

## Exchange release

18 November 2024

### **2024 Chilean Copper Site Tour**

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BHP will be hosting an investor and analyst site tour on 18 November 2024 – 21 November 2024 to provide an update on our Chilean copper business, Chilean copper growth strategy and the outlook for the copper market.

A copy of the presentation materials is attached.

The presentation slides 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**

Authorised for release by Stefanie Wilkinson, Group General Counsel and Group Company Secretary

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An aerial photograph of a large-scale open-pit copper mine. The mine is characterized by its terraced, stepped walls of reddish-brown rock. Several yellow haul trucks are visible on the different levels of the mine, moving along the terraces. The overall scene conveys the immense scale of the mining operation.

# BHP

## 2024 Chilean copper site tour

Brandon Craig

President Minerals Americas

18 November 2024

Escondida



# Disclaimer

## Forward-looking statements

This presentation contains 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: trends in commodity prices and currency exchange rates; demand for commodities; global market conditions; guidance; reserves and resources and production forecasts; expectations, plans, strategies and objectives of management; our expectations, commitments, targets, goals and objectives with respect to social value or sustainability; climate scenarios; approval of certain projects and consummation of certain transactions; closure, divestment, acquisition or integration of certain assets, operations or facilities (including associated costs or benefits); anticipated production or construction commencement dates; capital expenditure or costs and scheduling; operating costs, and supply of materials and skilled employees; anticipated productive lives of projects, mines and facilities; the availability, implementation and adoption of new technologies; provisions and contingent liabilities; and tax, legal and other regulatory developments.

Forward-looking statements may be identified by the use of terminology, including, but not limited to, 'intend', 'aim', 'ambition', 'aspiration', 'goal', 'target', 'prospect', 'project', 'see', 'anticipate', 'estimate', 'plan', 'objective', 'believe', 'expect', 'commit', 'may', 'should', 'need', 'must', 'will', 'would', 'continue', 'forecast', 'guidance', 'outlook', 'trend' or similar words. These statements discuss future expectations or performance, or provide other forward-looking information.

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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 our ability to profitably produce and deliver the products extracted to applicable markets; the impact of economic and geopolitical factors, including foreign currency exchange rates on the market prices of the commodities we produce and competition in the markets in which we operate; 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 royalties or implementation of trade or export restrictions; changes in environmental and other regulations; political or geopolitical uncertainty; labour unrest; weather, climate variability or other manifestations of climate change; and other factors identified in the risk factors discussed in section 8.1 of the Operating and Financial Review (OFR) in the BHP Annual Report 2024 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](http://www.sec.gov).

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## Presentation of data

Unless expressly stated otherwise: variance analysis relates to the relative performance of BHP and/or its operations during the year ended 30 June 2024 compared with the year ended 30 June 2023; total operations refers to the combination of continuing and discontinued operations; continuing operations refers to data presented excluding Petroleum from the 2021 financial year onwards; references to Underlying EBITDA margin exclude third party trading activities; data from subsidiaries are shown on a 100% basis and data from equity accounted investments and other operations is presented, with the exception of net operating assets, reflecting BHP's share; medium term refers to a five-year horizon, unless otherwise noted. Throughout this presentation, production volumes and financials for the operations from BHP's acquisition of OZ Minerals Limited (OZL) during FY2023 are for the period of 1 May to 30 June 2023, whilst the acquisition completion date was 2 May 2023. Unless expressly stated otherwise, information and data in this presentation related to BHP's social value or sustainability position or performance does not reflect BHP's acquisition of OZL nor BHP's interest in non-operated assets. Due to the inherent uncertainty and limitations in measuring greenhouse gas (GHG) emissions under the calculation methodologies used in the preparation of such data, all GHG emissions data or references to GHG emissions (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 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, refer to the BHP GHG Emissions Calculation Methodology 2024, available at [bhp.com](http://bhp.com). Numbers presented may not add up precisely to the totals provided due to rounding. All footnote content (except in the Annexures) is contained on slide 81 and 82.

## Non-IFRS information

We use various Non-IFRS information to reflect our underlying performance. For further information, the reconciliation of non-IFRS financial information to our statutory measures, reasons for usefulness and calculation methodology, please refer to section 10 'Non-IFRS financial information' in the BHP Annual Report 2024.

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In this presentation, the terms 'BHP', the 'Company', the 'Group', 'BHP Group', 'our business', 'organisation', 'we', 'us', 'our' and ourselves' 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 2024 for a list of our significant subsidiaries. Those terms do not include non-operated assets. This presentation covers BHP's functions and assets (including those under exploration, projects in development or execution phases, sites and operations that are closed or in the closure phase) that have been wholly owned and operated by BHP or that have been owned as a joint venture<sup>1</sup> operated by BHP (referred to in this presentation as 'operated assets' or 'operations') during the period from 1 July 2023 to 30 June 2024, unless otherwise stated.

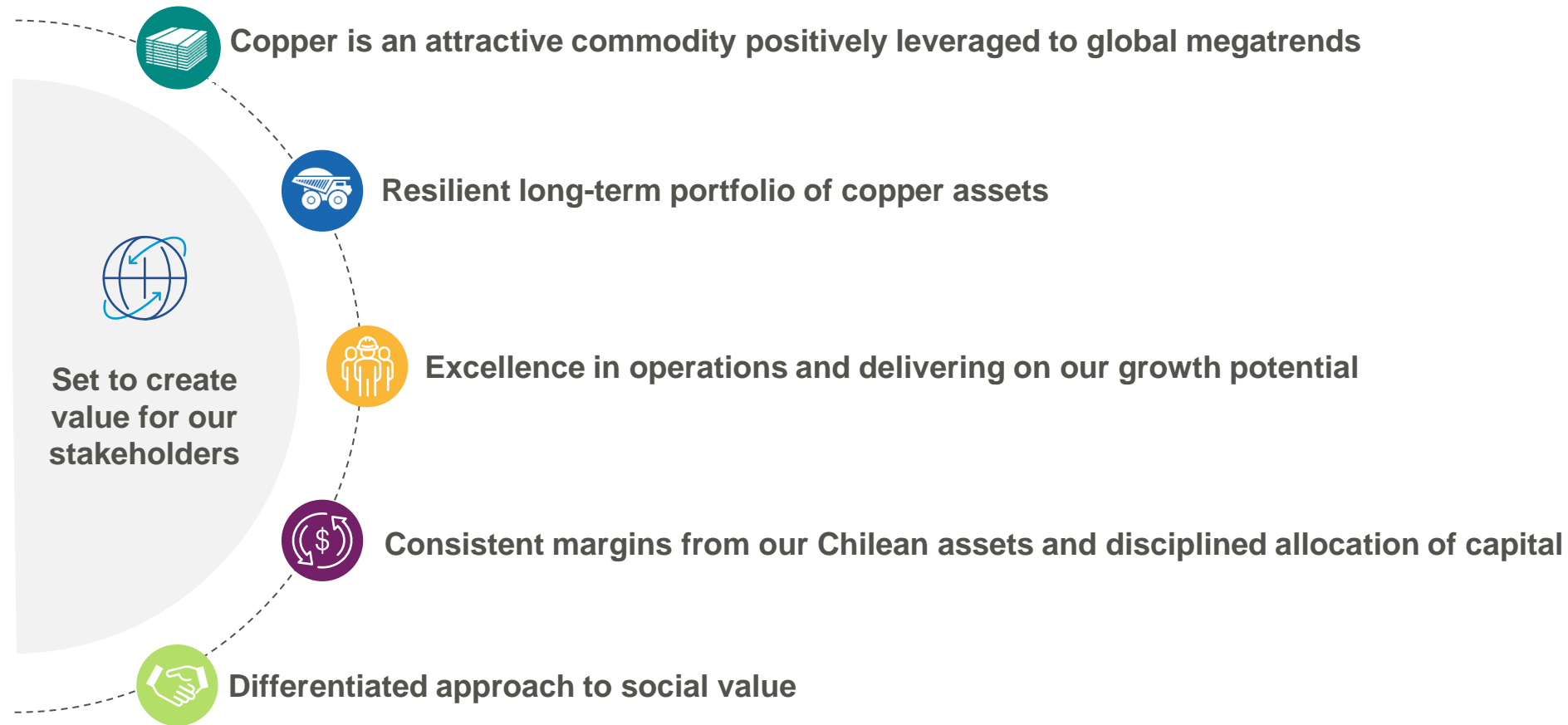
BHP also holds interests in assets that are owned as a joint venture but not operated by BHP (referred to in this presentation as 'non-operated joint ventures' or 'non-operated assets'). Notwithstanding that this presentation may include production, financial and other information from non-operated assets, non-operated assets are not included in the BHP Group and, as a result, statements regarding our operations, assets and values apply only to our operated assets unless expressly stated otherwise.

1. References in this presentation to a 'joint venture' are used for convenience to collectively describe assets that are not wholly owned by BHP. Such references are not intended to characterise the legal relationship between the owners of the asset.



# A winning strategy

We have an enduring competitive advantage when it comes to copper



# Minerals Americas: a winning portfolio

A focus on safely and more sustainably delivering exceptional operational performance and growing production

## Copper, potash and iron ore operations and projects in 7 countries

### Copper

- A world class copper business in Chile and Peru with growth
- Filo transaction secures position in an emerging copper district<sup>1</sup>
- Resolution project and exploration offer longer term copper optionality

### Potash

- Set to become a low-cost potash producer with growth optionality

### Iron ore

- Samarco operations set to double production



- Copper
- Copper exploration
- Iron Ore
- Potash
- Non-operated joint venture



# BHP Chilean copper snapshot

Operating for over 30 years in Chile. A pre-eminent copper producer, with significant contribution to the country



**27%**

of total Chilean copper production



**~16,000 workforce**

of which ~6,000 are employees (42% female; 10% Indigenous)



**US\$9.4 bn**

total economic contribution<sup>2</sup> to Chile in FY24



**100%**

renewable electricity and >90% desalinated water use at our operations

# Safety is our most important priority

Empowering our workforces through culture, systems and controls

## Safety is integrated into how we operate

### Field Leadership

Enabling a culture of care, standard setting and supporting risk control verification

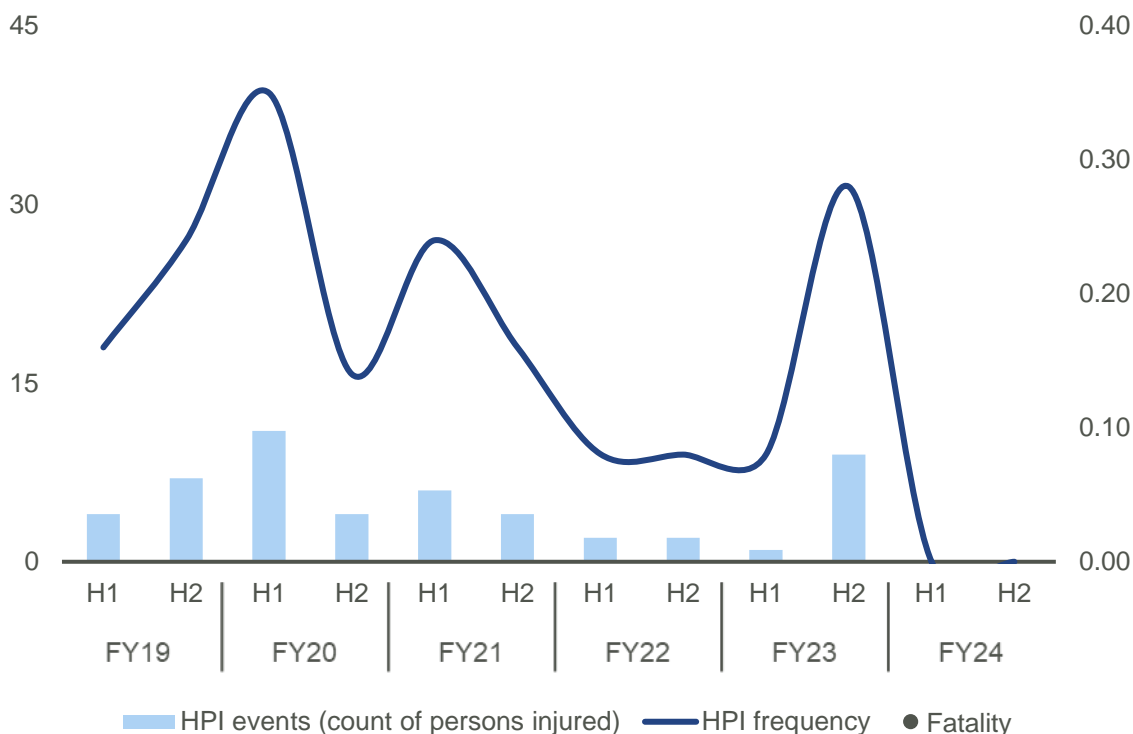
### Fatality Elimination Program

Asset-based fatality risk control implementation plans aimed at eliminating fatalities at operations by having effective controls

### BHP Operating System (BOS)

Empowering our workforce to adopt best practices and standards

Improving trends in high-potential injury (HPI) data in Chile  
(HPI events) (HPI per million exposure hours)



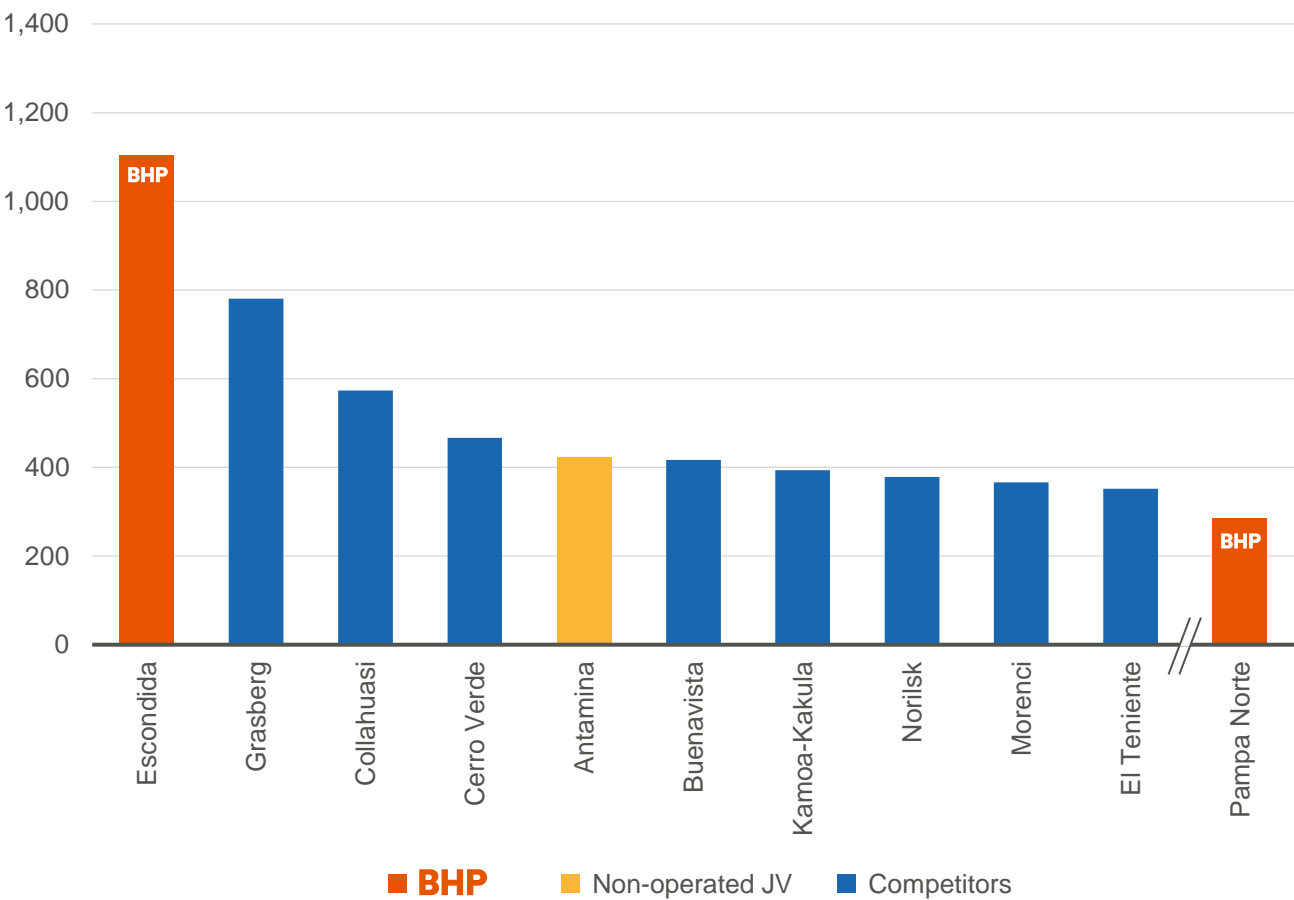


# Our Chilean business is globally significant

Since 1990 we have produced 38 Mt of copper in Chile, representing over 7% of global copper mine production<sup>3</sup>



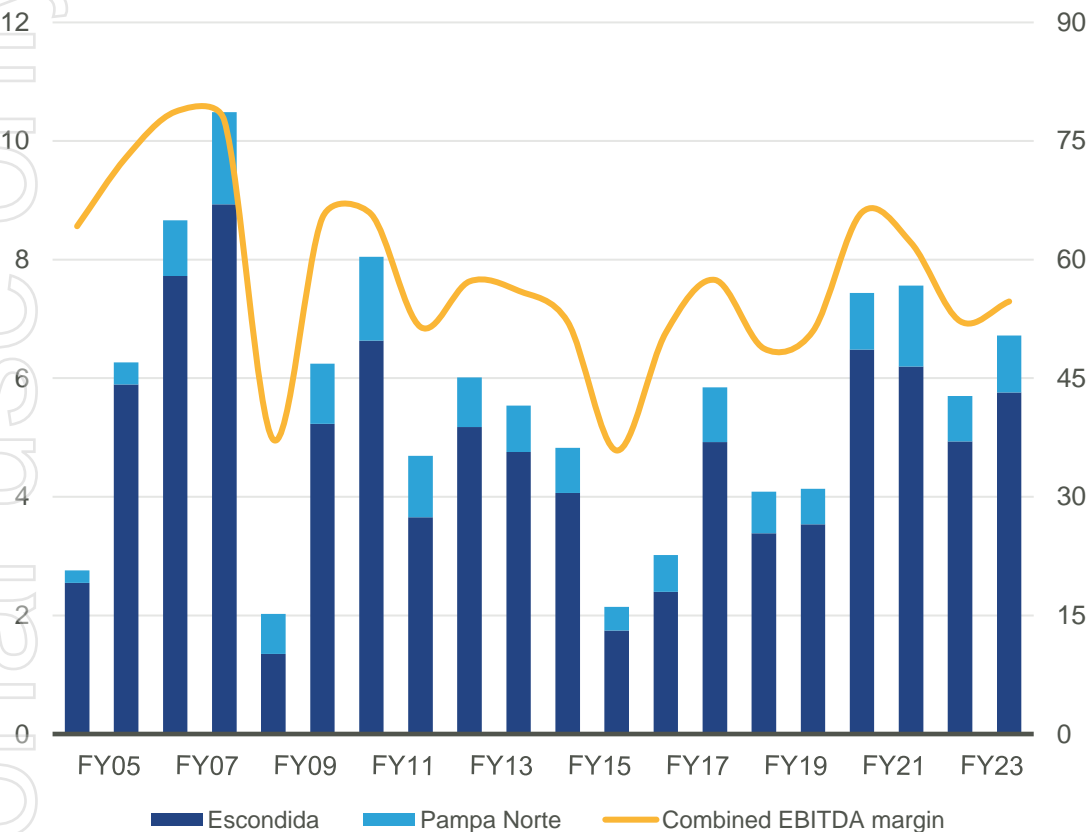
Chilean copper business is significant and larger than competitors' mines<sup>4</sup>  
(CY23 copper production, kt)



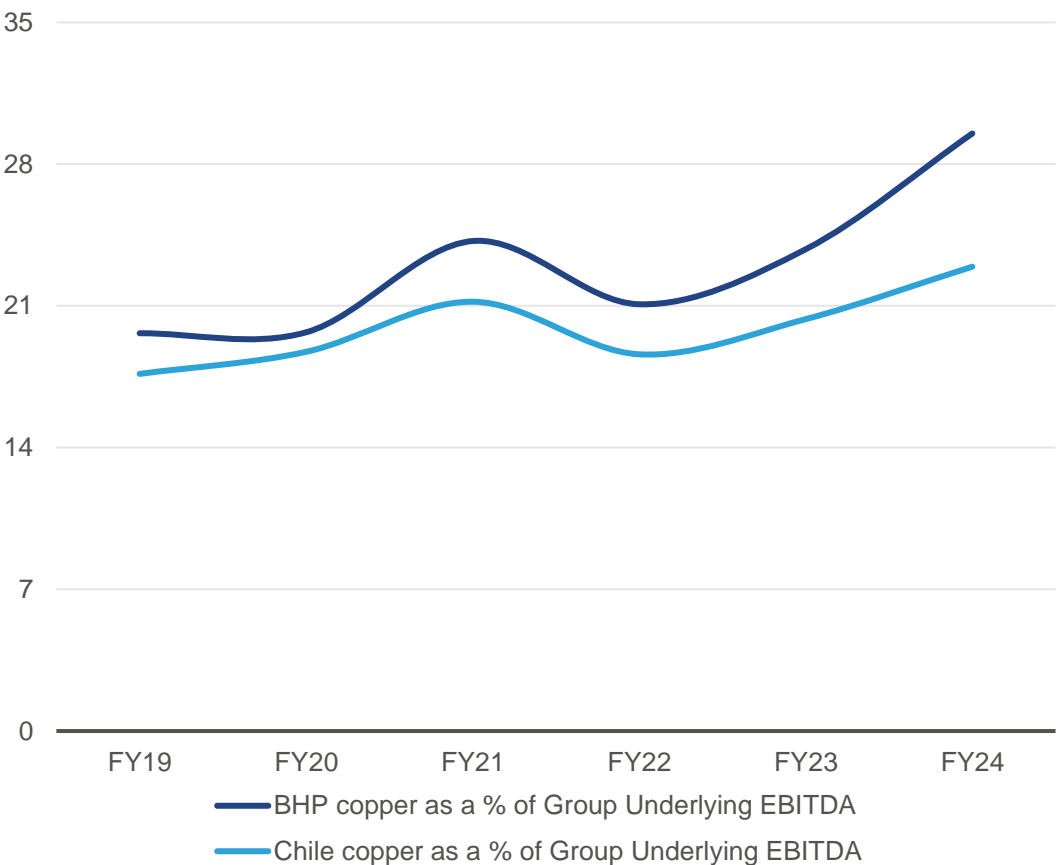
# A consistently high-performing business

Quality of asset base and focus on cost control has enabled strong cashflow and returns over time

Consistently high EBITDA margin averaging 58% over 20 years<sup>5</sup>  
(EBITDA, US\$ bn) (EBITDA margin, %)



BHP's strategy to increase copper exposure is delivering<sup>5</sup>  
(EBITDA, % of BHP Group)





# Our strategy reflects our competitive advantages

We are leveraging our strengths to deliver growth in Chile

## Geology & resource



### World's largest copper resource<sup>6</sup>

26 Bt at Escondida,  
2 Bt at Spence and  
2 Bt at Cerro Colorado

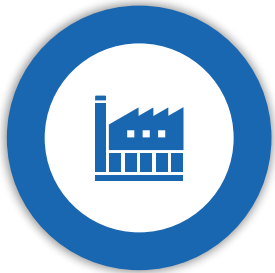
## Operational excellence



### Consistent and reliable performance

Through continuous improvement we are meeting guidance and delivering to plan

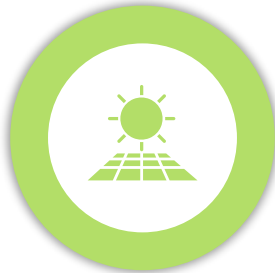
## Growth options



### Four pathways across new and existing facilities

Expansion options supported by latent capacity in power, water and infrastructure

## Social value and sustainability



### Integrated into our approach and decision making

Ceased extracting groundwater at Escondida; Escondida and Spence are using 100% renewable power

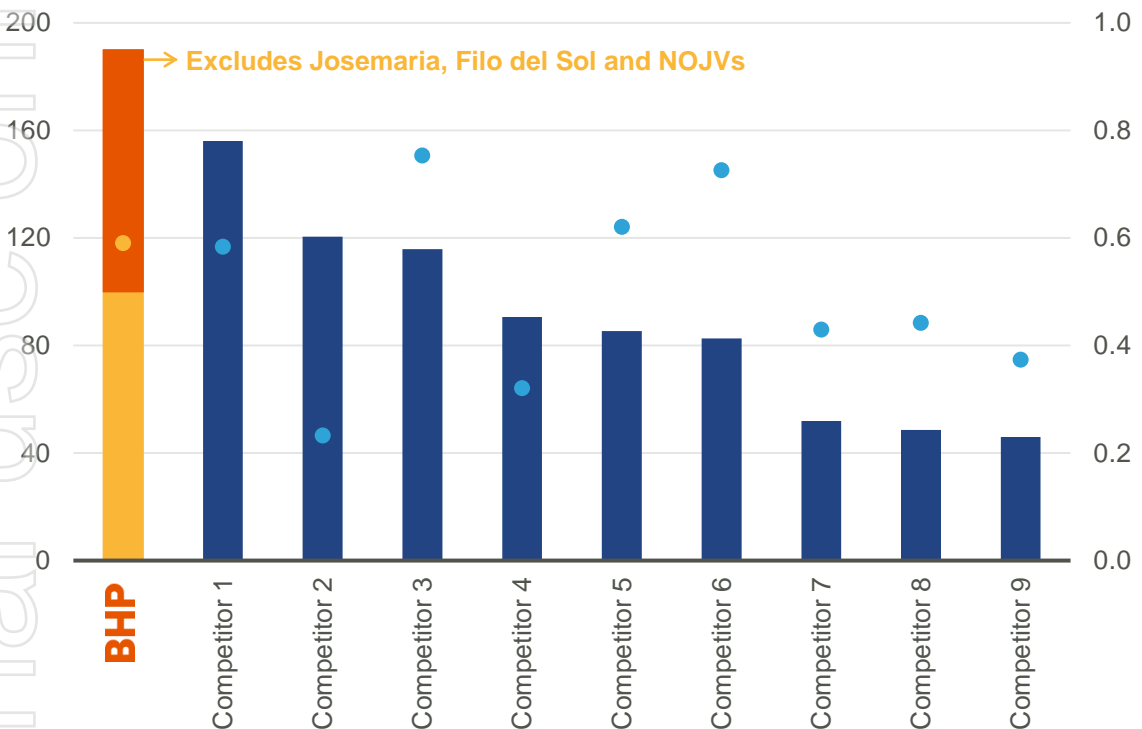
# Geology & resource: an advantaged position for growth

Largest copper mineral resource globally with significant installed infrastructure

## Chile a significant portion of BHP's copper resources<sup>7</sup>

(Copper contained, Mt)

(Cu grade, %)



■ BHP Chilean assets including Escondida with ~26 Bt of resource @ 0.53% Cu

■ BHP ex-Chile (excludes Josemaria, Filo del Sol and NOJVs)

■ Competitors

● BHP grade

● Competitor grade

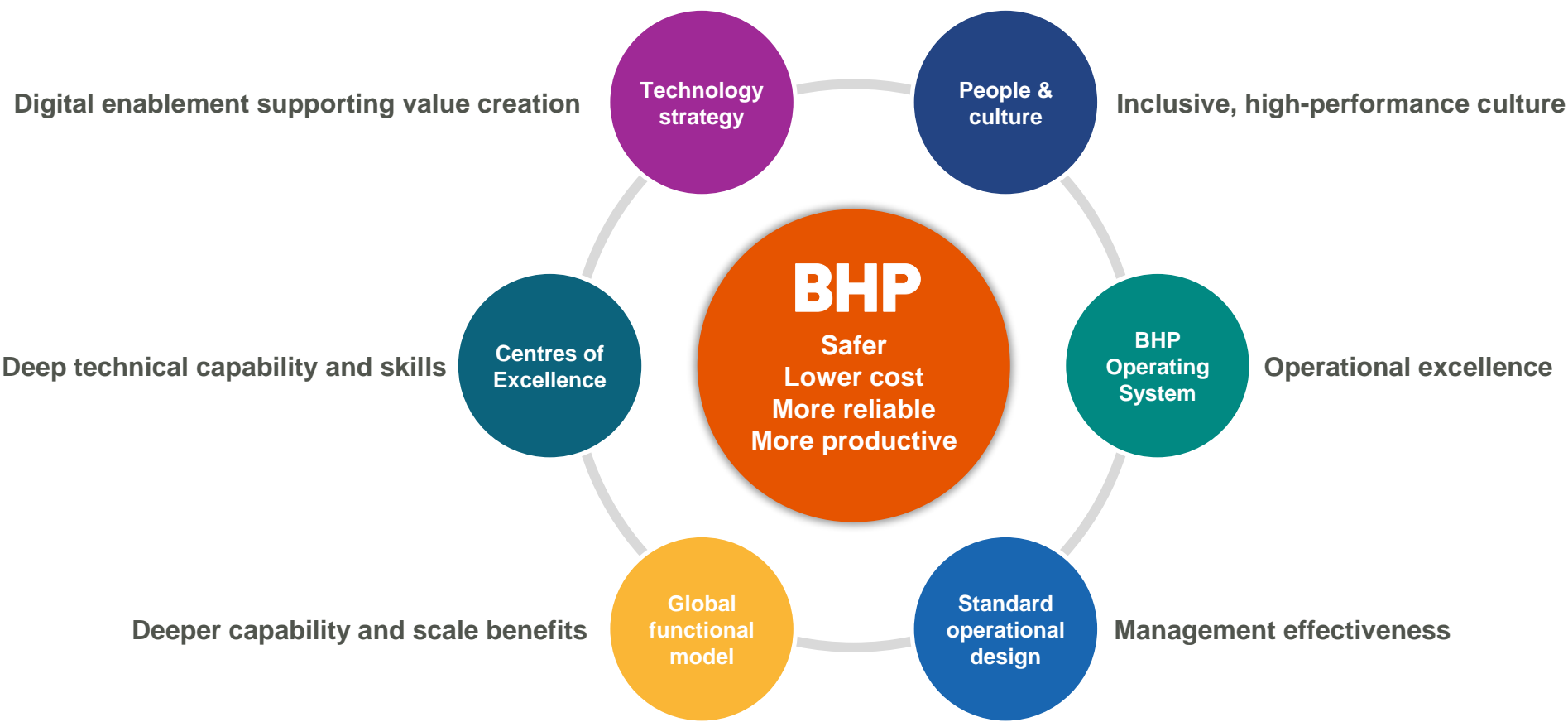
## Scale provides multiple benefits

- Simpler to manage, with fewer but larger assets
- Potential to leverage installed infrastructure and workforce
- Geological knowledge, drives lower technical risk and uncertainty
- Significant low-risk brownfield optionality
- Ability to deploy technology over time
- Commitment to building win-win relationships with stakeholders



# Operational excellence: a relentless pursuit

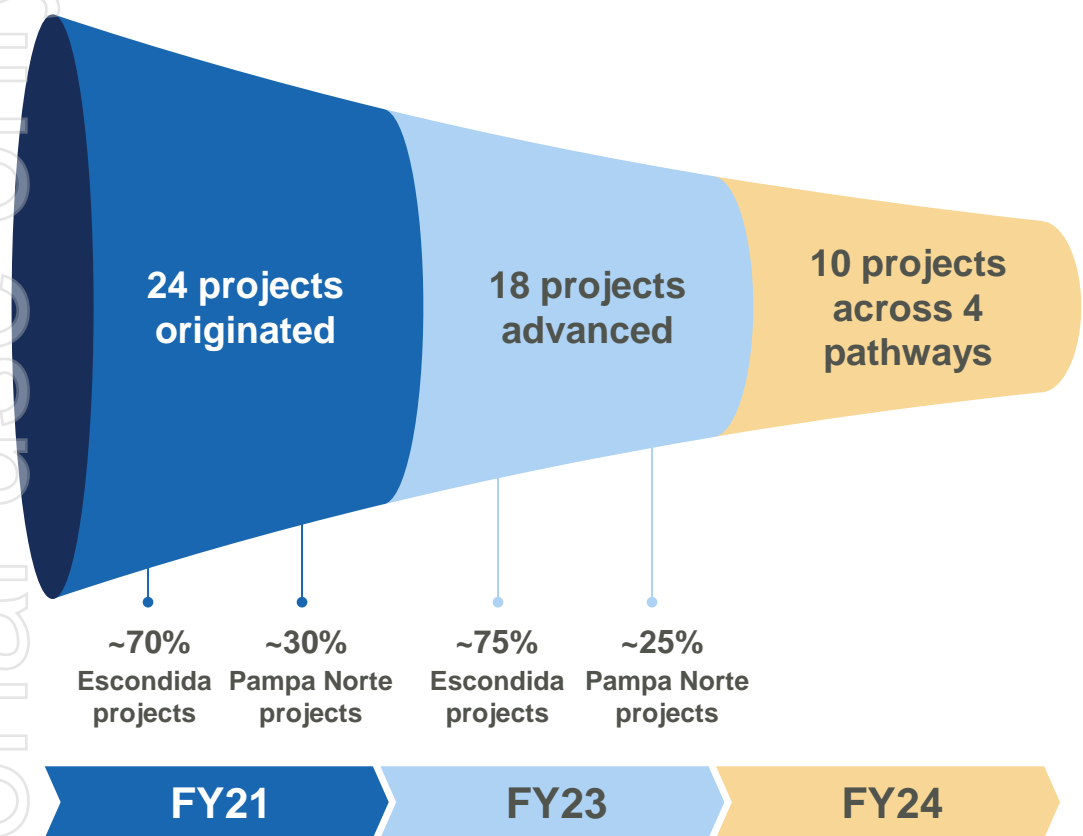
We have a differentiated approach that has delivered stable and improving performance and a strong base for growth



# Growth options: delivering Chilean copper growth

We have narrowed our studies to four main pathways for growth

The number of options we are assessing has been reduced...



