Exchange release

26 June 2024

Decarbonisation Investor Presentation

BHP will be hosting an investor presentation today on decarbonisation to provide an update on our progress and plans to achieve our medium and long-term decarbonisation targets and goals.

A copy of the presentation is attached.

The presentation slides and script will be available on BHP's website at:

https://www.bhp.com/investors/presentations-events/presentations-and-briefings

Further information on BHP can be found at: bhp.com

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BHP

Decarbonisation: Strategy and progress

Investor Presentation

26 June 2024

Enel Green Power's hybrid renewable energy park that provides renewable electricity to our Escondida and Spence assets

Disclaimer

Forward-looking statements

This presentation may contain forward-looking statements, which involve risks and uncertainties. Forward-looking statements include all statements other than statements of historical or present facts, including statements regarding: our strategy, our values and how we define success; our expectations of a competitive advantage for our business or certain products; our commitment to generating social value; our commitments under sustainability frameworks, standards and initiatives; our intention to achieve certain sustainability-related targets, goals, milestones and metrics; trends in commodity prices and currency exchange rates; demand for commodities; reserves and production forecasts; plans, strategies and objectives of management; climate scenarios; assumed long-term scenarios; potential global responses to climate change; the potential effect of possible future events on the value of the BHP portfolio; approval of certain projects and consummation of certain transactions; closure or divestment of certain assets, operations or facilities (including associated costs); anticipated production or construction commencement dates; capital costs and scheduling; operating costs and supply (including shortages) of materials and skilled employees; anticipated productive lives of projects, mines and facilities; provisions and contingent liabilities; and 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.

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For example, our future revenues from our assets, projects or mines which may be described in this presentation will be based, in part, upon the market price of the minerals or metals produced, which may vary significantly from current levels. These variations, if materially adverse, may affect the timing or the feasibility of the development of a particular project, the expansion of certain facilities or mines, or the continuation of existing assets.

Other factors that may affect the actual construction or production commencement dates, costs or production output and anticipated lives of assets, mines or facilities include our ability to profitably produce and transport the minerals and/or metals extracted to applicable markets; the impact of foreign currency exchange rates on the market prices of the minerals and/or metals we produce; 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; changes in environmental and other regulations; political or geopolitical uncertainty; labour unrest; and other factors identified in the risk factors discussed in section 8.1 of the Operating and Financial Review in the BHP Annual Report 2023 and BHP's filings with the U.S. Securities and Exchange Commission (the 'SEC') (including in Annual Reports on Form 20-F) which are available on the SEC's website at www.sec.gov.

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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, refer to the BHP Scopes 1, 2 and 3 GHG Emissions Calculation Methodology 2023, available at bhp.com. All footnote content is contained on slide 22.

No offer of securities

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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 30 'Subsidiaries' of the Financial Statements in the BHP Annual Report 2023 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.

Decarbonisation overview

Dr Graham Winkelman

Vice President Climate

Jimblebar in Western Australia will be the site of our first planned battery electric haul truck trial in CY2024

Decarbonisation in our operations and value chain

BHP is working with global partners and other stakeholders in the value chain

On track to reduce our operational GHG emissions (Scopes 1 and 2 from our operated assets) by at least 30% by FY2030 from FY2020 levels

We have a goal to achieve net zero operational GHG emissions by CY2050

- To succeed, we know that **technology must advance** rapidly
- The pathway to **net zero will be non-linear** as we organically grow our business
- We are using our **Capital Allocation Framework to maximise the returns** on our GHG emissions abatement

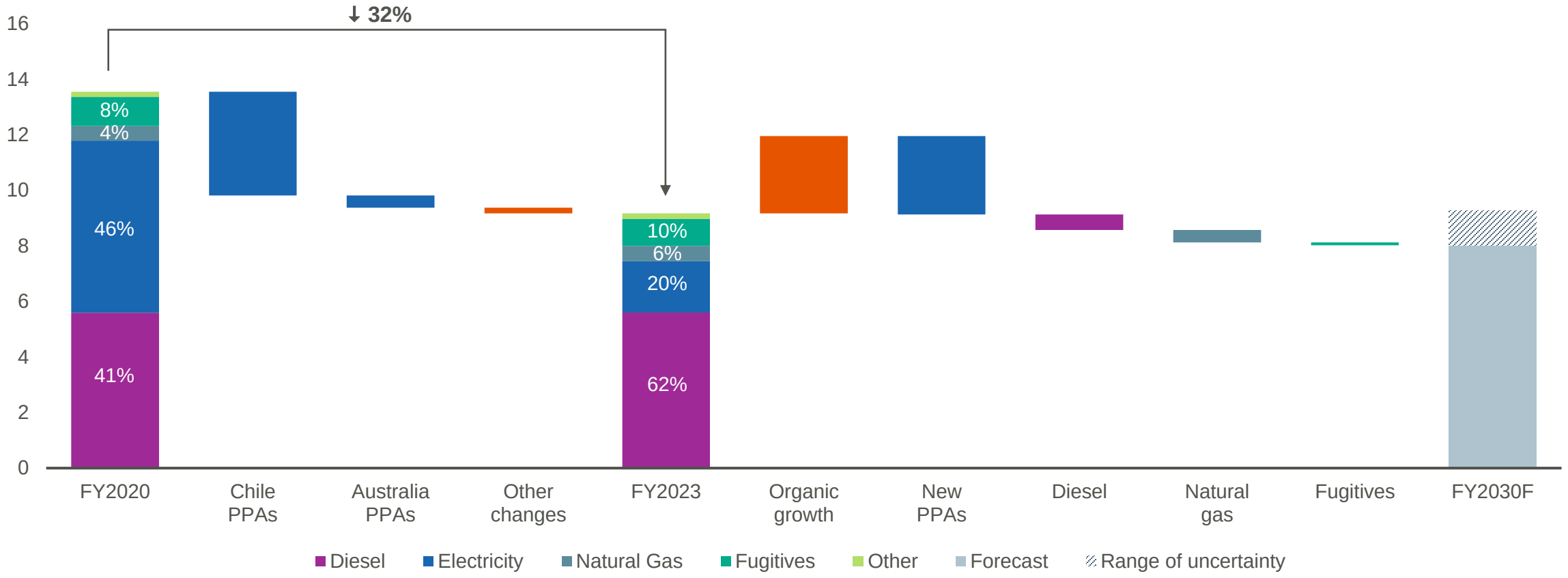
We are pursuing **the long-term goal of net zero Scope 3 emissions by CY2050**[1]

