

# Growing a major lithium materials business

Dale Henderson  
Managing Director and Chief Executive Officer  
ASX: PLS



Wednesday 3 May 2023  
Macquarie Australia Conference, Sydney

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## Important Information regarding Mineral Resources, Ore Reserves and P680 and P1000 Projects

Information in this presentation regarding expansions in nameplate capacity of the Pilgan Plant in respect of the P680 and P1000 projects are underpinned by the Company's existing Ore Reserves that have been prepared by a Competent Person in accordance with the JORC Code (2012 Edition) and were released by the Company to ASX on 6 October 2021 and updated in the Company's 2022 Annual Report. The relevant proportions of proven Ore Reserves and probable Ore Reserves are 11% proven Ore Reserves and 89% probable Ore Reserves. The Company confirms it is not aware of any new information or data that materially affects the information included in that release or report and that all material assumptions and technical parameters underpinning the Ore Reserves estimates continue to apply and have not materially changed.

Information in this presentation relating to Mineral Resource and Ore Reserve estimates is extracted from the ASX releases dated 6 September 2021 and 6 October 2021 as updated in the Company's 2022 Annual Report. Pilbara Minerals confirms that it is not aware of any new information or data that materially affects the information included in these announcements and that all material assumptions and technical parameters underpinning the Mineral Resource and Ore Reserve estimates continue to apply and have not materially changed. Pilbara Minerals confirms that the form and context in which the competent persons' findings are presented in this presentation have not been materially modified from the original market announcements.

## Guidance as to Production, Unit Costs and Capital Expenditure

Any guidance as to production, unit costs and capital expenditure in this presentation is based on assumptions, budgets and estimates existing at the time of assessment which may change over time impacting the accuracy of those estimates. These estimates are developed in the context of an uncertain operating environment including in respect of COVID-19 related risks (community distribution, labour shortages and supply chain disruption), inflationary macroeconomic conditions, incomplete engineering and uncertainties surrounding the risks associated with mining and project development including the construction, commissioning and ramp up of projects such as the P680 and P1000 Projects which may delay or impact production and have a flow on effect on sales. Actual results may therefore vary significantly depending on these risks and the timing required to address them. The information is therefore provided as an indicative guide to assist sophisticated investors with modelling of the Company. It should not be relied upon as a predictor of future performance.

## Midstream Demonstration Plant Project - Scoping Studies

Scoping and other technical studies in respect of the Mid-Stream Demonstration Plant Project have been undertaken to determine the potential viability of the demonstration plant and to reach a decision to proceed with more definitive studies and enter into a joint venture agreement. Each scoping study has been prepared to an accuracy level of +/-40% (for Capital costs) and +/-30% (for Operating costs). Each scoping and technical study is based on low-level technical and economic assessments and is insufficient to provide assurance of an economic development case at this stage or provide certainty that the conclusions of the studies will be realised. The results of the studies should not be considered a profit forecast or production forecast.

# Important notices

## Financial information

In order to provide additional insight into the business, certain non-IFRS measures such as “EBITDA”, “underlying profit after tax”, “Cash Balance inclusive of LOC” and “Net Cash/(Debt)” may be used in this presentation which are unaudited, non-IFRS measures that, in the opinion of the Company’s directors, provides useful information to assess the financial performance of the Company over the reporting period. Reconciliations to IFRS measures are included within this presentation.

This presentation should be read in conjunction with the Company’s FY2022 Annual Financial Report and accompanying notes dated 22 August 2022.

## Past performance

Statements about past performance are not necessarily indicative of future performance.

## References to Australian dollars

All references to dollars (\$) and cents in this report are to Australian currency, unless otherwise stated.

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## Authorisation of release

Release of this market announcement is authorised by Mr Dale Henderson, Managing Director & CEO.

## Online communications

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Shareholder communications available online include the Annual Report, Voting Forms, Notice of Meeting, Issuer Sponsored Holding Statements and other company related information. Investors can view, download or print shareholding information by choice.