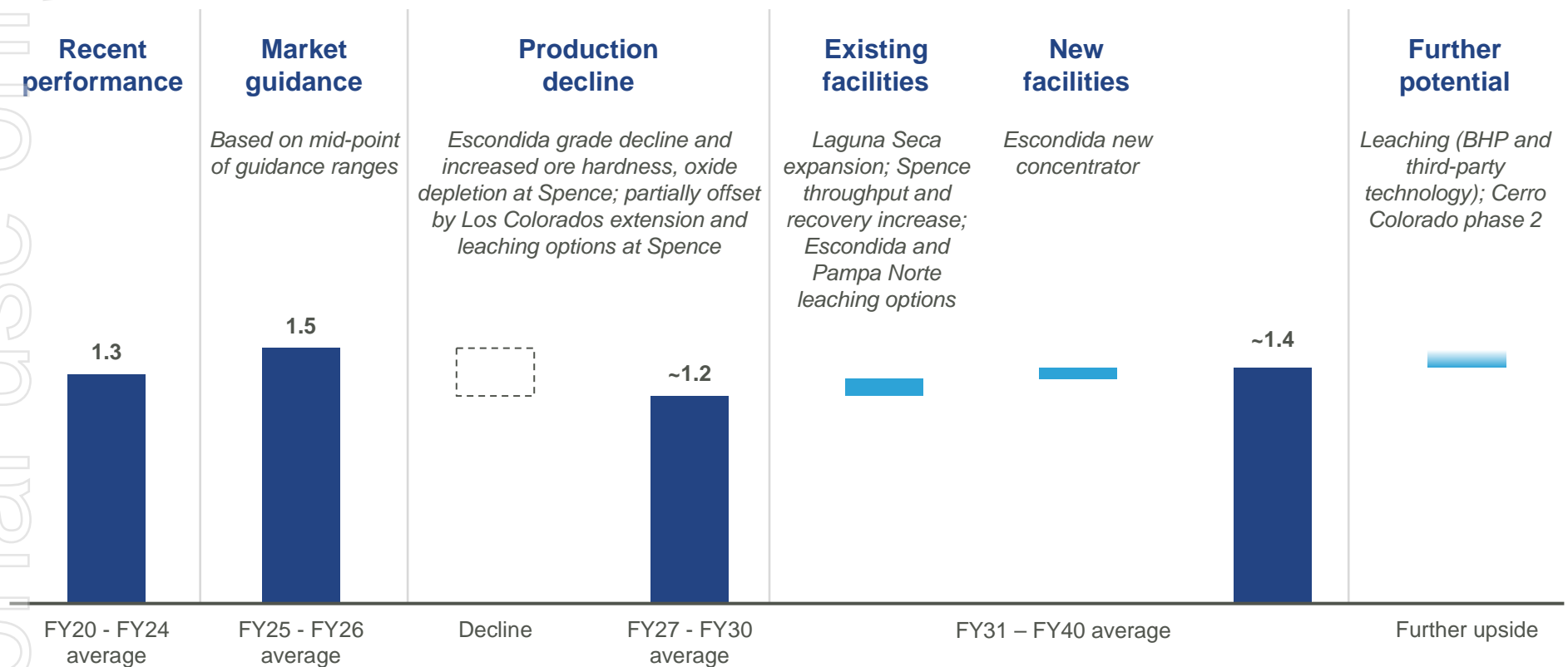
...to an attractive set of options across four main pathways



# Maintaining our position in Chile

A program of high-quality projects leveraging existing infrastructure and delivering production growth

Chilean copper indicative production shows potential pathway to offset decline  
(Copper production, Mtpa)



Escondida growth program<sup>8</sup>

Attractive indicative IRR

**15 – 19%**

Annualised rate of return

Competitive capital intensity

**US\$19 – 26k/t**

Capital intensity (CuEq)



# Sequencing to manage capital profile

Healthy competition for capital both in Chile and across BHP globally via our Capital Allocation Framework

## Our compelling pipeline of copper projects will compete for capital



### Chilean copper

Brownfield projects across concentrators and leaching technologies



### Filo del Sol and Josemaria<sup>1</sup>

Greenfield development project in an emerging copper district



### Copper SA

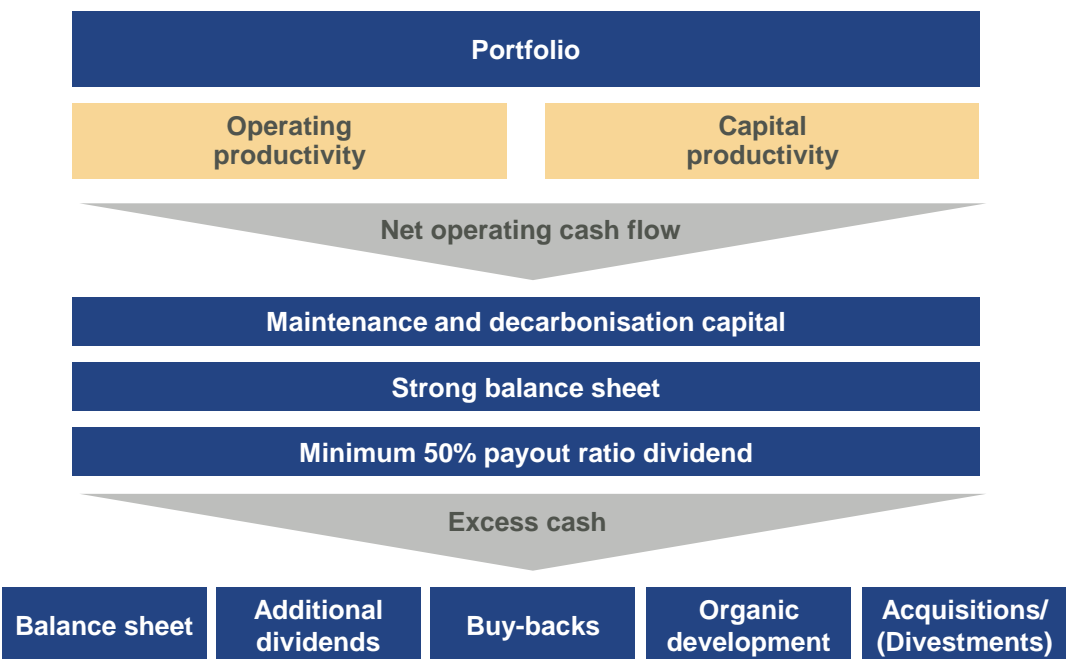
Potential staged expansion to unlock value



### NOJV options

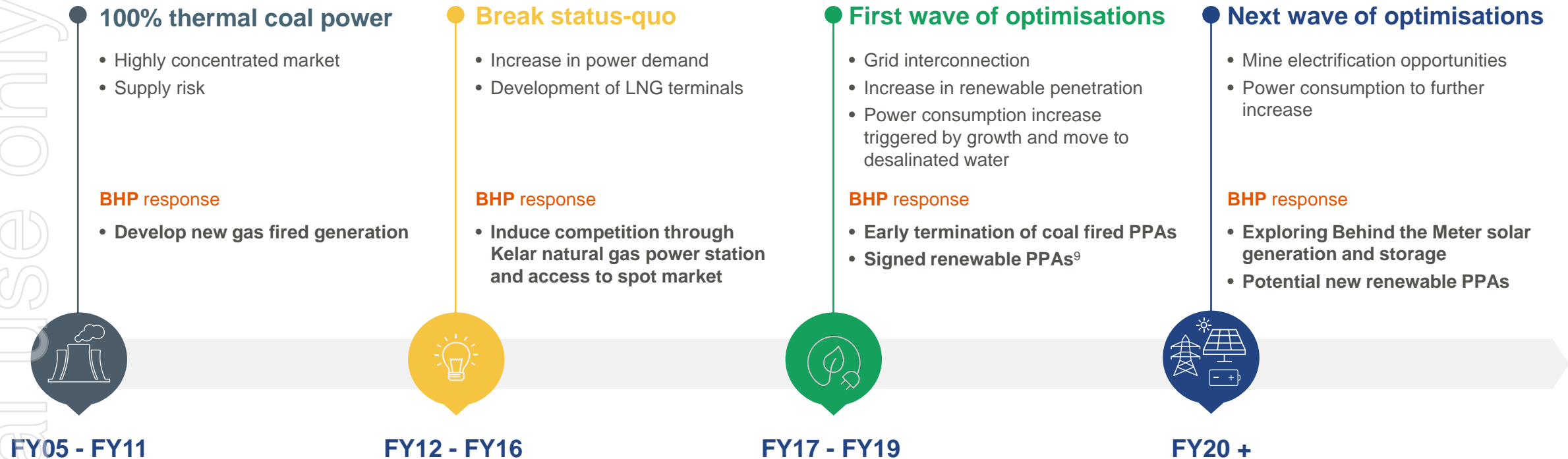
Potential growth from Antamina and Resolution

## Capital Allocation Framework remains core to BHP



# BHP at the forefront of the sector's sustainability efforts

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



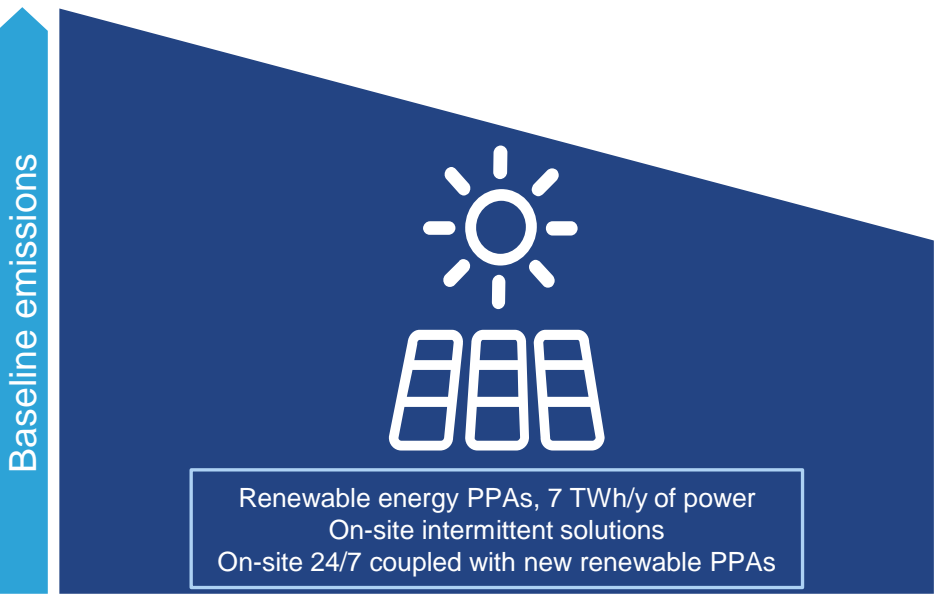
Significant change to move to renewable power: Escondida and Spence account for ~9% of total Chilean power demand

# A clear strategy for decarbonisation in Chile

Plans to eliminate Scopes 1 and 2 emissions are well underway. Progress from here will be uneven

## Scope 2: Electricity

First challenge was to secure renewable electricity, reducing ~75% of our operational emissions, enabling electrification



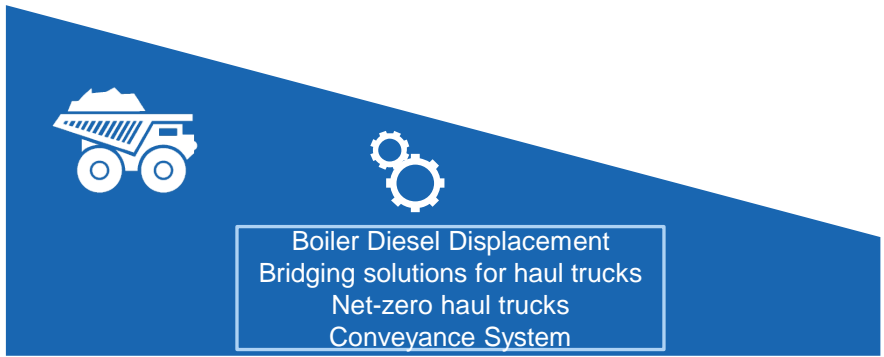
2020

2050

## Scope 1: Diesel consumption

Next challenge is to displace diesel consumption through:

- Integrated workplan with Original Equipment Manufacturers (OEMs) with potential trial tests in Chile
- Strategic partnerships and industry collaboration with technology companies, government institutions and power generation companies
- Maintain optionality by progressing studies of less mature technologies



## Scope 1 – Others

Indicative  
timeframe  
for delivery





# BHP Chile Copper site tour: 3 days at a glance

## Meet the team



### DAY 1

**Brandon Craig**

President  
Minerals Americas



**Laura Whitton**

Head of Copper  
Commodity Strategy

**René Muga**

VP Corporate Affairs  
Latin America



**Frances Summerhayes**

VP Finance  
Minerals Americas

**Adam Favero**

VP Development and  
Strategic Services

**Pedro Correa**

VP Projects  
Minerals Americas

### DAY 2



**Alejandro Tapia**

President  
Escondida

### DAY 3



**Cristian Sandoval**

President  
Pampa Norte

# Copper market view

Laura Whitton

Head of Commodity Strategy | Copper and Potash

BHP Insights: how copper will shape our future





# Portfolio positively leveraged to megatrends

BHP is positioned to compete in a complex, but opportunity-rich environment

## BHP Portfolio



Copper



Iron ore



Steelmaking coal



Potash



### Traditional demand

Attractive fundamentals

Population growth

Urbanisation

Industrialisation

Living standards

Capital stock turnover



### Decarbonisation

Demand amplification, rising material intensity

Climate-positive land use

Decarbonising power

Electrifying transport

Electrifying buildings

Decarbonising industry



### Cost competitiveness

Steeper cost curves, opportunity for best operators

End-to-end logistics

Economies of scale

Operational decarbonisation

Operational productivity

Managing labour challenges



### Supply headwinds

Tighter balances, durable inducement pricing

Lack of new discoveries

Changing societal expectations

Grade decline

Regulatory uncertainty

Geopolitical risk



# Copper has multiple sources of increasing demand

Near term global energy transition trends and data centres are adding to 'traditional' fundamentals playing out



## 'Traditional' economic growth



### Developed

Mature stock, mainly replacement demand



### China

Stock-in-use only half of US, still room for growth



### Developing

Relatively low stock-in-use, strong demand growth



## Energy transition

EVs

Electrification of industry

Wind

Solar

Grid storage

Grid augmentation



## Digital

Data centres

5G

Internet of Things

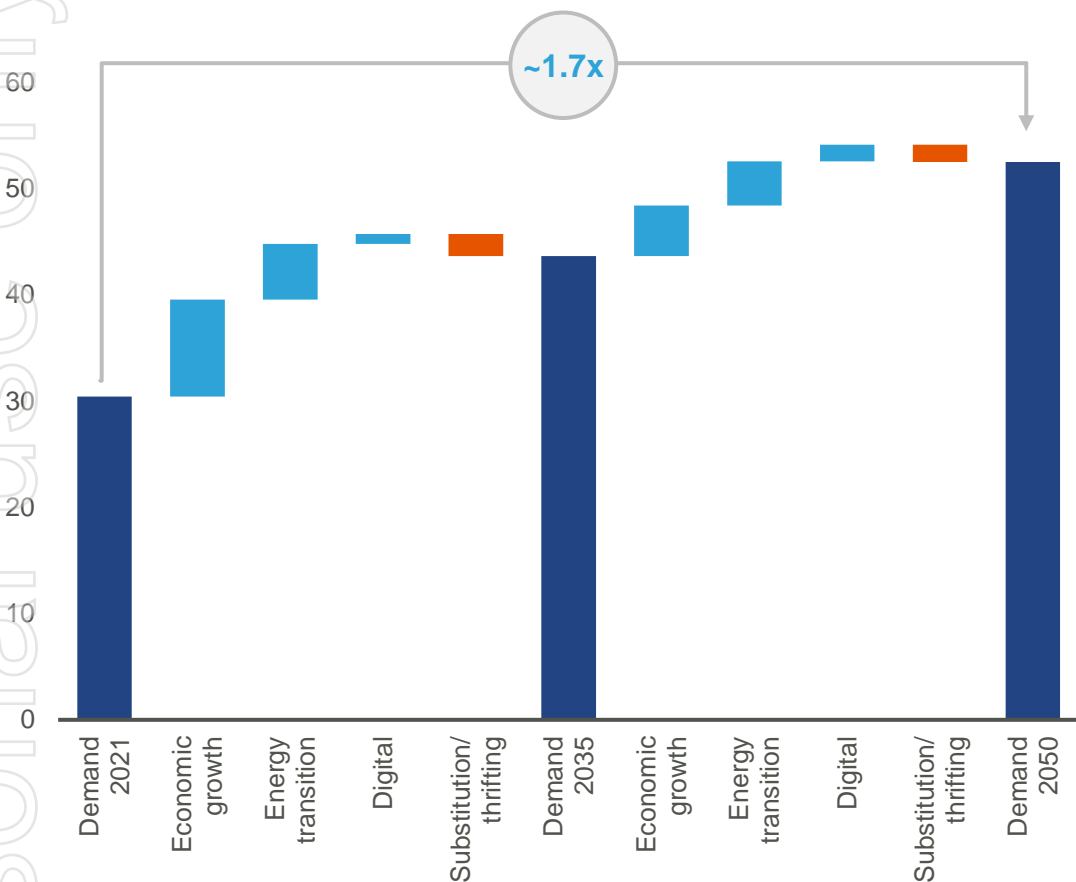
Artificial intelligence

Blockchain

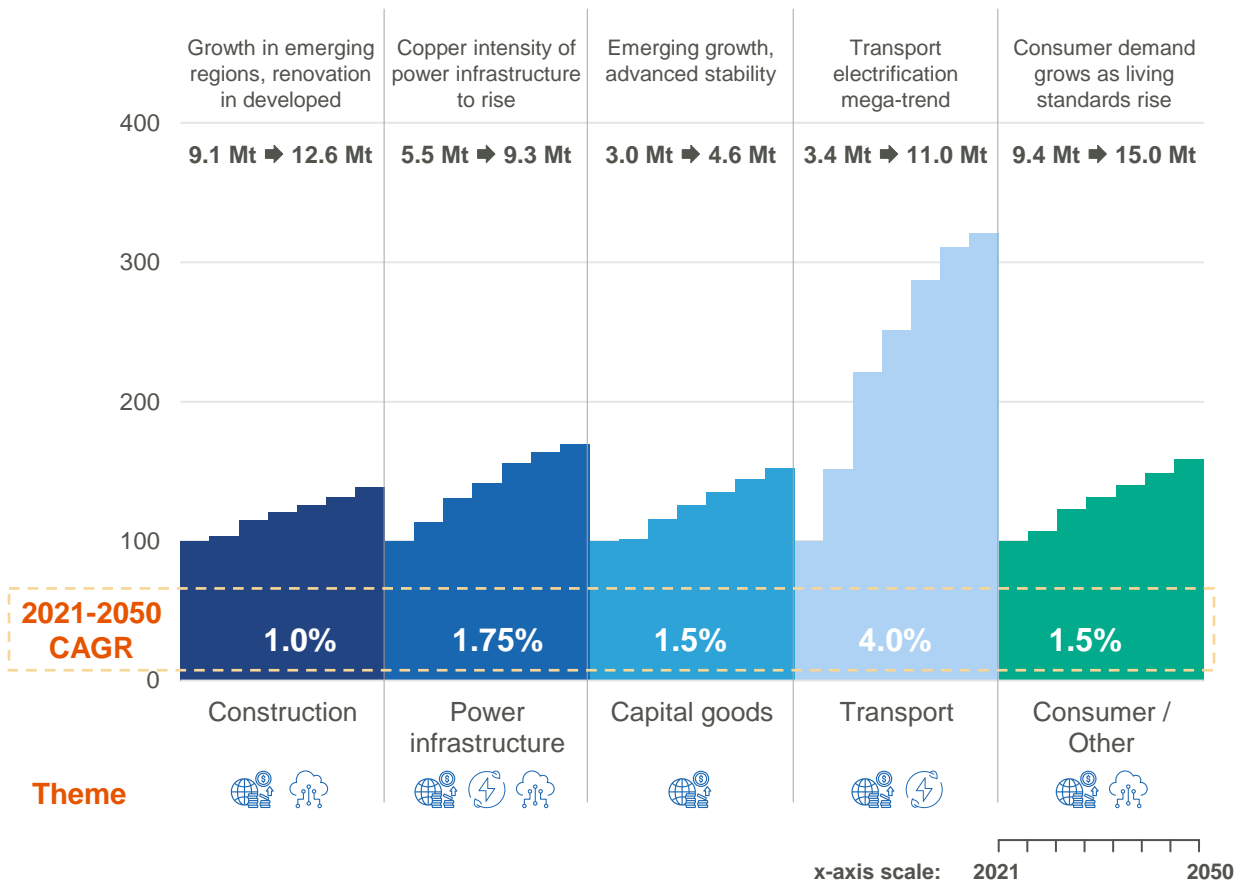
# Long-term trends remain compelling

Demand is broad based and shows strong growth even with expected substitution and thrifting

Copper demand projected to grow ~70% through to 2050...  
(Copper semis end-use demand by key theme, Mt)



...an average of ~2% per year<sup>10</sup>  
(Copper demand by end-use sector, indexed to 2021)



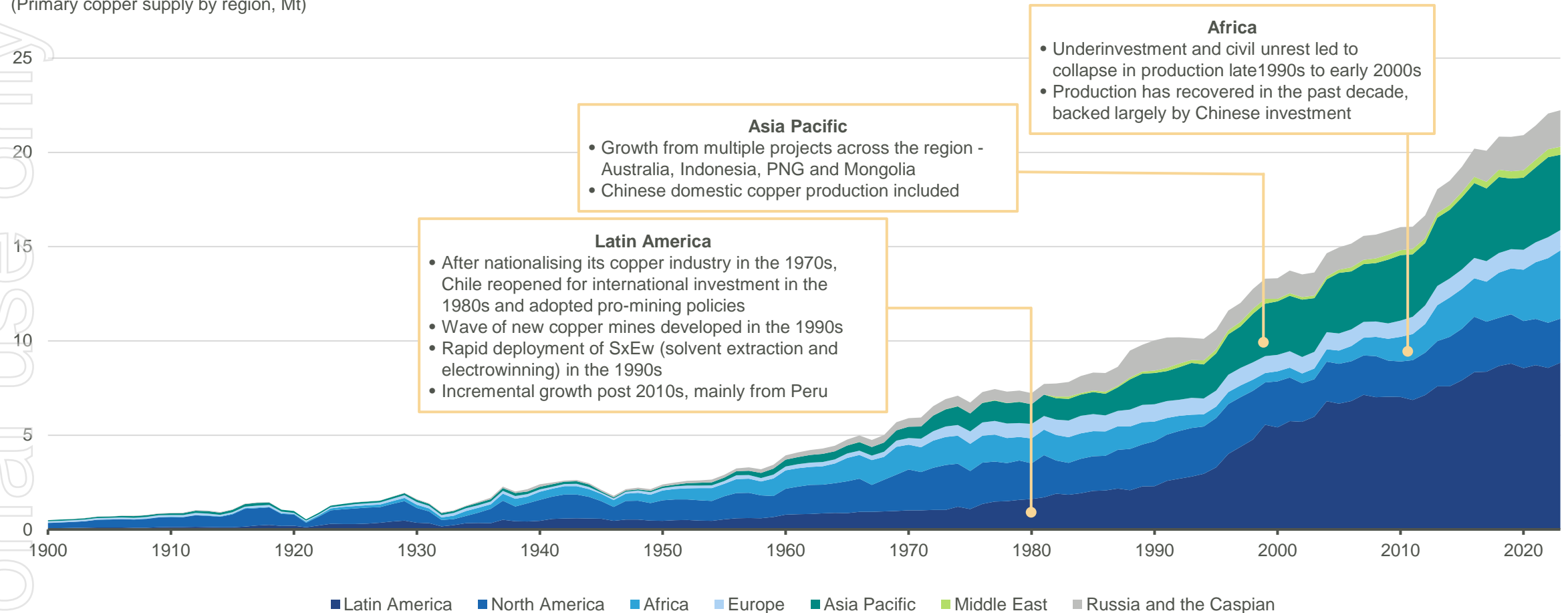
Note: CAGR – compound annual growth rate.

# No denying impressive growth in copper mine supply

In the past 30 years primary supply has grown rapidly, particularly in Latin America

...primarily from Latin America, Africa and Asia Pacific<sup>11</sup>

(Primary copper supply by region, Mt)



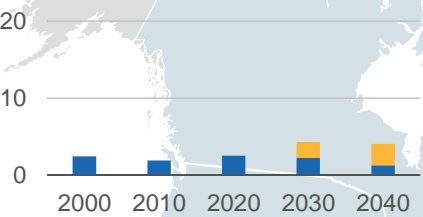
# Latin America a key region for mine supply growth

Other regions growing include Africa and Asia-Pacific, but Latin America expected to deliver the largest new supply

Primary copper supply<sup>12</sup>  
(Mtpa)

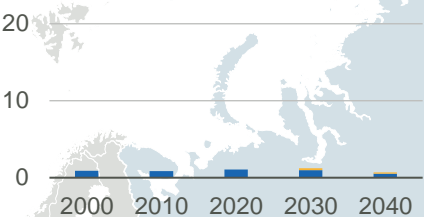
**North America**  
Total current supply  
**2.3 Mtpa**

Active mines  
**61**



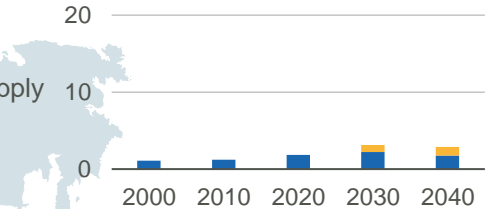
**Europe**  
Total current supply  
**1.1 Mtpa**

Active mines  
**17**



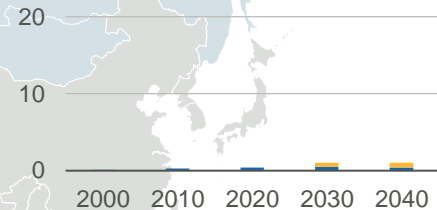
**Russia + Caspian**  
Total current supply  
**2.0 Mtpa**

Active mines  
**43**



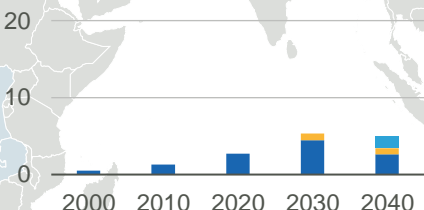
**Middle East**  
Total current supply  
**0.4 Mtpa**

Active mines  
**5**



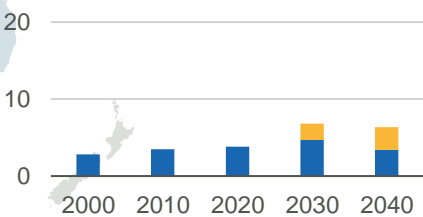
**Africa**  
Total current supply  
**3.6 Mtpa**

Active mines  
**51**



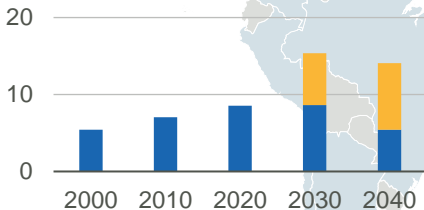
**Asia-Pacific (incl. China)**  
Total current supply  
**4.0 Mtpa**

Active mines  
**30**



**Latin America**  
Total current supply  
**8.8 Mtpa**

Active mines  
**129**



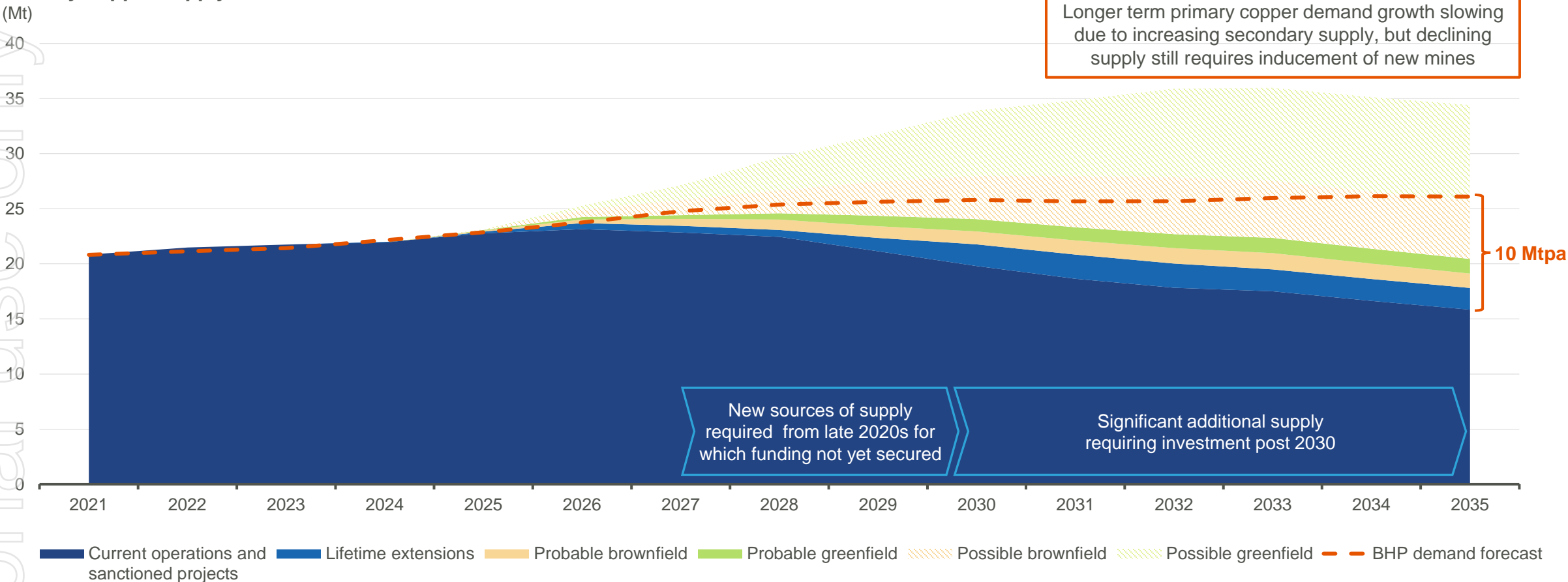
■ Current operations and sanctioned projects  
■ Probable and possible supply sources  
■ Low maturity full potential – Africa



# Industry likely to disappoint on forecast primary supply

Many “possible” projects have yet to satisfy all requirements for investment so are unlikely to come to market as forecast

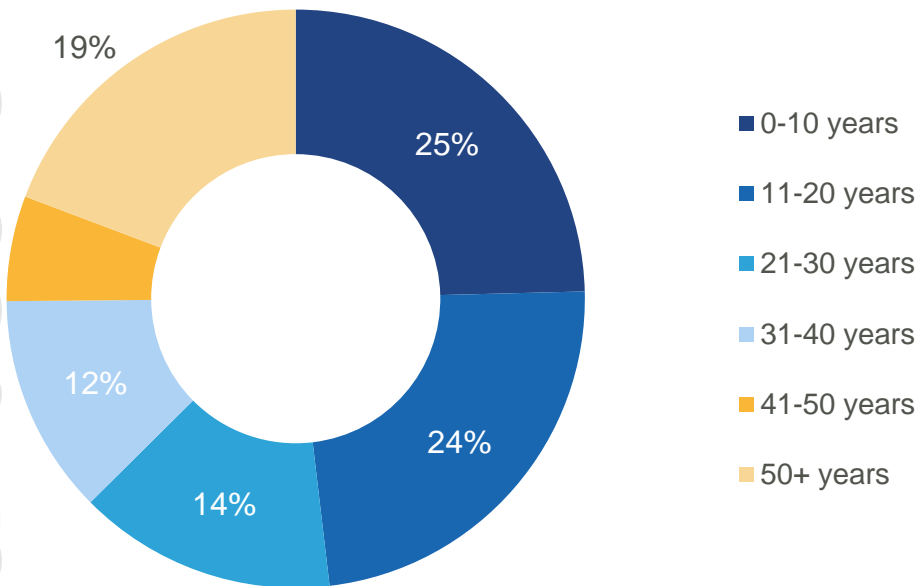
Primary copper supply and demand<sup>13</sup>



# Today's mines are getting older and lower grade

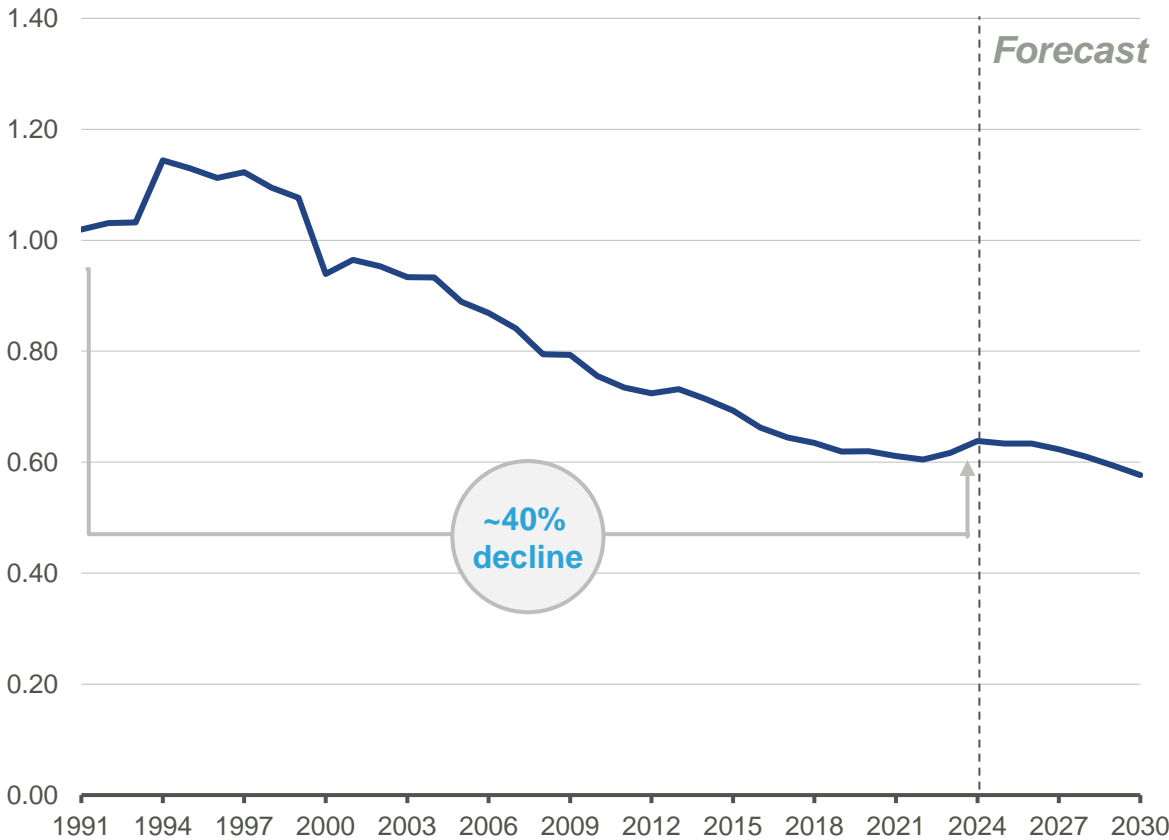
Currently operating mines are working harder for longer

More than half of mines operating in 2023 are >20 years old<sup>14</sup>



Grade decline has been a consistent long-term trend<sup>15</sup>

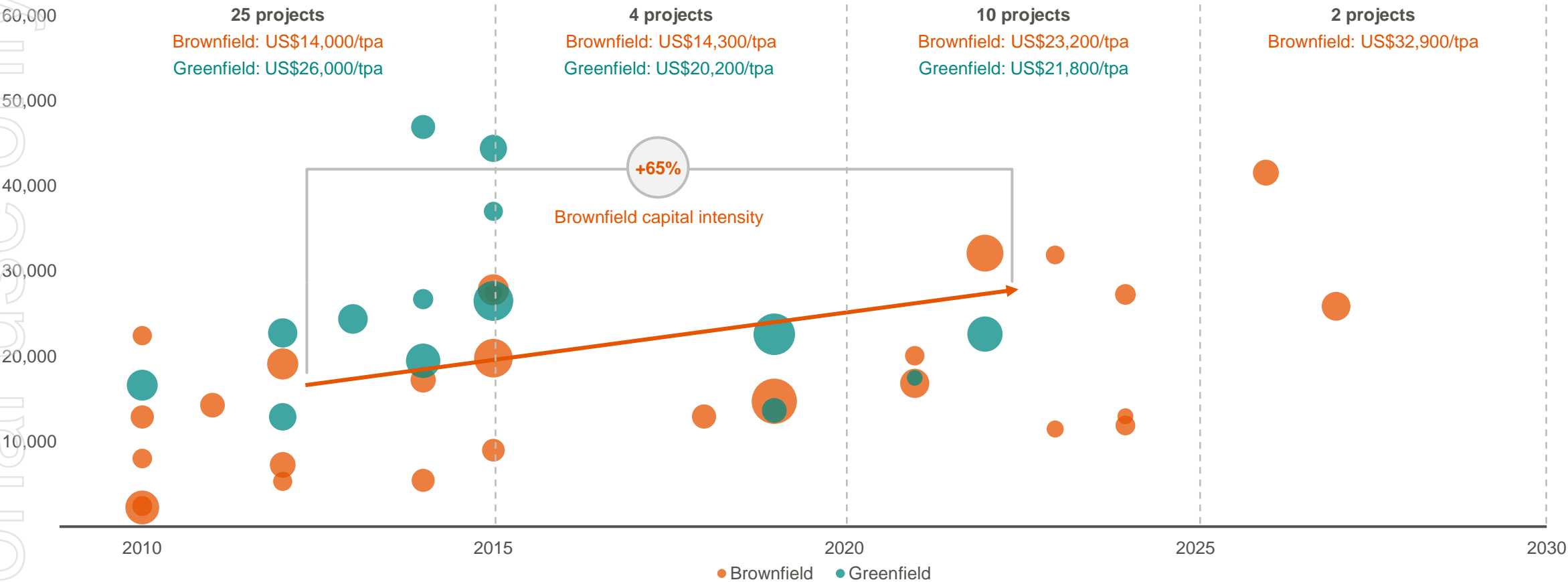
(Start dates of mines operating in 2023 versus 2023 copper grade, %)



# Steady increase in project capital intensity

Brownfield projects face fewer risks in execution, but likely to see similar cost profile to greenfield projects

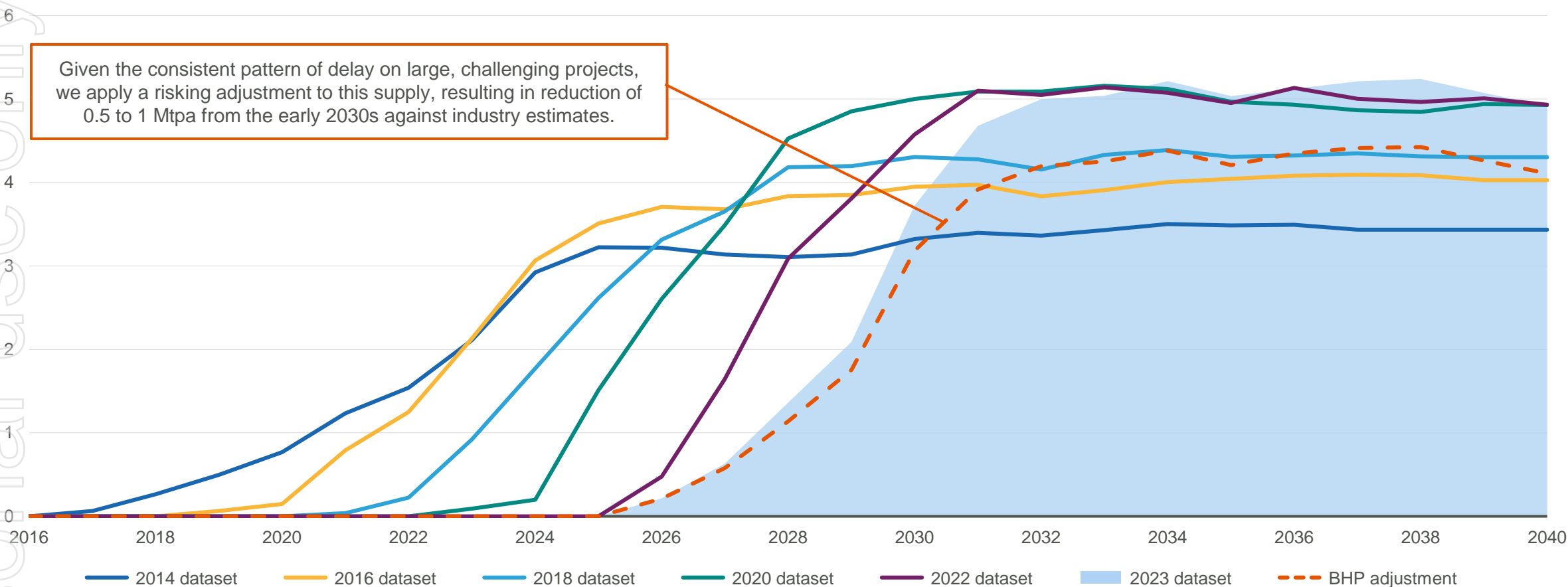
Latin American sanctioned project capital intensity has moved up over time<sup>16</sup>  
(US\$/tpa copper equivalent, real 2024)



# Greenfield projects facing multiple challenge





A continual pattern of delays highlights risks to delivery of forecast greenfield volumes

Large segment of greenfield volumes continue to be delayed, and even those that get approved take 17 years from discovery to first production<sup>17</sup>  
(Copper production capacity, Mtpa)



# Technology options continue to advance

Developments gaining pace but unlikely to solve significant forecast deficits

	 <b>Operating productivity improvements</b>	 <b>Sulphide leaching</b>	 <b>Deconstraining existing operations</b>	 <b>Method substitution of high-cost supply</b>
<b>Potential technologies</b>	<ul style="list-style-type: none"> <li>Automation</li> <li>Machine learning</li> <li>Catalytic technology</li> </ul>	<ul style="list-style-type: none"> <li>Multiple in development across major producers and emerging technology groups</li> </ul>	<ul style="list-style-type: none"> <li>Grind-circuit roughing</li> <li>Coarse particle flotation</li> <li>Fine particle comminution</li> <li>Mill circuit preconditioning</li> </ul>	<ul style="list-style-type: none"> <li>Combined leaching and concentrator optimisation</li> </ul>
<b>Potential impact to supply</b>	<ul style="list-style-type: none"> <li>Increased annual production volumes</li> <li>A.I. in processing metallurgy has the potential to increase recovery</li> <li>Automation to improve productivity</li> <li>Catalytic technology to increase recoveries from existing leaching operations</li> </ul>	<ul style="list-style-type: none"> <li>Increased supply volumes</li> <li>Requires tailored approach at mine level to unlock additional volumes</li> <li>No one single technology for all orebodies</li> <li>Potential to lower operational cut-off grade (operation specific)</li> <li>Lower water usage and tailings risk than current flotation</li> <li>By-product losses may offset gains</li> </ul>	<ul style="list-style-type: none"> <li>Increased processing throughput and metal recoveries</li> <li>Reduces energy consumption per t/Cu</li> <li>Potential application on tailings and uneconomic ore</li> </ul>	<ul style="list-style-type: none"> <li>Combined leaching and concentrator optimisation</li> <li>Alternative ways to stage development using potential modularisation in leaching technology</li> </ul>
<b>Estimated Timing</b>	<ul style="list-style-type: none"> <li>Incremental from now</li> </ul>	<ul style="list-style-type: none"> <li>Incremental from now, 2035 onwards for major gains</li> </ul>	<ul style="list-style-type: none"> <li>Incremental from now</li> </ul>	<ul style="list-style-type: none"> <li>2035 onwards</li> </ul>



# Capturing the copper opportunity

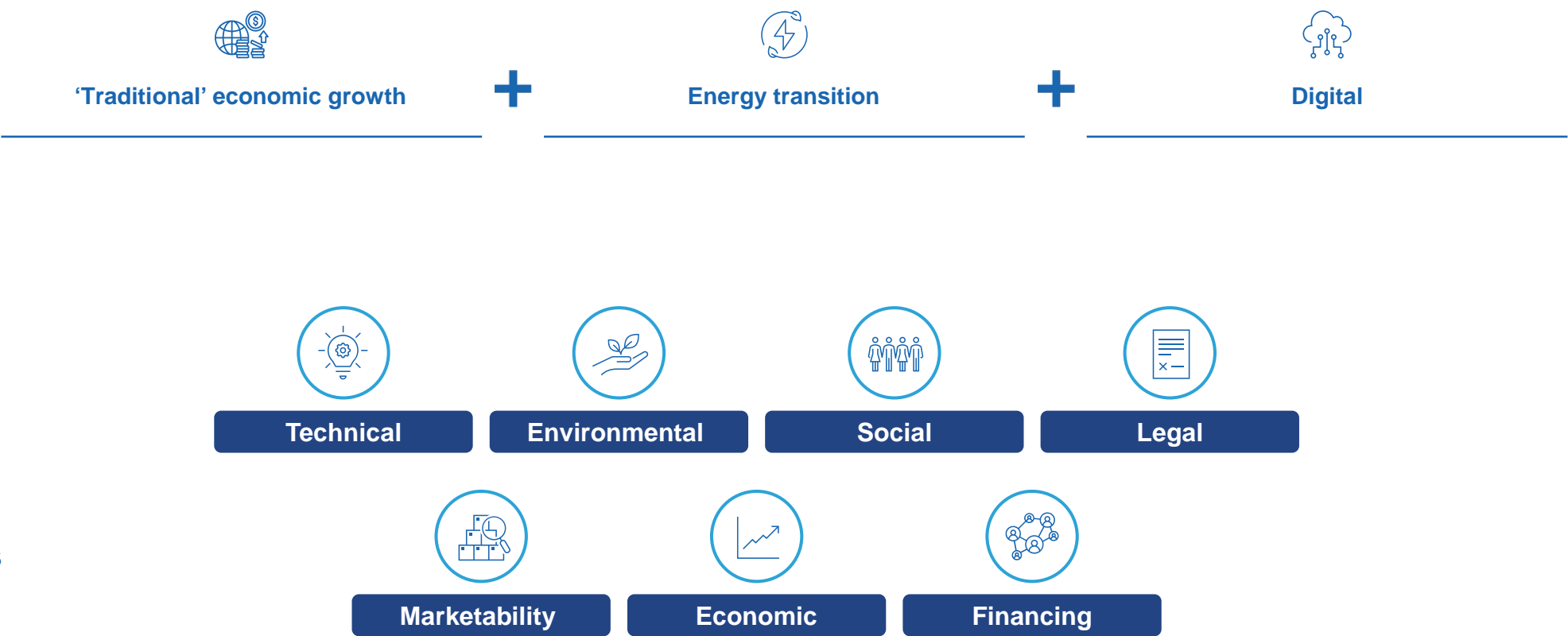
To win, companies must adapt to and manage complexity and maintain a strong balance sheet and social value credentials

The opportunity...