- To support this goal, we have made strong progress on our strategy in the areas of **steelmaking and maritime decarbonisation** via partnerships, trials and pilots

Progress towards our FY2030 operational GHG emissions target

We are firmly focused on reducing operational GHG emissions and have made good progress to date

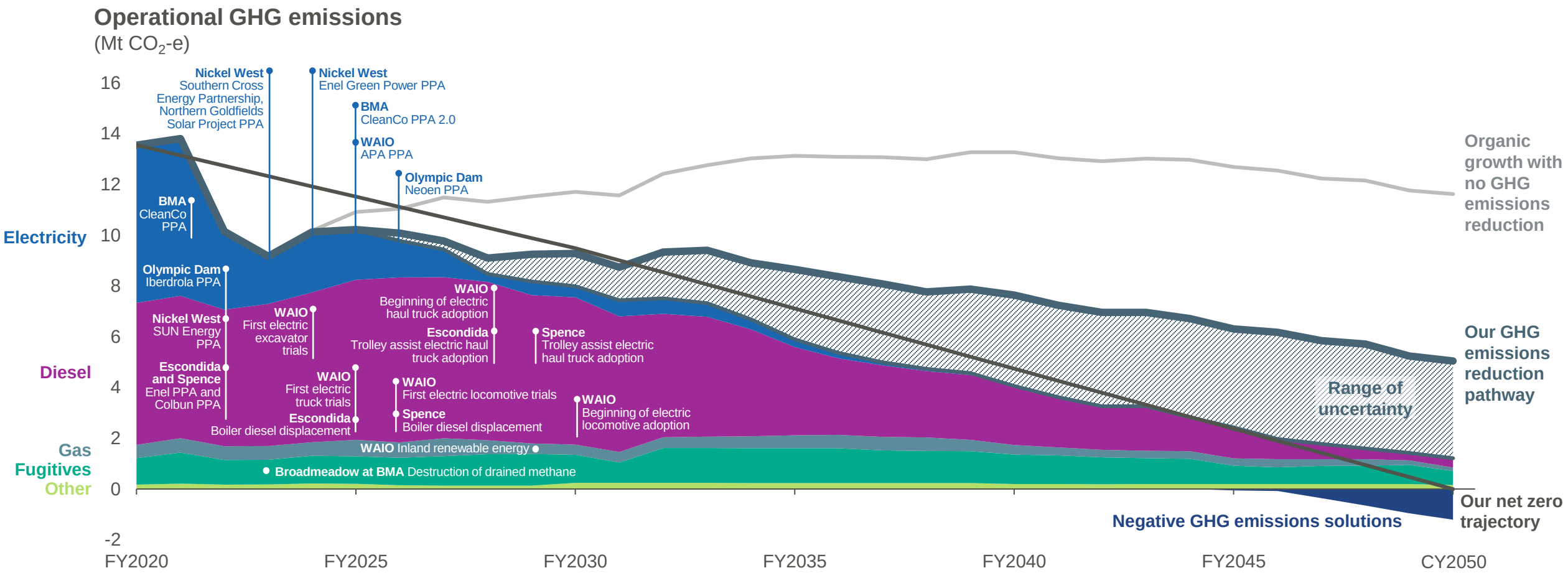
Operational GHG emissions[2]
(Mt CO_2-e)



Note: PPAs – Power Purchase Agreements.

BHP's operational decarbonisation trajectory

The pathway will be non-linear and requires significant effort to overcome organic growth and technology challenges[3]



Value chain strategy and long-term Scope 3 net zero goal

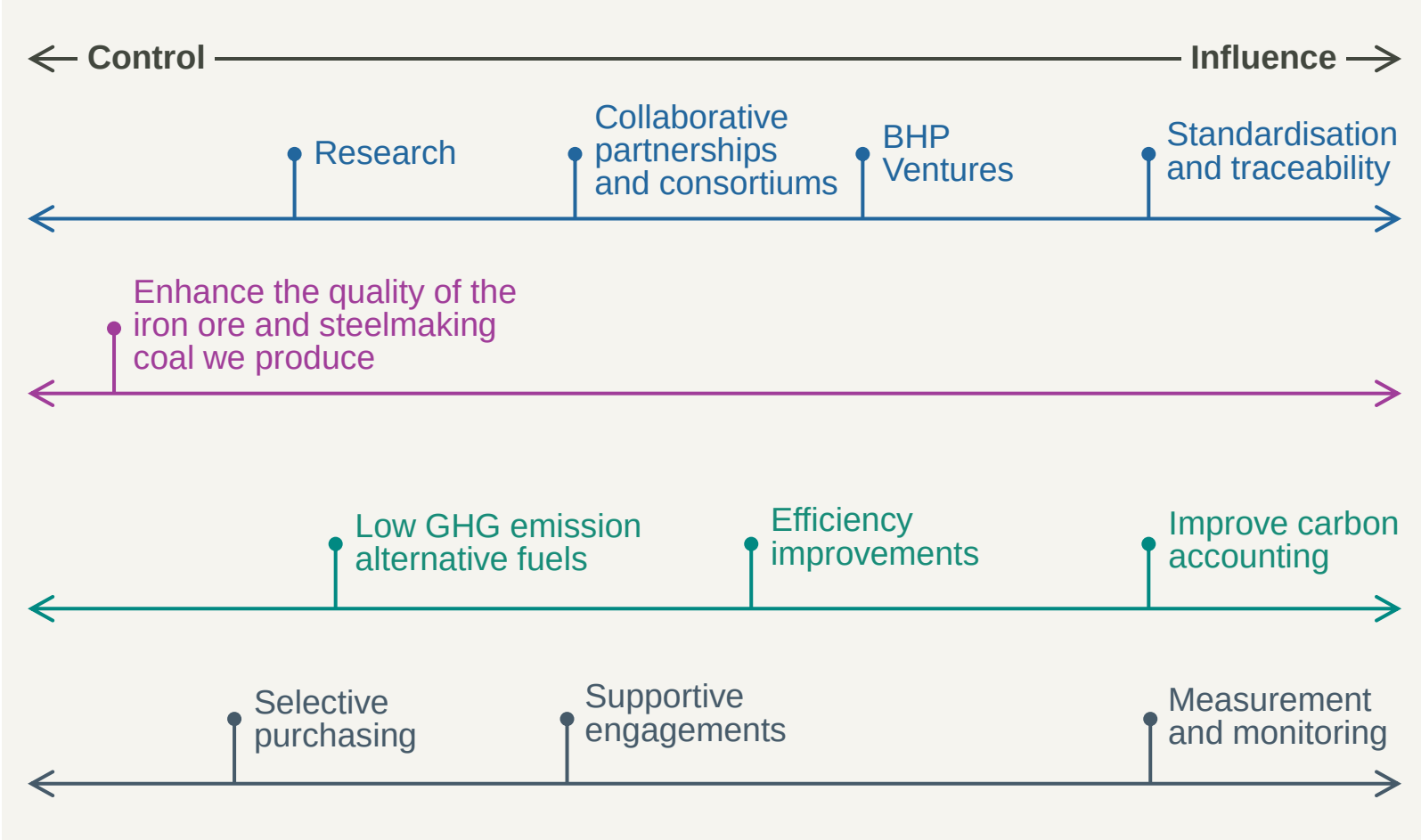
Our focus areas are defined by materiality, ability to impact and alignment to our commodity and asset portfolio