To easily update communication preferences, please visit: [www.computershare.com.au/easyupdate/PLS](http://www.computershare.com.au/easyupdate/PLS).



# Pilbara Minerals

ASX 50 | Largest, independently owned, hard-rock lithium company in the world

## Tier 1

asset with strong  
growth potential

## ~1Mtpa<sup>1</sup>

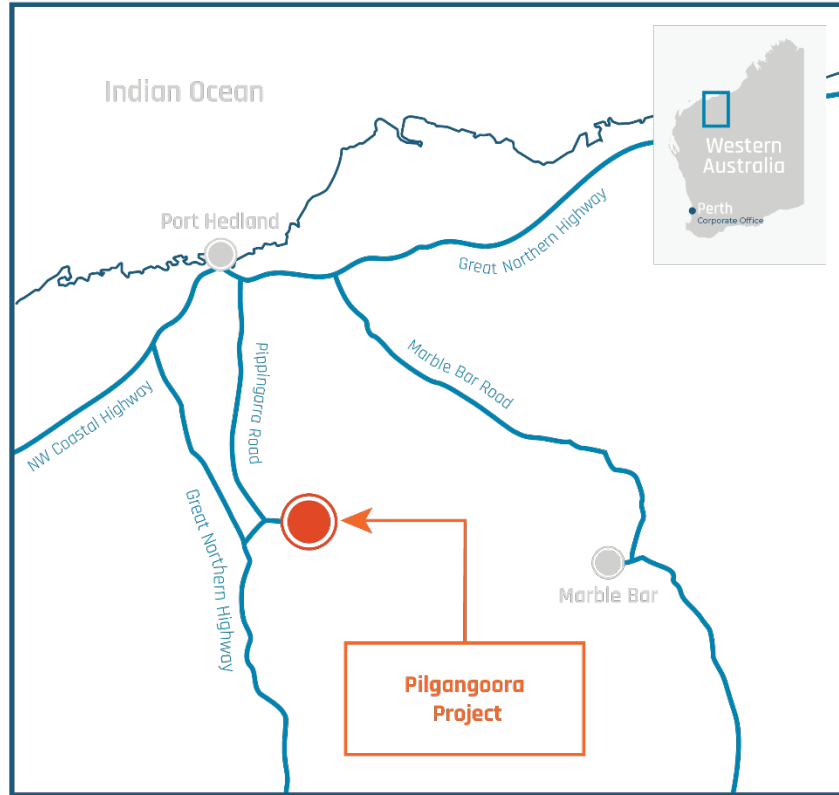
planned production  
capacity

## 25+ year<sup>1</sup>

mine life



1. Based on combined 6.3Mtpa throughput operations consisting of 1.3Mtpa Ngungaju process plant and the proposed Pilgan 5Mtpa expanded process plant for the P1000 expansion project. Refer to ASX Announcement 29 March 2023