**~70%** demand growth through to 2050



...how to capture it



Winning copper projects will be those that can meet multiple challenges



# Chilean context and social value

René Muga

Vice President Corporate Affairs Latin America

Santiago

BHP



# A stable country for investment

Chile has robust institutions underpinning a longstanding market economy

**1<sup>st</sup>** South American country to join the OECD

## Favourable investment framework

**1<sup>st</sup>**

place in Latin America -  
2024 IMD World  
competitiveness ranking

**2<sup>nd</sup>**

best in region on political  
rights, civil liberties -  
Freedom House Org.

**2<sup>nd</sup>**

lowest levels of corruption  
in the region –  
Transparency International

- Two attempts to rewrite the Constitution rejected by majority
- Elections for President and parliament due in November 2025



La Moneda Palace, Santiago

# Macro fundamentals remain robust

Post economic instability due to the pandemic and social unrest, inflation continues to moderate as economic growth recovers

Chile has stable and reliable monetary and fiscal policies

**3%  
inflation**

Targeted by Q1 2026<sup>18</sup>

**2.25 - 2.75%**

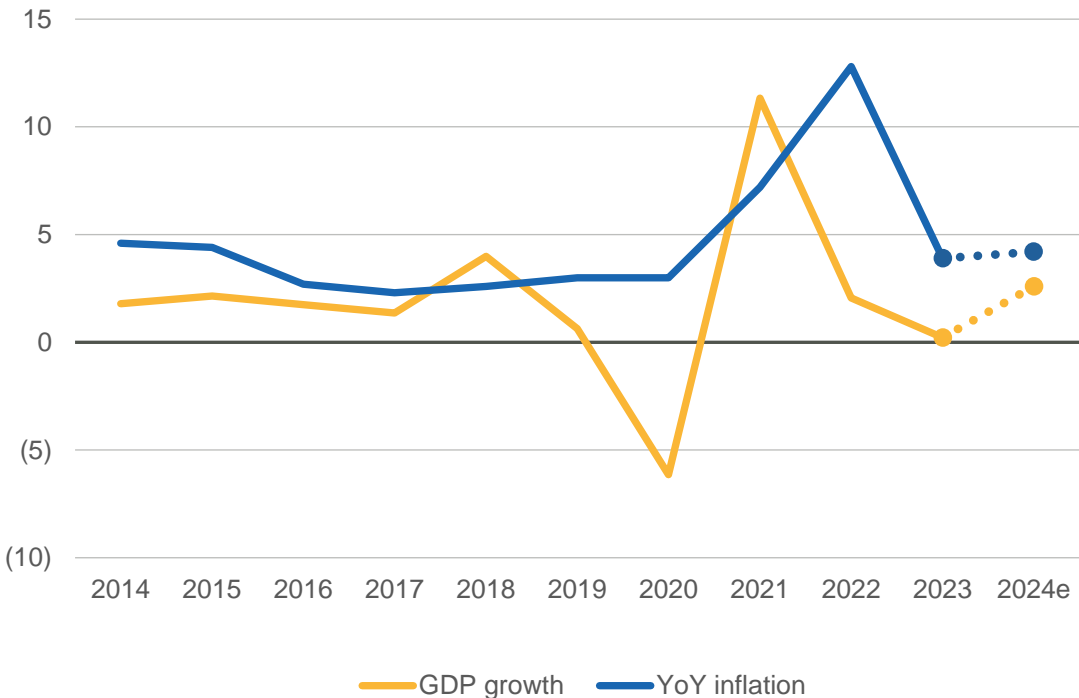
GDP growth range expected in 2024<sup>19</sup>

**Low risk**

Sovereign debt rating by Moody's, Fitch Rating, and S&P

## GDP growth recovering as inflation normalises<sup>20</sup>

(Chilean GDP and inflation YoY change, %)

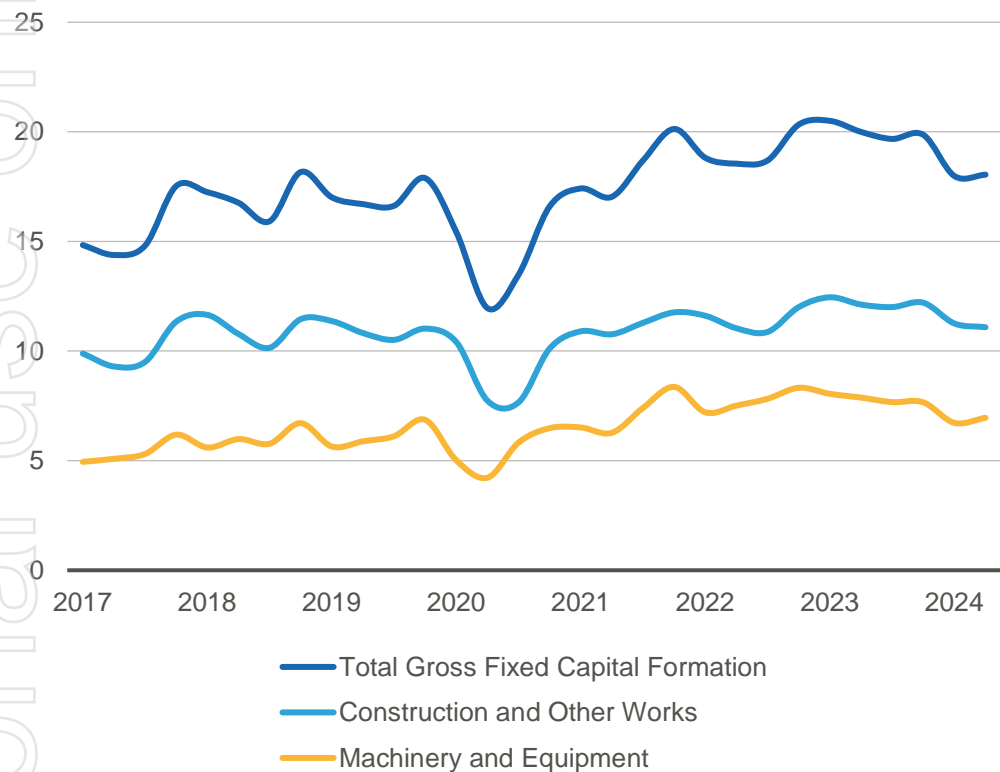


# Chile is an attractive destination for copper investment

Mining is expected to remain a significant driver of private investments

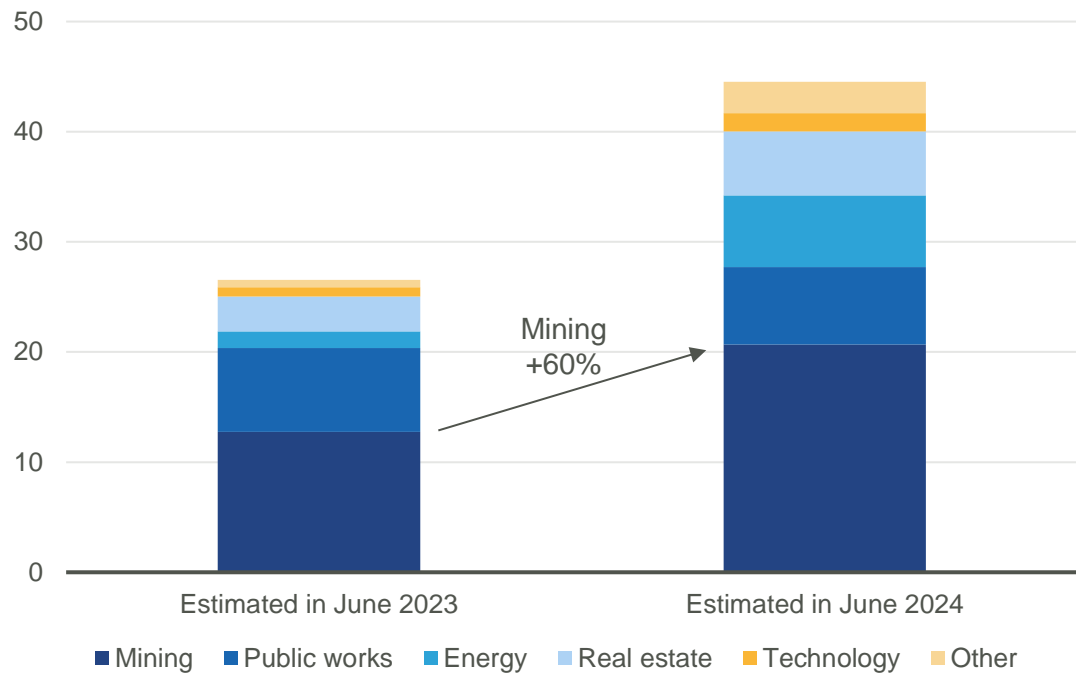
## Investments are beginning to recover and stabilise<sup>21</sup>

(Gross fixed capital formation by component, US\$ bn)



## Private investors are showing confidence in Chile's economic path<sup>22</sup>

(Estimated annual private investments from 2024 to 2027 by sector, US\$ bn)





# New royalty structure brings certainty

Royalty bill passed in 2023 now in place, Government expects it to raise as much as 0.45% of Chilean GDP

## Royalty structure

Ad valorem component over gross revenue	Margin component	Cap on mining tax burden
1%	8-26%	46.5%

- Mining industry average effective tax rate increased from the historical ~40% to ~46%
- Tax stability agreements are honoured
  - Escondida agreement expired in CY23
  - Spence has an agreement in place until CY32
  - Excellent consultation between mining industry and government



# Permitting reform discussion underway

Congress is discussing two different bills to streamline permitting processes



**In January 2024 the Executive submitted two bills to Congress to reform the permit system**

- Reform to the Environmental Assessment System (SEIA Reform)
- Reform to the Sectoral Permits System

**The Executive's goal is to reduce permit processing times by ~30%**

**BHP is actively participating in this debate**

- International benchmarking report shared with relevant authorities
- Direct engagement with relevant Government officials and congress members

# Social value

Delivering on our framework with tangible results across Chile

## Our social value framework

 <b>Decarbonisation</b>	 <b>Healthy environment</b>	 <b>Indigenous partnerships</b>	 <b>Safe, inclusive and future ready workforce</b>	 <b>Thriving, empowered communities</b>	 <b>Responsible supply chains</b>
<b>Operational GHG emissions</b>	<b>Contributing to resolution of shared water challenges</b>	<b>Building relationships based on trust, respect and mutual benefit</b>	<b>Enhancing safety, diversity, capability and wellbeing</b>	<b>Contributing to long-term prosperity and resilience</b>	<b>Supporting ethical, sustainable and transparent supply chains</b>
<b>100%</b> renewable electricity at Escondida and Spence	<b>&gt; 90%</b> desalinated water	<b>10%</b> Indigenous employee representation for FY24	<b>&gt; 40%</b> female employee participation for FY24, achieving gender balance <sup>23</sup>	<b>&gt; US\$1 bn</b> overall local spend for FY24	<b>Copper Mark Certification</b> for Escondida and Spence since 2021

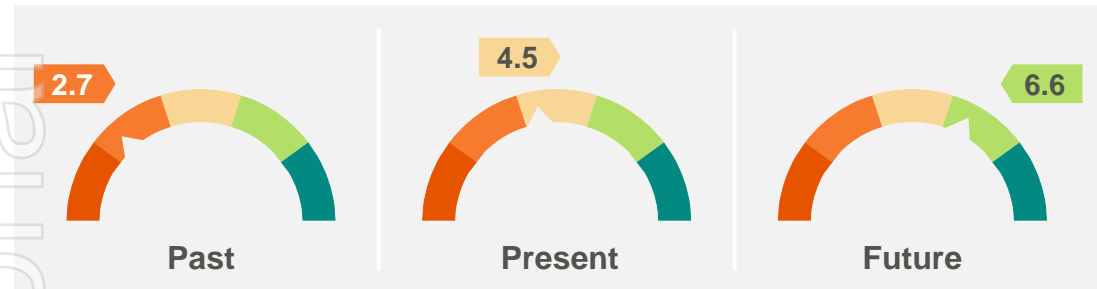
# Investing in Indigenous peoples in Chile

Building long-term relationships based on deep respect for distinct cultures, rights, perspectives and aspirations

## Indigenous peoples around our operations

- Escondida has an Indigenous partnership strategy
  - Five Indigenous communities of Borde Sur: Peine, Talabre, Socaire, Camar and Toconao
- Pampa Norte
  - Six Indigenous communities at Cerro Colorado
  - Have not identified Indigenous communities near Spence

## Relationship health assessment results (FY24): Chile<sup>24</sup>



## Taking a multi-faceted approach

- **Social and economic development support**
  - Economic empowerment for Indigenous entrepreneurs
  - Educational programs, scholarships, STEM courses
  - Cultural projects
- **Employment:** Escondida and Pampa Norte surpassed their FY25 Indigenous employment participation aspirations of 10%, one year ahead of plan
- **Procurement:** >US\$18 m spent with Indigenous-owned Chilean businesses in FY24
- **Relationship health<sup>24</sup>:** The six Chilean Indigenous communities that provided feedback indicated they had seen modest improvement in relationship health with BHP from the past to the present and were more optimistic in their view on the future



# Financial performance

Frances Summerhayes

Vice President Finance Minerals Americas



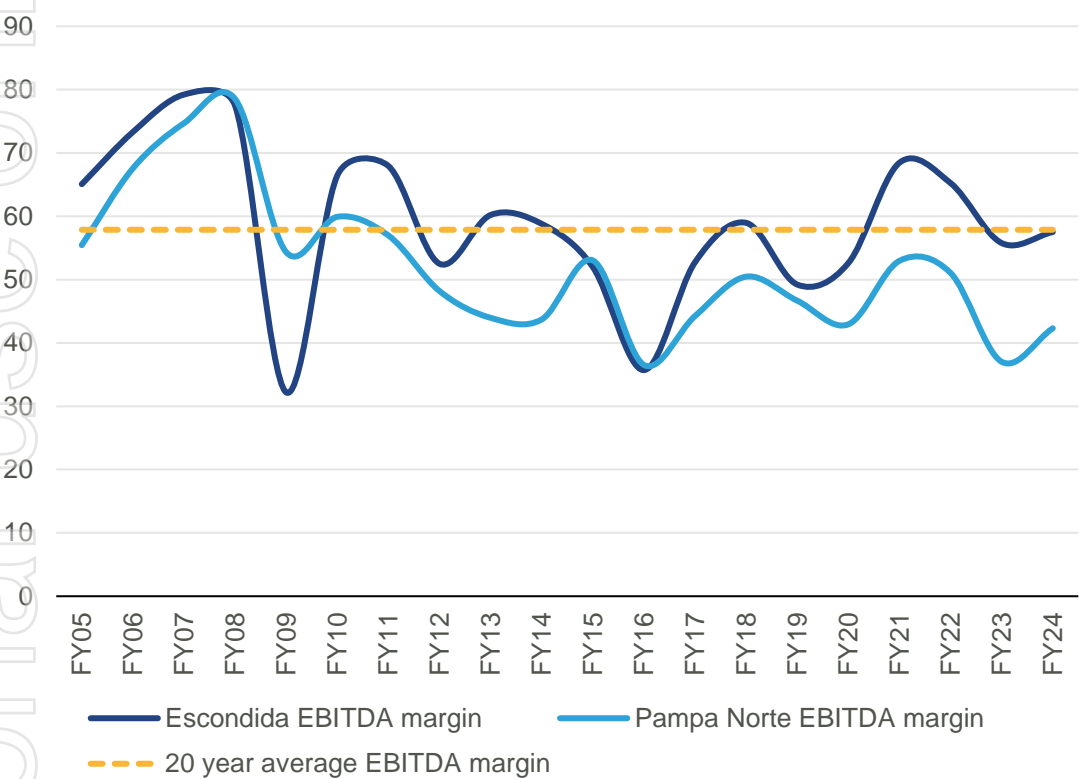
**BHP**



# Chile copper: A significant business performing strongly

A large, high quality business with consistent returns and contribution to BHP

Consistent EBITDA margins averaging ~58% over last 20 years  
(EBITDA margin, %)



Chile generates significant EBITDA...and healthy returns<sup>25</sup>

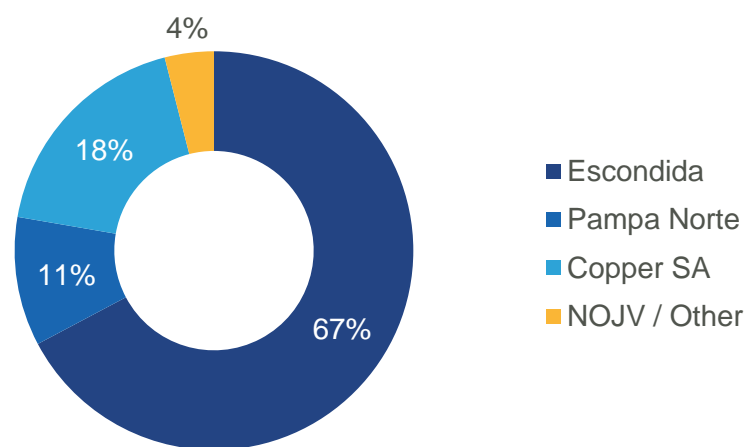
**\$5.6 bn**

EBITDA p.a. 5-year average

**22%**

5-year average ROCE

Contributes ~78% of BHP Group Copper EBITDA  
(FY24 operational Copper EBITDA, %)



# Proven cost discipline in an inflationary environment

Through our operational excellence and relentless focus on cost control we have managed the challenges

## Market drivers have been highly inflationary...

Chilean mining wage inflation

**42%**↑

vs. FY20 CLP

Diesel

**106%**↑

vs. FY20 CLP

Explosives

**102%**↑

vs. FY20 CLP

Power<sup>27</sup>

**26%**↑

vs. FY20 CLP

## ...and yet cost control has been strong vs. competitors

Average Chilean copper competitors unit cost<sup>26</sup>

**56%**↑

vs. CY20 USD

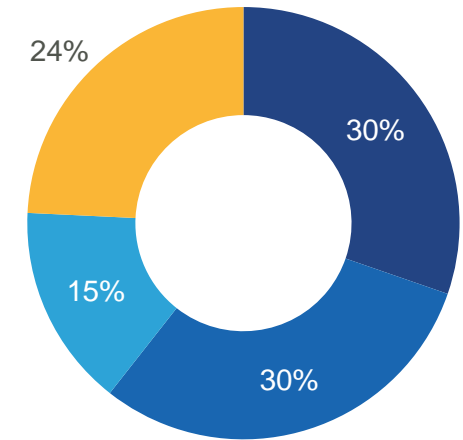
Escondida unit cost<sup>28</sup>

**44%**↑

vs. FY20 USD

## Labour remains a key source of inflationary pressure

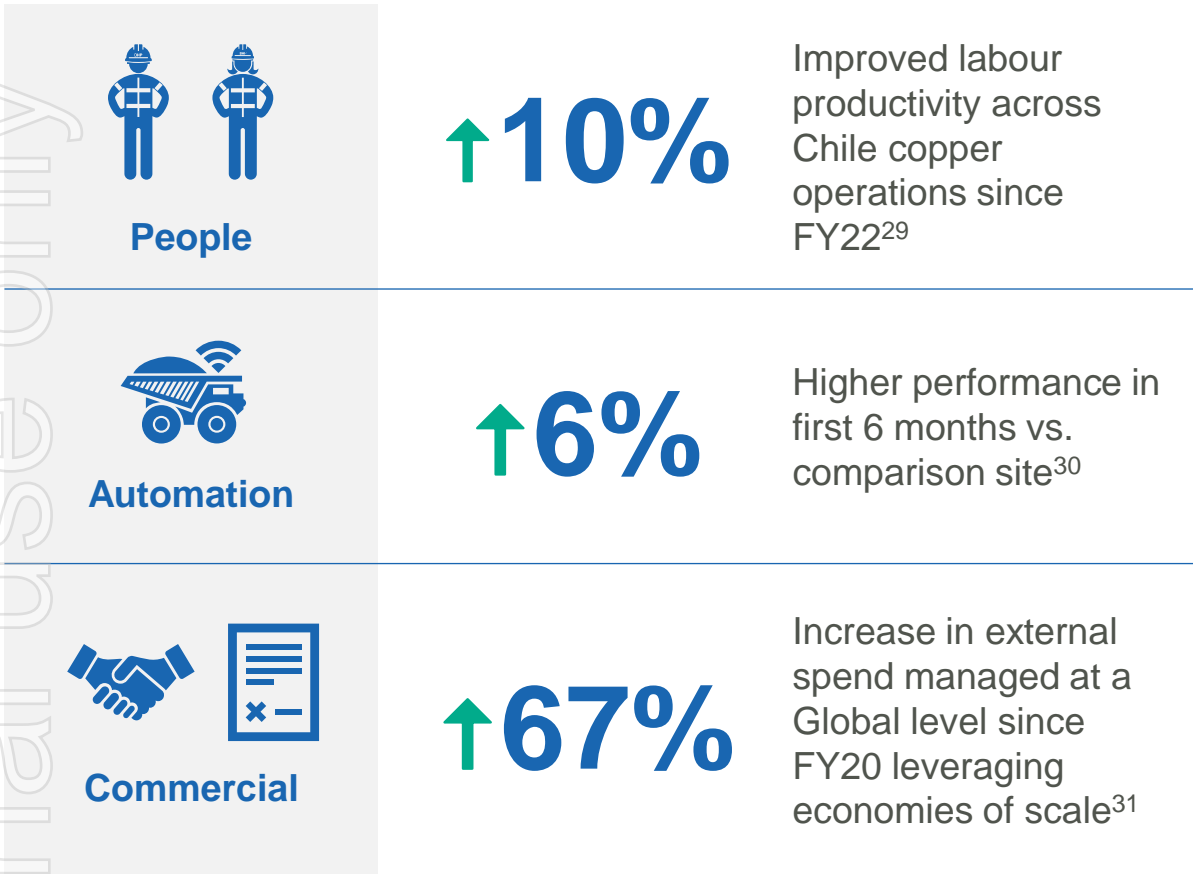
(FY24 Escondida operational cash cost split, %)



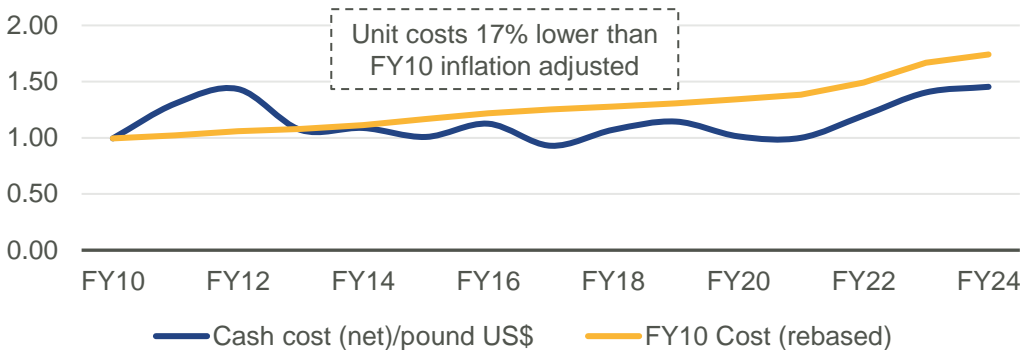
- Labour and contractors
- Consumables
- Fuel and power
- Services and other

# Productivity is our biggest value lever

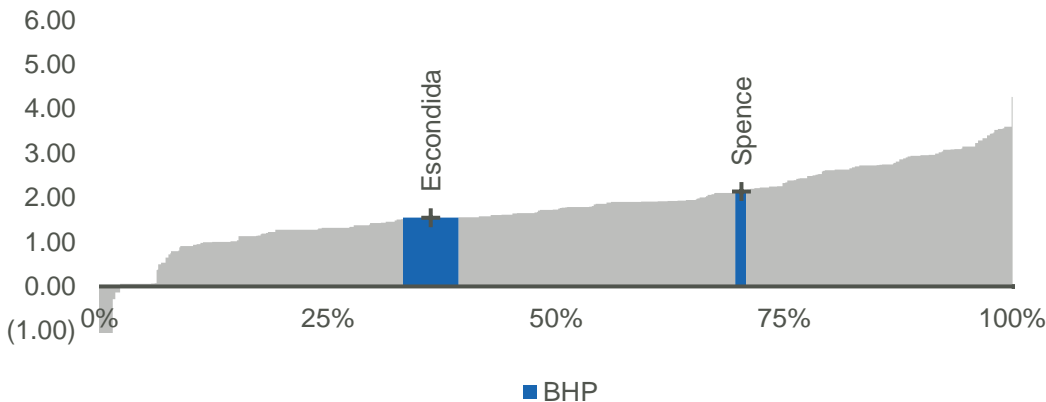
Delivered ~US\$4 bn of productivity benefits across Chilean copper since FY20



Driving a stable cost base at Escondida over the long run...  
(Escondida unit cost US\$/lb vs. Chilean inflation)



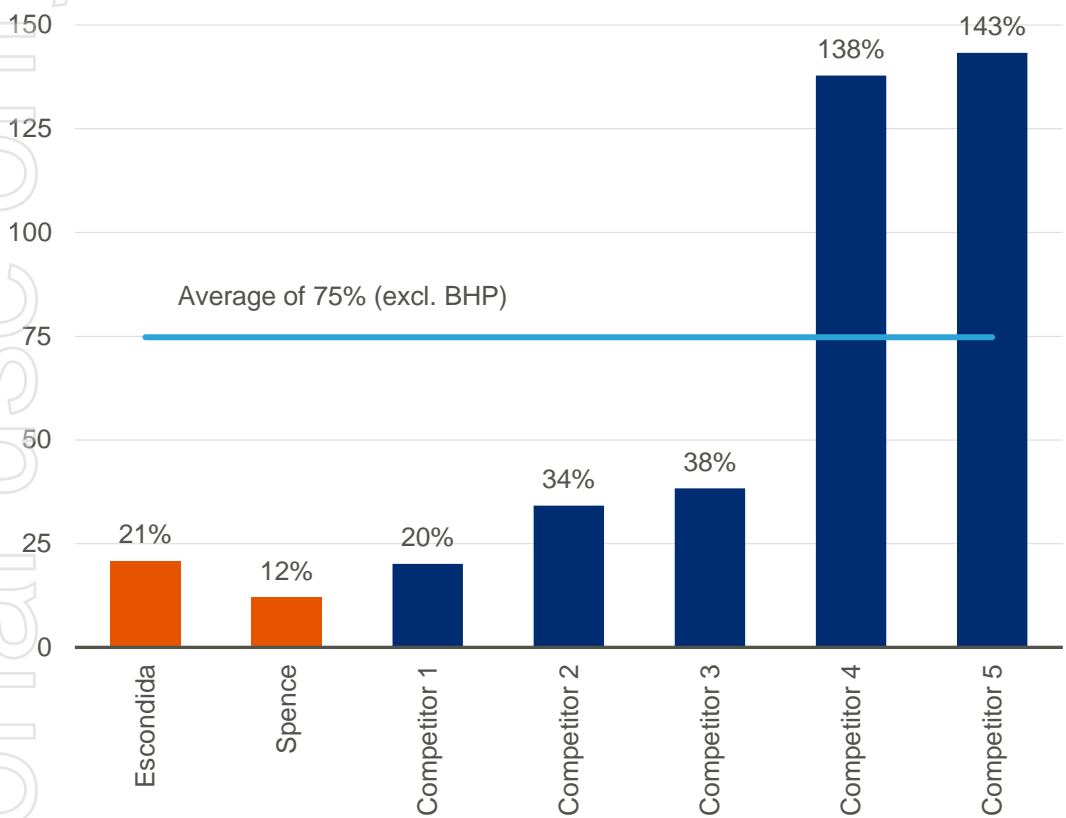
... and competitive cost position<sup>32</sup>  
(C1 + Sustaining cost curve 2025, Cu US\$/lb real 2024)



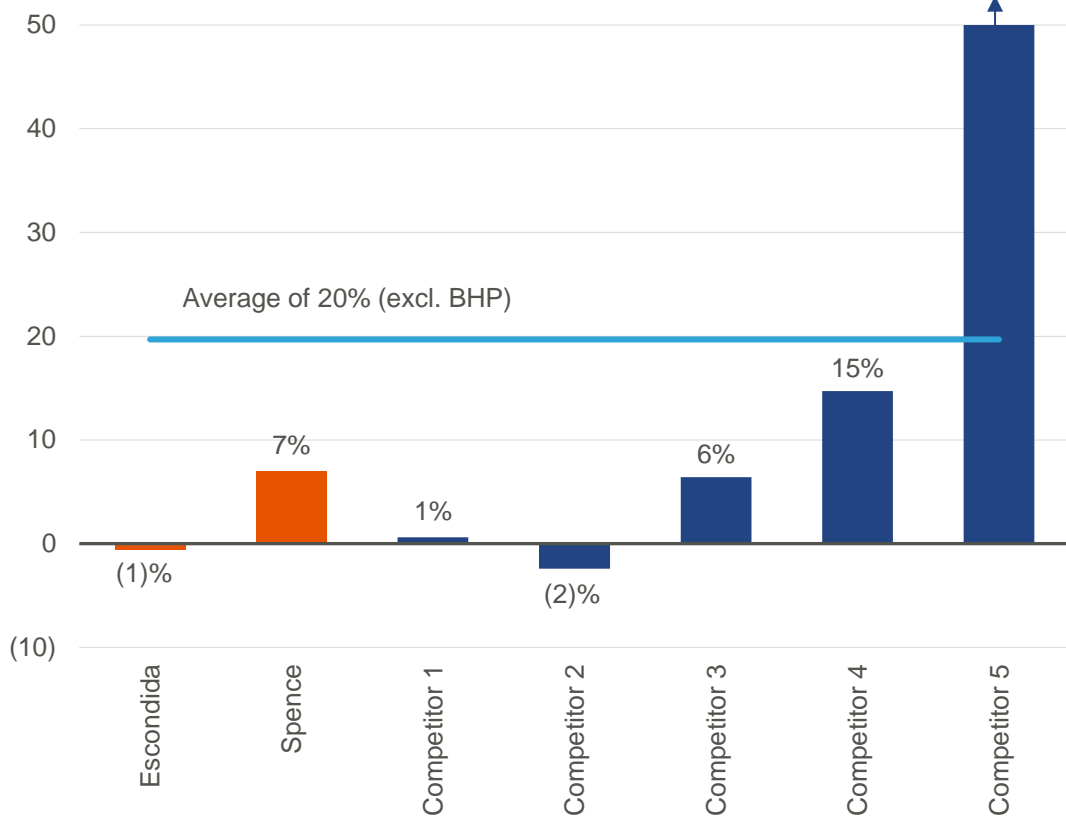
# A sustainable competitive advantage

Our proven approach to operational excellence and relentless focus on cost control drives sector-leading performance

Escondida and Spence have managed costs well...<sup>33</sup>  
(two year unit cost increase to FY24, %)



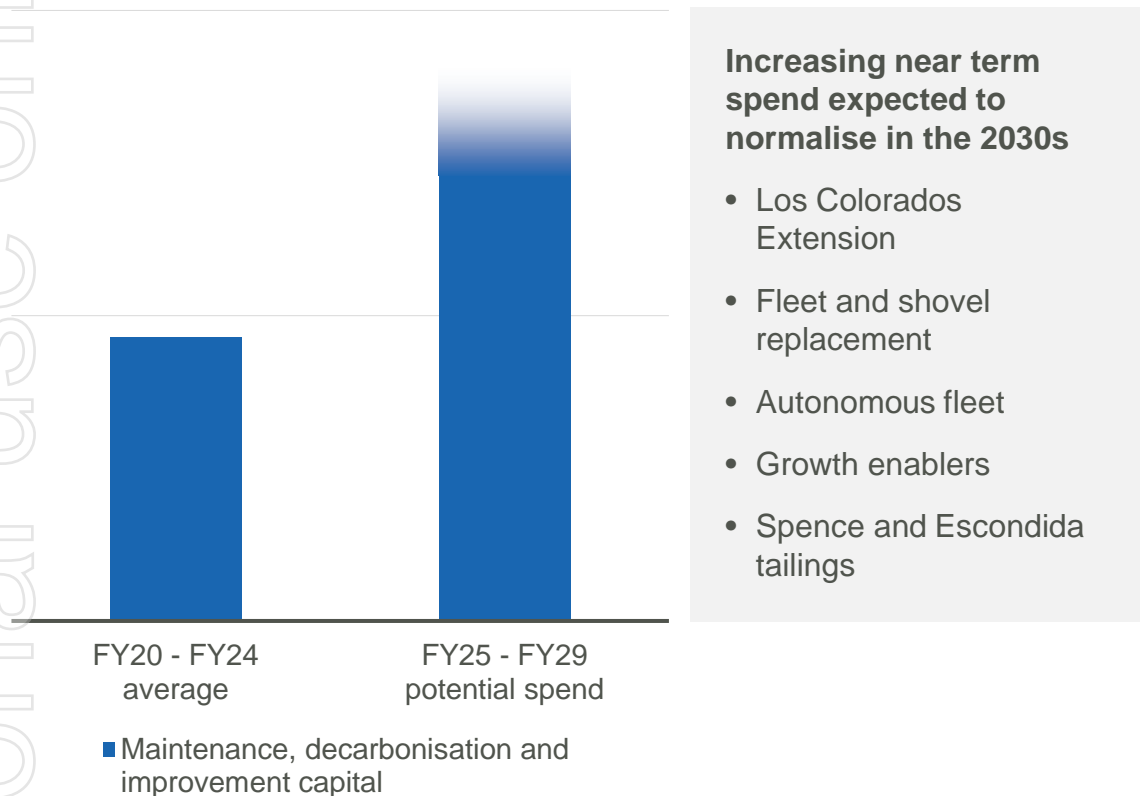
...and delivered better at Escondida vs. guidance<sup>33</sup>  
(unit cost vs. initial guidance mid-point across FY24/CY23, %)



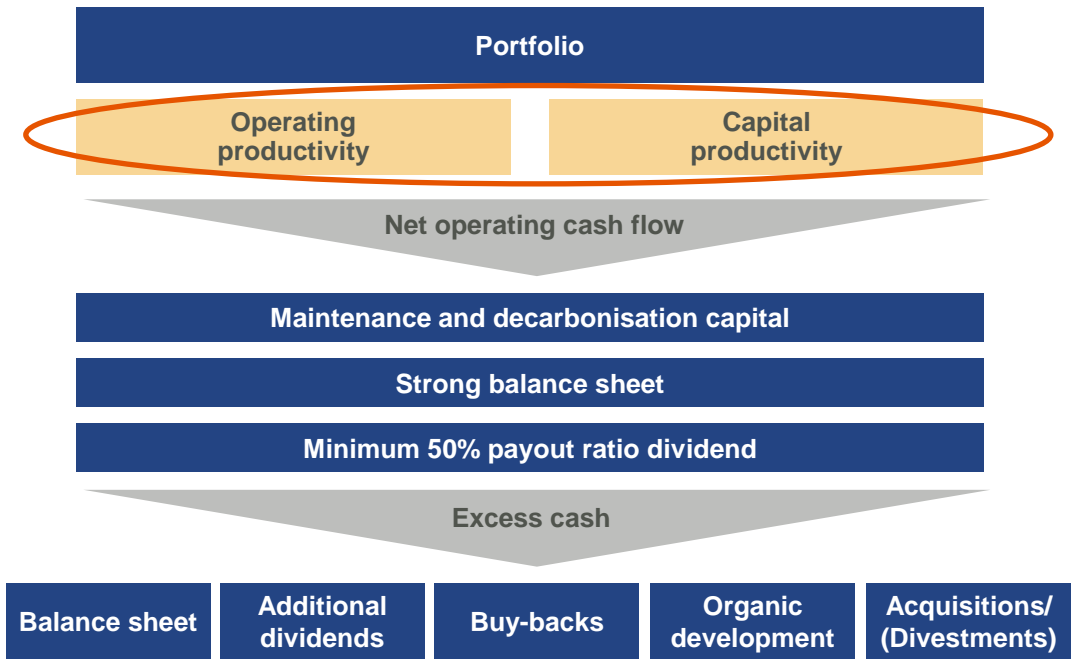
# Capital discipline supports our strategy

Our investments across Chilean copper are assessed through a robust framework

Capital to maintain and improve our assets set to increase<sup>34</sup>  
(Average Chilean annual capital spend)



## The Capital Allocation Framework sits at the core of BHP





# Clear in our approach to investment

Delivering the right information at the right time to make decisions that consider value and the pillars of our social value framework

We assess projects on a range of financial and other metrics...