Support the development and adoption of GHG emission reduction technologies in steelmaking

Enhance the quality of the iron ore and steelmaking coal we produce

Support the development and adoption of GHG emission reduction technologies in shipping

Encourage suppliers to pursue net zero GHG emissions

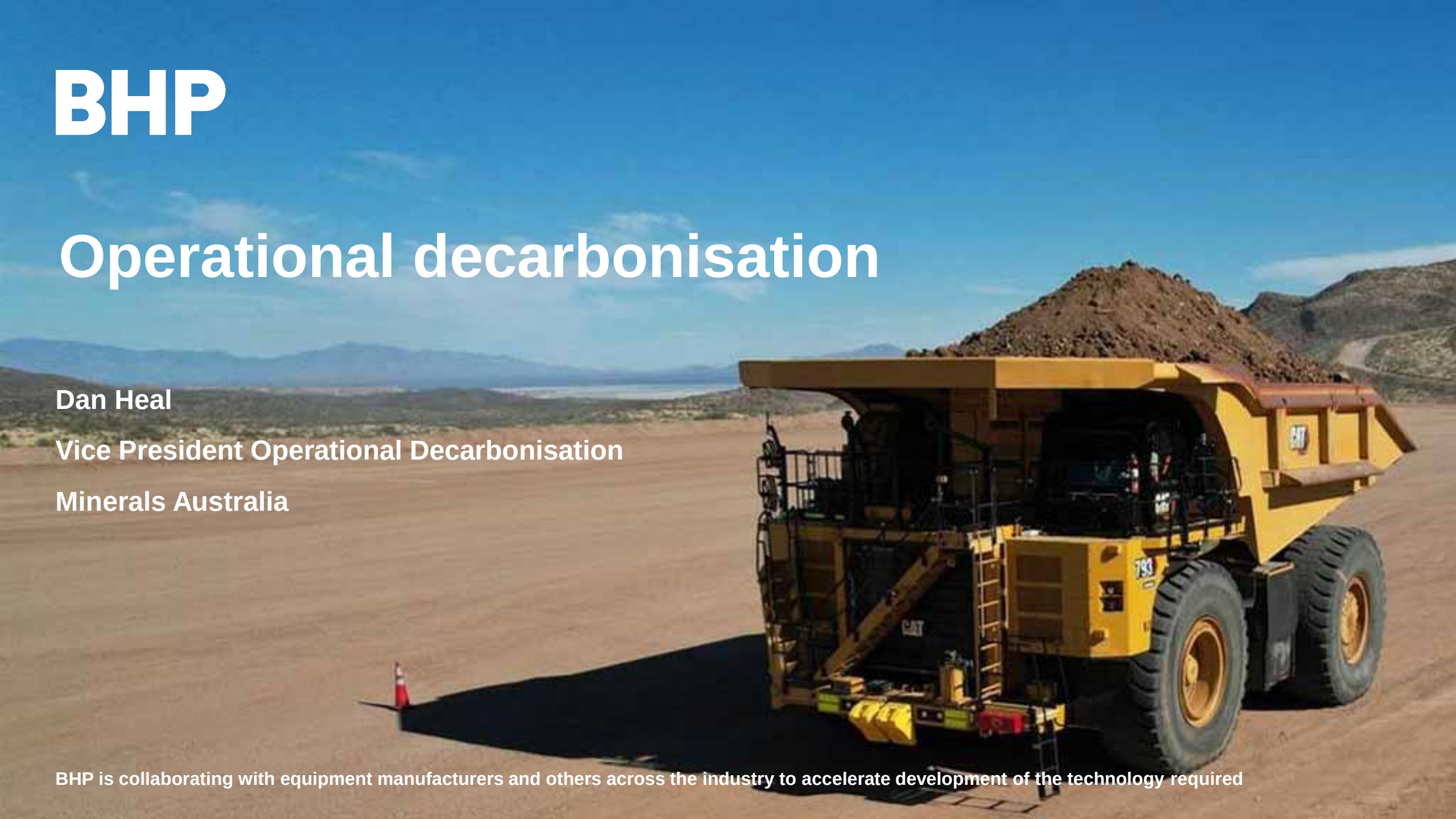


Operational decarbonisation

Dan Heal

Vice President Operational Decarbonisation

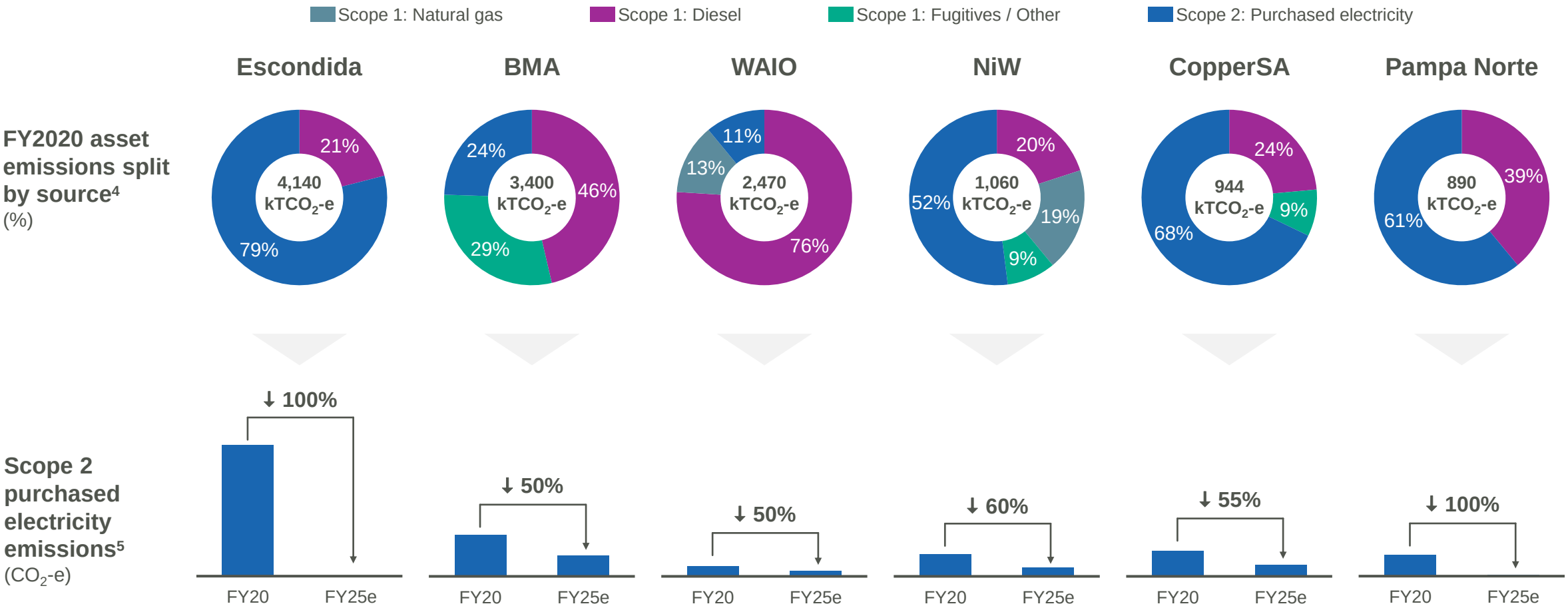
Minerals Australia



BHP is collaborating with equipment manufacturers and others across the industry to accelerate development of the technology required

Global operational GHG emissions snapshot