# Pilgangoora Project

One of the few major hard-rock lithium producers globally

**Tier 1 asset**  
with strong growth potential

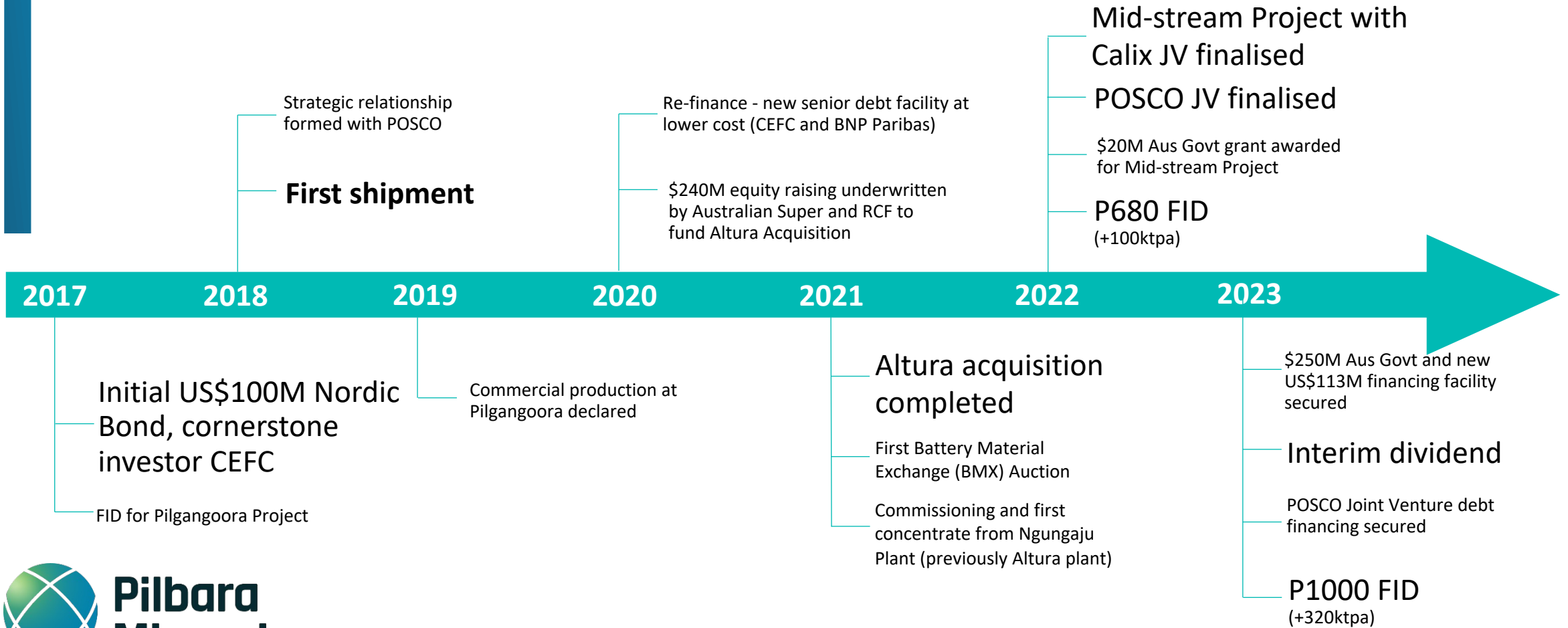
**Two plants**  
in operation

**~580,000 tpa<sup>1</sup>**  
processing capacity (current)

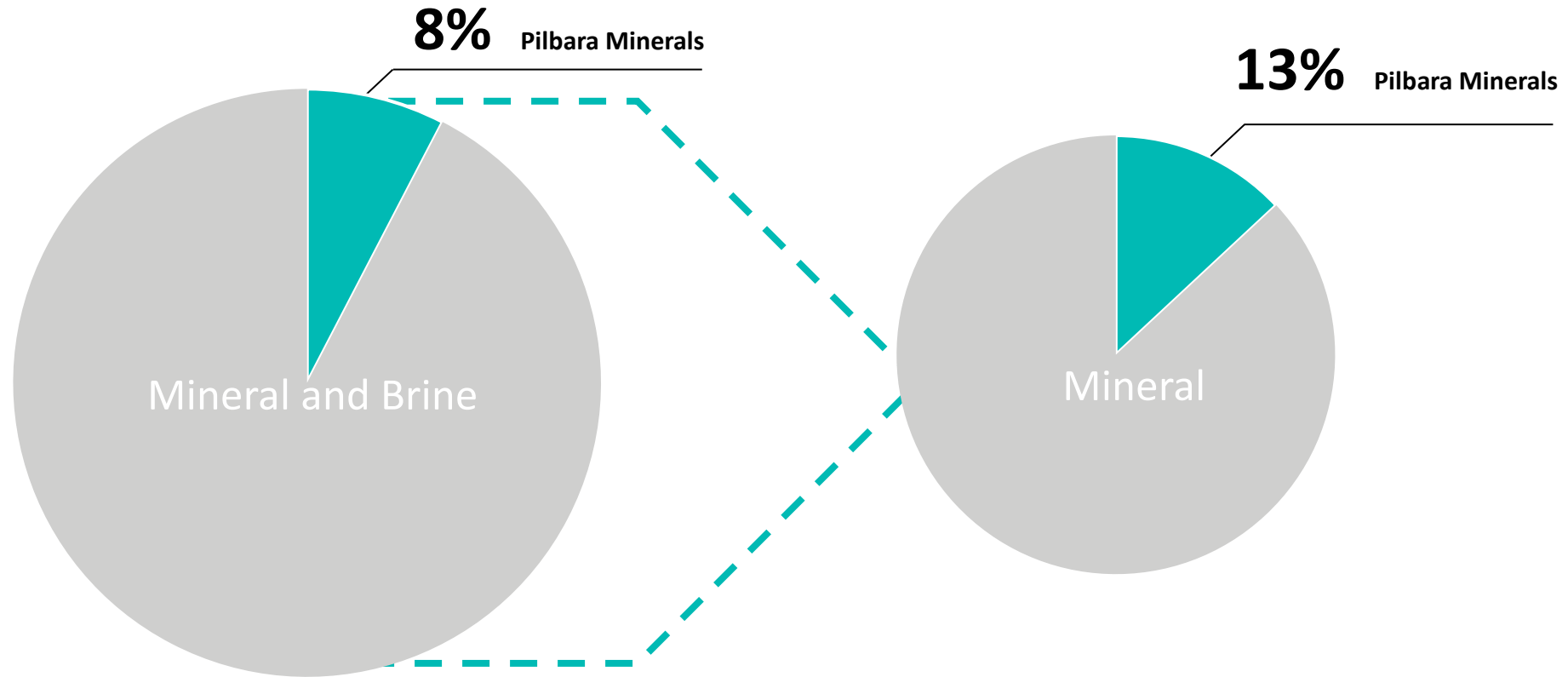
**25<sup>2</sup>+ years**  
mine life

# Amazing growth journey with more to come

Major milestones achieved along the way



# Major lithium materials supplier



Estimated global mined lithium supply by corporate control, CY23 (mineral & brine, LCE)

Estimated global mineral lithium supply by corporate control, CY23 (mineral, LCE)



Source: Benchmark Mineral Intelligence 2022, March Quarter 2023 data. Charts show market share based on estimated CY2023 global mined lithium output (Mineral & Brine, LCE), operational and highly probable (in construction).

# Operate



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# March 2023 quarter results

## Financial results

**\$1.1Bn**

Spodumene sales receipts

**\$2.7Bn**

Cash balance

**11 cents** per share

Fully franked interim dividend - \$329.8M

## Spodumene production and sales results

Produced –

**148,131 dmt**

(Prior Quarter: 162,151 dmt)

Shipped –

**144,312 dmt**

(Prior Quarter: 148,627 dmt)