...which incorporates social value metrics

	Planning cycle	Investment decisions
 Context	Social value has been formally <b>included as part of the mine planning cycle</b> since FY21	Consideration of the social value framework impacts <b>required for all projects over US\$20 m</b>
 Methodology	<b>Coordinate technical leads and subject matter experts</b> to ensure that Social Value Assessments are conducted for the life of asset planning process each year	<b>Non Economically Quantifiable Impact (NEQI) tool</b> provides a standardised approach to assess projects' impacts and opportunities
 Outcomes	<b>Life of Asset Social Value Assessment</b>	Involvement in all evaluations for our <b>growth plans</b>

# Strong performance in FY24 with momentum to continue

Following a solid year at Escondida and record production at Spence we are set to deliver production growth of +8% into FY25

Escondida

## FY24<sup>35</sup>

Production (kt)	Cost (US\$/lb)
1,125	1.45

## FY25 guidance<sup>35</sup>

Production (kt)	Cost (US\$/lb)
1,180 – 1,300	1.30 – 1.60
+10% YoY	

## Medium term guidance<sup>35,36</sup>

Production (ktpa)	Cost (US\$/lb)
900 – 1,000	1.50 – 1.80

Spence

Production (kt)	Cost (US\$/lb)
255	2.13

Production (kt)	Cost (US\$/lb)
240 – 270	2.00 – 2.30
0% YoY	

Production (ktpa)	Cost (US\$/lb)
~250	2.05 – 2.35



# Chilean growth program

Adam Favero

Vice President Development and Strategic Services Chile

Escondida

**BHP**



# Growth strategy reflects competitive advantages

We will leverage our strengths to deliver growth

## Globally significant resource base

- 30 Bt resource in Chile<sup>37</sup>; ~7.5% of global copper resources
- More than 65 years of mine life across Chile<sup>38</sup>

## Deep global project expertise

- Recent success delivering major projects, strong track record on schedule and cost
- Significant investment in growth studies to de-risk and develop growth options



## Latent capacity and Infrastructure

- ~300 ktpa Cu of SXEW latent capacity across Chile<sup>39</sup>
- Infrastructure in Chile to support growth includes ~4,700 l/s desal capacity and renewable electricity

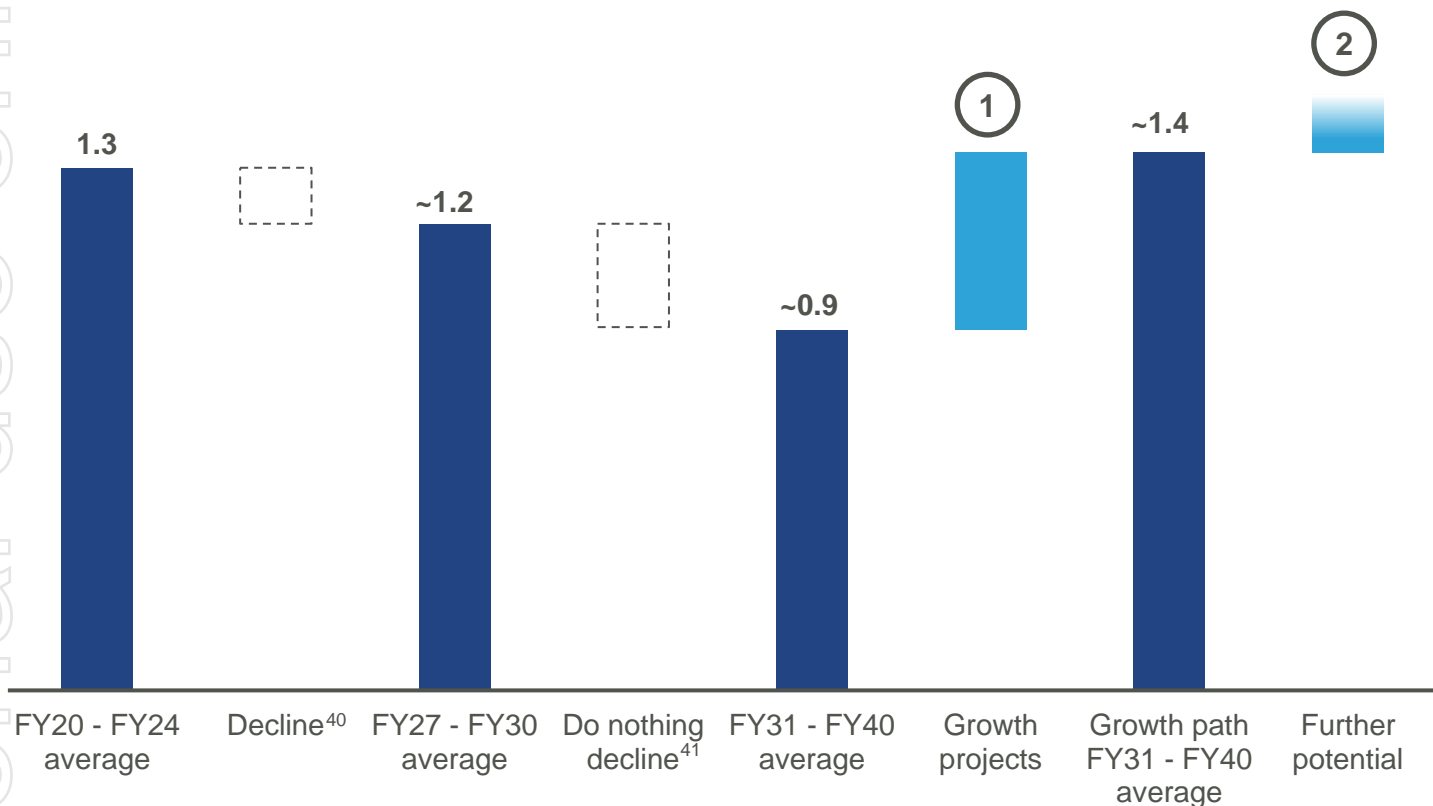
## Innovation, research and development

- BHP-led research delivered Full SaL and BHP Leach technology
- Studying new flotation technologies to recover coarser and finer particles, pilots underway

# Growing production from our Chilean resource base

Targeting organic growth from across BHP Chile operated assets

Chilean copper organic growth shows potential pathways to offset decline  
(Average annual copper production, Mtpa)



1

## • Escondida

- Extension of Los Colorados Concentrator with timing optionality
- Expansion of Laguna Seca Concentrators
- New Concentrator to replace Los Colorados
- Increase recovery from existing leaching facilities

## • Pampa Norte

- Extension of existing leaching facilities
- Spence concentrator throughput and recovery increase
- Cerro Colorado restart (Phase 1 – leaching of supergene ore)

2

## • Escondida

- Potential expansion of leaching facilities

## • Pampa Norte

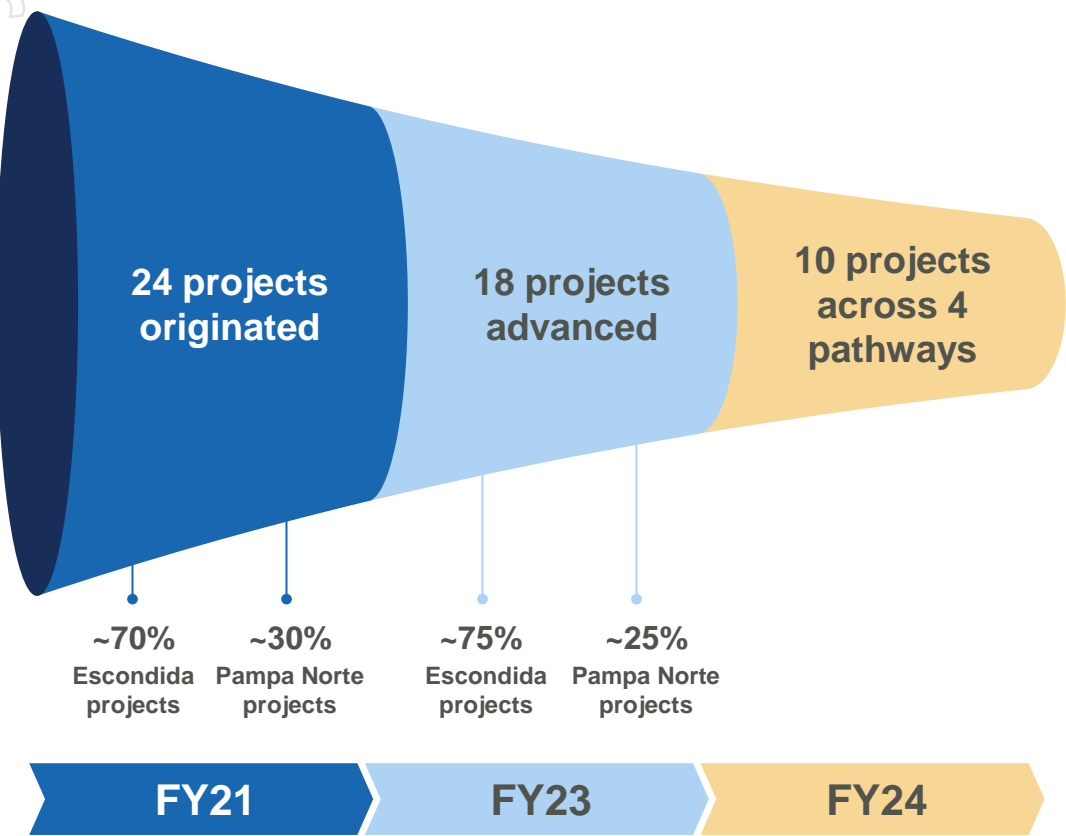
- Cerro Colorado expansion (Phase 2 – leaching of hypogene ore)



# Clear pathways forward for Chilean growth

We have narrowed our studies to four main pathways

## Relevant progress on concentrator and leaching projects



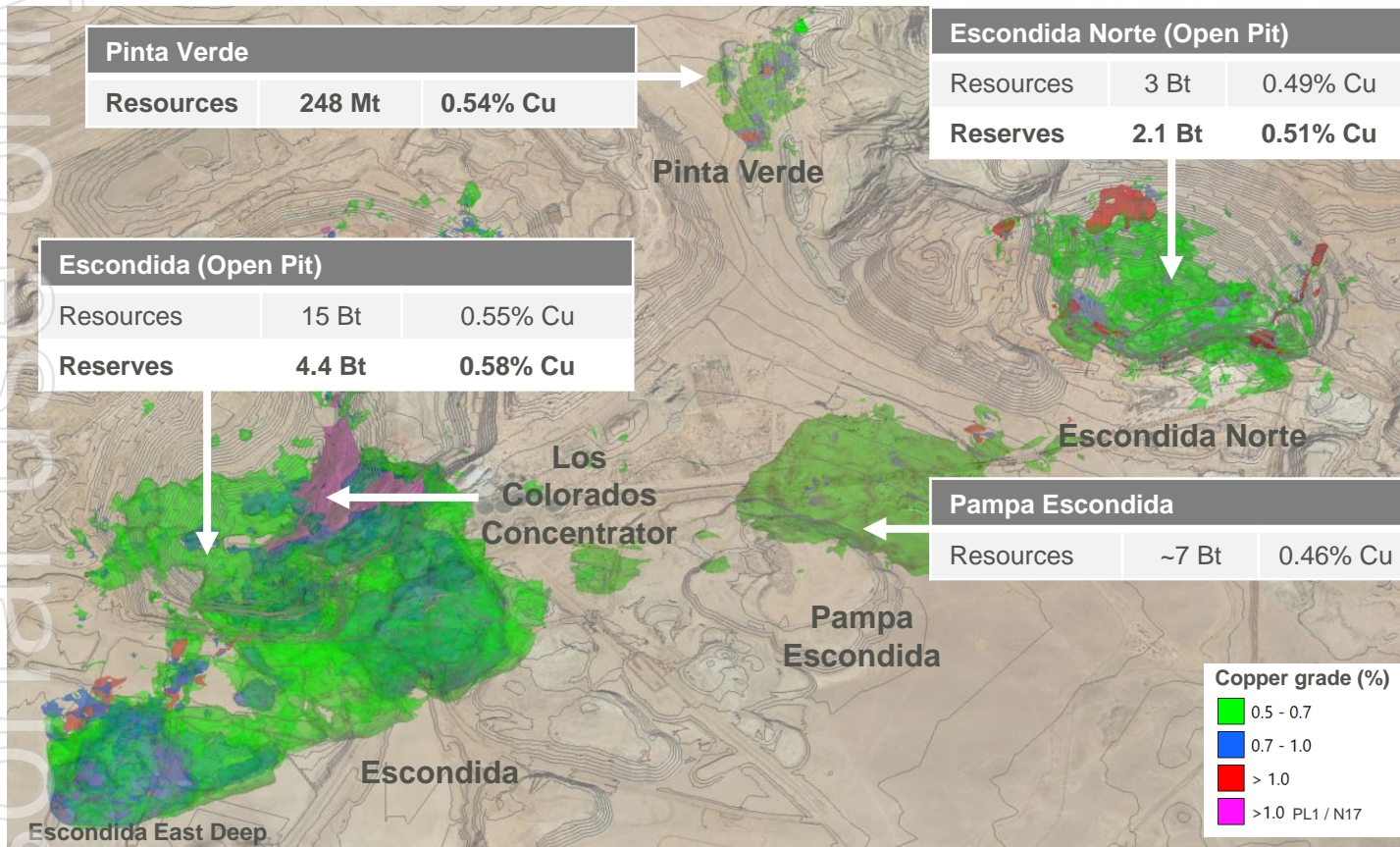
## Strategic approach to growth options in Chile

	Existing facilities	New facilities
<b>Concentrator strategy</b> 	Expansion of Laguna Seca 1 and 2  Spence concentrator throughput and recovery increase	New concentrator at Escondida
<b>Leaching Strategy</b> 	Leaching including BHP and third-party technology, utilising latent capacity	Leaching including BHP and third-party technology with new supporting infrastructure  Cerro Colorado potential restart
<b>Resource &amp; mine strategy</b> 	Upside to increase mining capacity and maximise utilisation rates at processing facilities, based on our resource base	

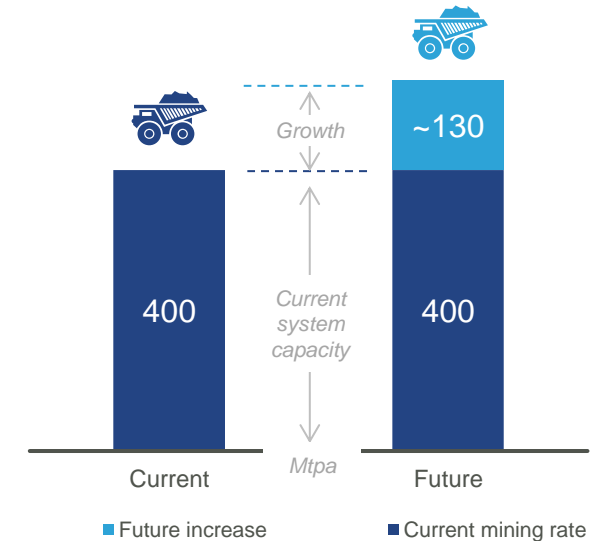
# Escondida represents a world-class opportunity

Leading global resource and increase in mining intensity to support growth of concentrator capacity

~26 Bt of resource @ 0.53% copper presents significant optionality<sup>42</sup>



Increase in mining rate key to growth

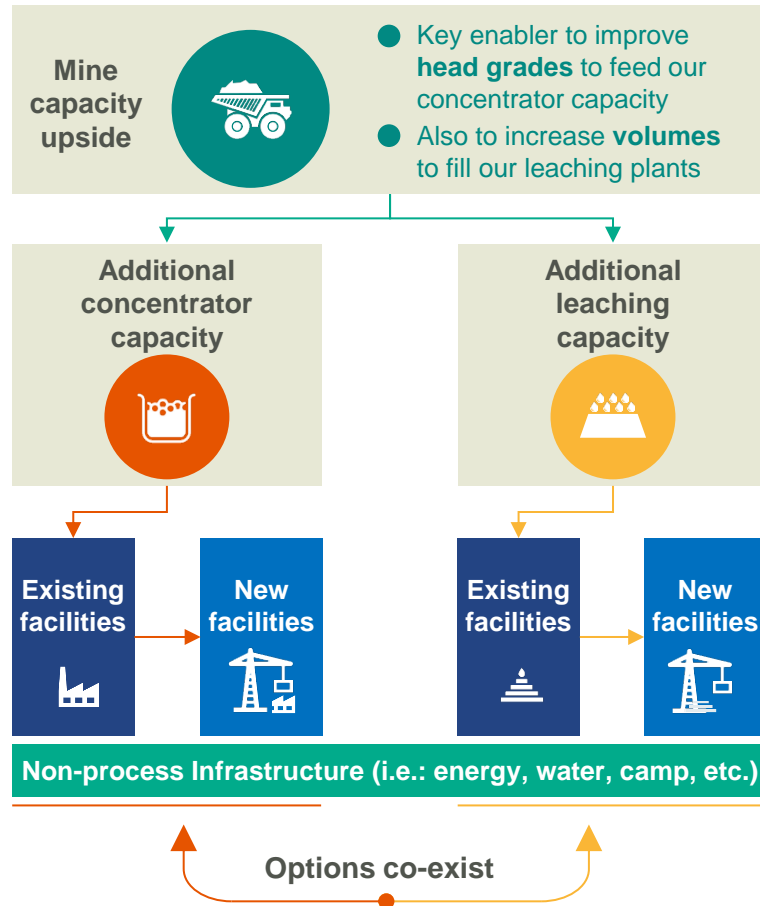


- Current<sup>43</sup> ex-pit mine movement ~400 Mtpa
- Key changes in mine design, fleet upgrade and productivity initiatives could enable increase to >500 Mtpa
- Changes include larger pushbacks, more access ramps, more trucks, larger trucks and shovels (fleet upgrade)

# Escondida growth program

A combination of concentrator programs and leaching options underpin Escondida growth

## Growth program



## Escondida growth program approach

- Optimal resource & mine planning decisions, considering resource potential and full range of surface processing options
- Trade-off assessments to determine optimal production capacity, flowsheet alternatives and project timing
- Integrated approach using existing infrastructure, latent capacity
- Leverage complementary concentrator and sulphide leaching flowsheets
- Program approach to project execution planning, sequencing, contracting and workforce planning
- Integrated approach to permitting, with optimised sequencing

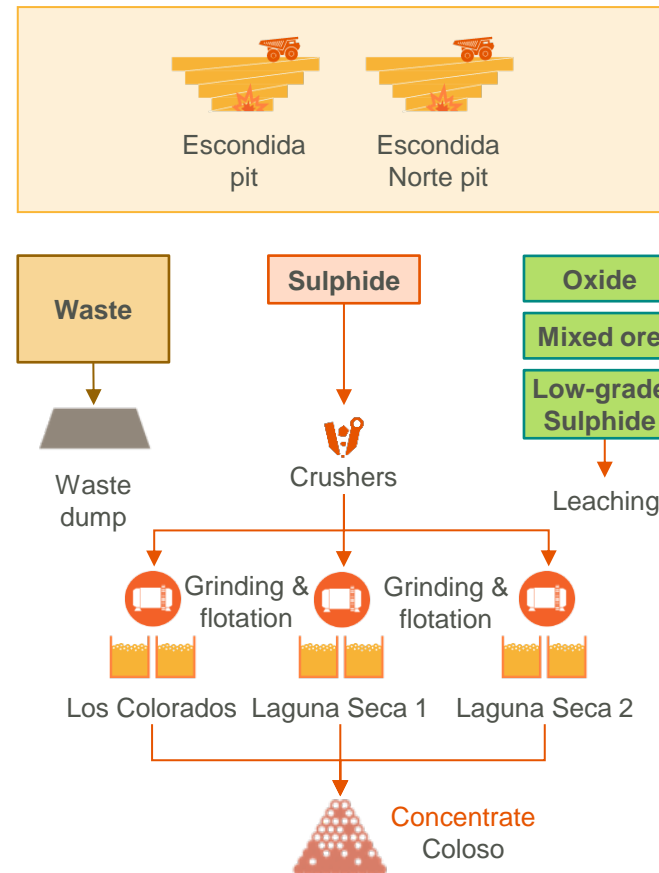
# Escondida concentrator pathways

Large existing concentrator capacity plus supporting infrastructure presents optionality

## Context

- Concentrate feed grade decline
- Resources rich in sulphides
- Processing and infrastructure capacity:
  - Laguna Seca concentrators with 40 ktpd latent capacity due to hardness impact (in ball mills, flotation)
  - Non-process infrastructure capacity available after Los Colorados Concentrator closure
- High operational capability, team with deep expertise

## Flowsheet



## The opportunity

- Extend Los Colorados beyond FY27 to FY29 with optionality to FY31
- Expand Laguna Seca throughput 40 ktpd
  - Potential +50-70 ktpa from CY30-31
- Build New Concentrator with 125 ktpd capacity to replace Los Colorados
  - Potential +150-180 ktpa Cu<sup>44</sup> from CY31-32



# Trade-offs: Los Colorados Concentrator

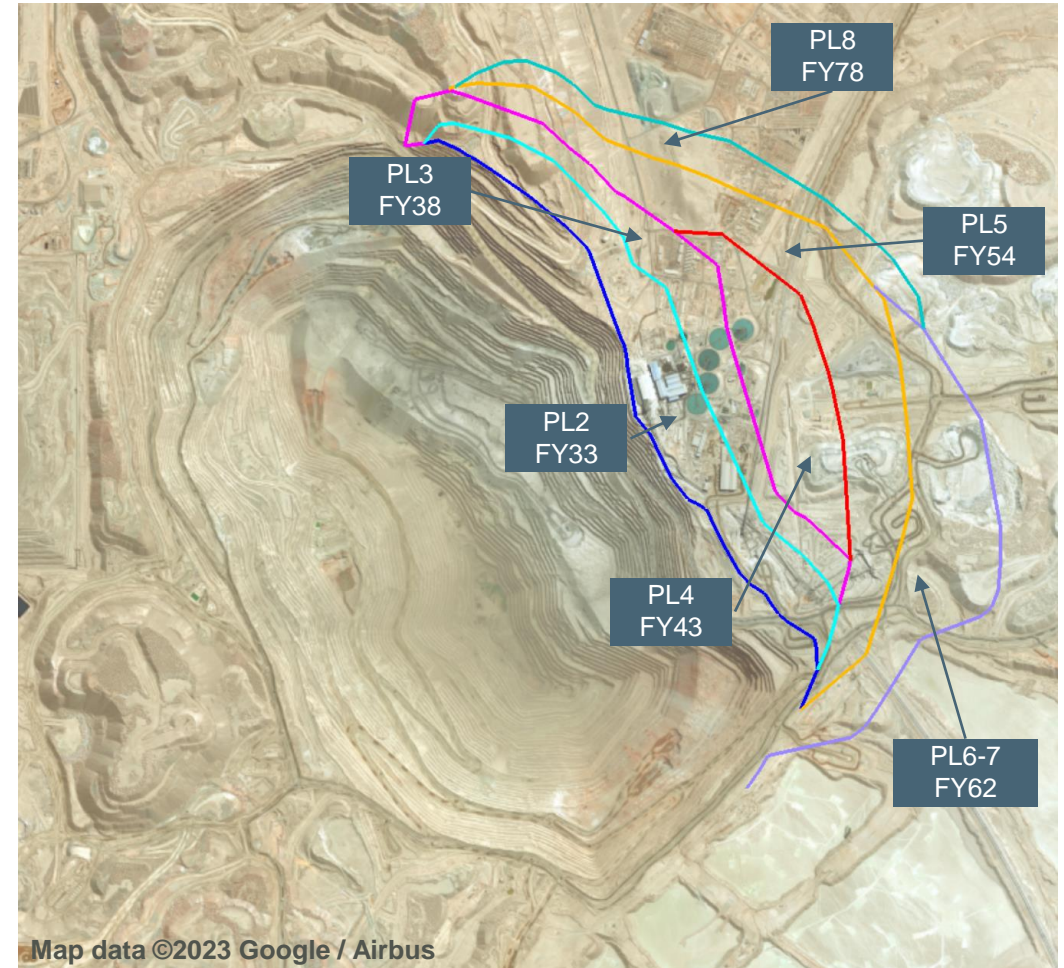
We have the optionality to access to high-grade ore sooner or later by managing the Los Colorados Concentrator closure date

## Accessing higher grade ore

- Los Colorados located at the edge of pit above PL2
- Higher grades and volumes accessible from PL2
- Original extension to FY27; now expected FY29

## Trading off between throughput and grade

- Trade-off between higher throughput with extension vs accessing higher-grade ore sooner with demolition
- Optionality to extend further beyond FY29 to FY31 based on potential optimisation and sequencing





# Leaching in the copper industry

Different technologies work across different ore types

## Types of material processed

- **Oxide ore**
  - Typically shallower ore (Supergene)
- **Mixed ore**
  - Approximately 30% Oxide, 70% Sulphide
- **Sulphide ores**
  - Primary sulphide ore (Hypogene)
  - Secondary sulphide ore (Supergene)
- **Leach residues**
  - Spent processed ore (ripios)
- **Waste**
  - Low grade material mined from sulphide deposits

## Types of leaching across the industry

- **Acid leaching**
  - Applicable to oxide ore and mixed ore, has been around for several decades
- **Bio-leach**
  - Sulphide ore leaching, requires a bacterial component
- **Chloride leaching**
  - Improved recovery for oxide, mixed and hypogene ores
- **Catalyst**
  - Addition to bio-leach process to increase recovery
- **Nitrate Leach**
  - Under development by BHP for application to sulphide leaching

## Benefits of leaching

- ✓ No tailings, lower water and energy consumption
- ✓ Produces cathode (no smelting)
- ✓ Can operate in parallel with concentrator
- ✓ Can economically treat low grade ores and coarse material

## Drawbacks of leaching

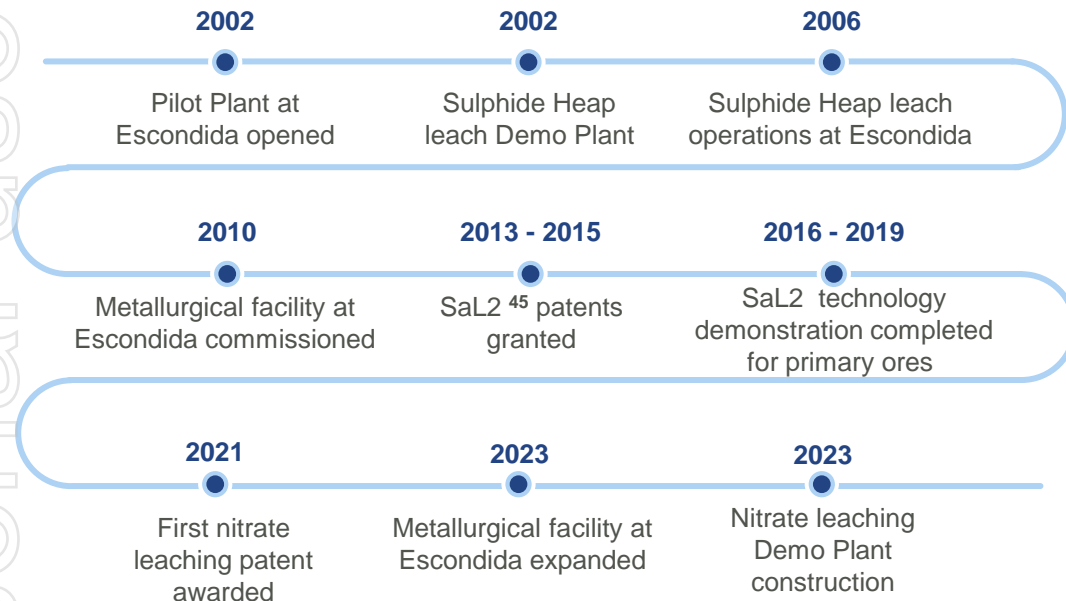
- ↓ Lower recoveries vs. concentrator
- 🕒 Longer cycle times vs. concentrator
- 🏗️ Limited recovery of by-products

# A differentiated strategy on leaching

Long and successful track record in developing and implementing new leaching technologies

## History

- 20+ years of development and delivery of new leaching technologies
- Competitive advantage from the BHP Innovation Leaching Facility at Escondida, which covers full innovation chain
- Demonstrated track record with bio-leach, chloride leach and nitrate leach technologies



## Our approach to assessing opportunities

- Assessing multiple opportunities, including oxide leach pad, leach residue reprocessing (ripios), sulphide leach run-of-mine pad and new pads
- Actively trialling a wide range of technologies, across both BHP and third-parties as well as partnership technologies



BHP Innovation Leaching Facility

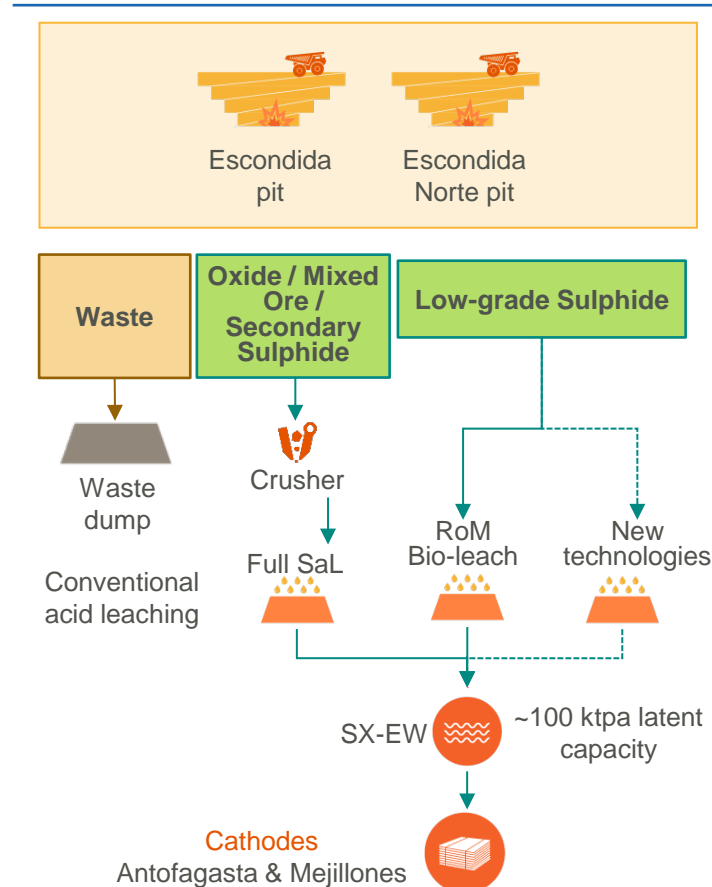
# Escondida leaching pathways

Leaching technologies and the scale of Escondida provide opportunities for a variety of targeted applications across the business

## Context

- Current Escondida cathode production ~200 ktpa
- Latent capacity of ~100 ktpa expected to grow as oxide ore depletes
- Opportunity to leverage water and renewable power supply to site
- Scale and breadth presents several locations for deployment of existing and new leaching technologies
- Potential to enhance synergies between concentrator and leaching

## Flowsheet



## The opportunity...

- Chloride leaching (Full SaL) improves recovery and enables new crushed material (mixed ore and secondary sulphide) to be processed on the oxide leach pad
- Jeti Catalyst improves recovery at existing sulphide leach pad by ~5-10ppt
- BHP Leach potential to recover additional copper from ~20 years of leach residues
  - Potential to process sulphide run-of-mine (RoM) material at higher recoveries and shorter cycle times than current bioleach process
- Optionality through Nuton™ leaching technology

# BHP Leach is a patented technology for nitrate leaching

Potential to recover additional copper from spent ripios and low-grade sulphide run-of-mine material

## Technology development and piloting

- Nitrate leaching of primary sulphide ore, for either run-of-mine or crushed material
- Patented technology developed at BHP Innovation Leaching facility at Escondida
- Pilot scale testing with scale-up across a range of column sizes (1m to 10m high)
- Variability testing and process improvement work currently underway



BHP Leaching Innovation Facilities

## BHP demonstration plant

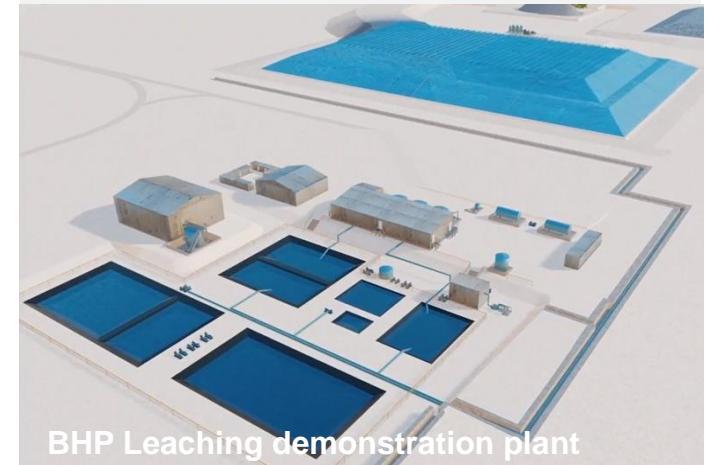
- Industrial scale demonstration plant under construction
- Purpose of demonstration plant is to prove technology on run-of-mine material at scale. Initial results planned late CY25
- Testing of copper recovery, reagent consumption and gas management
- Cycle times of ~250-350 days, recoveries of ~60-70%



BHP Leach demonstration pad

## Engineering and studies

- Pending demonstration plant results, two potential business cases for application at Escondida
- Currently studying application of BHP Leach to the existing sulphide leach ripios area, potential for 35-55 ktpa incremental copper from CY30-32
- Further potential application in active area of existing sulphide leach pad, up to ~70 ktpa incremental copper from CY32-33



BHP Leaching demonstration plant



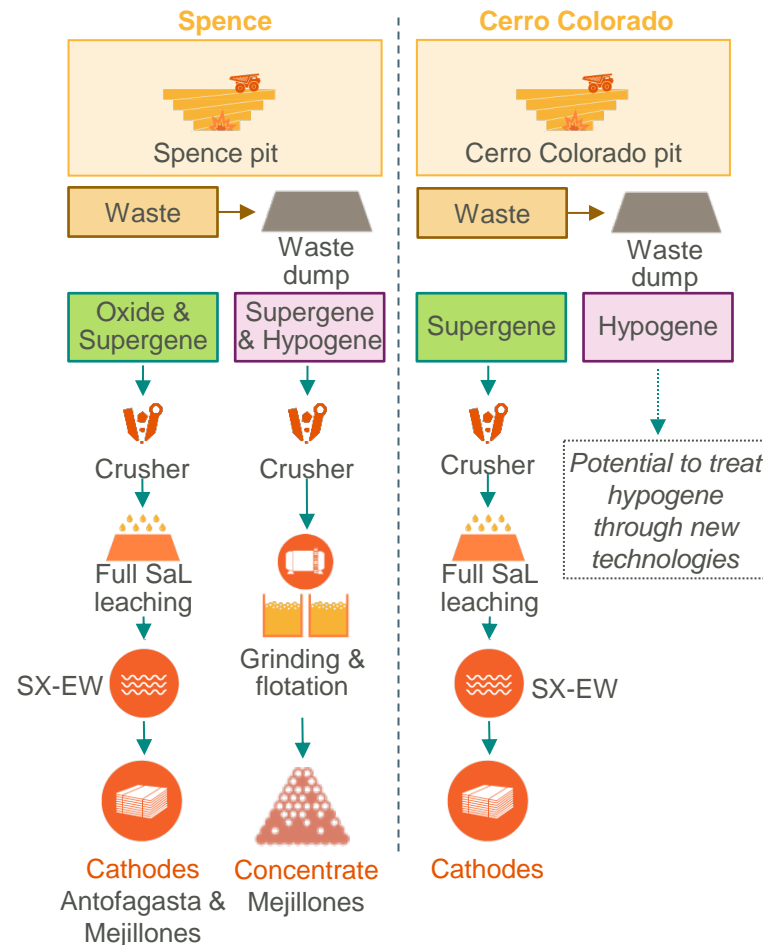
# Pampa Norte growth pathways

Possibilities including an expansion, life extension and re-starting an operation

## Context

- Spence concentrator bottlenecks and complex mineralogy
- Upside potential with opportunities to increase concentrator throughput and recovery (currently ~95 ktpd and ~75%)
- Spence cathode remaining life as leaching and SXEW plant ending production in FY29 due to oxide depletion
- Cerro Colorado on care and maintenance but with significant 2.3 Bt primary and secondary sulphide resource at ~0.4% Cu<sup>46</sup>

## Flowsheet



## The opportunity...

- Upgrade recovery by 3-7ppt adding a new flotation circuit
- Increase throughput capacity to 105 ktpd through adding tertiary grinding and repowering materials handling
- Extend Spence life of cathode production through SaL2 technology, leveraging existing capacity for secondary sulphide ore, up to 60 ktpa
- Cerro Colorado restart by implementing BHP's technology in existing processing infrastructure



# Understanding permitting and our approach

Chilean regulation requires permit approval before final investment decision; with the ultimate approach determined by authorities

## DIA

### Simplified environmental impact statement

**Legal timing:** 90 days  
**Effective timing:** 9 to 12 months

**The project does not cause significant environmental impacts**

**No**  
Needs compliance with general regulations

**Not mandatory**  
Upon request

**No**  
If there are no significant impacts



**Timing**  
(submission to award)



**Environmental impacts**



**Additional measures**



**Public participation**



**Indigenous consultation**

## EIA

### Full environmental impact study

**Legal timing:** 180 days  
**Effective timing:** 24+ months

**Project generates significant environmental and social impacts**  
People's health, natural resources, protected areas, cultural heritage, Indigenous communities, etc

**Yes**  
Mitigation and compensation measures to address significant environmental and/or social impact

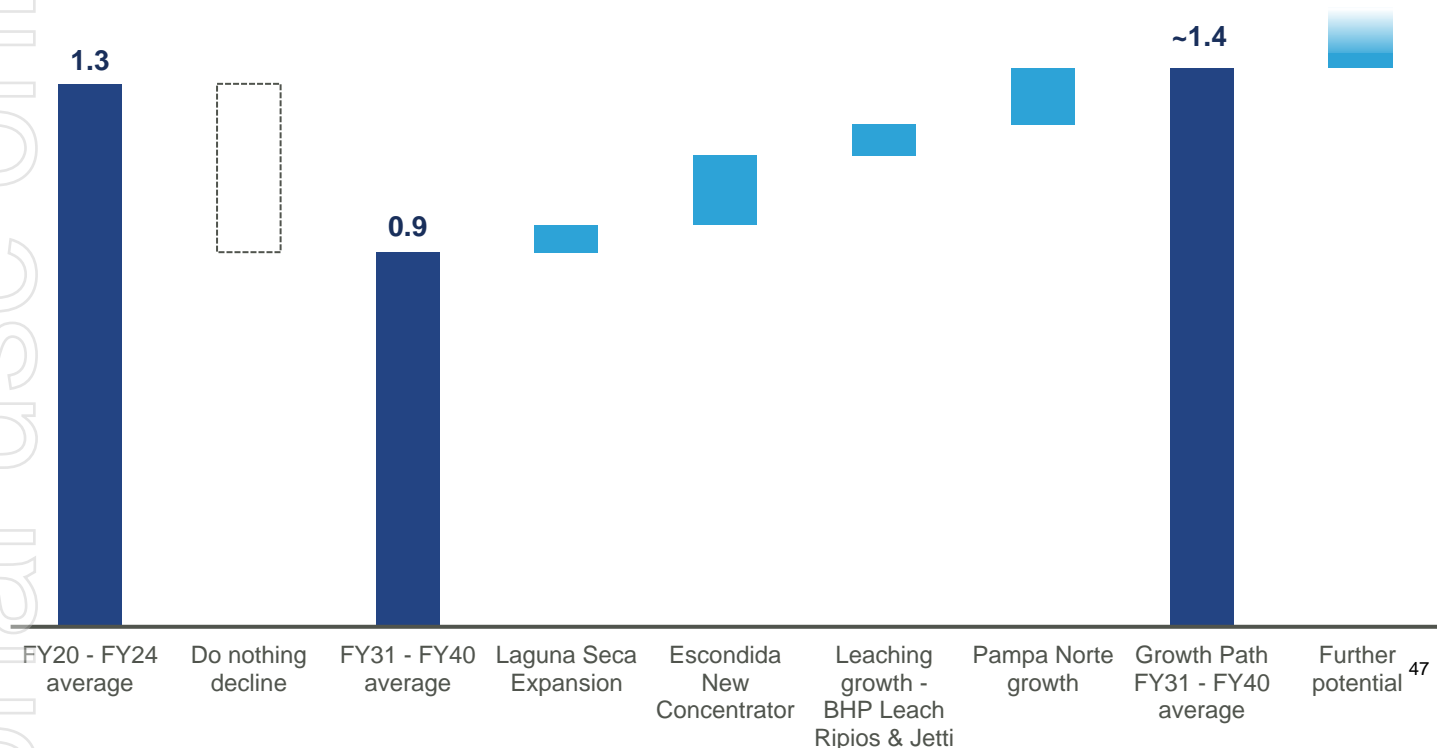
**Yes, always**  
Lead by SEA (Environmental Assessment Service, a public body)

**Yes**  
If the project causes impacts to Indigenous communities  
Lead by SEA

# Our growth aims to more than offset production decline

Growth pathway to ~1.4 Mtpa from organic growth in Chile in FY31-FY40 with further upside potential

Chilean copper indicative production shows attractive potential to offset decline  
(Average annual copper production, Mtpa)



## Growth Projects

- **Escondida**
  - Extension of Los Colorados Concentrator with timing optionality
  - Expansion of Laguna Seca Concentrators
  - New Concentrator to replace Los Colorados
  - Increase recovery from existing leaching facilities
- **Pampa Norte**
  - Extension of existing leaching facilities
  - Spence concentrator throughput and recovery increase
  - Cerro Colorado Phase 1

## Further potential

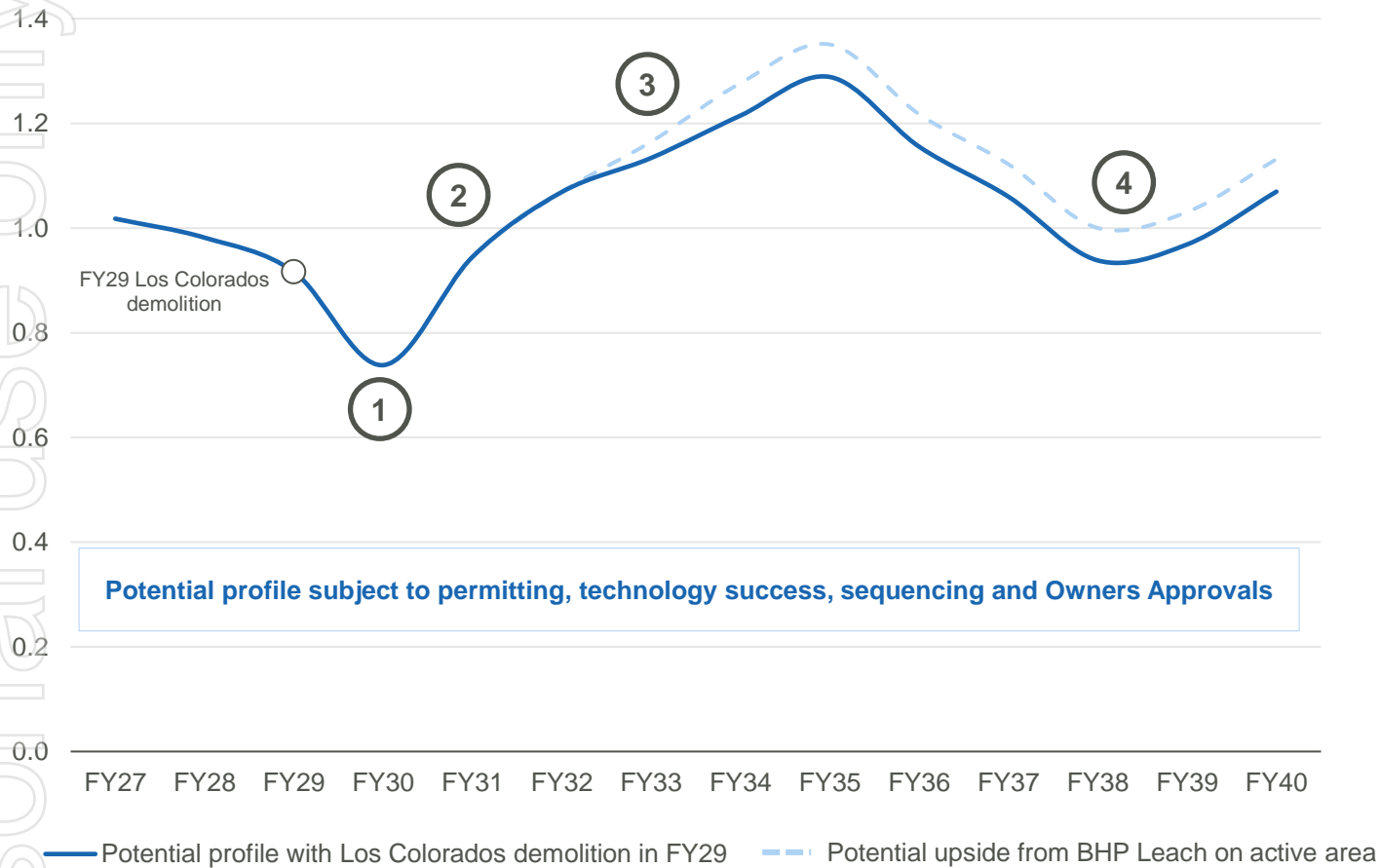
- **Escondida**
  - Potential expansion of leaching facilities
- **Pampa Norte**
  - Cerro Colorado Phase 2

# Escondida production expected to recover in early 2030s

Options to maximise value through timing of access to higher grade ore

## Escondida potential long-term production profile<sup>48</sup>

(Indicative payable copper production capacity, Mt)



## Understanding production profile in the 2030s

- ①
  - Production declines as Los Colorados concentrator is demolished
- ②
  - Production increases as new concentrator ramps up and high-grade ore from PL2 is accessed. BHP Leach application on ripios also begins to contribute
- ③
  - Potential upside from BHP Leach on active area of the leach pad - or alternatives
- ④
  - Potential to optimise production profile:
    - Improved mining intensity
    - Expansion and improvements in new facilities (e.g. recovery / throughput)
    - Re-processing of tailings and ripios



A wide-angle, high-angle photograph of a massive industrial facility, likely a shipyard or a large-scale manufacturing plant. The space is filled with several large, horizontal, cylindrical components, possibly ship hull sections or large industrial tanks, which are being assembled. The components are made of metal and have a riveted or bolted appearance. The facility has a high ceiling with a complex network of steel beams and trusses. Numerous industrial lights are hanging from the ceiling, illuminating the workspace. In the foreground, there are various pieces of industrial equipment, including scaffolding, ladders, and a yellow crane or hoist. The overall atmosphere is one of large-scale industrial activity and engineering.