Strong progress made in reduction of Scope 2 emissions by signing multiple low GHG emissions PPAs at many of our operated assets

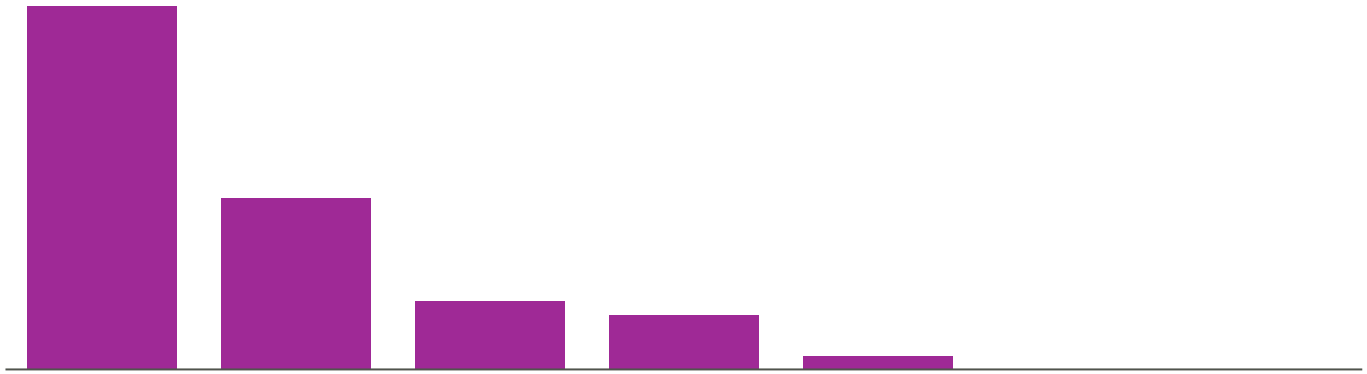


Globally, haul trucks are the largest user of diesel at BHP

Our preferred pathway to eliminate diesel is via electrification

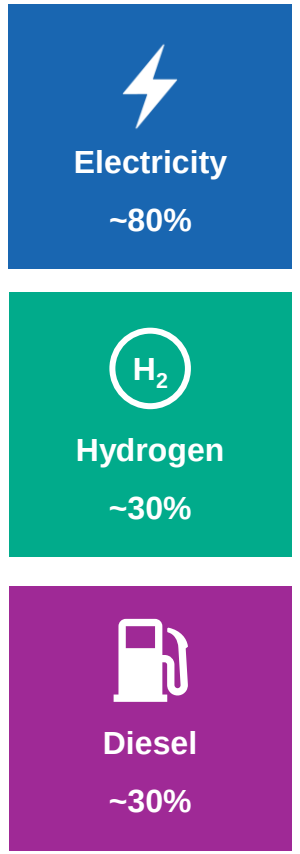
Diesel use by type of equipment[6]

(%)



	Trucks	Ancillary & others	Locomotives	Excavators / Loaders	Drills	Electric Rope Shovels	Draglines
Equipment count[6]	~800	~670	~180	~110	~150	~30	~20
Technology readiness	Under development	No current pathway	Under development	Available	Available	Available	Available

