

- Operations scheduled to start in CY25 at Escondida
- Execution approved for Spence to begin operations in CY26
- Under review as a potential option for Cerro Colorado Life Extension

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1. Includes Escondida and Spence but excludes Cerro Colorado, which is transitioning to closure by December 2023, when its environmental licence expires.
2. Expected average between FY24 and FY30.
3. Commencement of rollout at Spence in CY26 is subject to environmental permit approval of leaching extension.
4. Cerro Colorado Life Extension is an option under study.
Trolley assist to advance fleet decarbonisation in Chile

Trolley assist to aid in delivering FY30 operational emissions reduction target

Electric fleet transition

Stage 1
- Installation of electric trolley power lines to power the electric drives of diesel-electric trucks and dynamically charge the batteries of battery electric vehicle (BEV) trucks
- Implementation targeted to start at Escondida in FY28, and FY29 at Spence
- Signed agreement with Caterpillar and Finning to replace Escondida fleet over next 10 years

Stage 2

Project definition

- Installation of electric trolley power lines to power the electric drives of diesel-electric trucks and dynamically charge the batteries of battery electric vehicle (BEV) trucks
- Implementation targeted to start at Escondida in FY28, and FY29 at Spence
- Signed agreement with Caterpillar and Finning to replace Escondida fleet over next 10 years

Sources of value

- For Stage 1: ~30% reduction of haul truck emissions
- For Stage 2: 100% reduction of haul truck emissions
- Increase speed of trucks and shorten haulage cycle
- Electric fleet enabler through dynamic charging

Truck fleet at Escondida and Spence

- ~200 trucks
- ~350 ML
- ~80%

Fleet size which may benefit from trolley assist
Yearly diesel consumption to abate
Scope 1 GHG emissions

Operational decarbonisation
21 June 2023

1. This pathway depends on the commercial availability of the required technologies.
2. Expected average between FY24 and FY30.
3. To enable the corresponding diesel displacement, ~300GWh pa of renewable power is required. Haul truck emissions represent approximately 80% of Scope 1 emissions at Escondida and Spence.
Sustainable future: operations powered by renewables

Vision to maximise sustainability at Escondida and Spence over the next 10-15 years

Ambition includes…

Electricity

- 100% renewable PPAs to power operations 24 hours per day, 7 days per week
- Behind the meter renewable electricity to reduce costs and transmission infrastructure

Desalination

- Escondida and Spence concentrators supplied 100% by desalinated water
- Conveyance systems powered by renewable energy

Diesel displacement

- Zero emissions material movement: trolley + batteries for haul trucks
- Thermo-solar solution executed to displace diesel used for cathode production

Solar farm, Alacama Desert, Chile

Escondida desalination plant, Port of Coloso, Chile

Electric drive haul truck, Escondida, Chile

Note: Subject to further investigation of technical and commercial feasibility at scale and operational trials.
Potash: Jansen has a low emissions design

Designed to maximise sustainability, with low operational emissions, and to enable a path to net zero

Stage 1 operational GHG emissions
(% emission source)

- Natural gas: 38%
- Electricity: 61%
- Diesel: 1%

Highly efficient from day 1

Jansen expected to emit
~50% less Scope 1 CO₂-e emissions per tonne of product
vs. average performer in Saskatchewan basin

Underground mining and support fleet will be more than
80% battery electric vehicles
by consumption with plans to implement 100% electrification

Investment in path to net zero

Working with local Saskatchewan Government to secure all power from renewable and low emissions sources
for Stage 1, with options to scale for potential future stages

Pursuing carbon-neutral electricity by 2035
through commercial partnerships with local businesses

1. Jansen Stage 1 operational GHG emissions as at FY30, based on SaskPower, BHP forecasts.
2. Jansen expected to emit ~0.025 tonne of Scope 1 CO₂-e emissions per tonne of product, about half the average emissions of current Saskatchewan potash mines, including solution mines.

Operational decarbonisation
21 June 2023
Operational decarbonisation
Minerals Australia

Anna Wiley
Vice President Planning and Technical
Minerals Australia

Western Australia Iron Ore
Australian operational emissions snapshot

Strong progress made in reduction of Scope 2 emissions by signing multiple low emissions PPAs at Australian assets

FY20 emissions split by asset¹

<table>
<thead>
<tr>
<th>Asset</th>
<th>2020</th>
<th>NSWEC</th>
<th>WAIO</th>
<th>NiW</th>
<th>OD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9,327</td>
<td>7%</td>
<td>26%</td>
<td>11%</td>
<td>7%</td>
</tr>
</tbody>
</table>

FY20 asset emissions split by source¹ (%)

- BMA: 23% Scope 1, 45% Scope 2, 32% Scope 1, 76% Scope 2
- WAIO: 11% Scope 1, 13% Scope 2, 7% Scope 1, 7% Scope 2
- NiW: 20% Scope 1, 19% Scope 2, 9% Scope 1, 52% Scope 2
- OD: 22% Scope 1, 12% Scope 2, 22% Scope 1, 66% Scope 2

Scope 2 purchased electricity emissions² (CO₂-e)

- BMA: ▼50% FY20 to FY25e
- WAIO: ▼50% FY20 to FY25e
- NiW: ▼60% FY20 to FY25e
- OD: ▼50% FY20 to FY25e

1. FY20 is the baseline year for BHP’s Group-level FY30 operational emissions reduction target. Excludes OZ Minerals assets and plans. Emissions are presented on a 100% basis as per the operational control approach described by the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. For example, this includes 100% of BMA’s emissions (while BHP’s ownership is 50%). Excludes projects, exploration, and legacy assets.