Average Realised Price –

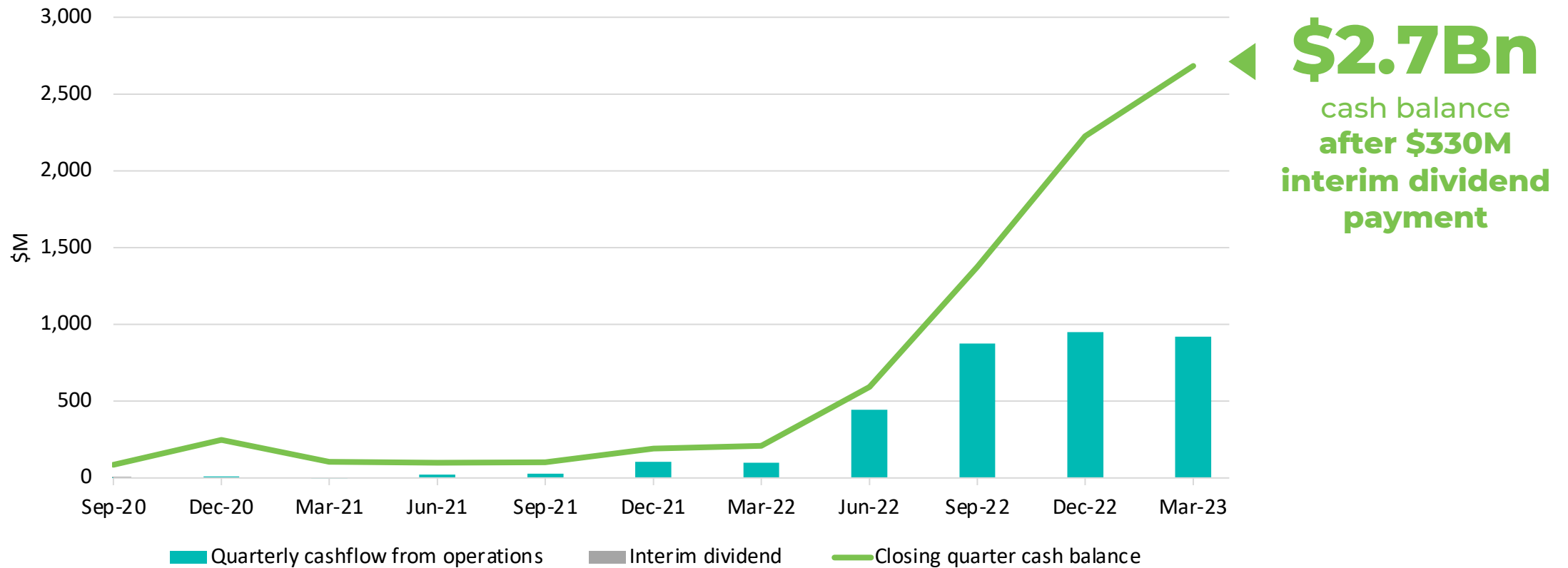
**US\$4,840/dmt<sup>1</sup>**

(Prior Quarter: US\$5,668/dmt)



1. SC5.3 basis. Average estimated realised price as at 26 April 2023. This includes 25,144 dmt shipped in March which reflects reference pricing data up to 26 April 2023, and is subject to final adjustment to take into account reference pricing data for the entire month of April. The final price may be higher or lower than the estimated realised price based on future price movements.