# Executing on our growth






Pedro Correa

Vice President Projects



# An experienced and disciplined projects team

We consistently control and deliver projects closer to target than our competitors

	BHP Chile <sup>49,50</sup>	Industry average <sup>49,50</sup>
 <b>Safety</b>	<b>TRIF</b> <b>0.9</b>	<b>TRIF</b> <b>&gt; 2.8</b>
 <b>Cost growth over lifecycle</b>	<b>Cost</b> <b>↑ 5%</b>	<b>Cost</b> <b>↑ 55%</b>
 <b>Execution cost</b>	<b>Cost</b> <b>↑ 3%</b>	<b>Cost</b> <b>↑ 8%</b>
 <b>Execution schedule</b>	<b>Schedule</b> <b>↑ 4%</b>	<b>Schedule</b> <b>↑ 22%</b>
 <b>Business case achieved</b>	<b>Delivery</b> <b>↑ 95%</b>	<b>Delivery</b> <b>↑ 66%</b>

## Our differentiators...



### Global experience

Connected global Projects Centre of Excellence (PCoE) brings experience from all of BHP



### Diverse talent

>40% female employee participation and 42% female leadership representation in MinAm Projects (Chile)



### Efficient investments

Our value optimisation processes secured \$1.4 bn (18%) of cost mitigations in FY24 from design changes and commercial wins<sup>51</sup>

# Strategies to deliver our growth

Proactively adapting to address project delivery challenges of the future

## Investment discipline

- Bundling strategies with suppliers
- Pre-commitments and early works
- Continuity of work with contractors
- Leveraging BHP Group procurement capabilities

## Securing the right talent

- Secured long-term engineering partners, speeding up project bidding processes and award times

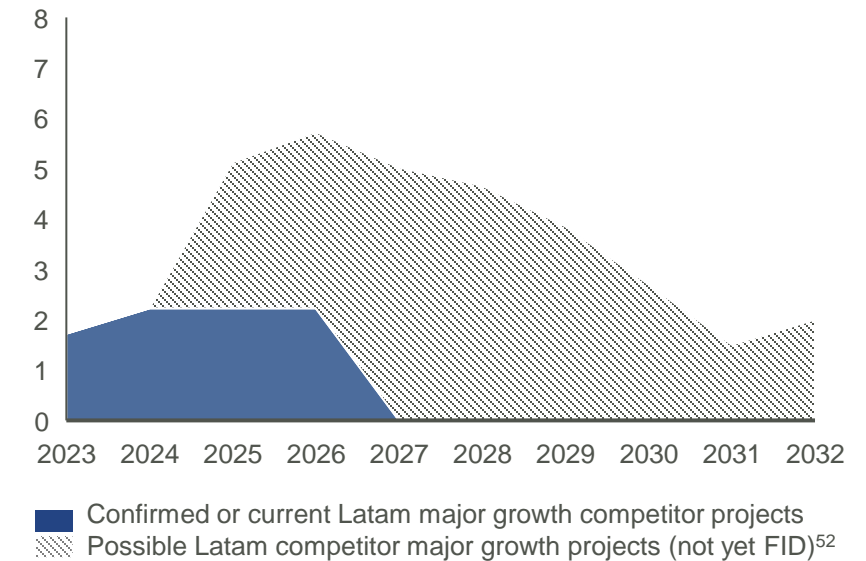


- Securing construction companies earlier in project lifecycles
- Continuous experience in our contractors through partnerships

## Managing to market conditions

- Establishing contracts with Tier 1 engineering firms
- End-to-end development; earlier detailed engineering

Latam forecast major growth project capital (US\$ bn)



# Executing our copper growth strategy

Our experience and global lessons learned from past projects will be incorporated into our upcoming program



## Our track record on delivery

### OGP1, Laguna Seca Expansion

- US\$4.3 bn, cost +10%, schedule +18%
- Completed FY15

### Escondida Water Supply

- US\$3.4 bn, cost +0%, schedule -5%
- Completed FY17

### Escondida Water Supply Expansion

- US\$500m, cost -8%, schedule +0%
- Completed FY20

### Spence Growth Option

- US\$2.6 bn, cost +1%, schedule +0%
- Completed FY22

### Laguna Seca Tailings Strategy Phase 2

- US\$600m, cost -4%, schedule +2%
- Completed FY25

## Building on our foundation since 2021

- Organisational structure **focused on specialised types** of projects (leaching, concentrator, tailings etc)
- End-to-end project responsibility from study phase to execution to **increase delivery speed**
- Establishing long-term partnerships with **Tier 1 global engineering firms**
- Creating synergies through a **program approach to projects**, rather than an individual project focus

## Incorporated lessons learned from internal and external projects

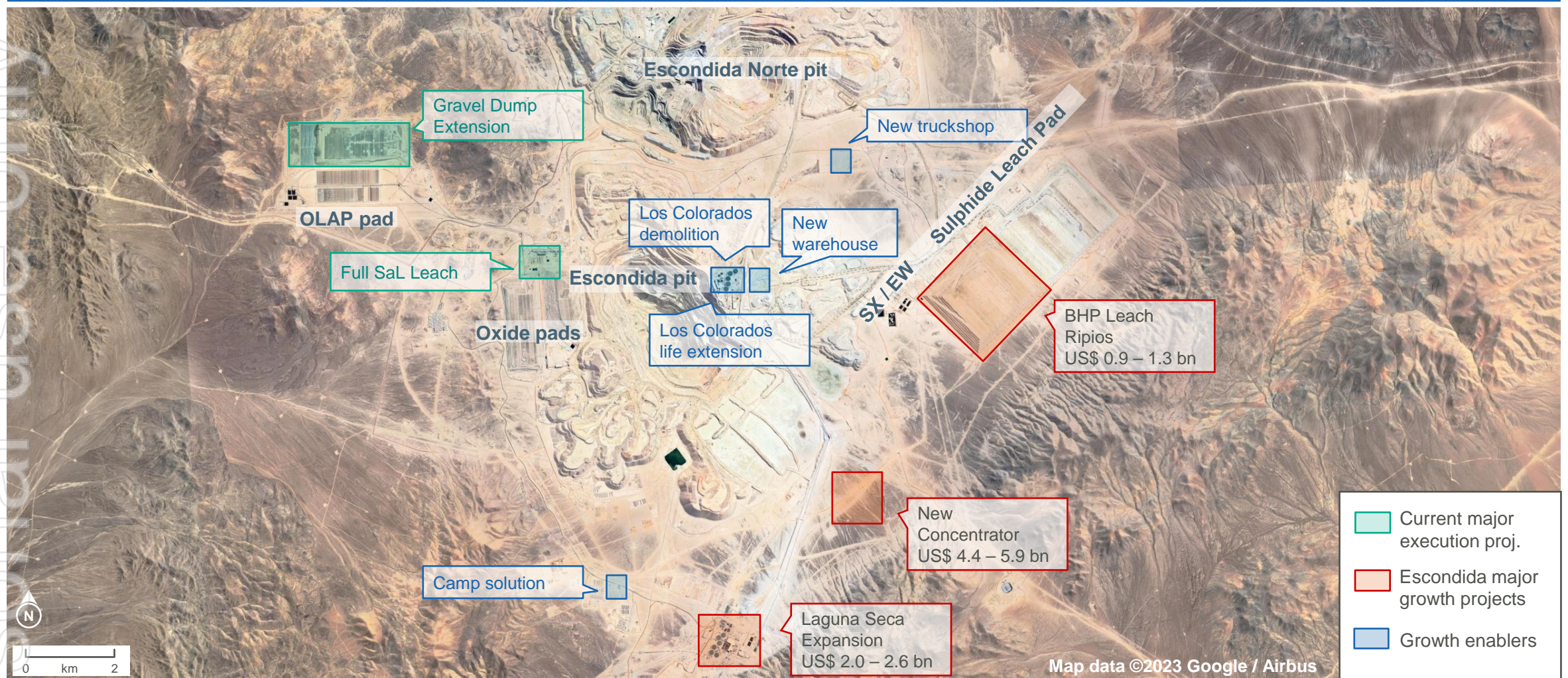
- High quality engineering and resource knowledge is key to **give confidence over returns**
- Assessment of **actual vs. design bottleneck** position should occur at handover
- **Risk management** key to success: contractor performance, engineering design, new technology
- The need to **invest in operational readiness** to ensure a smooth ramp-up and transition to operations



# Site overview | Escondida growth program

Expanding the Laguna Seca concentrator, replacing Los Colorados with a new concentrator and new technologies at the leach pad

## Escondida growth program





# Laguna Seca expansion

An attractive opportunity for growth by expanding existing facilities, lifting throughput and recovery at Laguna Seca



	Laguna Seca current	Laguna Seca expanded
Throughput (Mtpa)	100	115
Water usage (l/s)	2,300	2,600
Average recovery (%)	~85%	86 – 89% (FY31-50)
SAG mills (#)	2	3

2024 Chilean copper site tour  
18 November 2024

## Project overview

- Option for additional production by preparing Laguna Seca for hardness increase and utilising new technologies to increase recovery
  - New third line will deliver an additional 40 ktpd (~15 Mtpa) of throughput
  - Large mechanical cells and Hydrofloat coarse particle flotation (CPF) plant to improve recovery by ~1 – 4ppt<sup>53</sup> from 85% in FY24
- Capital efficient expansion using latent capacity at LS1 and LS2
- Requires minimal incremental ongoing operating costs

Capex (US\$ bn)	Capital intensity <sup>54</sup> (US\$/t Cu Eq.)	IRR (%)	FID	First Cu	Incremental production <sup>55</sup> (ktpa, Cu)	Permitting
2.0 – 2.6	25 – 33	16 – 20	CY27-28	CY30-31	50 – 70	DIA Submit late FY25

# Escondida new concentrator

A new concentrator utilising the latest technology to serve as a long-term replacement of Los Colorados



	Los Colorados concentrator (LCC)	New concentrator (ENC)
Throughput (Mtpa)	40	45
Water usage (l/s)	1,200	800
Average recovery (%)	84%	86 – 88% (FY31-50)
SAG mills (#)	3	2

2024 Chilean copper site tour  
18 November 2024

## Project overview

- Option to construct a new concentrator plant at Escondida to replace Los Colorados
  - Traditional comminution circuit with Semi-Autogenous Grinding mill (SAG), pebble crushing and ball milling (SABC) for more flexibility
  - Throughput capacity of 125 ktpd (~45 Mtpa)
  - Utilising latent capacity following the shutdown of the Los Colorados concentrator (i.e. crushing, tailings transport, concentrate handling and other infrastructure)
- Innovating with industry-proven technologies in flotation using large mechanical cells and Hydrofloat coarse particle flotation (CPF)

Capex (US\$ bn)	Capital intensity <sup>56</sup> (US\$/t Cu Eq.)	IRR (%)	FID	First Cu	Total production <sup>57</sup> (ktpa, Cu)	Permitting
4.4 – 5.9	15 – 21	13 – 16	CY27-28	CY31-32	220 – 260	DIA Submit late FY26



# Los Colorados concentrator life extension

Allowing continued operation of the concentrator while we execute the growth program



## Project overview

- Option for extending Los Colorados until FY29 (beyond FY27 current plan) sustains production in FY28-29, providing an incremental 130 - 145 ktpa<sup>58</sup>
- Optionality to extend further to FY31 depending on optimisation; decision on the closure date
  - Timing balances our access to high grade ore underneath Los Colorados and throughput provided by the concentrator

Capex (US\$ bn)	Capital intensity (US\$/t Cu Eq.)	IRR (%)	FID	First Cu	Incremental production <sup>58</sup> (ktpa, Cu)	Permitting
0.2 – 0.3	n/a	n/a	CY25-26	CY27-28	130 – 145	No environmental permit required

# Los Colorados concentrator demolition

Demolition of the concentrator enables access to key mine pushbacks



## Project overview

- Demolition of concentrator to expand the Escondida pit and unlock high grade ore located under the site
- Large demolition scope drives capital cost:
  - Area of 200 Ha and 100+ buildings
  - 140,000 m<sup>3</sup> of reinforced concrete
  - 30,000 tonnes of structural steel
  - Mechanical equipment and cladding
- Option for the timing of the demolition is sequenced after the life extension is completed

Capex (US\$ bn)	Capital intensity (US\$/t Cu Eq.)	IRR (%)	FID	First Cu	Incremental production (ktpa, Cu)	Permitting
0.4 – 0.7	n/a	n/a	CY28-29	n/a	n/a	n/a



# Escondida BHP Leach ripios application

Utilising innovative leaching technology for processing spent primary sulphide ores



## Project overview

- Implementation of BHP’s new patented leaching technology in the existing sulphide leach pad to leach spent material (ripios)
- Attractive option to leach spent material, turning otherwise leached ore back into usable material:
  - Shorter leaching cycle times (-55% vs. conventional leaching) for processing
  - Recovery benefits (~50% additional recovery on the remaining copper that can now be leached)
  - Ripios application is a fast option for large-scale implementation and showing potential for a higher IRR vs. processing ore
  - Demonstration plant will provide confirmation of recovery and gas management feasibility through the study phase

Capex (US\$ bn)	Capital intensity <sup>59</sup> (US\$/t Cu Eq.)	IRR (%)	FID	First Cu	Incremental production <sup>60</sup> (ktpa, Cu)	Permitting
0.9 – 1.3	19 – 28	18 – 24	CY27-28	CY30-32	35 – 55	DIA Submit early FY26



# Site overview | Pampa Norte

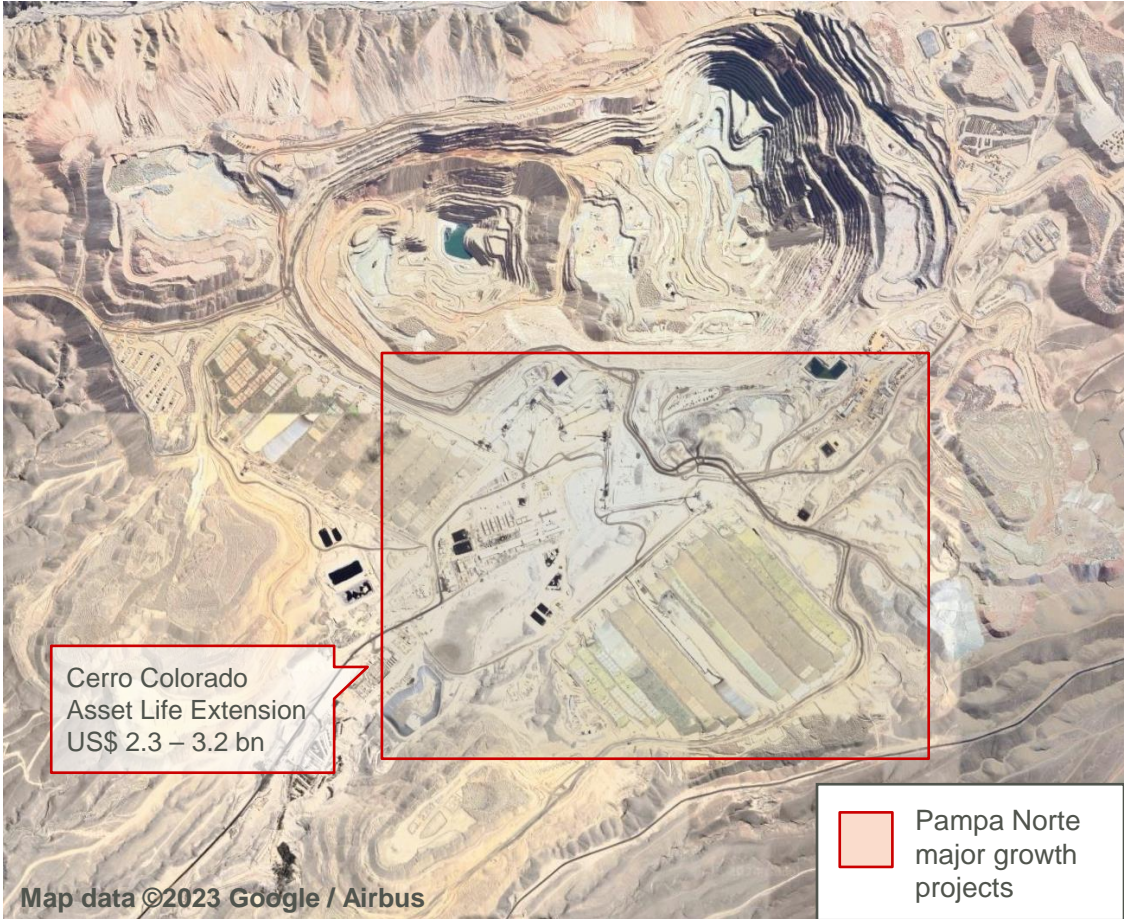
Pursuing incremental upgrades at Spence and potentially restarting operations at Cerro Colorado

## Pampa Norte portfolio

### Spence



### Cerro Colorado





# Spence chalcopyrite leaching

Employing proven technology to extend cathode production life



## Project overview

- Option for the implementation of Simple Approach to Leaching 2 (SaL2), BHP's patented technology, at the sulphide leach pad, enabling processing of transitional and hypogene ores
- Advances processing of low-grade primary ore that would otherwise be processed in the concentrator in the future. The concentrator yields a higher copper recovery, but the ability to leach low-grade ores now, allows us to prioritise higher grades at the concentrator
- Extends cathode life from FY28 to FY31 at an average of ~60 ktpa of production
- Options to extend leaching operation to FY42 with subsequent investments in additional dump capacity

Capex <sup>61</sup> (US\$ bn)	Capital intensity <sup>61</sup> (US\$/t Cu Eq.)	IRR (%)	FID	First Cu	Incremental production <sup>62</sup> (ktpa, Cu)	Permitting
0.10 – 0.14	2 – 3	35 – 41	CY25	CY27-28	30 – 40	EIA Approval Q3 FY25

# Spence concentrator growth

Pursuing incremental upgrades at the concentrator



2024 Chilean copper site tour  
18 November 2024

## Project overview

- Two avenues for growth options at the Spence concentrator to increase copper production:
  - Expand and debottleneck the Spence concentrator
  - Lift throughput from ~95 ktpd to ~105 ktpd
  - Lift recovery by a further ~3 – 7ppt
    - Upgrades to the flotation cells utilising a combination of conventional and new technologies

Capex (US\$ bn)	Capital intensity <sup>63</sup> (US\$/t Cu Eq.)	IRR (%)	FID	First Cu	Incremental production <sup>64</sup> (ktpa, Cu)	Permitting
0.4 - 0.6	26 - 43	13 - 55	CY27	CY28-29	10 - 15	EIA Submit Q1 CY25



# Cerro Colorado potential restart option

Phase 1 to process existing supergene ore, phase 2 to unlock vast hypogene resource utilising leaching technology



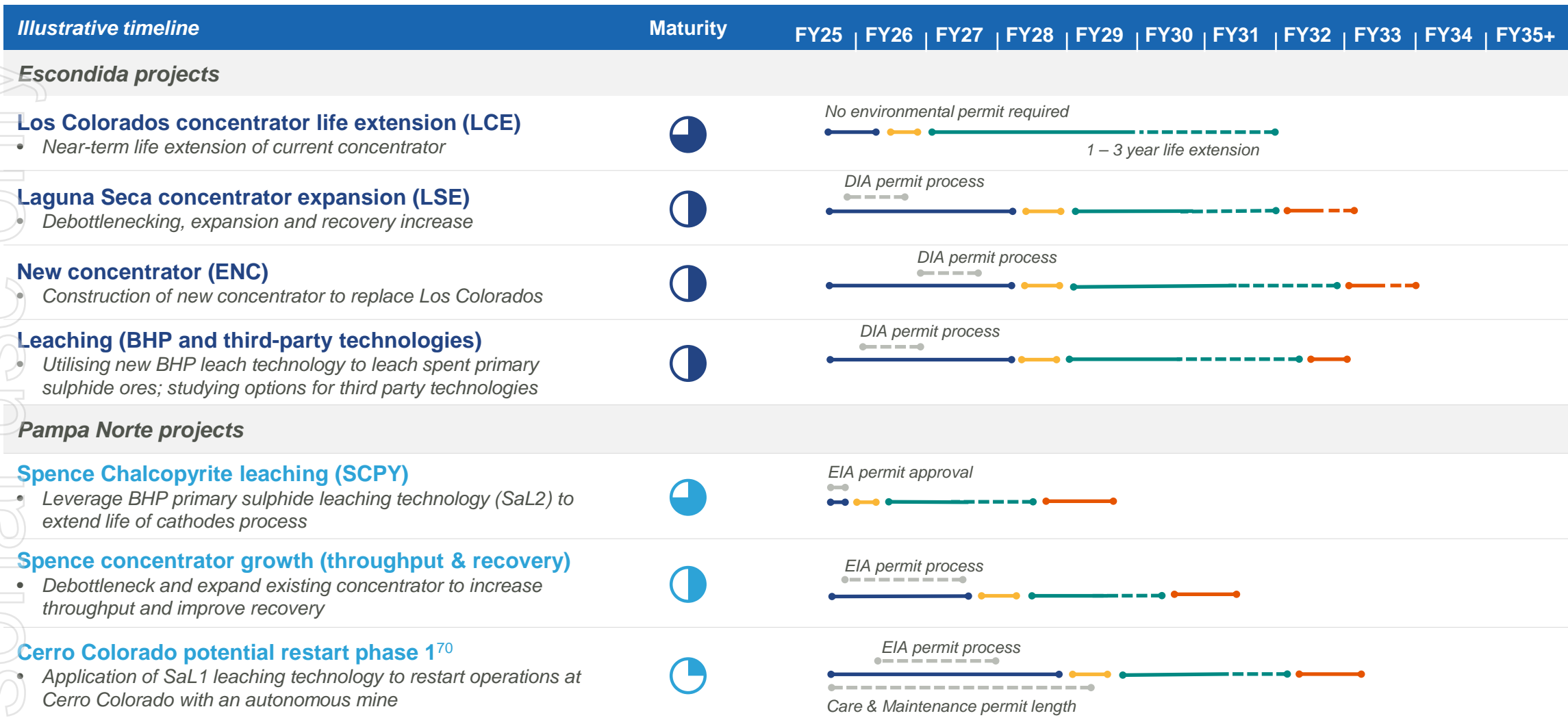
## Project overview

- Restart of operations<sup>65</sup> using Simple Approach to Leaching 1 (SaL1) leaching technology to process existing supergene ores
- Utilises existing SXEW infrastructure and leach pad with new crushing plant in a new location to access high grade ore
- Ability to utilise latent capacity through plant modifications to process 17 Mtpa – 19 Mtpa
- Optionality for a Phase 2 extension to process the hypogene resource (1.7 Bt @ 0.36% Cu Inferred Mineral Resources<sup>66</sup>)

Capex <sup>67</sup> (US\$ bn)	Capital Intensity <sup>68</sup> (US\$/t Cu Eq.)	IRR (%)	FID	First Cu	Total production <sup>69</sup> (ktpa, Cu)	Permitting
2.3 – 3.2	23 – 32	15 – 21	CY28	CY31-32	85 – 100	EIA Submit Q2 FY26

# Staging our options to maximise value

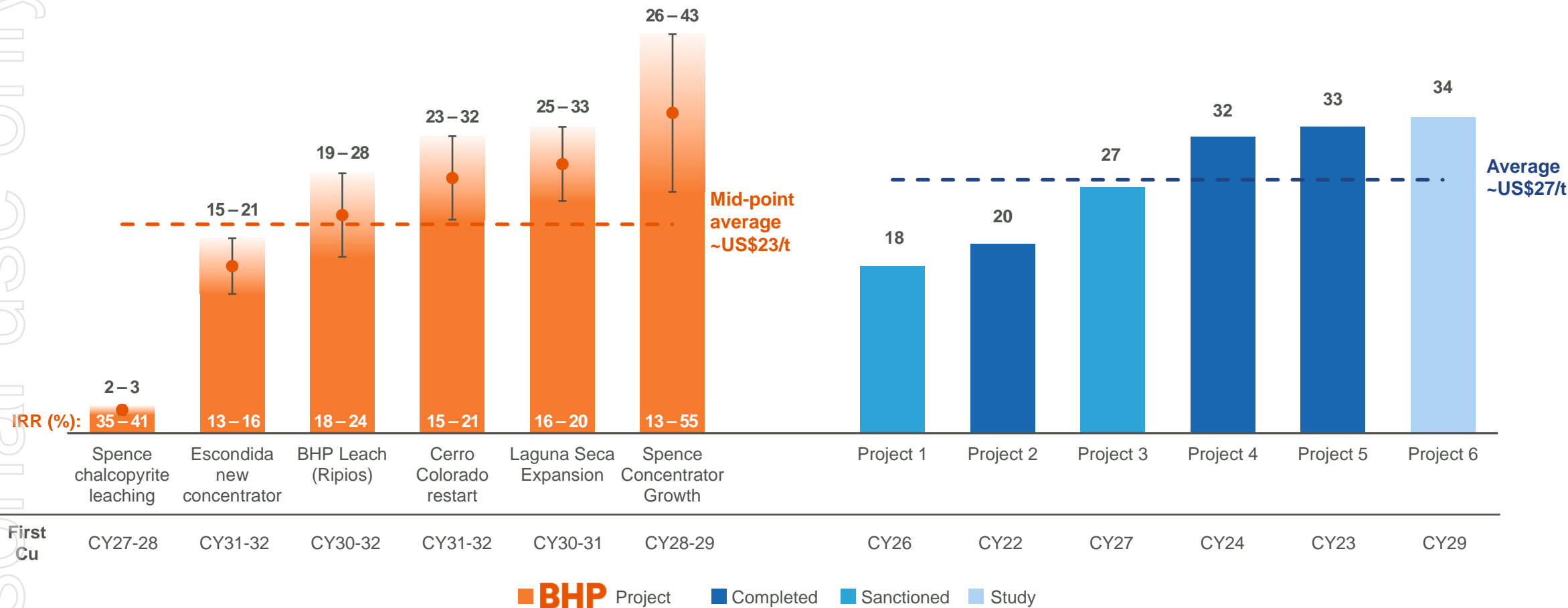
Taking a disciplined approach to sequencing ensures healthy competition for capital, permitting remains a key variable



# A competitive and capital efficient pipeline of options

Our projects benchmark well relative to current expansion projects by competitors in the Americas

Capital intensity<sup>71</sup>  
(US\$/tpa CuEq)





# Well positioned to deliver on our growth potential in Chile

We have the right mix of team experience, track record of delivery and strong relationships with key stakeholders to succeed

## Experienced team

- Leadership team with extensive track record delivering large scale projects
- Leverages the global BHP Projects Centre of Excellence

## Track record of delivery

- Delivered major projects in Chile meeting cost and schedule budgets
- Clear lessons learned and sharing of best practice across BHP projects

## Delivery strategies

- Proactive steps being taken to control costs and secure talent
- Existing relationships with Tier 1 EPCMs; locking in contractors early

## Approach to social value is differentiated

- Differentiation on water and GHG emissions helps with permitting applications
- Strong relationships with government stakeholders and ongoing engagement with local communities





# Setting up Chilean copper for decades to come

Pathways for growth leverage our existing position to generate strong returns, maintain production and deliver value



Track record of operational excellence and project delivery



A compelling program of projects delivering 15 – 19% IRRs



Chile set for ~1.4 Mtpa average production through FY30s



Disciplined approach to capital allocation



A more sustainable approach to deliver copper the world needs



ersonal use only

**BHP**

# Footnotes

1. Slide 4, 14: BHP has agreed to jointly acquire Filo Corp with Lundin Mining, through a Canadian plan of arrangement, and form a 50/50 joint venture to progress the Filo del Sol and Josemaria projects. The transaction is expected to complete in Q3 FY25, subject to regulatory approvals.
2. Slide 5: Source: BHP Economic Contribution Report 2024.
3. Slide 7: Calculated as total copper production from Escondida, Spence and Cerro Colorado (source BHP reports) divided by global copper mine production (source Wood Mackenzie) since 1990.
4. Slide 7: BHP data presented on a 100% basis. Competitor copper production data based on Wood Mackenzie Q2 2024 information.
5. Slide 8: BHP analysis, publicly available reports.
6. Slide 9: For further information on Mineral Resources refer to slide 87.
7. Slide 10: BHP data based on FY24 BHP Annual Report, data presented on ownership basis. Competitor copper resource data based on Wood Mackenzie Q2 2024 information. For further information on Copper Mineral Resources refer to slide 87.
8. Slide 13: IRR based on low and high potential capex ranges at \$4.50/lb copper consensus price (real 2024) based on the median of long term forecasts from Bank of America, Barrenjoey, Citi, Deutsche Bank, Goldman Sachs, JPMorgan and UBS. Range outcomes are calculated at an aggregate program level.
9. Slide 15: Power Purchase Agreements (PPAs) started in FY22.
10. Slide 21: Net of impact from substitution and thrifting. Source: BHP analysis.
11. Slide 22: Source: Wood Mackenzie (2000-2022), US Bureau of Mines, BHP analysis (1900-1999).
12. Slide 23: Source: Wood Mackenzie; Q2 2024. Low maturity assessment of African potential, BHP analysis. Note: Probable projects are those that are not considered sufficiently imminent and advanced to include in the base case. Possible projects have more significant risks associated with their development, resulting in longer lead times.
13. Slide 24: Source: Supply – Wood Mackenzie (Q2 2024); Demand – BHP. Wood Mackenzie mine volumes adjusted for forecast disruption and smelting/refining losses. Lifetime extensions are BHP's assessment of current supply that will require significant "expansion capex" to maintain production levels (normally counted in Wood Mackenzie's Current Operations). Probable projects are those that are not considered sufficiently imminent and advanced to include in the base case. Possible projects have more significant risks associated with their development, resulting in longer lead times.
14. Slide 25: Source: S&P. Only includes mines >15 ktpa copper.
15. Slide 25: Source: S&P 1991-2000. Wood Mackenzie 2000-2030.
16. Slide 26: Source: Wood Mackenzie; Q2 2024. Data set adjusted by companies reports and BHP analysis. Sanctioned projects >50 ktpa copper equivalent. Year represents first production.
17. Slide 27: Source: Wood Mackenzie. Sample includes 30 largest (by expected production volume) undeveloped greenfield projects included in the 2023 database through time.
18. Slide 32: Source: Chilean Central Bank. Monetary Policy Report September 2024.
19. Slide 32: Source: Chilean Central Bank. Monetary Policy Report September 2024.
20. Slide 32: Source: Chilean Central Bank.
21. Slide 33: Source: Chilean Central Bank.
22. Slide 33: Source: Corporation of Capital Goods.
23. Slide 36: We define gender balance as a minimum 40 per cent women and 40 per cent men in line with the definitions used by entities such as the International Labour Organization.
24. Slide 37: In FY24, we completed an inaugural assessment of the health of our relationships with a range of our Indigenous partners. We engaged global research firm, Ipsos, to independently gather feedback on a confidential basis from a number of BHP's Indigenous partners in Australia, Canada and Chile where we operate our assets. All organisations that were contacted for the inaugural assessment have current agreements with BHP or are located on or near our operations. Each interview, including those with the six Chilean Indigenous organisations that participated was structured around one theme: How would you rate the overall health of the organisation/entity's relationship with BHP over three time periods in considering the past, present and future of the relationship. Responses were recorded as a rating from zero to 10. For further information about the assessment and results, refer to page 69 of the FY24 BHP Annual Report.
25. Slide 39: EBITDA and ROCE 5-year averages include Escondida and Spence only. ROCE is defined as EBIT divided by average capital employed. Figures sourced from the financial statements published on the Chilean Financial Regulator website.
26. Slide 40: Source Cochilco, Chilean assets included from: Anglo American, Antofagasta, Codelco, Capstone, Freeport, KGHM, Lundin and Teck.
27. Slide 40: Source: Comisión Nacional de Energía. Increase in average market price (PMM) for non-regulated clients.
28. Slide 40: Percentage change based on FY24 v FY20.
29. Slide 41: Workforce productivity calculated as aggregated activity / FTE relative to FY22 baseline.
30. Slide 41: Annualised production hours from 100% mechanical conversion.
31. Slide 41: Percentage of total spend linked to a supply contract or to a purchase order that is managed at a Global level relative to FY20 baseline.
32. Slide 41: Source: Wood Mackenzie; Q2 2024. The C1 cost considers the Minesite costs (mine, processing, and G&A) and the Realisation costs (TCRCs, freight, and By-products credits).
33. Slide 42: BHP analysis, publicly available reports. Competitors include Anglo American, Antofagasta, Freeport, Glencore, Rio Tinto and Teck.
34. Slide 43: Excluding capital creditors and capitalisation of deferred stripping.
35. Slide 45: Based on exchange rates of: FY24 USD/CLP 907 (realised); FY25 and medium term USD/CLP 842 (guidance).
36. Slide 45: Medium term refers to an average for a period from FY27 onwards for Escondida and FY25 onwards for Spence.