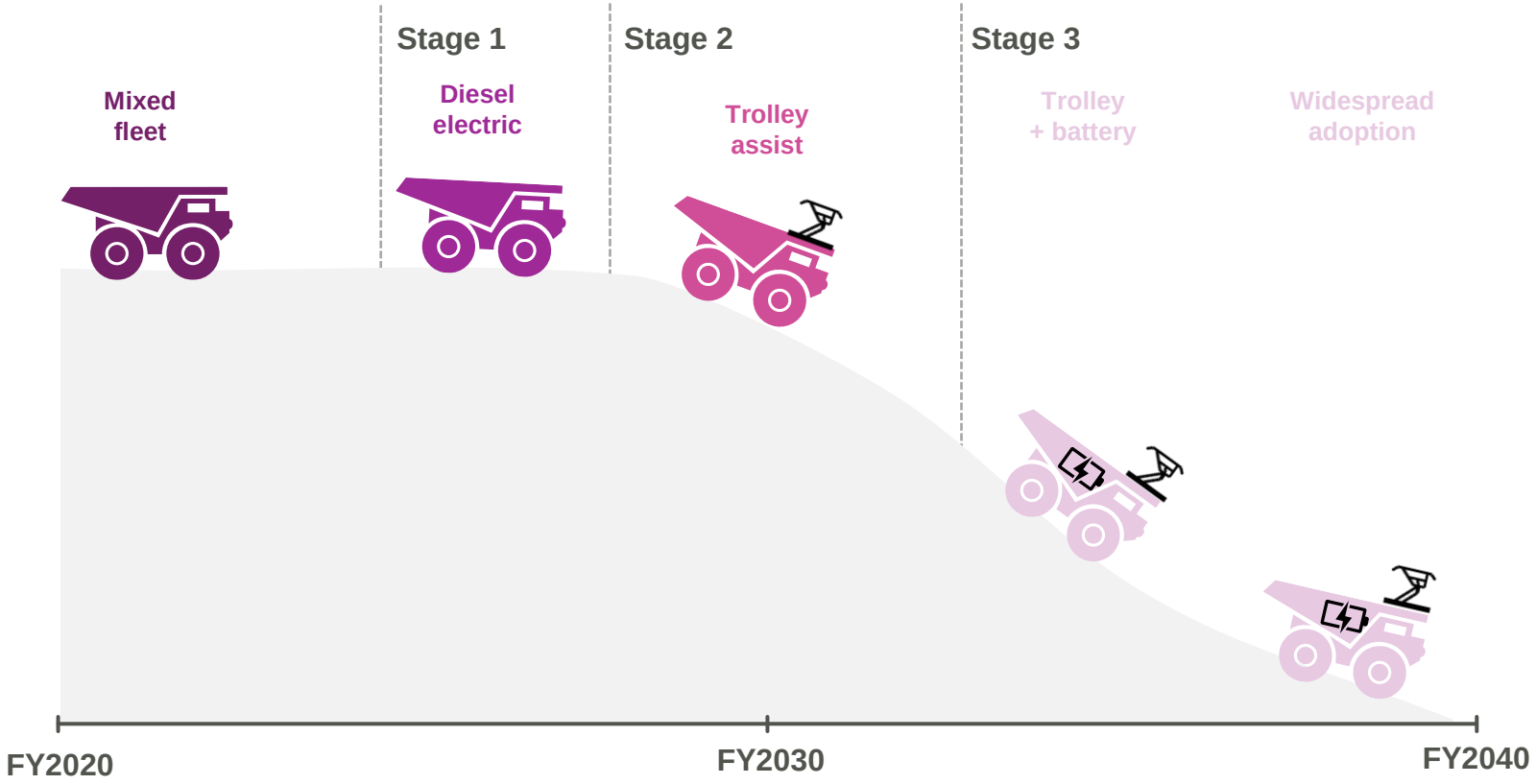
Fuel-to-wheel efficiency of alternative fuel sources[7]



Diesel displacement in Chilean copper assets

Trolley assist to aid in delivering FY2030 target for operational GHG emissions

Electric fleet transition[8]



Truck fleet at Escondida and Spence

~200 trucks

fleet size which may benefit from trolley assist

~350 ML

yearly diesel consumption to abate[9]

~80%

Scope 1 emissions[9]

Diesel displacement in Minerals Australia

Operational trials and collaboration to accelerate development are critical to success

Partners	Operating prototype	BHP operating trial	BHP target deployment[10]
CATERPILLAR®	2022[11]	2024	From 2028[12]
KOMATSU	2021	~2026	
Progress Rail, A Caterpillar Company	2022	2025	From 2029
Wabtec CORPORATION	2021	2025	
LIEBHERR	-	2024	From 2027

9400E electric excavator on site at Yandi mine in February 2024

Note: Years shown are calendar years. All dates are approximate and subject to change.

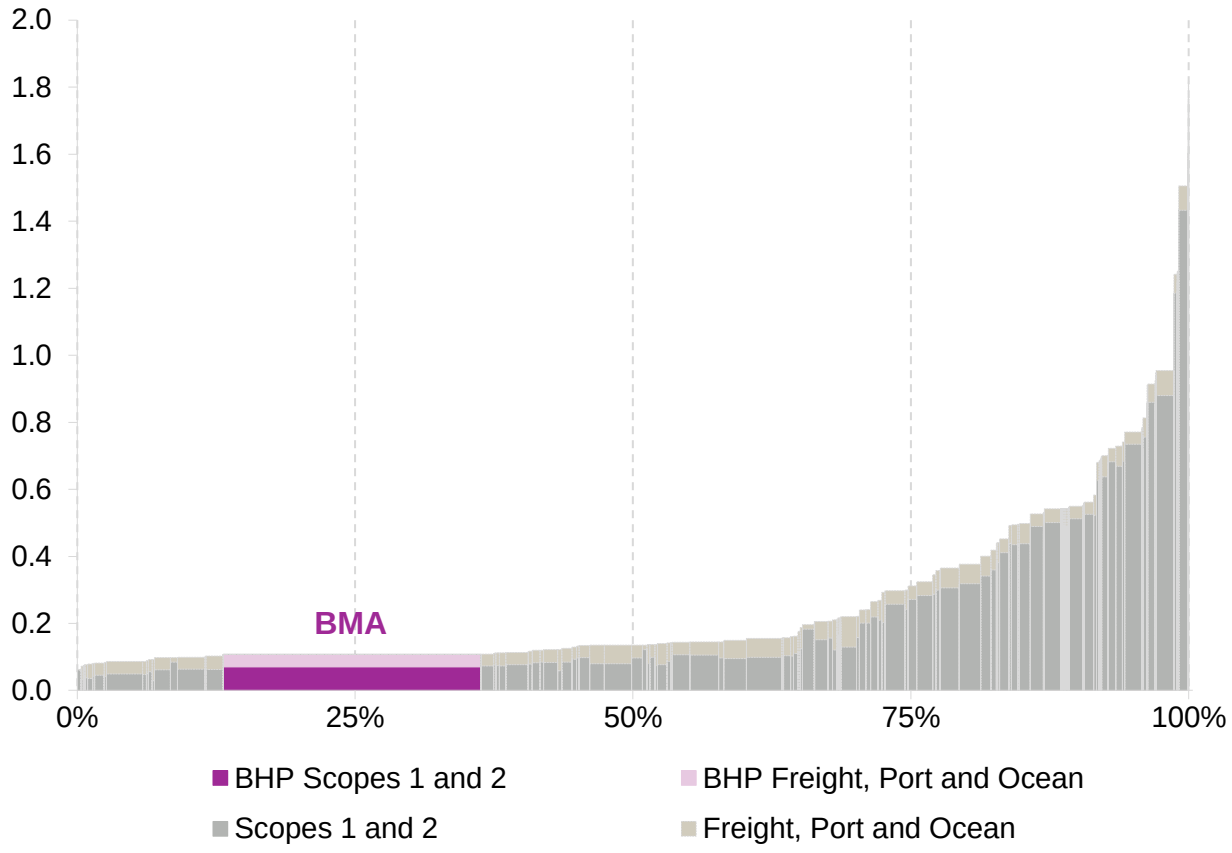
Approach to methane emissions

BMA's higher quality metallurgical coal can help steel mills reduce their own GHG emissions intensity

- BMA had one of the lowest GHG emissions intensity footprints among our global coal competition in CY2022.
- Our current open-cut mines now employ direct, site-specific industry best practice measurement of their fugitive emissions.
- Our aim is to identify the potential for emerging technologies to improve measurement.
- At our only underground steelmaking coal mine, Broadmeadow, drainage methane is captured and flared.
- For open cut mines, we are working to determine the optimal use of the gas as well as any operational challenges pre-drainage may create.
- Proven solutions will not address 100 per cent of fugitive methane emissions, so it is likely that a residual amount will remain untreated if there is no significant technological progress.