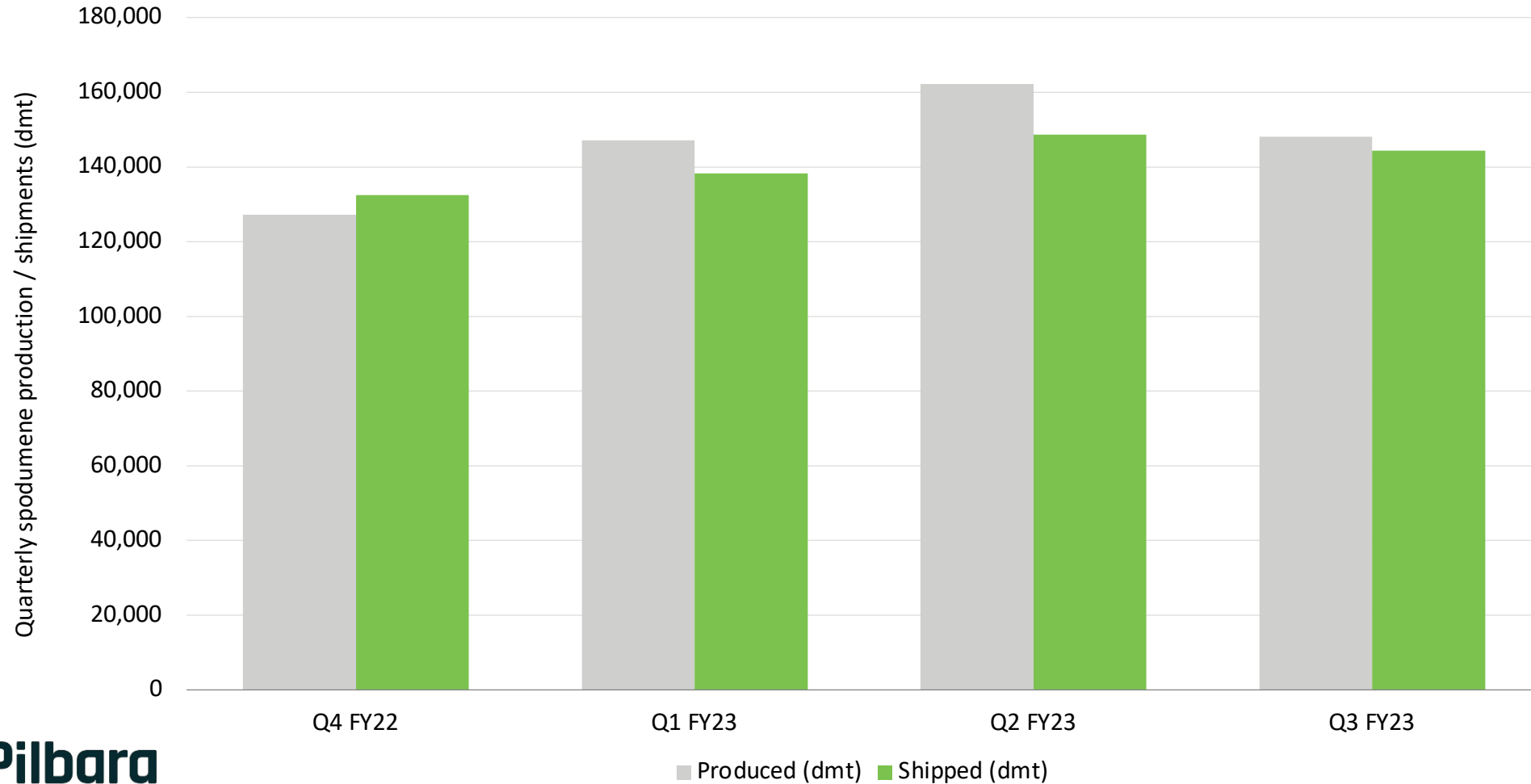
# Rising cash balance – strong production volumes and operating margin



December 2020 Quarter includes receipt of \$173.6M from cornerstone placement and institutional entitlements issue, with funds subsequently used to complete the Altura acquisition in the March 2021 Quarter.

# Production and sales

Quarter on quarter performance



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# Safety and people

Great people that go home safe and well every day



**4.9**

Total recordable injury frequency rate (TRIFR)<sup>1</sup>



**2.03** (target 1.00)

Quality safety interactions<sup>2</sup> completed per 1,000 hours



**87%**

participation rate annual employee engagement and culture survey

1. Rolling 12-month indicator as at 31 March 2023  
2. Safety interaction is a leading indicator. The measurement is based on the March Quarter 2023

# Sustainability



## Community investment

Multi-year partnerships with Earbus Foundation, Smith Family and Teach, Learn, Grow



## Climate change

6MW solar farm energised and supplying power to operation



## Indigenous engagement and opportunities

Overnight cultural awareness camp for employees with Nyamal community members



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# Our Strategy



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**To be a leader  
in the provision  
of sustainable  
battery materials  
products**

1. Deliver our operating performance commitments
2. Achieve the full potential of the Pilgangoora asset
3. Extract greater value along the battery materials supply chain
4. Diversify revenue beyond the Pilgangoora asset