# Footnotes

37. Slide 47: For further information on Mineral Resources refer to slide 87.
38. Slide 47: Based on the Escondida Ore Reserves and Mineral Resources at 30 June 2024 in 100% terms reported in compliance with the JORC Code. For further information on Ore Reserves and Mineral Resources, refer to slides 86 and 87.
39. Slide 47: 100 kt latent capacity at Escondida and 200 kt latent capacity at Pampa Norte from early 2030s.
40. Slide 48: Escondida grade decline and increased ore hardness, oxide depletion at Spence; partially offset by Los Colorados extension and leaching options at Spence.
41. Slide 48: Indicates no new growth investment.
42. Slide 50: For further information on Ore Reserves and Mineral Resources, refer to slides 86 and 87.
43. Slide 50: Current ex-pit material movement based on FY20 to FY24 averages.
44. Slide 52: Net increase against alternative case without concentrator. Production out of facility 220 – 260 ktpa Cu (both averages FY34-FY43).
45. Slide 55: SaL2: Chloride leaching technology to process mainly transitional and hypogene ores.
46. Slide 58: For further information on Mineral Resources refer to slide 87.
47. Slide 60: Further potential includes leaching extension through Nitrate Leach, and Cerro Colorado Hypogene development.
48. Slide 61: This profile is not guidance. It is intended to be an indicative example of future aspirational production capacity for Escondida following growth projects detailed within this presentation. Outcomes are subject to permitting, technology success, sequencing and approvals.
49. Slide 63: Source: BHP benchmarking; Independent Project Analysis.
50. Slide 63: Variance against approved investment phase spend or approved Schedule.
51. Slide 63: US\$1.4 bn reduction is on baseline investment costs from start of year snapshot, savings captured in our Value Optimisation process.
52. Slide 64: Source: BHP analysis of Chilean, Peruvian and Argentinian (Latam region) competitor projects, using announced information available.
53. Slide 67: Source: based on Escondida ore lab tests.
54. Slide 67: FY32 to FY41 average.
55. Slide 67: Average incremental production from FY32 to FY41, after ramp-up.
56. Slide 68: FY34 to FY43 average.
57. Slide 68: Total production out of the facility. Average after ramp-up - FY34 to FY43 ENC specific production. Overall incremental average is 150 - 180 ktpa.
58. Slide 69: Cu production FY28 to FY29 average.
59. Slide 71: FY31 to FY40 average.
60. Slide 71: Average incremental production - FY31 to FY40.
61. Slide 73: Capital and capital intensity includes the capital required to enable SaL2 in the leaching plant.
62. Slide 73: Total production out of the leaching facility including incremental production of 30-40 ktpa through SaL2 technology. Average FY31 to FY40.
63. Slide 74: FY31 to FY40 average.
64. Slide 74: Average incremental production - FY31 to FY40.
65. Slide 75: Cerro Colorado placed on care and maintenance in 2023 with a permit for 3 years and an option to extend for 2 more years
66. Slide 75: For further information on Mineral Resources refer to slide 87.
67. Slide 75: Capex includes water investment with alternate funding solutions considered.
68. Slide 75: FY32 to FY41 average.
69. Slide 75: Average incremental production - FY32 to FY41.
70. Slide 76: Cerro Colorado entered temporary care and maintenance in December 2023.
71. Slide 77: ENC is shown on an absolute (total production out of facility) basis. All other projects are shown on an incremental basis. Incremental production (ktpa CuEq) over a ten-year period (FY31-40), unless otherwise stated. Capex adjusted from nominal to real terms for benchmarking purposes. Third-party projects based on full execution investment required to deliver production. Competitor projects include Bagdad expansion, Centinela expansion, Collahuasi debottlenecking, Los Pelambres INCO, QB2, Quellaveco.



# Chilean growth program set to deliver

An attractive set of options based on latest project assumptions and consensus copper prices

	Maturity	Estimated capital expenditure (US\$m)	FID (Final Investment Decision)	Completion / First production	Potential production (ktpa Cu) <sup>1</sup>	IRR at consensus copper price at sanction (nominal,%) <sup>2</sup>
<b>Escondida projects</b>						
<b>Laguna Seca concentrator expansion (LSE)</b> <ul style="list-style-type: none"> <li>Debottlenecking, expansion and recovery increase</li> </ul>		2.0 - 2.6	CY27-28	CY30-31	50 – 70	16 - 20
<b>Replacement concentrator (ENC)</b> <ul style="list-style-type: none"> <li>Construction of new concentrator to replace Los Colorados</li> </ul>		4.4 - 5.9	CY27-28	CY31-32	220 – 260	13 - 16
<b>Los Colorados concentrator extension (LCE)</b> <ul style="list-style-type: none"> <li>Near-term life extension of current concentrator</li> </ul>		0.2 – 0.3	CY25-CY26	CY27-28	130 – 145	N/A
<b>Escondida BHP Leach ripios application</b> <ul style="list-style-type: none"> <li>Utilising new BHP leach technology to leach spent primary sulphide ores; studying options for third party technologies</li> </ul>		0.9 - 1.3	CY27-28	CY30-32	35 – 55	18 - 24


1. Production outputs based on 10 year average.
2. Copper consensus price based on \$4.50/lb (real 2024).

2024 Chilean copper site tour

18 November 2024

# Chilean growth program set to deliver














An attractive set of options based on latest project assumptions and consensus copper prices

	Maturity	Estimated capital expenditure (US\$m)	FID	Completion / First production	Potential production (ktpa Cu) <sup>1</sup>	IRR at consensus copper price at sanction (nominal,%) <sup>2</sup>
<b>Pampa Norte projects</b>						
<b>Spence Chalcopyrite leaching (SCPY)</b> <ul style="list-style-type: none"> <li>Leverage BHP primary sulphide leaching technology (SaL2) to extend life of cathodes process</li> </ul>		0.10 - 0.14	CY25	CY27-28	30 - 40	35 – 41
<b>Spence concentrator growth</b> <ul style="list-style-type: none"> <li>Debottleneck and expand existing concentrator to increase throughput and improve recovery</li> </ul>		0.4 - 0.6	CY27	CY28-29	10 - 15	13 – 55
<b>Cerro Colorado potential restart</b> <ul style="list-style-type: none"> <li>Application of SaL1 leaching technology to restart operations at Cerro Colorado with an autonomous mine</li> </ul>		2.3 - 3.2	CY28	CY31-32	85 - 100	15 – 21

1. Production outputs based on 10 year average.
2. Copper consensus price based on \$4.50/lb (real 2024).

# Understanding leaching in copper

No single approach fits all ores, different technologies work across different ore types and applications are site specific

Technology	Oxide	Mixed (30% Oxide, 70% Sulphide)	Secondary sulphide (Supergene)	Primary Sulphide (Hypogene)	Leach residue reprocessing (mainly chalcopyrite)	Crushed or uncrushed material	Recovery	Cycle time	Capital cost	Production potential
Acid leach	✓	✓	✗	✗	✗	Crushed	50 - 75%	 Short	Existing process	Existing process
RoM bio-leach	✗	✓	✓	✓	✗	Uncrushed	30 - 40%	 Long	Existing process	Existing process
Jetti™ (Catalyst)	✗	✗	✓	✓	✓	Uncrushed	+5-10ppt on Bioleach	 Long	\$\$\$ Low	 Low
SaL1 (Chloride)	✓	✓	✓	✗	✗	Crushed	70 - 80%	 Short	Existing process	Existing process
SaL2 (Chloride)	✗	✓	✓	✓	✓	Crushed	60 - 65%	 Medium	\$\$\$ High	 Medium
BHP Leach (Nitrate)	✗	✓	✓	✓	✓	Uncrushed	60 - 70%		\$\$\$ Medium	
						Crushed	70 - 80%	 Short	\$\$\$ High	 High
Nuton™	✓	✓	✓	✓	✗	Crushed	75 - 85%	 Short	\$\$\$ High	 High

# Competent Person Statement: Copper Ore Reserves

## Chile Copper Ore Reserves Competent Person Statement

The information in this slide relates to Copper Ore Reserves as at 30 June 2024. Ore Reserves are based on information compiled by Marcelo Cortes as Competent Person (compiler) for all declared Ore Reserves. The information in this presentation that relates to the FY2024 Ore Reserves reported by the Company in compliance with the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012' ('The JORC Code 2012 Edition') in the 2024 BHP Annual Report. Report is available to view on [www.bhp.com](http://www.bhp.com).

M. Cortes is current Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and he is full-time employee of BHP. M. Cortes has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code)'. M. Cortes owns shares in BHP and is entitled to participate in employee share holding plans. M. Cortes consents to the inclusion in the presentation of the matters based on their information in the form and context in which it appears.

Ore Reserves are reported in 100 per cent terms. Dry tonnages are reported and all tonnage and quality information has been rounded, hence small differences may be present in the totals. Ore Reserves classification is applied based on mineralisation type, geological understanding and other modifying factors.

## Compiled Chile Copper Ore Reserves as at 30 June 2024

Deposit	Ore type	Proved Reserves		Probable Reserves		Total Reserves		BHP interest (%)
		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	
Chile copper operations								
Escondida	Full SaL	180	0.80	36	0.61	216	0.77	57.5
	Oxide	—	—	—	—	—	—	
	Sulphide	3,370	0.63	1,400	0.54	4,770	0.60	
	Sulphide Leach	1,260	0.38	239	0.37	1,500	0.38	
Spence	Oxide	12	0.63	0.6	0.53	13	0.63	100
	Supergene Sulphide	44	0.60	37	0.51	81	0.56	
	Transitional Sulphide	11	0.55	0.2	0.41	11	0.55	
	Hypogene Sulphide	390	0.57	385	0.50	775	0.54	



# Competent Person Statement: Copper Mineral Resources

## Copper Mineral Resources Competent Person Statement

The information in this slide relates to Copper Mineral Resources as at 30 June 2024. Mineral Resources are inclusive of Ore Reserves and is based on information compiled by Marcelo Cortes as Competent Person (compiler) for all declared Mineral Resources. The information in this presentation that relates to the FY2024 Mineral Resources reported by the Company in compliance with the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012' ('The JORC Code 2012 Edition') in the 2024 BHP Annual Report. Report is available to view on [www.bhp.com](http://www.bhp.com). M. Cortes is current Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and he is full-time employee of BHP. M. Cortes has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code).

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Mineral Resources as presented are reported in 100 per cent terms. Dry tonnages are reported, and all tonnage and quality information has been rounded, hence small differences may be present in the totals. Mineral Resources classification is applied based on mineralisation type, geological understanding and an assessment of reasonable prospects for eventual economic extraction.

## Compiled Copper Mineral Resources as at 30 June 2024

Deposit	Ore Type	Measured Resources		Indicated Resources		Inferred Resources		Total Resources		Contained Metal (Cu kt)	BHP Interest (%)
		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu		
Escondida	Oxide	90	0.57	14	0.54	2	0.51	106	0.56	594	57.5
	Mixed	50	0.48	37	0.48	20	0.45	107	0.47	503	57.5
	Sulphide	5,080	0.58	4,000	0.53	9,060	0.53	18,100	0.55	99,550	57.5
Cerro Colorado	Oxide	68	0.61	113	0.62	5.7	0.58	187	0.62	1,159	100
	Supergene Sulphide	48	0.58	97	0.58	22	0.64	167	0.59	985	100
	Transitional Sulphide	72	0.45	104	0.41	29	0.42	205	0.43	882	100
	Hypogene Sulphide	–	–	–	–	1,700	0.36	1,700	0.36	6,120	100
Spence	Oxide	14	0.63	1.6	0.59	–	–	16	0.63	101	100
	Supergene Sulphide	82	0.55	29	0.45	0.3	0.42	111	0.52	577	100
	Transitional Sulphide	16	0.58	0.2	0.47	–	–	16	0.58	93	100
	Hypogene Sulphide	736	0.46	696	0.43	786	0.39	2,220	0.43	9,546	100
Copper projects		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Pampa Escondida	Sulphide	294	0.53	1,150	0.55	5,400	0.44	6,840	0.46	31,464	57.5
Pinta Verde	Oxide	109	0.59	64	0.52	15	0.54	188	0.56	1,053	57.5
	Sulphide	–	–	23	0.50	37	0.45	60	0.47	282	57.5
Chimborazo	Sulphide	–	–	135	0.50	80	0.60	215	0.54	1,161	57.5
Pantera	OC Sulphide	–	–	13	1.28	7.1	1.09	20	1.21	242	100
Succoth	OC Sulphide	–	–	61	0.57	57	0.52	120	0.54	648	100
Copper gold operations		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Pedra Branca	UG Sulphide	0.58	1.57	7.9	1.67	7.3	1.38	16	1.53	245	100
Carrapateena	UG Sulphide	130	0.98	470	0.62	300	0.26	900	0.55	4,950	100
Prominent Hill	UG Sulphide	42	1.15	50	0.86	66	0.85	158	0.93	1,469	100
	SP Sulphide	0.3	1.04	1.6	0.11	–	–	1.9	0.24	5	100
	SP Low-grade	–	–	2.2	0.16	–	–	2.2	0.16	4	100
Copper gold project		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Fremantle Doctor	UG Sulphide	–	–	–	–	100	0.51	100	0.51	510	100
Copper uranium gold operation		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Olympic Dam	OC Sulphide	3,570	0.61	3,310	0.57	2,840	0.58	9,720	0.59	57,348	100
	UG Sulphide	820	1.55	640	1.48	190	1.44	1,650	1.51	24,915	100
Copper zinc operation		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Antamina	Sulphide Cu only	275	0.80	339	0.83	536	0.87	1,150	0.84	9,660	33.75
	Sulphide Cu-Zn	70	0.86	188	1.00	215	1.06	473	1.01	4,777	33.75
	UG Sulphide Cu only	–	–	–	–	268	1.28	268	1.28	3,430	33.75
	UG Sulphide Cu-Zn	–	–	–	–	166	1.12	166	1.12	1,859	33.75



# Escondida

Alejandro Tapia

Asset President Escondida



Autonomous trucks at Escondida

**BHP**



# Disclaimer

## Forward-looking statements

This presentation contains 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: trends in commodity prices and currency exchange rates; demand for commodities; global market conditions; guidance; reserves and resources and production forecasts; expectations, plans, strategies and objectives of management; our expectations, commitments, targets, goals and objectives with respect to social value or sustainability; climate scenarios; approval of certain projects and consummation of certain transactions; closure, divestment, acquisition or integration of certain assets, operations or facilities (including associated costs or benefits); anticipated production or construction commencement dates; capital expenditure or costs and scheduling; operating costs, and supply of materials and skilled employees; anticipated productive lives of projects, mines and facilities; the availability, implementation and adoption of new technologies; provisions and contingent liabilities; and tax, legal and other regulatory developments.

Forward-looking statements may be identified by the use of terminology, including, but not limited to, 'intend', 'aim', 'ambition', 'aspiration', 'goal', 'target', 'prospect', 'project', 'see', 'anticipate', 'estimate', 'plan', 'objective', 'believe', 'expect', 'commit', 'may', 'should', 'need', 'must', 'will', 'would', 'continue', 'forecast', 'guidance', 'outlook', 'trend' or similar words. These statements discuss future expectations or performance, or provide other forward-looking information.

Forward-looking statements are based on management's expectations and reflect judgements, assumptions, estimates and other information available as at the date made. BHP cautions against reliance on any forward-looking statements.

These statements do not represent guarantees or predictions of future financial or operational performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this presentation.

For example, our future revenues from our assets, projects or mines described in this presentation will be based, in part, on the market price of the commodities 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.

In addition, there are limitations with respect to scenario analysis, including any climate-related scenario analysis, and it is difficult to predict which, if any, of the scenarios might eventuate. Scenario analysis is not an indication of probable outcomes and relies on assumptions that may or may not prove to be correct or eventuate.

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 our ability to profitably produce and deliver the products extracted to applicable markets; the impact of economic and geopolitical factors, including foreign currency exchange rates on the market prices of the commodities we produce and competition in the markets in which we operate; 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 royalties or implementation of trade or export restrictions; changes in environmental and other regulations; political or geopolitical uncertainty; labour unrest; weather, climate variability or other manifestations of climate change; and other factors identified in the risk factors discussed in section 8.1 of the Operating and Financial Review (OFR) in the BHP Annual Report 2024 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](http://www.sec.gov).

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 data

Unless expressly stated otherwise: variance analysis relates to the relative performance of BHP and/or its operations during the year ended 30 June 2024 compared with the year ended 30 June 2023; total operations refers to the combination of continuing and discontinued operations; continuing operations refers to data presented excluding Petroleum from the 2021 financial year onwards; references to Underlying EBITDA margin exclude third party trading activities; data from subsidiaries are shown on a 100% basis and data from equity accounted investments and other operations is presented, with the exception of net operating assets, reflecting BHP's share; medium term refers to a five-year horizon, unless otherwise noted. Throughout this presentation, production volumes and financials for the operations from BHP's acquisition of OZ Minerals Limited (OZL) during FY2023 are for the period of 1 May to 30 June 2023, whilst the acquisition completion date was 2 May 2023. Unless expressly stated otherwise, information and data in this presentation related to BHP's social value or sustainability position or performance does not reflect BHP's acquisition of OZL nor BHP's interest in non-operated assets. Due to the inherent uncertainty and limitations in measuring greenhouse gas (GHG) emissions under the calculation methodologies used in the preparation of such data, all GHG emissions data or references to GHG emissions (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 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, refer to the BHP GHG Emissions Calculation Methodology 2024, available at [bhp.com](http://bhp.com). Numbers presented may not add up precisely to the totals provided due to rounding. All footnote content (except in the Annexures) is contained on slide 28.

## Non-IFRS information

We use various Non-IFRS information to reflect our underlying performance. For further information, the reconciliation of non-IFRS financial information to our statutory measures, reasons for usefulness and calculation methodology, please refer to section 10 'Non-IFRS financial information' in the BHP Annual Report 2024.

## No offer of securities

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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', 'our' and ourselves' 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 2024 for a list of our significant subsidiaries. Those terms do not include non-operated assets. This presentation covers BHP's functions and assets (including those under exploration, projects in development or execution phases, sites and operations that are closed or in the closure phase) that have been wholly owned and operated by BHP or that have been owned as a joint venture<sup>1</sup> operated by BHP (referred to in this presentation as 'operated assets' or 'operations') during the period from 1 July 2023 to 30 June 2024, unless otherwise stated.

BHP also holds interests in assets that are owned as a joint venture but not operated by BHP (referred to in this presentation as 'non-operated joint ventures' or '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 BHP Group and, as a result, statements regarding our operations, assets and values apply only to our operated assets unless expressly stated otherwise.

1. References in this presentation to a 'joint venture' are used for convenience to collectively describe assets that are not wholly owned by BHP. Such references are not intended to characterise the legal relationship between the owners of the asset.

# Meet the team



**Alejandro Tapia**

President  
Escondida



**Jose Quiñones**

GM Mine  
Operations



**Olga Alfaro**

GM Concentrator  
Operations



**Lisset Hormazabal**

GM Cathode  
Operations



**Yerko Fuentes**

GM Non-Process  
Infrastructure



**Romina Maggiolo**

Head of BHP  
Operating System

**Carolina Cuadros**

Head of Health,  
Safety & Security



**Claudio Reygadas**

GM Planning, Technical  
& Environment



**Valentino Rota**

GM Integrated  
Operations



**Danielle Laport**

Head of Finance  
Business Partnership



# Welcome to Escondida

A globally significant copper asset

## Large and high-margin

- World's largest copper mine
- Costs in 2nd quartile
- ROCE 27%, EBITDA margin 58% in FY24

## Long life today...

- In production since 1990, mine life remaining of +65 years<sup>1</sup>
- Resource of 26 Bt @ 0.53% copper<sup>2</sup>

## ...attractive optionality for the future

- Multiple growth options across 4 pathways
- Options with both concentrators and leaching
- Home to our BHP Innovation Leaching Facility

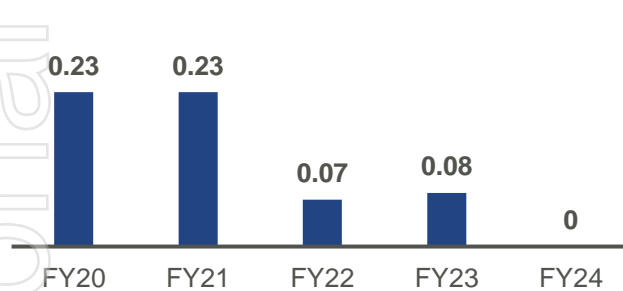


# Safety is our highest priority

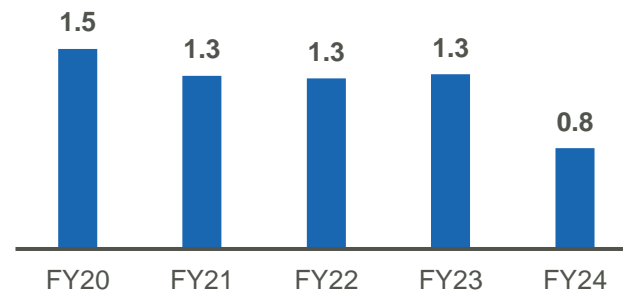
Ensuring our workforce return home safe everyday through culture, systems and controls

- 39 out of 60 Fatality Elimination Program initiatives implemented since FY21; expect to conclude in FY25
- Standardised routines with contractors, performance monitoring and executive-led coaching
- Safety culture strengthened by BHP Operating System (BOS) practices
- Committed to eliminating sexual harassment, racism and intimidation

**High potential injury frequency (HPIF)**  
(per million exposure hours)



**Total recordable injury frequency (TRIF)**  
(per million exposure hours)





# Delivering social value

Escondida has multiple globally leading sustainability practices in copper operations setting us up well for future permitting approvals

## Our social value framework

 <p><b>Decarbonisation</b></p>	 <p><b>Healthy environment</b></p>	 <p><b>Indigenous partnerships</b></p>	 <p><b>Safe, inclusive and future ready workforce</b></p>	 <p><b>Thriving, empowered communities</b></p>	 <p><b>Responsible supply chains</b></p>
<b>Operational GHG emissions</b>	<b>Responsible site closure</b>	<b>Building relationships based on trust, respect and mutual benefit</b>	<b>Enhancing safety, diversity, capability and wellbeing</b>	<b>Contributing to long-term prosperity and resilience</b>	<b>Supporting ethical, sustainable and transparent supply chains</b>
<b>100%</b> use of renewable electricity	<b>~25%</b> of site footprint to be rehabilitated over next 10 years	<b>~11%</b> Indigenous employee participation for FY24	<b>40%</b> female employee participation for FY24	<b>US\$777 m</b> overall local spend for FY24	<b>Copper Mark Certification</b> since 2021

# An inclusive and diverse operation

Enhancing the diversity, capability and wellbeing for our employee workforce

## Achieved gender balance<sup>3</sup> in FY24



Female participation  
**40%**

vs.

Chilean copper industry average  
**~21%**

Since 2017, Escondida has implemented a training program called "Mineras", an initiative that trains women to be part of the industry

**702**

Women trained

**380**

Hired by Escondida



People with disabilities  
**~2%**

Indigenous participation  
**~11%**





# Social investment projects in Antofagasta

Supports Escondida's license to operate by creating sustainable partnerships with key regional organisations and stakeholders

## Regional Entrepreneurship Ecosystem

- 60 start-ups have graduated from Aster since 2022, achieving US\$7 m in revenues, US\$2.5 m investments and 10 new deals with mining companies
- In 2024, Aster members participated in a pitch contest at EXPONOR
- In FY25, we initiated a plan of collaboration between local start-ups and Escondida's operations



2024 Chilean copper site tour  
19 November 2024

## Skills of the Future

- We are starting with the 5th generation of Sesiones Heuma, working with engineering students of the two local universities and the 3rd generation of Código Futuro
- Provides training on programming, autonomy and other technological skills to 2,500 students from seven technical schools in the Antofagasta Region, including Indigenous communities



# Environmental credentials ahead of our competitors

BHP was an early mover on desalinated water and our operations run on fully renewable power

- >US\$4 bn invested in desalinated water supply for BHP's mines in Chile over last 15 years, including for Escondida
- Escondida's concentrators have operated exclusively with desalinated water since January 2020
- 100% renewable power since January 2022 from Power Purchase Agreements
- The **Energy and Fresh Water Sustainability Program** at Escondida uses digital innovation to collect data in real time to manage and control water and energy consumption

## Reduction in consumption delivered:



3.5 gigalitres of water since FY22



118 GWh of electricity since FY22



Desalination plant



# A large scale, fully integrated operation



~26 Bt Mineral Resources<sup>2</sup>

0.53% Cu grade

6.5 Bt Ore Reserves

0.55% Cu grade



Two open pits

Escondida and  
Escondida Norte



Autonomous  
zone with 15  
trucks operating

Staged roll out  
underway



Copper oxide  
and sulphide  
leaching  
processes



Three  
concentrator  
plants

Los Colorados,  
Laguna Seca  
1 & 2



Two  
desalination  
plants

Installed  
capacity of 3,700  
litres per second



Rail line

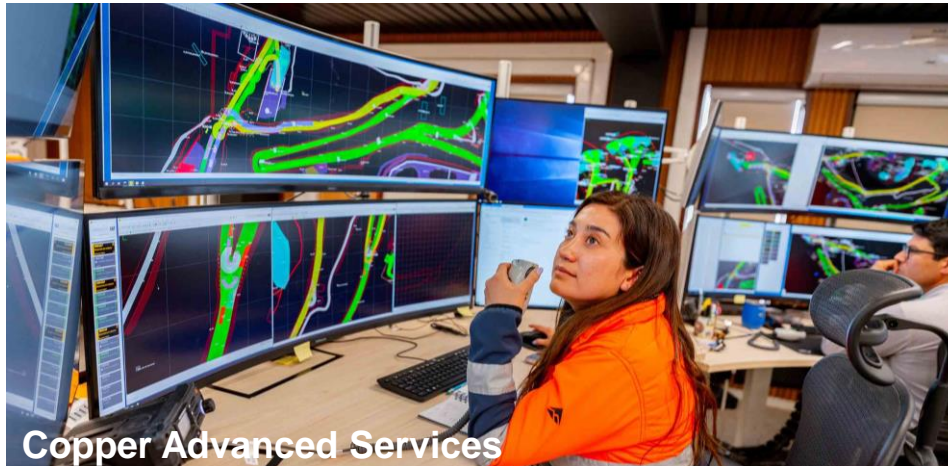
216 km to  
Antofagasta port  
(Cathodes export)



Port facility

Coloso  
(Concentrate export)

Supported by Copper Advanced Services (Remote operations centre) located in Santiago



Copper Advanced Services



Escondida



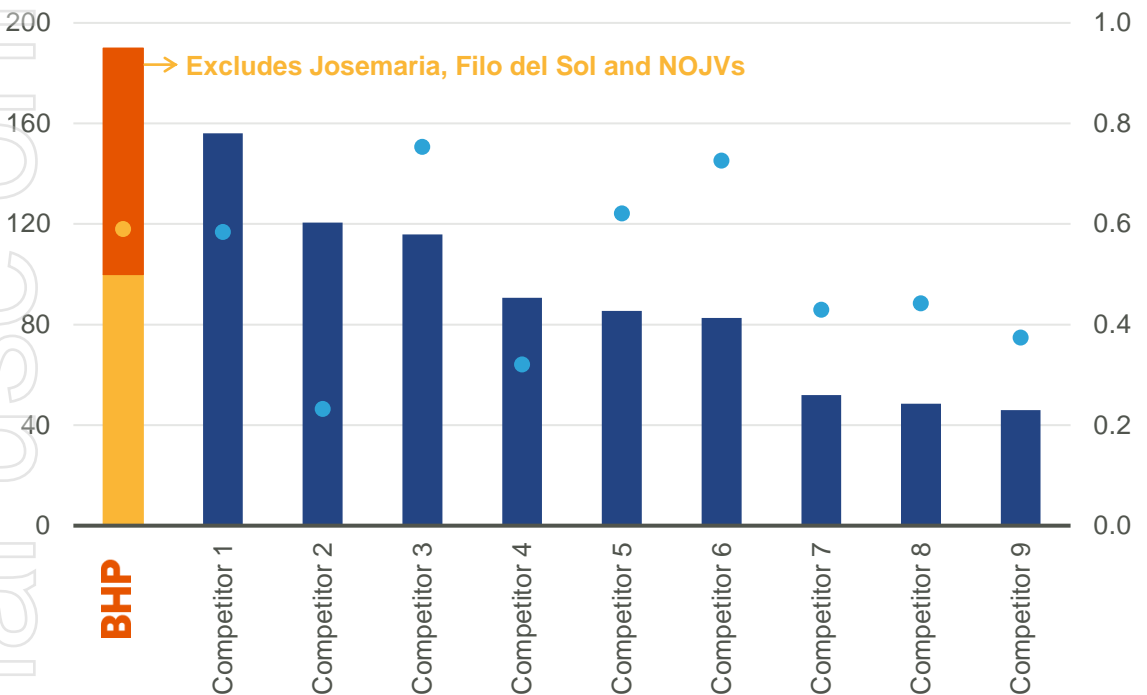
# A globally significant copper resource

Drives long life and underpins our growth potential

## Escondida is the world's largest copper resource...<sup>4</sup>

(Copper contained, Mt)

(Copper grade, %)



■ Chilean assets including Escondida with ~26Bt of resource @ 0.53% Cu

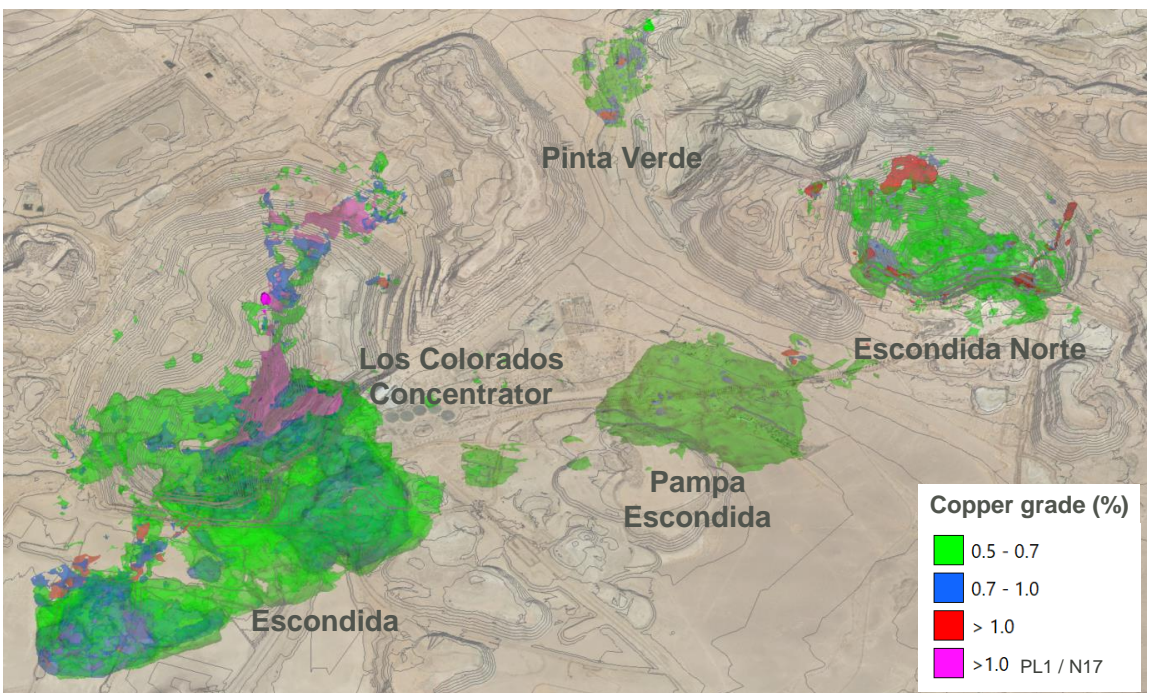
■ BHP ex-Chile (excludes Josemaria, Filo del Sol and NOJVs)

■ Competitors contained metal

● BHP grade

● Competitor grade

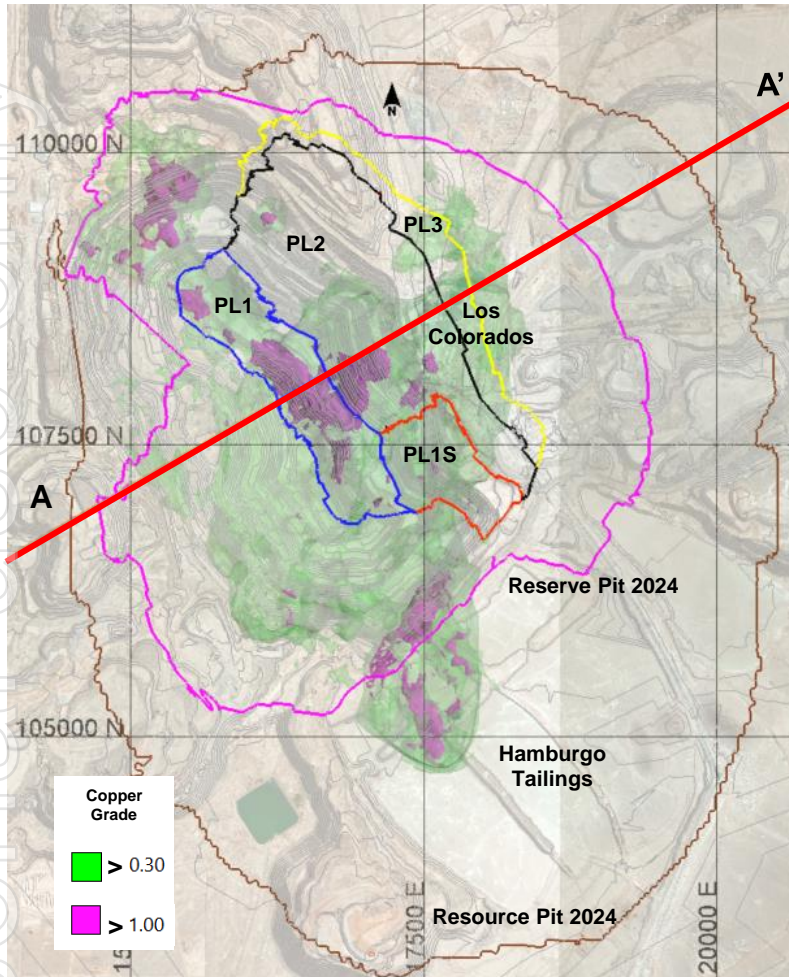
## Multi decade asset with strong resource base



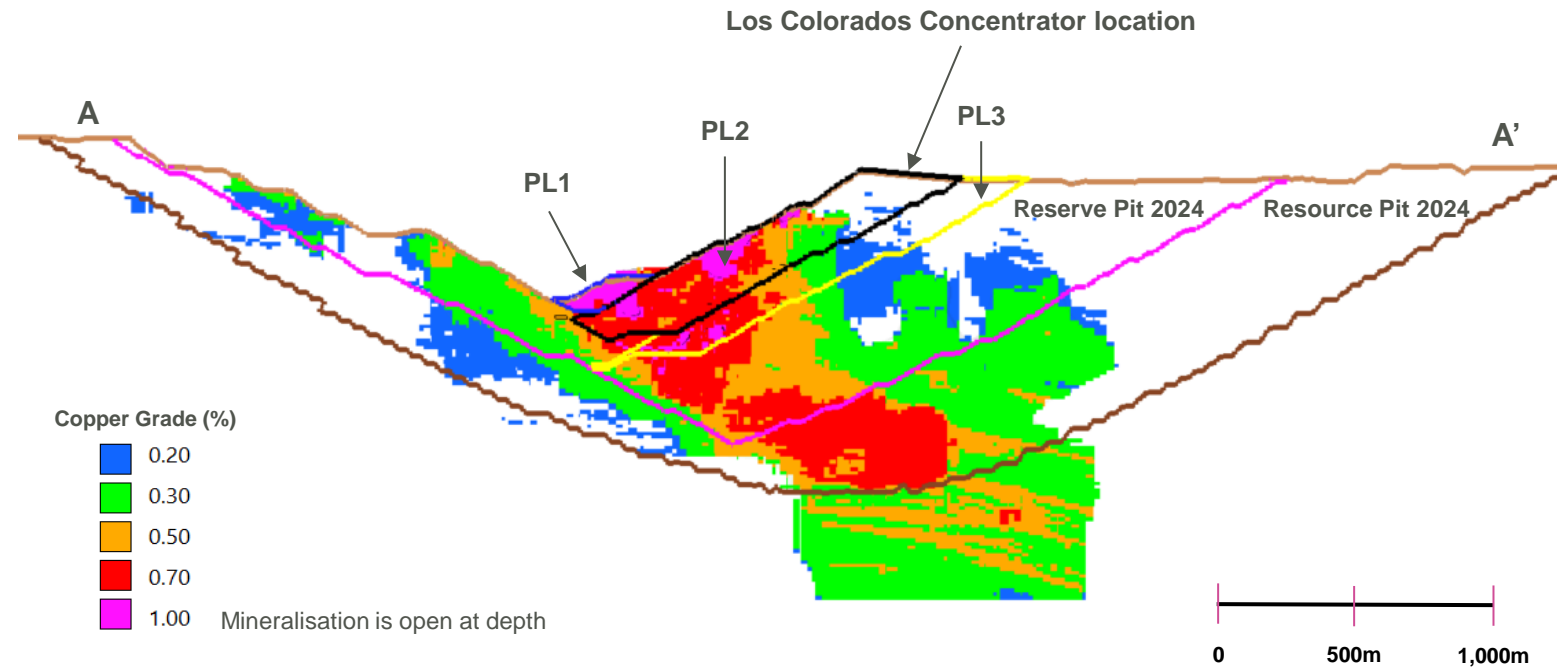
	Resources		Reserves	
Escondida	15 Bt	0.55% Cu	4.4 Bt	0.58% Cu
Escondida Norte	3 Bt	0.49% Cu	2.1 Bt	0.51% Cu
Pinta Verde	248 Mt	0.54% Cu		
Pampa Escondida	~7 Bt	0.46% Cu		

# Exploiting high grade areas is key to growth

Areas such as PL1 important in near term with PL2 key in the longer term after Los Colorados closure



Cross section A-A' shows potential progression of Escondida pit over the decades to come (Resource model 2024)





# Managing geotechnical challenges

Measures taken are working to ensure stable operational performance

- PL1 is a high-grade portion of the Escondida pit that has challenging geotechnical characteristics
- 8 geotechnical issues identified in FY22 generating minor production impacts
- Measures taken to stabilise the impacted zone included injection of cement and resin into impacted area, changing pit wall angles
- In August 2024, a new geotechnical instability was detected indicating a movement in slow motion and without acceleration
- We continue to carry out ongoing monitoring, early detection, and mitigation measures as required

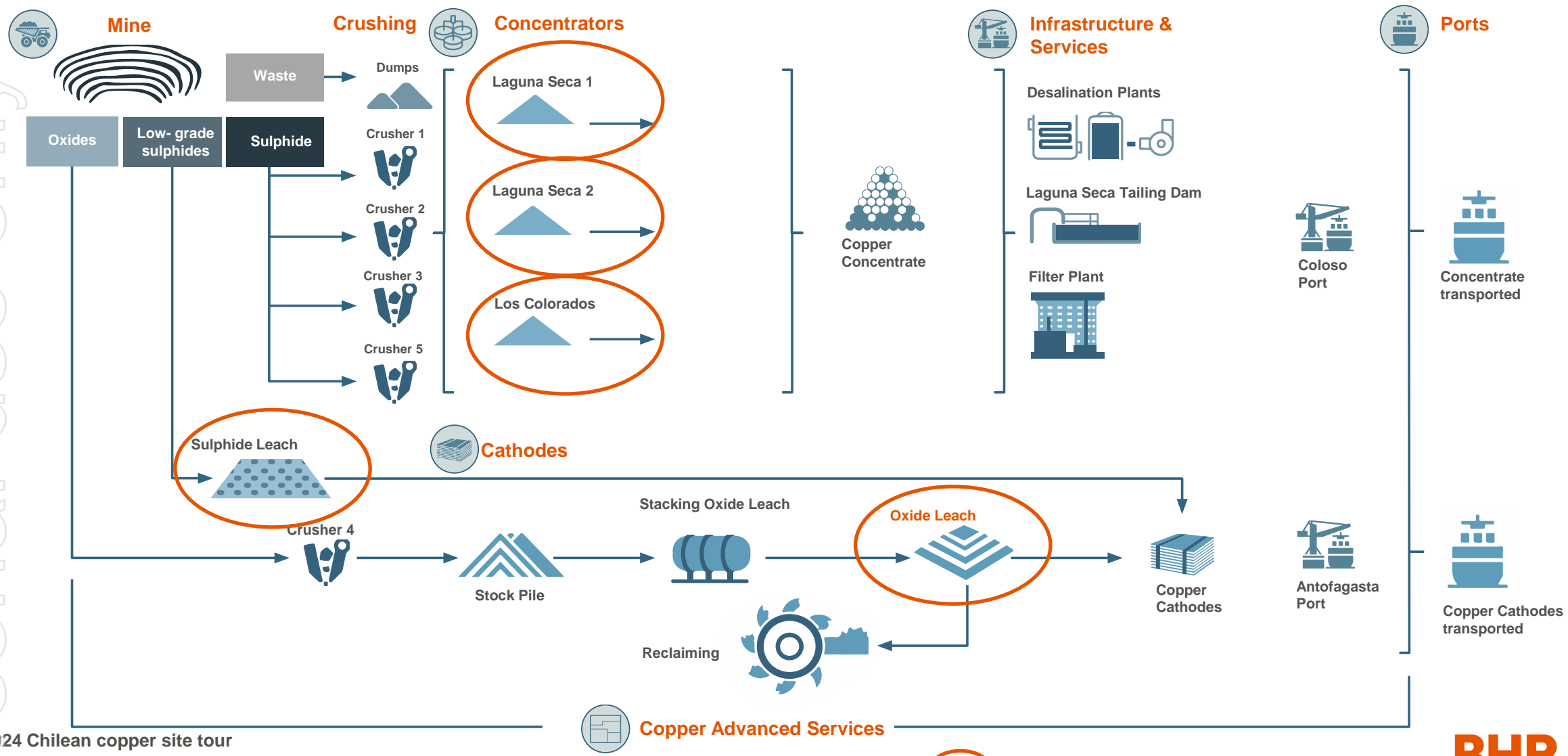


Impacted ramp





# A fully integrated mine to port value chain



# Mining operations overview

Escondida operates a large fleet in two pits to consistently move >1.2 million tonnes per day of material