CY2022 GHG emissions intensity of export metallurgical coal mines[13]

(Tonnes CO_2-e per tonne of exported coal)



Source: Skarn Associates and BHP.

Value chain decarbonisation: Steelmaking

Dr Nigel Tame

Head of Steel Decarbonisation Partnerships

Tapping molten iron produced in an electrolysis test cell from BHP ores, as part of our partnership with Boston Metal

Collaborating to reduce GHG emissions in steelmaking

Nine partnerships with steel-makers representing ~20% of global steel production[14] to help tackle long-term steel transition through the decades to come

Near zero[15] emissions steelmaking technology needs development

Multiple pathways show promise

30% ↓ CY2030

Medium-term goal

CY2030 goal

Support industry to develop technologies and pathways capable of 30% emissions intensity reduction in integrated steelmaking, with widespread adoption expected post-2030

Objectives

- Advance technologies towards commercial readiness and scale
- Enable GHG emission reductions once commercially deployed

Project selection criteria

- Scale
- Influence
- Alignment with assets, products and customers

Supporting decarbonisation in steelmaking

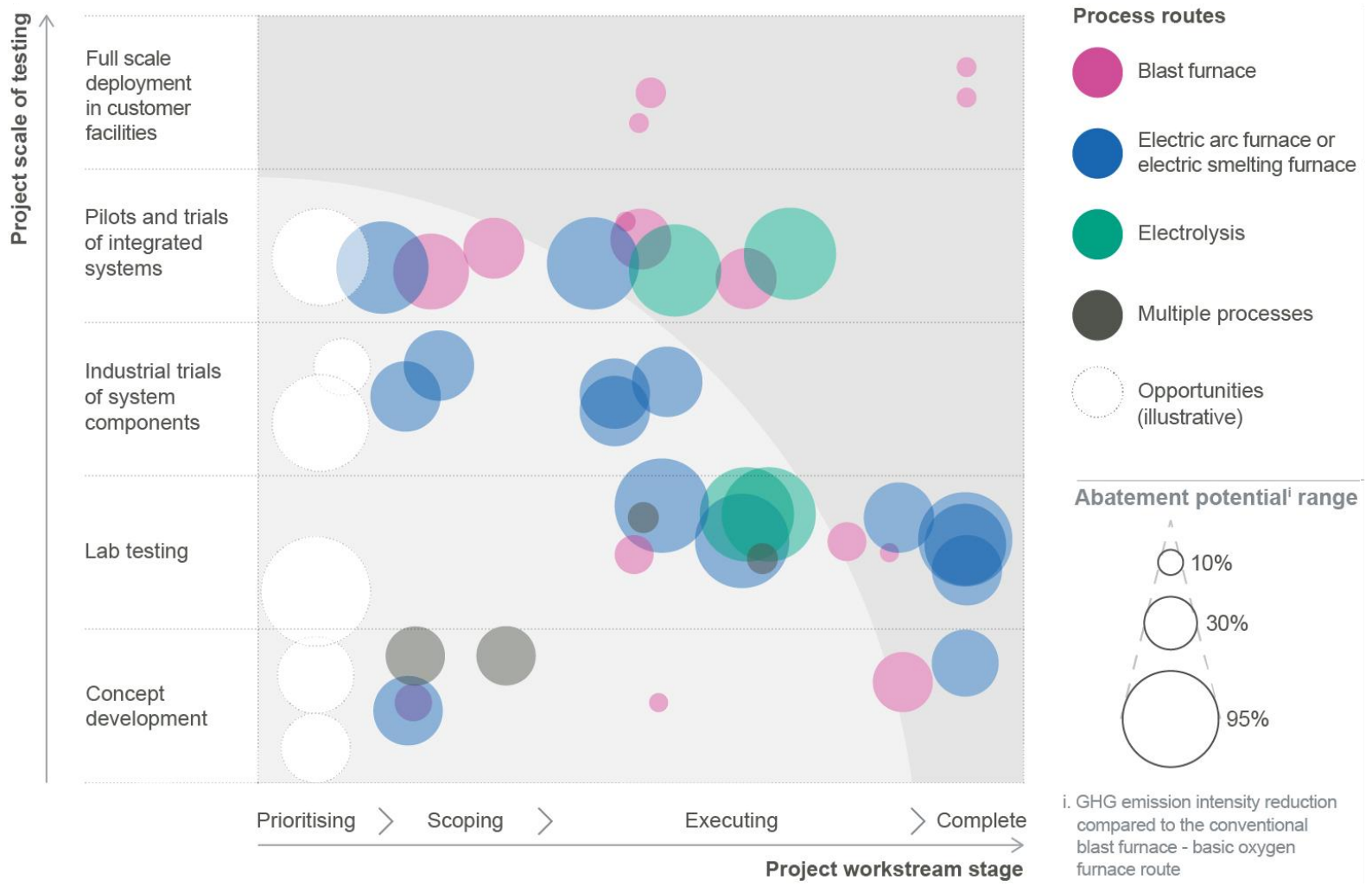
We are progressing a diverse project portfolio to larger scale; covering routes we believe have greatest potential to support decarbonisation from use of our products

BHP's steelmaking decarbonisation program

Invests in and supports:

- Collaborative partnerships and consortiums
- Research
- Ventures (i.e. early-stage start-ups)
- Standardisation and transparency

...to advance the readiness of steel decarbonisation technologies



Pathway scorecard: progress of projects in our program

New abatement technology capabilities we are helping to develop to support our customers to decarbonise their processes