2. Percentage reduction figures are estimates based on FY20 levels and calculated based on forecast electricity consumption, which is subject to change as our estimates and mine plans evolve. Percentage reductions based on PPAs already signed.

Operational decarbonisation
21 June 2023
Haul trucks are the largest user of diesel in Australia

Our preferred pathway to eliminate diesel is via electrification

Direct electrification is the most efficient

<table>
<thead>
<tr>
<th>Fuel source</th>
<th>Electricity</th>
<th>Hydrogen</th>
<th>Diesel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel-to-tank efficiency</td>
<td>~80%</td>
<td>~30%</td>
<td>~30%</td>
</tr>
<tr>
<td>Tank-to-wheel efficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overarching efficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Excludes OZ Minerals and NSWEC assets.
2. BHP analysis (based on modelling and initial studies). Bubble size represents estimated comparative efficiency.

Operational decarbonisation
21 June 2023
Partnering widely and building our knowledge base

Operational trials and collaboration with our vendors and industry to accelerate development are critical to success

<table>
<thead>
<tr>
<th>Partners</th>
<th>Operating prototype</th>
<th>BHP operating trial</th>
<th>BHP target deployment¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caterpillar</td>
<td>2022²</td>
<td>2024</td>
<td>From 2028³</td>
</tr>
<tr>
<td>Komatsu</td>
<td>2021</td>
<td>~2025</td>
<td></td>
</tr>
<tr>
<td>Progress Rail</td>
<td>2022</td>
<td>2024</td>
<td>From 2029</td>
</tr>
<tr>
<td>Wabtec</td>
<td>2021</td>
<td>2024</td>
<td></td>
</tr>
<tr>
<td>Liebherr</td>
<td>-</td>
<td>2024</td>
<td>~2027</td>
</tr>
</tbody>
</table>

Concept of Operations modelling showing potential locations of charging stations⁴

Note: Years shown are calendar years. All dates are approximate and subject to change.
1. Upon completion of successful trials.
2. At Caterpillar’s Tucson, Arizona Proving Ground.
3. Smaller pilot fleets may be deployed earlier, subject to technology readiness.
4. Modelling is indicative, based on current assumptions and subject to change.

Operational decarbonisation
21 June 2023
Battery truck opex expected to be comparable to diesel

Understanding of battery electric truck operating costs are developing and we will learn more through operational trials

Opex changes between diesel and electric truck fleet

1. Representative of an open cut mine site.
2. Representative carbon price of ~US$50/t.

Fuel source
- Removes the need to purchase diesel and any associated carbon price
- Electric trucks are expected to have ~2x engine efficiency versus diesel trucks

Maintenance
- Reduced spend on maintenance as battery trucks have fewer moving parts

Unknowns
- Battery electric trucks may require charging more frequently, which could require more truck hours to produce same volumes
- Battery life will potentially be shorter than truck life, in which case batteries will need to be replaced
- Operational trials will help us learn more about battery management and battery truck operation

Operational decarbonisation
21 June 2023
Powering our mines in the Pilbara

We are working on technical solutions to meet the growing demand for power due to fleet electrification

- Our inland Pilbara operations are not connected to an electricity grid
- Power is currently supplied by our highly efficient 190MW Yarnima gas fired power station, which emits over 35% less CO₂/MWh than the Australian average
- Planning for up to 500MW additional renewable generation and storage capacity installed by the end of the decade
- Yarnima will be required to provide power during periods of lower renewable generation
- Exploring options for interconnection to the NWIS electricity grid in the future

Indicative future Pilbara installed generation¹ (MW)

<table>
<thead>
<tr>
<th></th>
<th>2023-2024</th>
<th>2025-2026</th>
<th>2027-2028</th>
<th>2029-2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yarnima (Gas)</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Wind</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Solar</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Storage</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Indicative power sources over a typical day in 2030² (MW)

Yarnima (Gas) | Wind | Solar | Storage | Demand²

---

1. Subject to renewable resource assessments and approvals.
2. Based on forecast electricity consumption, which is subject to change.
3. North West Interconnected System.
Addressing methane emissions

BMA’s higher quality metallurgical coal helps steel mills reduce their own emissions intensity