## Two open pit operations

- Escondida Pit
- Escondida Norte Pit

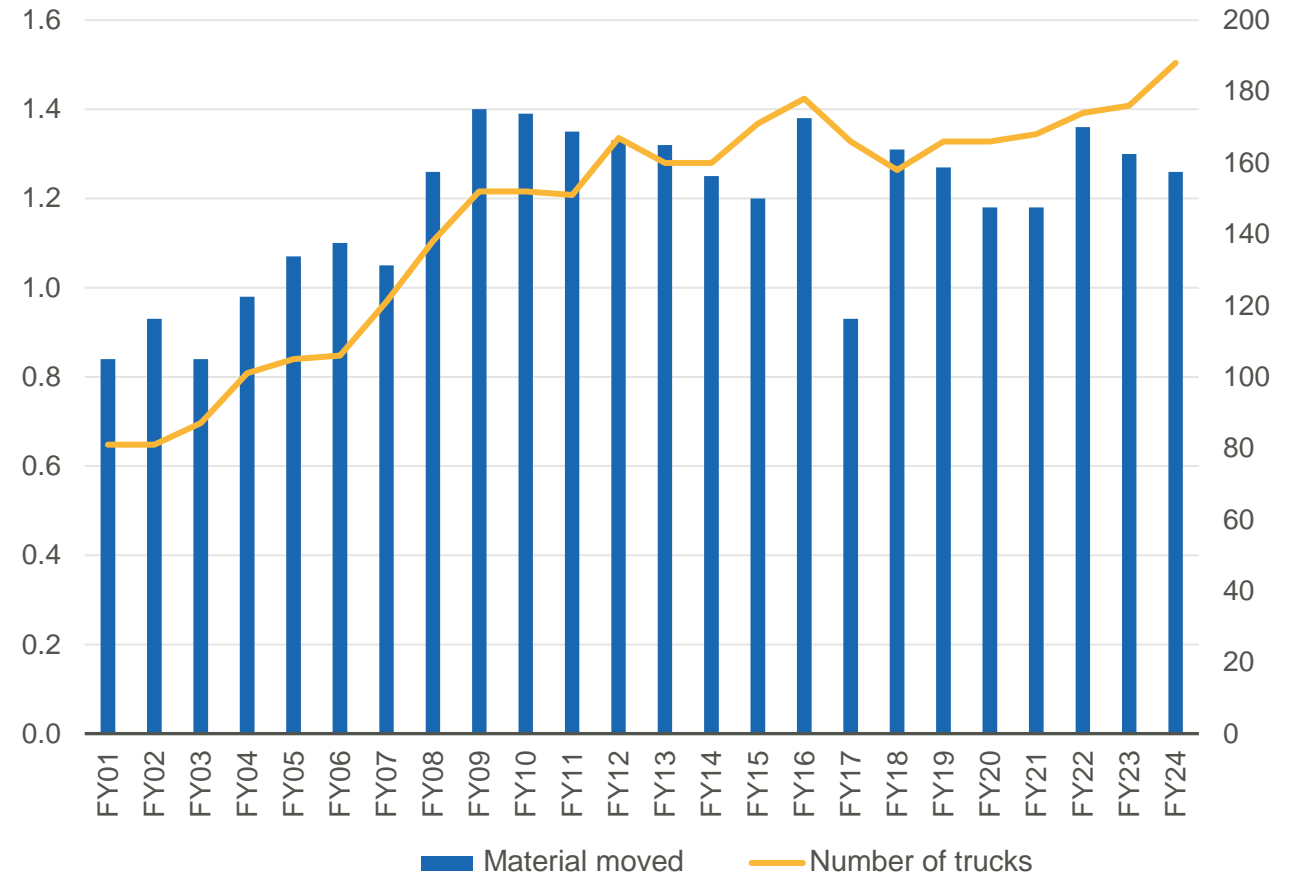
## Current mining equipment and fixed infrastructure

- 188 trucks
- 18 electric shovels including the largest Komatsu P&H 4800
- 65 ancillary equipment
- 4 primary crushers and conveyance system for concentrators
- 1 primary crusher and conveyance system for cathodes

## Full fleet replacement underway

- New truck fleet unlocks additional capacity and enables transition to autonomous operations
- Move to diesel electric trucks to be phased over time
- 15 autonomous trucks operating in Escondida Norte

Additional trucks have helped increase material movement over time  
(Material moved, Mtpd) (Number of trucks)



# Escondida has begun its move into autonomy

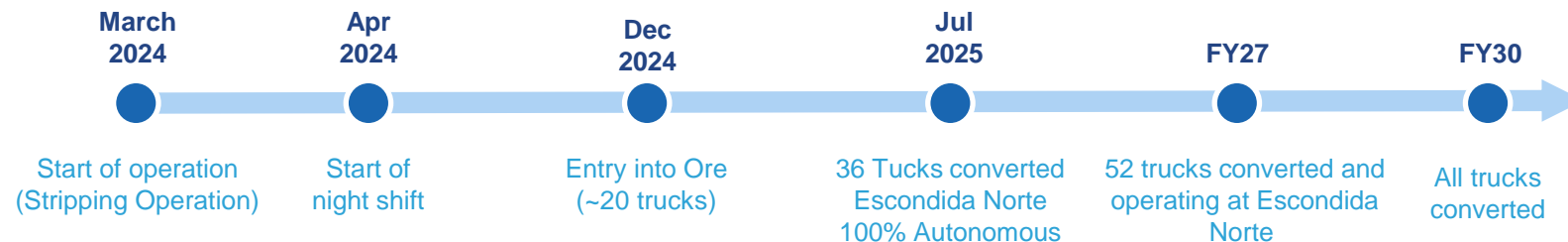
Delivery of autonomous trucks and drills ongoing

- Autonomous trucks currently in Escondida Norte pit
  - 15 out of 36 trucks
- Total conversion of 141 trucks by FY30
- Main achievements during 8 months of operation
  - Zero safety events
  - Over 17 Mt of waste movement
  - Expected to have the largest autonomous fleet in South America by end-FY25
- Autonomous drills progressing aligned to plan (20% progress) with zero safety incidents during deployment



Autonomous truck

## Timeline for autonomous haulage trucks conversion at Escondida Norte pit

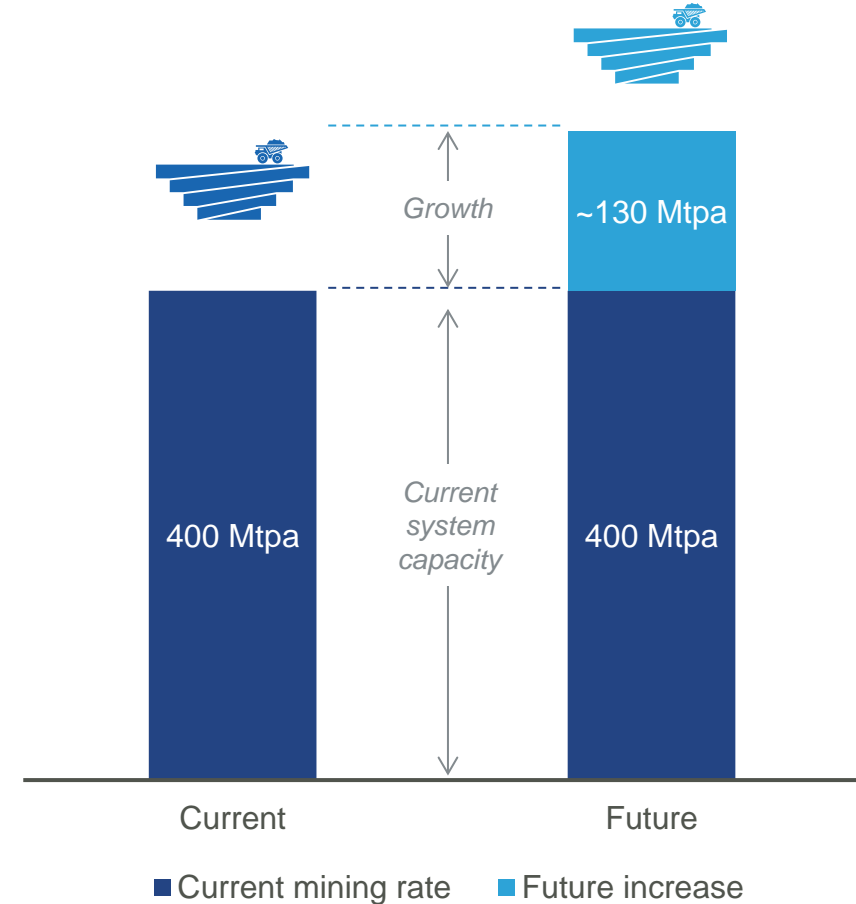




# Increasing mine movement key to unlocking growth

Changes to fleet and mine design to help deliver increased volumes

- Current<sup>5</sup> ex-pit mine movement ~400 Mtpa
  - 134 Mtpa to concentrators, average grade 0.82% Cu
  - 36 Mtpa to Sulphide Leach, average grade 0.42% Cu
- Productivity initiatives and mine design will enable volume increase to >500 Mtpa
  - Mine design changes with larger pushbacks, more access ramps and change in pit wall angle
  - Fleet upgrade with larger trucks and shovels and increase in number of trucks (up to ~190 ultra-class new trucks)
  - Productivity initiatives
- Potential for new open pit in Pinta Verde will exploit oxide leach latent capacity



# Concentrator operations are a strong base for growth

Operating three concentrators that account for ~80% of total copper produced at Escondida

## Today



### Los Colorados (1990)

- 96 ktpd capacity; 3 SAG mills and 7 ball mills
- 2017 major overhaul to extend operation to at least FY27



### Laguna Seca Line 1 (2002)

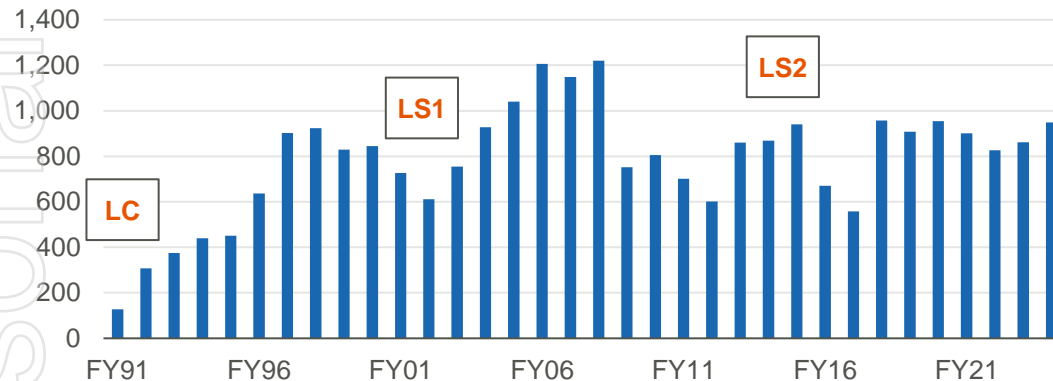
- 130 ktpd capacity; 1 SAG mill and 4 ball mills



### Laguna Seca Line 2 (OGP1 delivered 2015)

- 147 ktpd capacity; 1 SAG mill and 4 ball mills

**Staged expansions over time have helped to maintain production**  
(Production, Cu contained in concentrate, ktpa)



2024 Chilean copper site tour  
19 November 2024

## Future

### Los Colorados extension and closure

- High grade ore sitting below plant, access timing dependent on extension

### Laguna Seca Expansion

- Focus on both lines to improve existing facility with debottlenecking, increase throughput by 40 ktpd (~15 Mtpa) and improve recovery by ~1-4ppt from 85% in FY24

### New Concentrator

- New facility with 125 ktpd (~45 Mtpa) capacity incorporating new technology of coarse particle flotation



Escondida New Concentrator

# Cathode operations provides range of options

Leveraging emerging leaching technology to offset production decline and utilise installed latent capacity

## Today

- Two solvent extraction processes
  - Oxide ores crushed and processed at a dynamic leach pad; acid leaching process
  - Sulphide ores (lower grade) processed (not crushed) at a static pad; bioleaching process
- Current cathode production ~200 ktpa
- Electrowinning facilities have a nominal installed capacity to produce ~350 ktpa cathode



Cathodes facility

## Future

- Full SaL expected to deliver incremental ~55 ktpa of copper cathodes between CY25 - CY34 to leach mixed and secondary sulphide ores
- Leaching technologies applied to sulphide leach existing facilities to utilise latent capacity
  - Jeti catalyst improve sulphide bioleaching recovery
  - BHP Leach to recover additional copper from ~ 20 years of spent processed ore generated from existing sulphide leach process
- Plus, potential of emerging technologies to further improve recovery of sulphides at current pad



Oxide leach pad



# Port of Coloso supports current and future operation

100% of the water used at Escondida site and port is produced via our desalination facilities

## Fully integrated port facility supporting Escondida

### Copper concentrate filter

- 6 press filters with capacity of ~12 ktpd
- Copper concentrate stockpile facilities
- Capacity to store ~140 kt with up to 10 days filtration possible without loading concentrate

### Shiploader

- Capacity to load ~18 ktpd

### Two desalination plants

- Plant 0 with a capacity of ~500 litres per second
- Plant EWS with a capacity of ~3,200 litres per second
- Both plants are expandable to address future water needs



# Relentless pursuit of operational excellence

Safer, lower cost, more reliable, more productive

## Leveraging BOS to deliver operational excellence

### Laguna Seca clay management standardisation

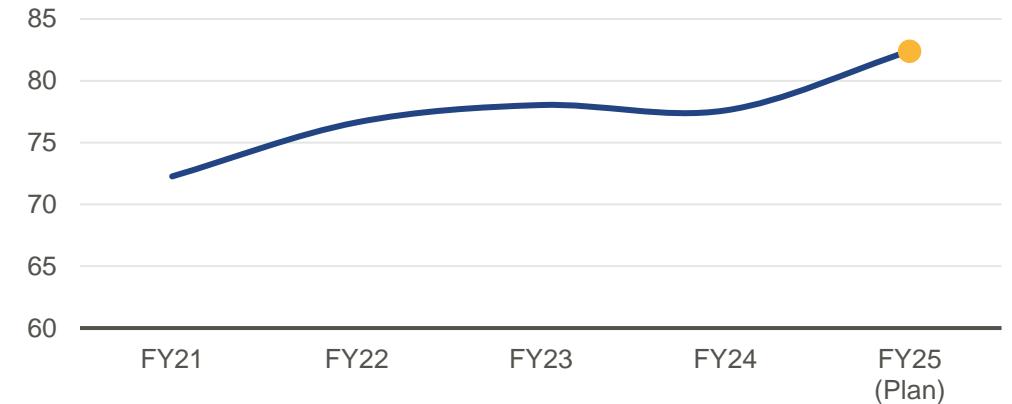
- Developed a clay management standard to ensure operational continuity and manage instability caused by material ingress

### Increasing the reliability of crushing and conveying

- Analysed performance of the primary crushers and conveyors
- Created standardised tablet-based inspections, identified critical equipment and reviewed inventory and stocking
- Realised a 74% increase in Mean Time Between Failures (MTBF)

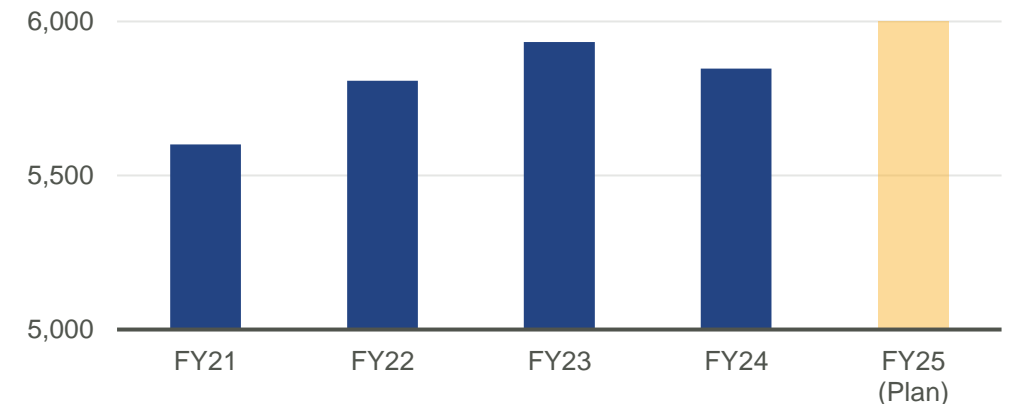
## Trends in equipment utilisation are improving...

(All Escondida equipment utilisation, %)



## ...along with production time trends

(Ultra-class trucks annual production time, hours)



# Application of technology and Artificial Intelligence

Our size and scale generates significant amounts of data, enabling us to use machine learning and AI to deliver tangible value

Machine learning and AI has allowed us to capture significant value since FY22



**118 GWh**

Reduced electricity  
consumption



**3.5 GI**

Water consumption  
savings



**+0.3%**

Increase copper  
concentrator recovery



**+\$19 mn**

Optimal blasting  
design to mitigate  
coarse ore restriction



# Delivering growth near term

Our guidance shows an ~10% increase in production before a decline from FY27 for a period

## FY24 strong performance

Production (kt)	Cost (US\$/lb) <sup>6</sup>
1,125	1.45

- Unit cost increase (+4% YoY) kept below inflation-linked costs
- Increased production (+7% YoY) primarily due to higher concentrator feed grade of 0.88%

## FY25 guidance shows growth

Production (kt)	Cost (US\$/lb) <sup>6</sup>
1,180 – 1,300	1.30 – 1.60

- Production weighted to second half
- FY25 and FY26 expected to average between 1,200 - 1,300 ktpa

## Medium term guidance

Production (ktpa)	Cost (US\$/lb) <sup>6</sup>
900 – 1,000	1.50 – 1.80

- Production expected to decline from FY27 for a period

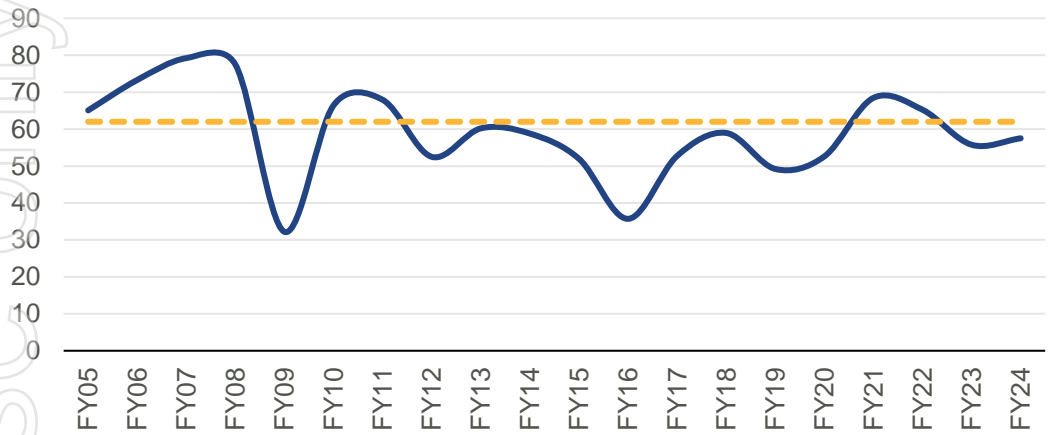


Laguna Seca SAG mill

# Strong and consistent returns

A large and high-quality business, Escondida is the cornerstone of BHP Copper

Consistent EBITDA margins averaging ~60% over last 20 years



Generating significant EBITDA...and healthy returns<sup>7</sup>

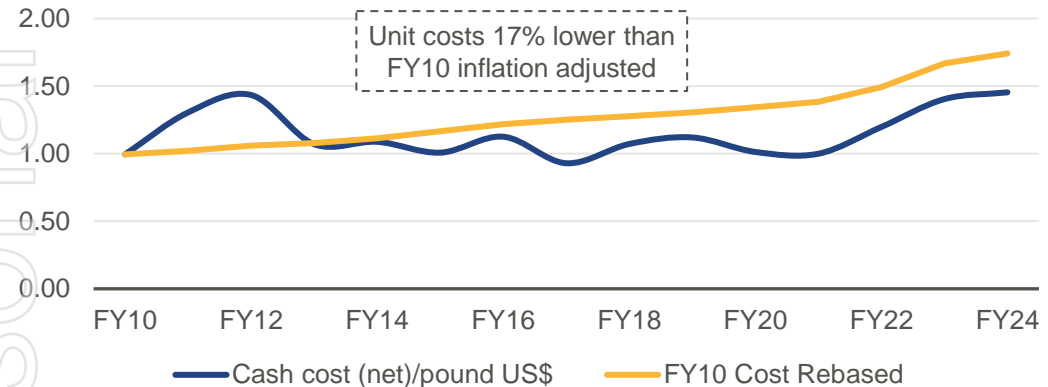
**\$4.9 bn**

EBITDA p.a. 5-year average

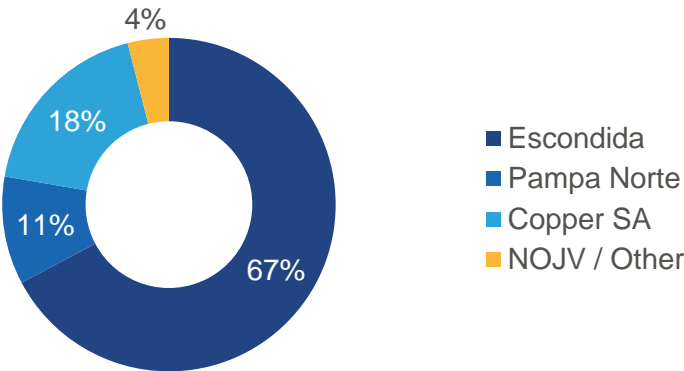
**30%**

5-year average ROCE

Maintaining a stable cost base over the long run



~67% of BHP Copper EBITDA in FY24

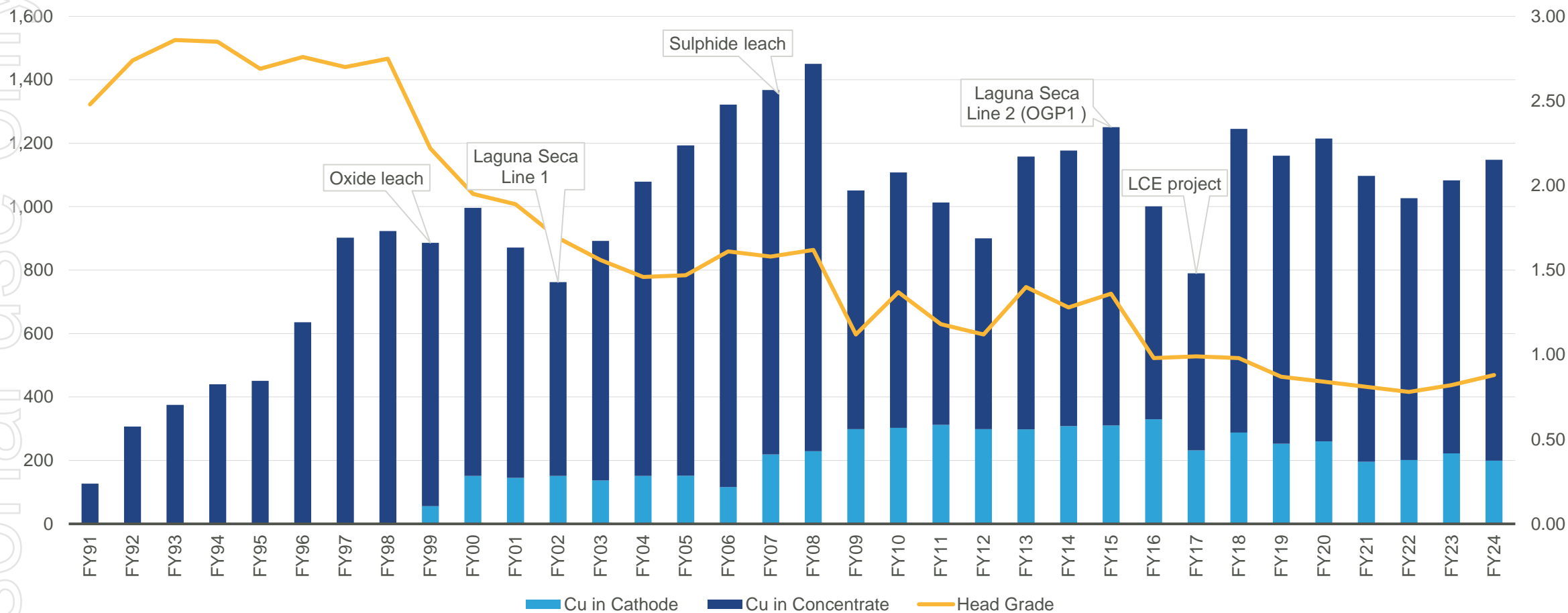


# Escondida has a long history of managing grade decline

Discovered in 1981 with operations beginning in 1990, investment over time has helped to offset natural grade decline

Copper Production  
(copper, ktpa)

Copper Head Grade  
(%)





# What you will be seeing today...

The world's largest copper mine

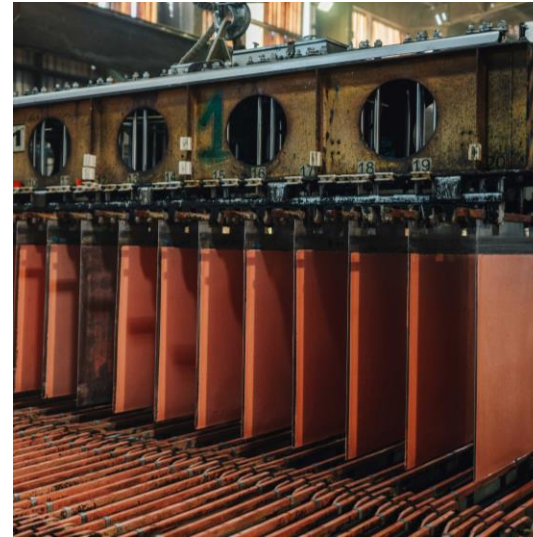
Open pit



Concentrators



Cathodes



BHP Leach demonstration pad



ersonal use only

**BHP**

# Footnotes

1. Slide 4: Based on the Escondida Ore Reserves and Mineral Resources at 30 June 2024 in 100% terms reported in compliance with the JORC Code.
2. Slide 4, 10: For further information on Ore Reserves and Mineral Resources, refer to slides 29 and 30.
3. Slide 7: We define gender balance as a minimum 40 per cent women and 40 per cent men in line with the definitions used by entities such as the International Labour Organization.
4. Slide 11: BHP data based on FY24 BHP Annual Report, data presented on ownership basis. Competitor copper resource data based on Wood Mackenzie Q2 2024 information. For further information on Mineral Resources refer to slide 30.
5. Slide 17: Current ex-pit material movement based on FY20 to FY24 averages.
6. Slide 23: Average realised exchange rates for FY24 of USD/CLP 907 (FY24 guidance rate USD/CLP 810); FY25 and medium term USD/CLP 842 (guidance).
7. Slide 24: ROCE is defined as EBIT divided by average capital employed. Figures sourced from the financial statements published on the Chilean Financial Regulator website.



# Competent Person Statement: Copper Ore Reserves

**Chile Copper Ore Reserves Competent Person Statement**

The information in this slide relates to Copper Ore Reserves as at 30 June 2024. Ore Reserves are based on information compiled by Marcelo Cortes as Competent Person (compiler) for all declared Ore Reserves. The information in this presentation that relates to the FY2024 Ore Reserves reported by the Company in compliance with the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012' ('The JORC Code 2012 Edition') in the 2024 BHP Annual Report. Report is available to view on [www.bhp.com](http://www.bhp.com).

M. Cortes is current Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and he is full-time employee of BHP. M. Cortes has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code)'. M. Cortes owns shares in BHP and is entitled to participate in employee share holding plans. M. Cortes consents to the inclusion in the presentation of the matters based on their information in the form and context in which it appears.

Ore Reserves are reported in 100 per cent terms. Dry tonnages are reported and all tonnage and quality information has been rounded, hence small differences may be present in the totals. Ore Reserves classification is applied based on mineralisation type, geological understanding and other modifying factors.

**Compiled Chile Copper Ore Reserves as at 30 June 2024**

Deposit	Ore type	Proved Reserves		Probable Reserves		Total Reserves		BHP interest (%)
		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	
Chile copper operations								
Escondida	Full SaL	180	0.80	36	0.61	216	0.77	57.5
	Oxide	—	—	—	—	—	—	
	Sulphide	3,370	0.63	1,400	0.54	4,770	0.60	
	Sulphide Leach	1,260	0.38	239	0.37	1,500	0.38	
Spence	Oxide	12	0.63	0.6	0.53	13	0.63	100
	Supergene Sulphide	44	0.60	37	0.51	81	0.56	
	Transitional Sulphide	11	0.55	0.2	0.41	11	0.55	
	Hypogene Sulphide	390	0.57	385	0.50	775	0.54	

# Competent Person Statement: Copper Mineral Resources

## Copper Mineral Resources Competent Person Statement

The information in this slide relates to Copper Mineral Resources as at 30 June 2024. Mineral Resources are inclusive of Ore Reserves and is based on information compiled by Marcelo Cortes as Competent Person (compiler) for all declared Mineral Resources. The information in this presentation that relates to the FY2024 Mineral Resources reported by the Company in compliance with the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012' ('The JORC Code 2012 Edition') in the 2024 BHP Annual Report. Report is available to view on [www.bhp.com](http://www.bhp.com). M. Cortes is current Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and he is full-time employee of BHP. M. Cortes has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code).

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Mineral Resources as presented are reported in 100 per cent terms. Dry tonnages are reported, and all tonnage and quality information has been rounded, hence small differences may be present in the totals. Mineral Resources classification is applied based on mineralisation type, geological understanding and an assessment of reasonable prospects for eventual economic extraction.

## Compiled Copper Mineral Resources as at 30 June 2024

Deposit	Ore Type	Measured Resources		Indicated Resources		Inferred Resources		Total Resources		Contained Metal (Cu kt)	BHP Interest (%)
		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu		
Escondida	Oxide	90	0.57	14	0.54	2	0.51	106	0.56	594	57.5
	Mixed	50	0.48	37	0.48	20	0.45	107	0.47	503	57.5
	Sulphide	5,080	0.58	4,000	0.53	9,060	0.53	18,100	0.55	99,550	57.5
Cerro Colorado	Oxide	68	0.61	113	0.62	5.7	0.58	187	0.62	1,159	100
	Supergene Sulphide	48	0.58	97	0.58	22	0.64	167	0.59	985	100
	Transitional Sulphide	72	0.45	104	0.41	29	0.42	205	0.43	882	100
	Hypogene Sulphide	–	–	–	–	1,700	0.36	1,700	0.36	6,120	100
Spence	Oxide	14	0.63	1.6	0.59	–	–	16	0.63	101	100
	Supergene Sulphide	82	0.55	29	0.45	0.3	0.42	111	0.52	577	100
	Transitional Sulphide	16	0.58	0.2	0.47	–	–	16	0.58	93	100
	Hypogene Sulphide	736	0.46	696	0.43	786	0.39	2,220	0.43	9,546	100
Copper projects		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Pampa Escondida	Sulphide	294	0.53	1,150	0.55	5,400	0.44	6,840	0.46	31,464	57.5
Pinta Verde	Oxide	109	0.59	64	0.52	15	0.54	188	0.56	1,053	57.5
	Sulphide	–	–	23	0.50	37	0.45	60	0.47	282	57.5
Chimborazo	Sulphide	–	–	135	0.50	80	0.60	215	0.54	1,161	57.5
Pantera	OC Sulphide	–	–	13	1.28	7.1	1.09	20	1.21	242	100
Succoth	OC Sulphide	–	–	61	0.57	57	0.52	120	0.54	648	100
Copper gold operations		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Pedra Branca	UG Sulphide	0.58	1.57	7.9	1.67	7.3	1.38	16	1.53	245	100
Carrapateena	UG Sulphide	130	0.98	470	0.62	300	0.26	900	0.55	4,950	100
Prominent Hill	UG Sulphide	42	1.15	50	0.86	66	0.85	158	0.93	1,469	100
	SP Sulphide	0.3	1.04	1.6	0.11	–	–	1.9	0.24	5	100
	SP Low-grade	–	–	2.2	0.16	–	–	2.2	0.16	4	100
Copper gold project		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Fremantle Doctor	UG Sulphide	–	–	–	–	100	0.51	100	0.51	510	100
Copper uranium gold operation		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Olympic Dam	OC Sulphide	3,570	0.61	3,310	0.57	2,840	0.58	9,720	0.59	57,348	100
	UG Sulphide	820	1.55	640	1.48	190	1.44	1,650	1.51	24,915	100
Copper zinc operation		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Antamina	Sulphide Cu only	275	0.80	339	0.83	536	0.87	1,150	0.84	9,660	33.75
	Sulphide Cu-Zn	70	0.86	188	1.00	215	1.06	473	1.01	4,777	33.75
	UG Sulphide Cu only	–	–	–	–	268	1.28	268	1.28	3,430	33.75
	UG Sulphide Cu-Zn	–	–	–	–	166	1.12	166	1.12	1,859	33.75



An aerial photograph of the Spence concentrator facility. The facility is situated in a vast, arid desert landscape under a clear blue sky. In the foreground, a large, dark, terraced slope of earth or tailings leads up to the industrial complex. The complex itself features a prominent yellow gantry crane on the left, several large white cylindrical storage tanks, and a tall, slender processing tower. A long conveyor belt system extends from the central area towards the right. On the far right, a massive, silver, ribbed dome structure, likely a gas storage or processing vessel, stands out. The background shows a flat desert floor with some distant water bodies and low mountains on the horizon.

# Spence

Cristian Sandoval

Asset President Pampa Norte

Spence concentrator

**BHP**



# Disclaimer

## Forward-looking statements

This presentation contains 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: trends in commodity prices and currency exchange rates; demand for commodities; global market conditions; guidance; reserves and resources and production forecasts; expectations, plans, strategies and objectives of management; our expectations, commitments, targets, goals and objectives with respect to social value or sustainability; climate scenarios; approval of certain projects and consummation of certain transactions; closure, divestment, acquisition or integration of certain assets, operations or facilities (including associated costs or benefits); anticipated production or construction commencement dates; capital expenditure or costs and scheduling; operating costs, and supply of materials and skilled employees; anticipated productive lives of projects, mines and facilities; the availability, implementation and adoption of new technologies; provisions and contingent liabilities; and tax, legal and other regulatory developments.

Forward-looking statements may be identified by the use of terminology, including, but not limited to, 'intend', 'aim', 'ambition', 'aspiration', 'goal', 'target', 'prospect', 'project', 'see', 'anticipate', 'estimate', 'plan', 'objective', 'believe', 'expect', 'commit', 'may', 'should', 'need', 'must', 'will', 'would', 'continue', 'forecast', 'guidance', 'outlook', 'trend' or similar words. These statements discuss future expectations or performance, or provide other forward-looking information.

Forward-looking statements are based on management's expectations and reflect judgements, assumptions, estimates and other information available as at the date made. BHP cautions against reliance on any forward-looking statements.

These statements do not represent guarantees or predictions of future financial or operational performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this presentation.

For example, our future revenues from our assets, projects or mines described in this presentation will be based, in part, on the market price of the commodities 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.

In addition, there are limitations with respect to scenario analysis, including any climate-related scenario analysis, and it is difficult to predict which, if any, of the scenarios might eventuate. Scenario analysis is not an indication of probable outcomes and relies on assumptions that may or may not prove to be correct or eventuate.

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 our ability to profitably produce and deliver the products extracted to applicable markets; the impact of economic and geopolitical factors, including foreign currency exchange rates on the market prices of the commodities we produce and competition in the markets in which we operate; 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 royalties or implementation of trade or export restrictions; changes in environmental and other regulations; political or geopolitical uncertainty; labour unrest; weather, climate variability or other manifestations of climate change; and other factors identified in the risk factors discussed in section 8.1 of the Operating and Financial Review (OFR) in the BHP Annual Report 2024 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](http://www.sec.gov).

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 data

Unless expressly stated otherwise: variance analysis relates to the relative performance of BHP and/or its operations during the year ended 30 June 2024 compared with the year ended 30 June 2023; total operations refers to the combination of continuing and discontinued operations; continuing operations refers to data presented excluding Petroleum from the 2021 financial year onwards; references to Underlying EBITDA margin exclude third party trading activities; data from subsidiaries are shown on a 100% basis and data from equity accounted investments and other operations is presented, with the exception of net operating assets, reflecting BHP's share; medium term refers to a five-year horizon, unless otherwise noted. Throughout this presentation, production volumes and financials for the operations from BHP's acquisition of OZ Minerals Limited (OZL) during FY2023 are for the period of 1 May to 30 June 2023, whilst the acquisition completion date was 2 May 2023. Unless expressly stated otherwise, information and data in this presentation related to BHP's social value or sustainability position or performance does not reflect BHP's acquisition of OZL nor BHP's interest in non-operated assets. Due to the inherent uncertainty and limitations in measuring greenhouse gas (GHG) emissions under the calculation methodologies used in the preparation of such data, all GHG emissions data or references to GHG emissions (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 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, refer to the BHP GHG Emissions Calculation Methodology 2024, available at [bhp.com](http://bhp.com). Numbers presented may not add up precisely to the totals provided due to rounding. All footnote content (except in the Annexures) is contained on slide 22.

## Non-IFRS information

We use various Non-IFRS information to reflect our underlying performance. For further information, the reconciliation of non-IFRS financial information to our statutory measures, reasons for usefulness and calculation methodology, please refer to section 10 'Non-IFRS financial information' in the BHP Annual Report 2024.

## No offer of securities

Nothing in this presentation should be construed as either an offer or a solicitation of an offer to buy or sell BHP securities or a solicitation of any vote or approval, in any jurisdiction, or be treated or relied upon as a recommendation or advice by BHP.

## Reliance on third party information

The views expressed in this presentation contain information that has been derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information. This presentation should not be relied upon as a recommendation or forecast by BHP.