	Blast Furnace (BF)			Electric Smelting Furnace (ESF) / Electric Arc Furnace (EAF)		
	Demonstrate staged abatements to the BF route			*Demonstrate and optimise the use of BHP's Pilbara iron ores*		
Process stage	**Raw material preparation**	**Blast furnace**	**CCUS**	**Raw material preparation**	**Direct reduced iron (DRI)**	**ESF/EAF**
Projects … supporting the development in process route capability by CY2030	Full scale enhancing of BHP lump ore	BHP product performance in low CO2 BF	Carbon capture pilots & trials	Lab testing of BHP ores in pellet blends	Lab scale direct reduction	Lab scale electric smelting
	Full scale blending of BHP ores in BF pellet blends	Low carbon and biogenic carbon use	Carbon utilisation pilots	Industrial trials of BHP ores in pellet blends	Industrial trials	Pilot scale ESF
	Low carbon and biogenic carbon use	Top gas recycling	Support CCUS value chains		Pilot alternative DRI technologies	Explore performance of DRI containing BHP ores in EAF
Adoption by customers, post-CY2030… that will support progress towards our Scope 3 CY2050 net zero goal	***Objective*: Industry adoption of low carbon BFs with CCUS**			***Objective*: Widespread use of BHP products in DRI-ESF/EAF routes**		

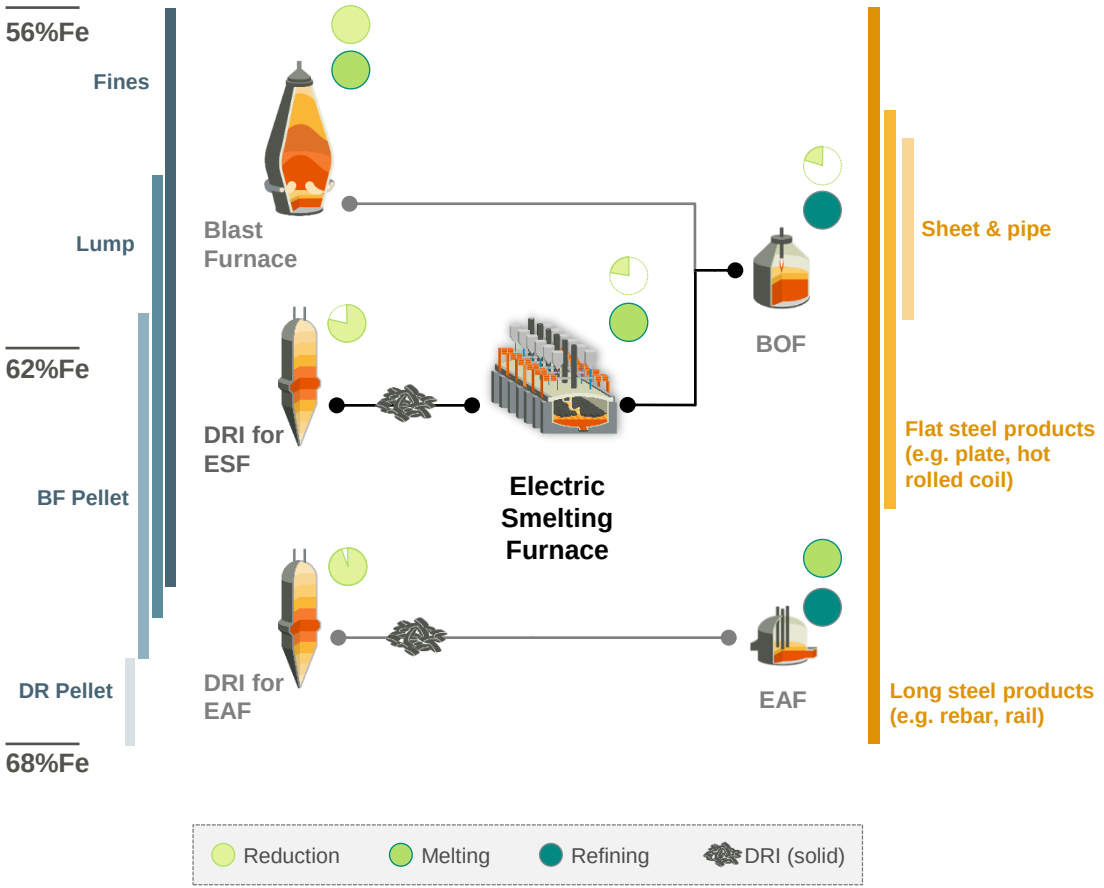
Project Workstream Stage

Defining Opportunities → Scoping → Executing

Note: CCUS – carbon capture, utilisation and storage.

Advancing readiness for an electric smelting pilot facility

We have been progressing development in this route since CY2022



CY2022	Laboratory research at University of Newcastle (New South Wales, Australia)
Mar 2023	Partnership with Hatch: Pilot Design Study
Feb 2024	Consortium with Rio Tinto and BlueScope: Pre-feasibility Study
CY2027	Target for pilot plant facility commissioning
Post-CY2030	Widespread commercial deployment

Value chain decarbonisation: Shipping

Ashima Taneja

Head of Maritime Safety, Sustainability & Technical

The world-first trial of sustainably-certified biofuel supplied in Singapore, conducted by BHP in collaboration with Oldendorff and GoodFuels

BHP is a leading organisation in maritime decarbonisation

Achieved a GHG emissions intensity reduction of 41% in BHP-chartered shipping of our products in FY2023 against a CY2008 baseline