- Methane accounted for 32% of BMA’s and 15% of Minerals Australia’s reported operational emissions for FY20¹
- BMA is one of the lowest carbon intensity emitters among our global coal competition
- With currently available technology, we anticipate that up to 50% of BMA’s total forecast methane emissions could be extracted and actively managed
- We are accelerating work to understand the characteristics of this gas and determine its optimal use, including:
  - using it for safe, reliable and relatively low emission power generation
  - selling it for use in other industrial processes
- We are exploring new and innovative technology options to allow us to extract and manage the remaining forecast methane emissions

1. FY20 is the baseline year for BHP’s Group-level FY30 operational emissions reduction target. Excludes OZ Minerals assets and plans. Emissions are calculated on a 100% basis as per the operational control approach described by the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. For example, this includes 100% of BMA’s emissions (while BHP’s ownership is 50%).
Operational decarbonisation
Decision Evaluation

Patrick Collins
Head of Decision Evaluation
Transformation Portfolio & Performance
Operational decarbonisation is owned by our assets

Decarbonisation commitments are embedded in mine plans for all operated assets

**Corporate Alignment Planning**

- **Asset strategy**
  - Key decisions made in line with corporate and commodity strategy

- **Life of Asset planning**
  - Decarbonisation projects embedded in Life of Asset plans

- **Cash prioritisation**
  - Decarbonisation projects compete for capital prioritisation

- **Two year budget**
  - Resources allocated for project execution through budget process

**Capital Allocation Framework**

- **Operating productivity**
- **Capital productivity**

  - Net operating cash flow
  - Maintenance and decarbonisation capital
  - Strong balance sheet
  - Minimum 50% payout ratio dividend
  - Excess cash

  - Balance sheet
  - Additional dividends
  - Buy-backs
  - Organic development
  - Acquisitions/ (divestments)
Operational decarbonisation capital expenditure

Decarbonisation investments compete for capital under the Capital Allocation Framework

Expected capital expenditure to FY30\(^1\)
~US$4 billion

Majority of spend toward end of decade allowing technology to mature

Capital expenditure to FY30 by emissions source
(US$m, nominal, consolidated\(^3\))

<table>
<thead>
<tr>
<th>Year</th>
<th>Diesel</th>
<th>Gas</th>
<th>Electricity</th>
<th>Fugitives / Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY24</td>
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<td>FY25</td>
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<td>FY30</td>
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</tbody>
</table>

Emissions reduction contribution by project type, FY31 - FY50

<table>
<thead>
<tr>
<th>Source</th>
<th>Diesel</th>
<th>Gas</th>
<th>Electricity</th>
<th>Fugitives / Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAIO</td>
<td>84%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Escondida</td>
<td>11%</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMA</td>
<td>11%</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pampa Norte + Potash</td>
<td>6%</td>
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<tr>
<td>OD + NiW</td>
<td>31%</td>
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</tbody>
</table>

Note: Spend to FY30 based on latest annual business plans. Excludes OZ Minerals assets.
1. Nominal, consolidated allocation equity share, except Escondida at 100% share. Diesel capital expenditure represents incremental spend above Internal Combustion Engine replacement costs and supporting site infrastructure.

Operational decarbonisation
21 June 2023
Operating cost savings from future investments to FY30

Majority of savings expected to be realised post-2030, driven by technology-reliant diesel reduction projects and carbon price benefits

Potential net opex savings - projects with investment FY24 - FY30

(US$m, real (1 Jan 23), BHP share)

Potential opex savings\(^2\) by project type
(Average FY31-FY50)

1. Based on latest annual business plans. Projects have ongoing sustaining capital spend beyond FY30.

2. Based on flat carbon price US$50/t.

Operational decarbonisation
21 June 2023
Marginal Abatement Cost Curve

Our group portfolio Marginal Abatement Cost Curve allows us to rank and prioritise projects for efficient capital deployment.

Project portfolio to achieve FY30 target is NPV positive at a carbon price between US$20/t – US$60/t

Marginal Abatement Cost Curve¹

(US$/tCO₂-e)

1. Marginal Abatement Cost (MAC) Curve includes projects with planned investment FY24-FY50. MAC Curve reflects discounted present cost of capital investment and operating cost savings (excluding carbon price benefits) and discounted emission tonnes for the life of the assets. Reflective of carbon price needed for abatement portfolio to be cost neutral. Note that outliers with immaterial emissions impact have been removed from the chart.
Our focus on operational decarbonisation

Working with global partners and other stakeholders in the value chain

On track to reduce our operational emissions by at least 30% by FY30 from FY20 levels

We have an aspirational goal to achieve net zero operational emissions by 2050

To succeed:
• technology must advance quickly from where it is now
• we must collaborate with our vendors and industry
• we must effectively integrate decarbonisation into all aspects of our business

The pathway to net zero will be non-linear as we grow the business

Working hard to find the most capital efficient carbon abatement solutions