## BHP and its subsidiaries

In this presentation, the terms 'BHP', the 'Company', the 'Group', 'BHP Group', 'our business', 'organisation', 'we', 'us', 'our' and ourselves' 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 2024 for a list of our significant subsidiaries. Those terms do not include non-operated assets. This presentation covers BHP's functions and assets (including those under exploration, projects in development or execution phases, sites and operations that are closed or in the closure phase) that have been wholly owned and operated by BHP or that have been owned as a joint venture<sup>1</sup> operated by BHP (referred to in this presentation as 'operated assets' or 'operations') during the period from 1 July 2023 to 30 June 2024, unless otherwise stated.

BHP also holds interests in assets that are owned as a joint venture but not operated by BHP (referred to in this presentation as 'non-operated joint ventures' or '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 BHP Group and, as a result, statements regarding our operations, assets and values apply only to our operated assets unless expressly stated otherwise.

1. References in this presentation to a 'joint venture' are used for convenience to collectively describe assets that are not wholly owned by BHP. Such references are not intended to characterise the legal relationship between the owners of the asset.

# Meet the team



**Cristian Sandoval**  
President  
Pampa Norte



**Rodrigo Caballero**  
GM  
Operations

**Eliana Calderon**  
Head of Health,  
Safety and Security

**Pedro Gonzalez-Carbonell**  
GM Planning, Technical &  
Environment

**Juliet Taylor**  
GM Integrated  
Operations



**Rodrigo Barrera**  
GM Engineering,  
Water & Tailings



**Alejandro Heibron**  
Director  
Cerro Colorado

**Lilia Bustamante**  
Manager  
BOS

# Welcome to Spence

A long-life copper asset

## Improved performance and increased production

- Part of Pampa Norte (along with Cerro Colorado)
- Record production in FY24 +6% YoY, medium term guidance ~250 ktpa

## Long-life asset

- In production since 2006
- The Spence Growth Option (SGO) project added a concentrator and extended life beyond 2050

## Attractive optionality for the future

- Growth options across 4 pathways<sup>1</sup>
- Option to expand throughput at the concentrator
- Potential to extend cathode life through new leaching technologies leveraging latent SXEW capacity



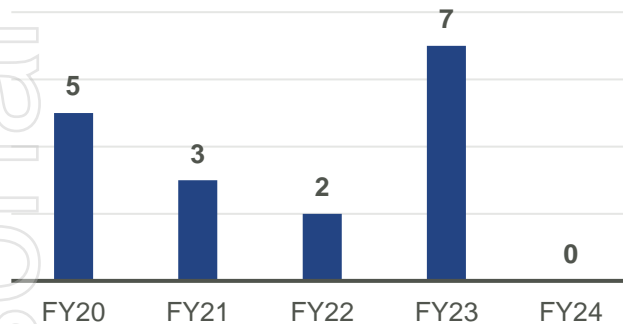


# Safety is our highest priority

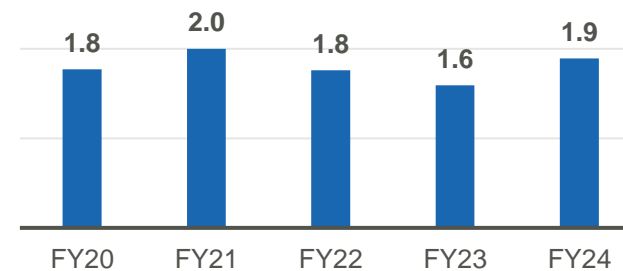
Ensuring our workforce return home safe everyday through culture, systems and controls

- Build a safety culture centered on frontline engagement through our **Field Leadership Program** and the **BHP Operating System (BOS)**
- Steady and continuous progress in our **Fatality Elimination Program**; implementation of controls are closely monitored and have been delivered to plan
- Integrate **partner companies** as key players – Create **co-ownership** of site safety outcomes and field leadership adoption by our **contractors**
- **Inclusion and diversity** are crucial aspects of workplace safety

High-potential injury (HPI) events<sup>2</sup>



Total recordable injury frequency (TRIF)<sup>2</sup>  
(per million exposure hours)



# Delivering social value

Spence has made tangible progress across our framework setting us up well for future permitting approvals

					
Decarbonisation	Healthy environment	Indigenous partnerships	Safe, inclusive and future ready workforce	Thriving, empowered communities	Responsible supply chains
Operational GHG emissions	Water	Indigenous procurement	Safety, diversity, capability and wellbeing	Contributing to long-term prosperity	Ethical, sustainable and transparent
GHG emissions (Scopes 1 and 2) <b>↓ 56%</b> from FY20 baseline	Water sources <b>&gt; 90%</b> of total consumed water comes from a desalination plant (third party)	Indigenous business spend <b>~US\$14 m</b> in FY24 (and FY23)	Female employee participation <b>&gt; 41%</b> in FY24 (> 43% female leadership participation)	Investment in social projects <b>~US\$9 m</b> in FY24 (Spence ~US\$3 m and Cerro Colorado ~US\$6 m)	<b>Copper Mark</b> Certification achieved

# Delivering social investment projects in Sierra Gorda

Maintaining a strong social value proposition and stakeholder engagement are fundamental to achieving Spence's growth objectives

## Spence Education Strategy in Sierra Gorda

### Impact

- 111 beneficiaries with education scholarships increasing scholarship coverage by +22% and improving educational pathways for potential future workforce

### Main achievements

- Inauguration of two new STEAM<sup>3</sup> classrooms
- Robotics and electromobility festival

### FY25 aspiration

- Increase number of beneficiaries by +10%



2024 Chilean copper site tour  
20 November 2024

## Entrepreneurship program “Transforma Sierra Gorda”

### Impact

- 90 companies benefited, creating capacity in the local economy

### Main achievements

- 100% effective participation in training
- 55% increase in program coverage lines

### FY25 aspiration

- Increase coverage adding 20 new companies



## Employability program “Sin Límites”

### Impact

- 47 program participants including 20 apprentices, increasing local employment at Spence

### Main achievements

- 332 people completed training courses
- ~40% female participation

### FY25 aspiration

- Local employment
  - Hire 15 people from Sierra Gorda
  - Hiring of 5 people by contracting companies





# An inclusive and diverse operation

Enhancing diversity, capability and wellbeing for our employee workforce has enabled better safety and performance

Achieved gender balance<sup>4</sup> in FY24...



Female participation  
**>41%**

Female leadership representation  
**>43%**



People with disabilities  
**~2%**

...with progress across all areas of Spence



**52%**  
Concentrator production



**52%**  
Autonomy



**51%**  
Integrated Operations Centre



\* International Women's Day with Chile's Mining Minister

# A long-life operation

A more sustainable, fully integrated copper operation producing both cathode and concentrate



~2.4 Bt Mineral Resources<sup>5</sup>

0.44% Cu grade

880 Mt Ore Reserves

0.54% Cu grade



Open pit mine



100% autonomous truck fleet

33 autonomous trucks and 5 drills



Cathodes process for oxide ore, SXEW



Concentrator process for sulphide ore through flotation and thickening

Nominal capacity of 95 ktpd



Desalination plant

~90% of water sourced from desalinated water with capacity of 1,000 litres per second



100% of electricity supply comes from renewable energy sources

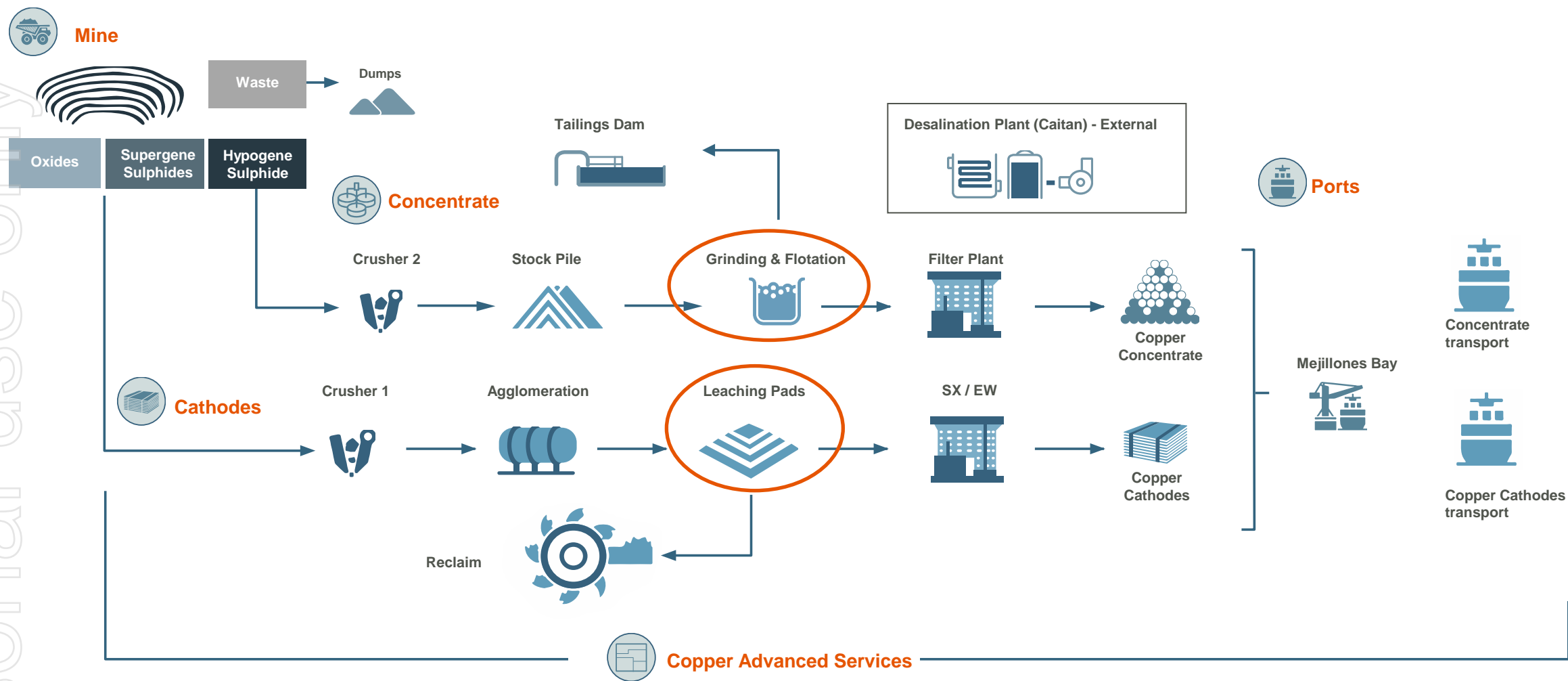
Supported by Copper Advanced Services (Remote operations centre) located in Santiago



2024 Chilean copper site tour

20 November 2024

# An integrated supply chain





# Spence performance has improved

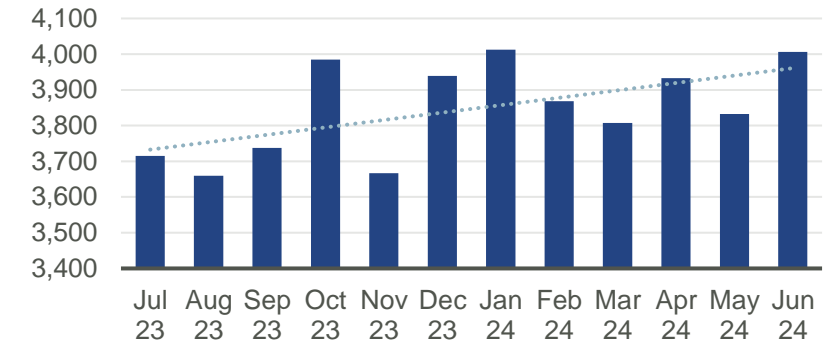
We work with passion, discipline and respect to produce the sustainable copper that the planet needs

## Production and costs initiatives examples

- **Spence Cathodes improves recovery** through leaching pad irrigation and ventilation – increasing recovery by 1.8 ppt (~US\$18 m) in H2 FY24
- **Spence Mine extends tyre life to >4,000 hours** (+39%) reducing exposure, saving US\$3.6 m p.a. (FY24)
- **Spence Concentrator delivers milling rate uplift program** stabilizing the process and adding 1.6kt copper (US\$11.7 m) in FY23
- **Spence Cathodes standardises cleaning and inspections** to reduce conveyor belts process downtimes, +988 tonnes p.a. copper (US\$7.9m)
- **Reduction in lime consumption rate by 25% at concentrators** through standardising procedures, saving ~US\$4.3 m p.a.
- **Mine improves blast pattern designs** to optimise explosive power factor, saving US\$2.4 m in FY23
- **35% reduction in waste entering landfill** through new vendor contract, saving ~US\$1.2 m p.a.

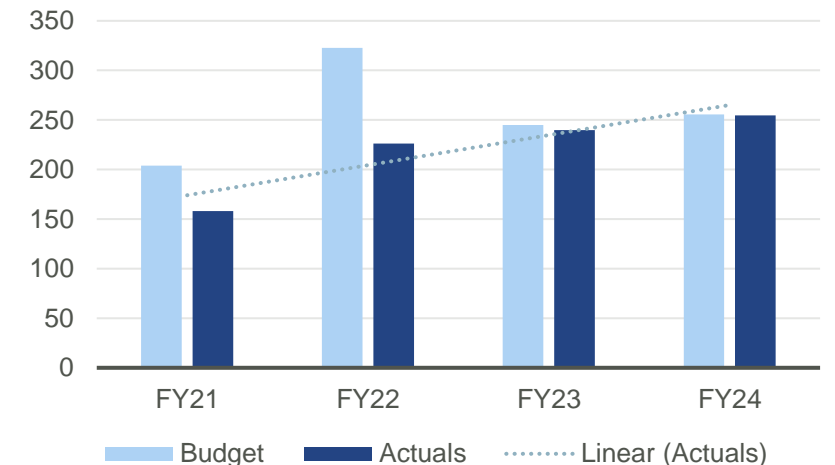
## Concentrator rate has increased

(kt per hour)



## Total Copper Production (payable)

(kt)



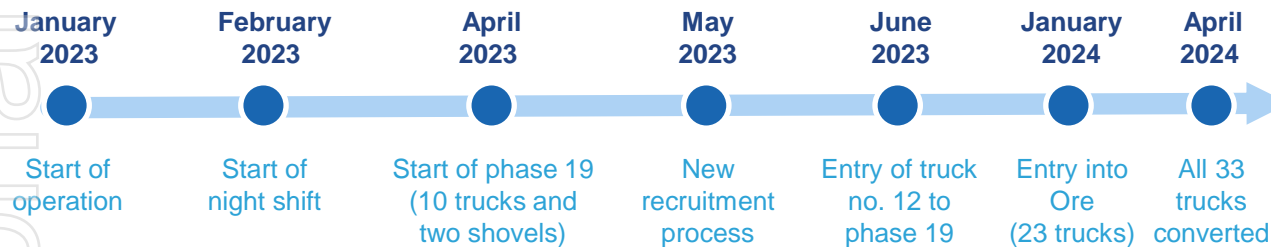
# Mine operations overview

Spence operates a fleet of autonomous trucks to feed two crushers

## Mining equipment and fixed infrastructure

- 33 autonomous Komatsu 980E (400t) trucks
- 5 electric and 1 hydraulic shovels
- 5 autonomous production drills
- 1 primary crusher and conveyance system to feed concentrate operations
- 1 primary crusher and conveyance system to feed the cathode operation

The autonomous haulage trucks conversion was delivered successfully

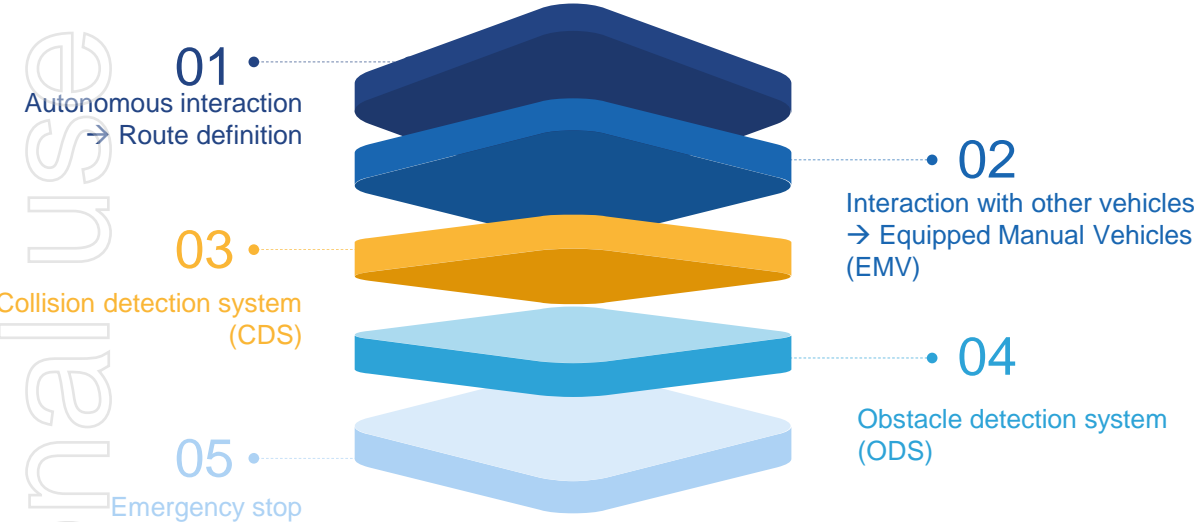


# Unlocking improved performance with automation

Autonomous haulage trucks conversion ahead of plan, delivering safety and operational improvements

## Safety layers of the FrontRunner Autonomous System

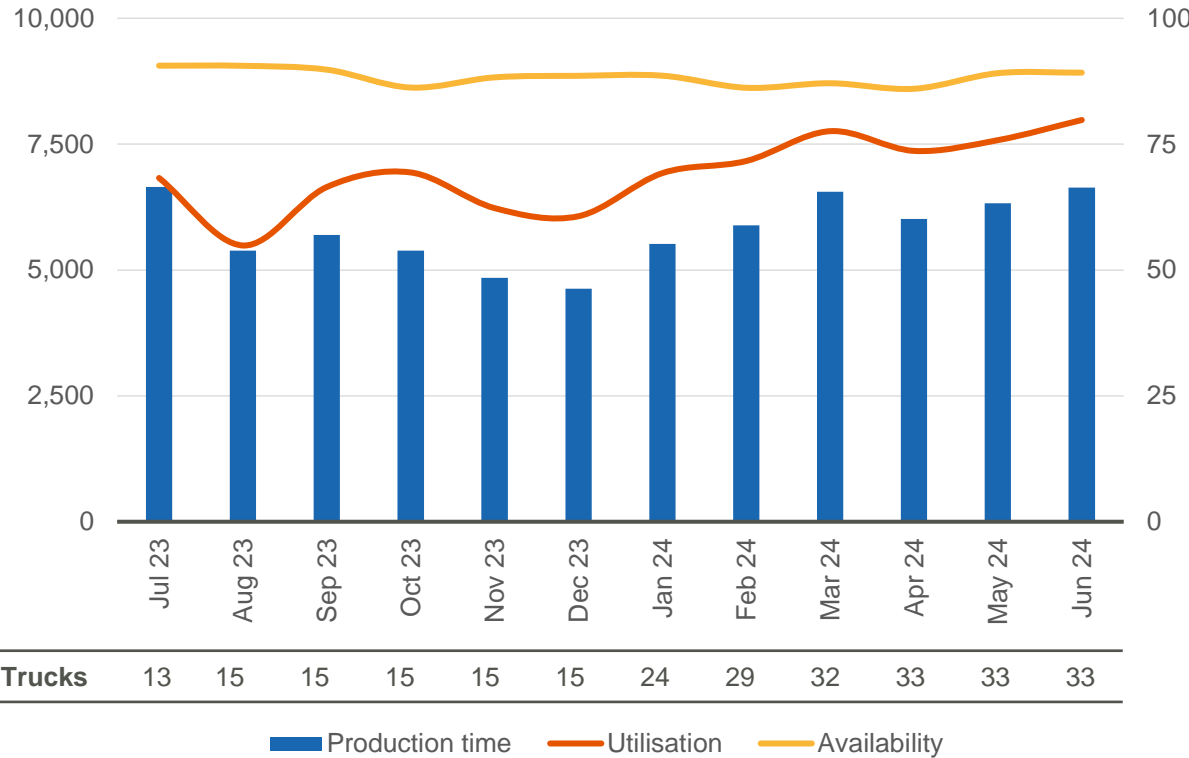
- Trucks are equipped with a system to reduce interactions with other equipment and objects in the mine
- Additional controls include perimetral closures of the autonomous zone



## Ramp up has gone well and is delivering solid performance

(Annualised autonomous truck production time, hours)

(Availability & utilisation, %)



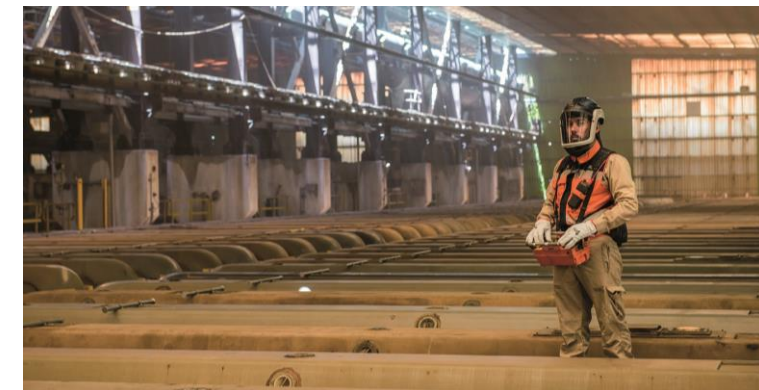
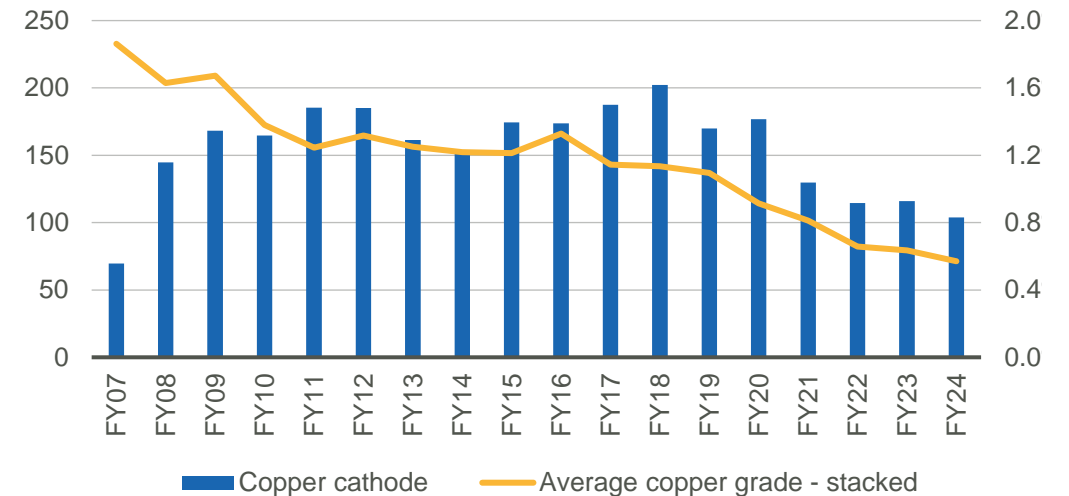


# Cathode operations overview

Potential for emerging leaching technology to extend life, offset production decline and utilise installed latent capacity

- Cathodes process for oxide ore through stacking leaching and solvent extraction
  - Stacking leaching consists of one primary and two secondary crushers processing ~21 Mtpa
  - Solvent extraction consists of four lines and six stages
    - Oxide ores are crushed, processed via acid leaching
    - Leaching area of 3,880,000 m<sup>2</sup>
- Full SaL, BHP designed technology, improves recoveries for mixed and secondary sulphide ore types through shortened leach cycle times
- Implement CPY technology (SaL2), extending cathode production from FY28 to FY31
- Electrowinning facilities consist of three circuits and have a nominal installed capacity to produce ~200 ktpa cathode creating opportunities to leverage leaching technologies to grow production
- Copper cathodes are transported by rail to Port of Antofagasta for shipping

**Cathode production has declined with lower stacked grade**  
(Cathode production, kt) (Stacked copper grade, Cu %)



# Concentrator operations overview

Concentrate operations account for ~60% of total copper produced at Spence

## Spence Growth Option (SGO)











- Started commissioning in FY21
- 1 SAG mill and 2 ball mills
- ~95 ktpd capacity
- Includes a molybdenum production plant

## Spence concentrator upgrade works completed in FY24

- Addressed existing hydraulic restrictions
- Improved reagent addition for copper flotation circuit
- Copper filtration system flexibility by adding a filter press, thickener and associated infrastructure

## Improvement initiatives and future projects to unlock higher production

- Reagents laboratory and pilot-scale tests to improve performance
- Improve pumps to enable automatic dosage of reagents
- Spence is evaluating two projects for concentrator growth
  - Focussed on both recovery and throughput

		FY24 (YoY improvement vs FY23)	
	Cu payable		+25kt
	Throughput		+3Mt
	Runtime		+4ppt
	Rate		+400tph
	Recovery		+3ppt

# Spence Tailings Storage Facility

Constructed as part of the SGO project, anomalies identified before FY22 results

## Background

- Novel design of TSF with aim to reduce water losses
- Storage capacity is 680 Mt for 20 years (~92 Mt utilised at June 2024)
- Operations started on October 2020 - first wall lift in execution

## Anomalies identified

- Minor settlement in the protection dyke and main dam
- Liner damage at operational pond and other facilities

## Implemented actions

- Reduced water levels of the operational pond
- Significant geotechnical and hydrogeological characterisation
- Additional monitoring instrumentation

## Future development

- Execute key adaptation plans to reduce seepage and protect dam foundations
- Second lift to enable increase in capacity
- Transition to Non-Conventional Tailings





# Cerro Colorado offers growth optionality

After 30 years of operation there is an opportunity to create value from the ~2.3 Bt @ 0.40% Cu Mineral Resource<sup>5</sup>



## Current state

- Regulator approved temporary closure plan in 2023
- Current care and maintenance cost of US\$20-25 m per annum
  - Covers preservation activities, site security and administrative costs
- Progressing studies, and carrying out activities to support the permitting process, for potential restart
  - Environmental baseline field work to prepare Environmental Impact Assessment
  - Community and regulator engagement



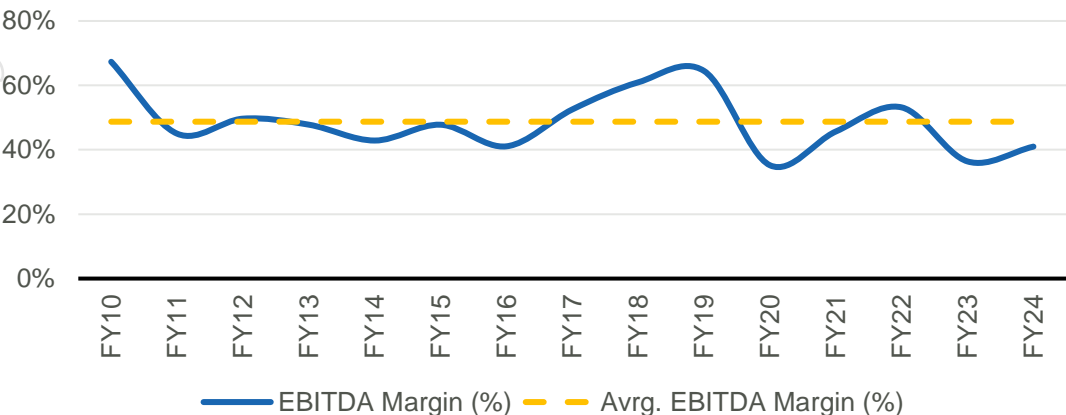
## Future plans

- Restart operations at Cerro Colorado, maximising the use of the existing infrastructure using seawater and renewable power
- **Phase 1**
  - ~85-100 ktpa for ~20 years by processing existing supergene / transitional resources (~0.4 Bt @ 0.50% Cu) using Full SaL technology
  - High level estimated capital ~US\$3 bn
- **Phase 2 (starting 5 years post phase 1)**
  - Potential for processing the hypogene resource available (~1.7 Bt @0.36% Cu grade) via leaching

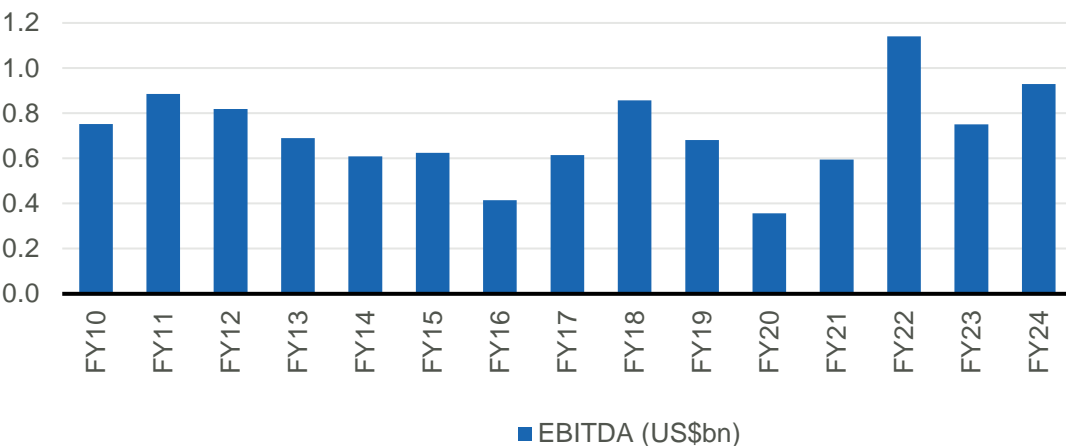
# A consistently profitable business

Margins have been consistent with plans to improve potential returns over time

EBITDA margins at Spence averaged ~49% over last 15 years<sup>6</sup>



Spence EBITDA generation through cycles:



Solid financial performance at Spence over last 15 years<sup>7</sup>

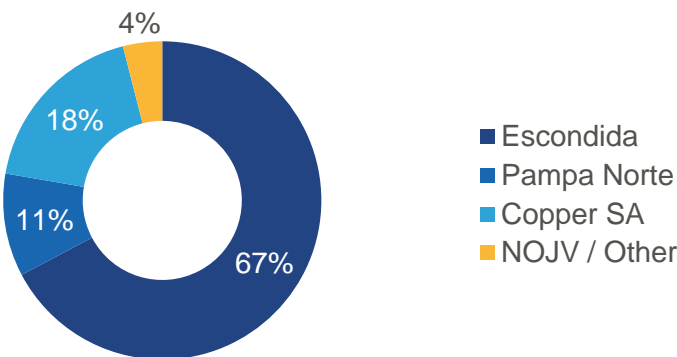
**\$0.7 bn**

EBITDA average

**11%**

Average ROCE

Pampa Norte is ~11% of BHP Copper EBITDA in FY24



# Strong momentum set to continue

After record production in FY24 we expect continued reliable production near and medium term

## FY24

Production (kt)	Cost (US\$/lb) <sup>8</sup>
<b>255</b>	<b>2.13</b>

- Record production (+6% YoY) driven by improved concentrator throughput and increases in both run-time and feed grade
- Unit cost increase (+1% YoY) due to inflation-linked cost escalation and one-off labour related costs

## FY25 guidance

Production (kt)	Cost (US\$/lb) <sup>8</sup>
<b>240 – 270</b>	<b>2.00 – 2.30</b>

- Strong production momentum to continue into FY25

## Medium term guidance

Production (ktpa)	Cost (US\$/lb) <sup>8</sup>
<b>~250</b>	<b>2.05 – 2.35</b>

- Production is an average over the next 5 years





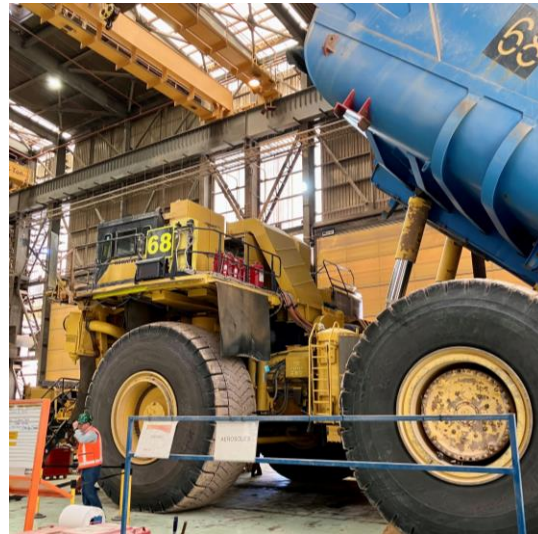
# What you will be seeing today...

A long-life operation with growth potential

Autonomous Haulage



Truck Workshop



Tailings Storage Facility



Concentrator



ersonal use only

**BHP**

# Footnotes

1. Slide 4: Growth options include Spence Growth Option (SGO) and extending the life of cathode production through SaL2 technology.
2. Slide 5: Pampa Norte results.
3. Slide 7: STEAM stands for: Science, Technology, Engineering, Arts and Math
4. Slide 8: We define gender balance as a minimum 40 per cent women and 40 per cent men in line with the definitions used by entities such as the International Labour Organization.
5. Slide 9, 17: For further information on Ore Reserves and Mineral Resources, refer to slides 24 and 25.
6. Slide 18: Source: BHP Results Announcements and Financial Statements submitted to local regulator (CMF) for Spence only.
7. Slide 18: ROCE is defined as EBIT divided by average capital employed. Figures sourced from the financial statements published on the Chilean Financial Regulator website.
8. Slide 19: Average realised exchange rates for FY24 of USD/CLP 907 (FY24 guidance rate USD/CLP 810); FY25 and medium term USD/CLP 842 (guidance).



# Competent Person Statement: Copper Ore Reserves

**Chile Copper Ore Reserves Competent Person Statement**

The information in this slide relates to Copper Ore Reserves as at 30 June 2024. Ore Reserves are based on information compiled by Marcelo Cortes as Competent Person (compiler) for all declared Ore Reserves. The information in this presentation that relates to the FY2024 Ore Reserves reported by the Company in compliance with the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012' ('The JORC Code 2012 Edition') in the 2024 BHP Annual Report. Report is available to view on [www.bhp.com](http://www.bhp.com).

M. Cortes is current Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and he is full-time employee of BHP. M. Cortes has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code)'. M. Cortes owns shares in BHP and is entitled to participate in employee share holding plans. M. Cortes consents to the inclusion in the presentation of the matters based on their information in the form and context in which it appears.

Ore Reserves are reported in 100 per cent terms. Dry tonnages are reported and all tonnage and quality information has been rounded, hence small differences may be present in the totals. Ore Reserves classification is applied based on mineralisation type, geological understanding and other modifying factors.

**Compiled Chile Copper Ore Reserves as at 30 June 2024**

Deposit	Ore type	Proved Reserves		Probable Reserves		Total Reserves		BHP interest (%)
		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	
Chile copper operations								
Escondida	Full SaL	180	0.80	36	0.61	216	0.77	57.5
	Oxide	—	—	—	—	—	—	
	Sulphide	3,370	0.63	1,400	0.54	4,770	0.60	
	Sulphide Leach	1,260	0.38	239	0.37	1,500	0.38	
Spence	Oxide	12	0.63	0.6	0.53	13	0.63	100
	Supergene Sulphide	44	0.60	37	0.51	81	0.56	
	Transitional Sulphide	11	0.55	0.2	0.41	11	0.55	
	Hypogene Sulphide	390	0.57	385	0.50	775	0.54	

# Competent Person Statement: Copper Mineral Resources

## Copper Mineral Resources Competent Person Statement

The information in this slide relates to Copper Mineral Resources as at 30 June 2024. Mineral Resources are inclusive of Ore Reserves and is based on information compiled by Marcelo Cortes as Competent Person (compiler) for all declared Mineral Resources. The information in this presentation that relates to the FY2024 Mineral Resources reported by the Company in compliance with the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012' ('The JORC Code 2012 Edition') in the 2024 BHP Annual Report. Report is available to view on [www.bhp.com](http://www.bhp.com). M. Cortes is current Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and he is full-time employee of BHP. M. Cortes has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code).

M. Cortes owns shares in BHP and is entitled to participate in employee shareholding plans. M. Cortes consents to the inclusion in the presentation of the matters based on their information in the form and context in which it appears.

Mineral Resources as presented are reported in 100 per cent terms. Dry tonnages are reported, and all tonnage and quality information has been rounded, hence small differences may be present in the totals. Mineral Resources classification is applied based on mineralisation type, geological understanding and an assessment of reasonable prospects for eventual economic extraction.

## Compiled Copper Mineral Resources as at 30 June 2024

Deposit	Ore Type	Measured Resources		Indicated Resources		Inferred Resources		Total Resources		Contained Metal (Cu kt)	BHP Interest (%)
		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu		
Escondida	Oxide	90	0.57	14	0.54	2	0.51	106	0.56	594	57.5
	Mixed	50	0.48	37	0.48	20	0.45	107	0.47	503	57.5
	Sulphide	5,080	0.58	4,000	0.53	9,060	0.53	18,100	0.55	99,550	57.5
Cerro Colorado	Oxide	68	0.61	113	0.62	5.7	0.58	187	0.62	1,159	100
	Supergene Sulphide	48	0.58	97	0.58	22	0.64	167	0.59	985	100
	Transitional Sulphide	72	0.45	104	0.41	29	0.42	205	0.43	882	100
	Hypogene Sulphide	–	–	–	–	1,700	0.36	1,700	0.36	6,120	100
Spence	Oxide	14	0.63	1.6	0.59	–	–	16	0.63	101	100
	Supergene Sulphide	82	0.55	29	0.45	0.3	0.42	111	0.52	577	100
	Transitional Sulphide	16	0.58	0.2	0.47	–	–	16	0.58	93	100
	Hypogene Sulphide	736	0.46	696	0.43	786	0.39	2,220	0.43	9,546	100
Copper projects		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Pampa Escondida	Sulphide	294	0.53	1,150	0.55	5,400	0.44	6,840	0.46	31,464	57.5
Pinta Verde	Oxide	109	0.59	64	0.52	15	0.54	188	0.56	1,053	57.5
	Sulphide	–	–	23	0.50	37	0.45	60	0.47	282	57.5
Chimborazo	Sulphide	–	–	135	0.50	80	0.60	215	0.54	1,161	57.5
Pantera	OC Sulphide	–	–	13	1.28	7.1	1.09	20	1.21	242	100
Succoth	OC Sulphide	–	–	61	0.57	57	0.52	120	0.54	648	100
Copper gold operations		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Pedra Branca	UG Sulphide	0.58	1.57	7.9	1.67	7.3	1.38	16	1.53	245	100
Carrapateena	UG Sulphide	130	0.98	470	0.62	300	0.26	900	0.55	4,950	100
Prominent Hill	UG Sulphide	42	1.15	50	0.86	66	0.85	158	0.93	1,469	100
	SP Sulphide	0.3	1.04	1.6	0.11	–	–	1.9	0.24	5	100
	SP Low-grade	–	–	2.2	0.16	–	–	2.2	0.16	4	100
Copper gold project		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Fremantle Doctor	UG Sulphide	–	–	–	–	100	0.51	100	0.51	510	100
Copper uranium gold operation		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Olympic Dam	OC Sulphide	3,570	0.61	3,310	0.57	2,840	0.58	9,720	0.59	57,348	100
	UG Sulphide	820	1.55	640	1.48	190	1.44	1,650	1.51	24,915	100
Copper zinc operation		Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Tonnes (Mt)	% Cu	Cu (kt)	BHP Interest
Antamina	Sulphide Cu only	275	0.80	339	0.83	536	0.87	1,150	0.84	9,660	33.75
	Sulphide Cu-Zn	70	0.86	188	1.00	215	1.06	473	1.01	4,777	33.75
	UG Sulphide Cu only	–	–	–	–	268	1.28	268	1.28	3,430	33.75
	UG Sulphide Cu-Zn	–	–	–	–	166	1.12	166	1.12	1,859	33.75