We are supporting decarbonisation

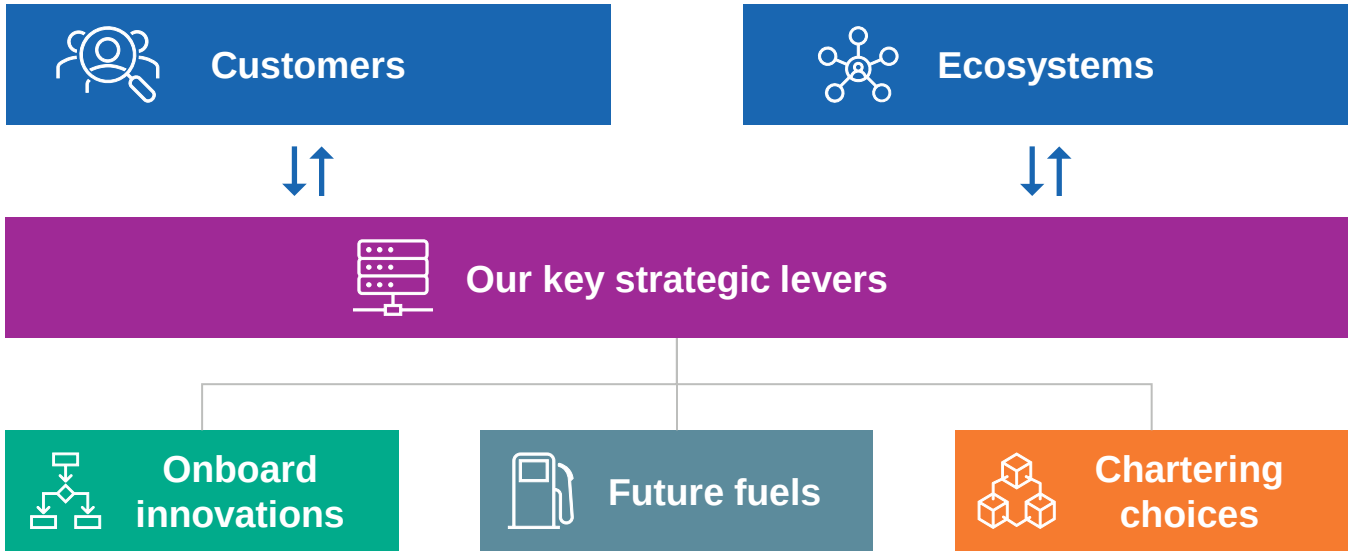
CY2030 goal

Support 40 per cent emission intensity reduction of BHP-chartered shipping of BHP products from a CY2008 baseline

CY2050 target

Net zero for the GHG emissions from all shipping of BHP products[16]

We are progressing delivery of our strategy



Trialling wind assisted propulsion and hull coatings to increase efficiency and lower fuel consumption

BHP has completed trials with sustainability-certified biofuels, now operational for select voyages in our supply chain

BHP has five world's first dual-fuelled LNG Newcastlemax bulk carriers operating in our iron ore supply chain

Future fuels: developing the ammonia value chain

We see significant potential in the trial and adoption of low to zero-emissions alternatives such as ammonia

A promising future fuel

with potential to drive a step change reduction in GHG emissions on a per voyage basis compared to conventional fuel

Intent to deploy on our iron ore trade route before CY2030

subject to reasonable thresholds for price premiums, supply and safety standards

BHP successfully launched an expression of interest (EOI) to establish the world's first ammonia value chain for shipping

First mover advantage to seek to increase zero GHG emission vessel and fuel availability at commercially viable prices

- Addressing toxicity challenges through ammonia bunkering pilots
- Crew training framework in collaboration with International Maritime Organization (IMO)

Footnotes

Decarbonisation overview

1. Slide 4: Achievement of this goal is uncertain, particularly given the challenges of a net zero pathway for our customers in steelmaking, and we cannot ensure the outcome alone.
2. Slide 5: Future GHG emission estimates are based on latest annual business plans. Includes former OZ Minerals Australian assets and plans. Excludes Blackwater and Daunia (divested on 2 April 2024). FY2020 GHG emissions data has been adjusted for acquisitions, divestments and methodology changes. ‘Organic growth’ represents increase in GHG emissions associated with planned activity and growth at our operations. ‘New PPAs’ refers to GHG emission reductions from renewable/low to zero emission PPAs already entered and/or intended to be signed with reductions occurring post FY2023 and before FY2030. ‘Other changes’ refers to reductions in GHG emissions not covered by PPAs. ‘Other’ refers to GHG emissions from coal & coke, fuel oil, LPG or other sources. ‘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. Emissions calculation methodology changes may affect the information presented in this chart.
3. Slide 6: Future GHG emissions estimates are based on latest annual business plans. Includes former OZ Minerals Australian assets and plans. Excludes Blackwater and Daunia (divested on 2 April 2024). FY2020 GHG emissions data has been adjusted for acquisitions, divestments and methodology changes. ‘Organic growth with no GHG emission reduction’ represents business-as-usual emissions forecast without abatement projects. ‘Our GHG emission reduction pathway’ represents planned decarbonisation activities to reach BHP’s operational GHG emissions FY2030 target and CY2050 goal. ‘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. ‘Our net zero trajectory’ refers to a straight line between our FY2020 baseline, FY2030 medium-term target, and CY2050 net zero goal. ‘Negative GHG 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’ (methane emissions) 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

4. Slide 9: FY2020 is the baseline year for BHP's Group-level FY2030 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 BMA’s emissions (while BHP’s ownership is 50%). Excludes projects, exploration, and legacy assets.
5. Slide 9: Percentage reduction figures are estimates based on FY2020 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.
6. Slide 10: Global operations. Excludes former OZ Minerals assets. Excludes Blackwater and Daunia (divested on 2 April 2024).
7. Slide 10: BHP analysis (based on modelling and initial studies). Percentages shown are estimated comparative efficiency.
8. Slide 11: This pathway depends on the commercial availability of the required technologies. Visual is illustrative and not to scale.
9. Slide 11: Expected average between FY2024 and FY2030
10. Slide 12: Upon completion of successful trials.
11. Slide 12: At Caterpillar’s Tucson, Arizona Proving Ground.
12. Slide 12: Smaller pilot fleets may be deployed earlier, subject to technology readiness.
13. Slide 13: The metallurgical coal GHG emissions intensity curve is based on CY2022 data estimates from Skarn Associates. The GHG emissions intensity basis is tonnes of CO2-equivalent per tonne of exported coal produced per mine. BHP operations have been aggregated to BHP Mitsubishi Alliance (BMA) level. BMA has been overlayed with reported BHP data points for CY2022 for: i) metallurgical coal production; ii) Scope 1 emissions; and iii) Scope 2 emissions incorporating BHP operated integrated rail and port GHG emissions. GHG emissions intensity estimates for freight, port and ocean logistics of metallurgical coal products were calculated using Skarn Associates average intensities for CY2022. As BMA utilises both integrated (included in Scopes 1 and 2 emissions) and third-party rail and port services, this may result in partial double counting of GHG emissions. The data set applies IPCC AR5 CH4 global warming potential factors to all mines.

Value chain decarbonisation: Steelmaking

14. Slide 15: Based on reported steelmaking production based on World Steel Association data.
15. Slide 15: 0.40 tonnes of CO2-e per tonne of crude steel for 100% ore-based production (no scrap), as defined by the International Energy Agency (IEA) and implemented in ResponsibleSteel International Standard V2.0 (‘near zero’ performance level 4 threshold). IEA (2022), Achieving Net Zero Heavy Industry Sectors in G7 Members, IEA, Paris, License: CC BY 4.0, which also describes the boundary for the emission intensity calculation (including in relation to upstream emissions). Abatement potentials have been calculated relative to a baseline reference of 2.0 tonnes of CO2-e per tonne of crude steel.

Value chain decarbonisation: Shipping

16. Slide 20: Ability to achieve the target is subject to the widespread availability of carbon neutral solutions to meet our requirements, including low/zero GHG emission technologies, fuels, goods and services.

BHP