# Bolstered Executive team to deliver our strategy

Key executive appointments made during the March Quarter



**Dale Henderson**  
MANAGING DIRECTOR &  
CHIEF EXECUTIVE OFFICER



**Alex Eastwood**  
CHIEF COMMERCIAL & LEGAL  
OFFICER



**Luke Bortoli**  
CHIEF FINANCIAL OFFICER



**Vince De Carolis**  
CHIEF OPERATING  
OFFICER



**Sandra McInnes**  
CHIEF SUSTAINABILITY  
OFFICER



**John Stanning**  
CHIEF DEVELOPMENT  
OFFICER



**Paul Laybourne**  
Project Director



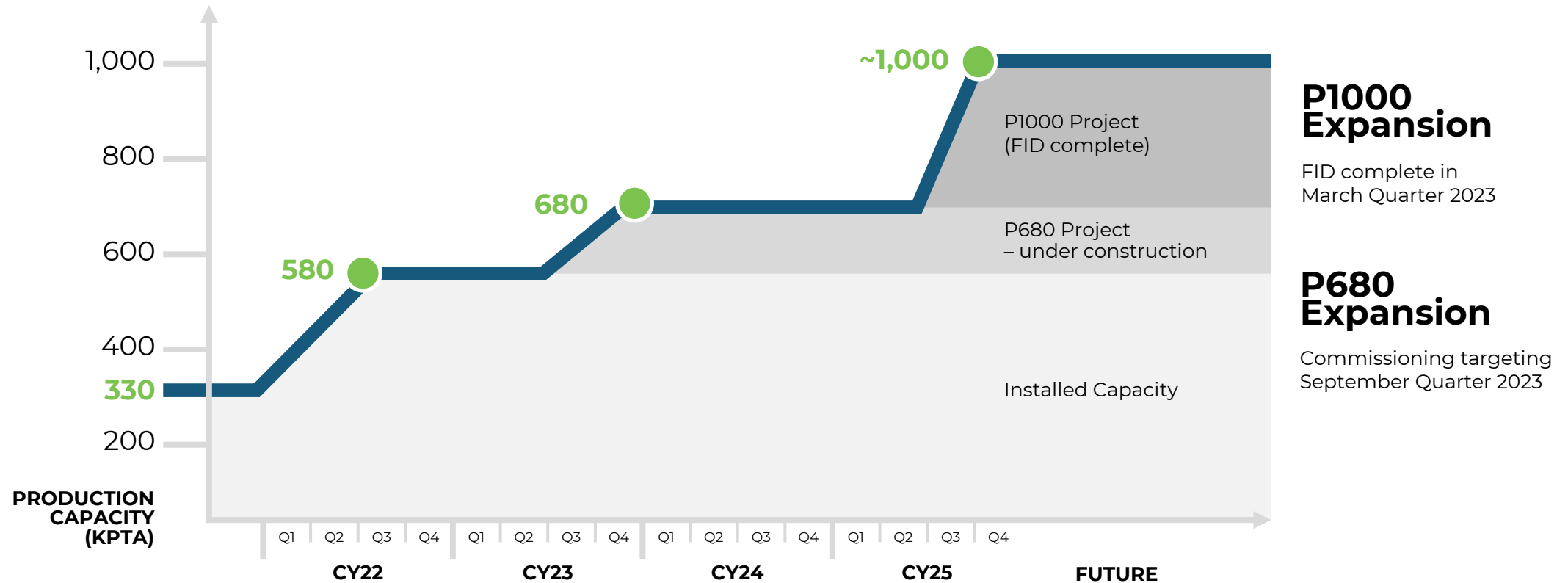
**Grow**



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# Growth pathway to ~ 1Mtpa

Accelerated growth to capture value and increase revenue



## P1000 Expansion

FID complete in March Quarter 2023

## P680 Expansion

Commissioning targeting September Quarter 2023

Production nameplate capacity of up to 580ktpa is an aggregate spodumene concentrate processing capacity comprising Pilgan Plant nameplate of 360-380ktpa and Ngungaju Plant nameplate of 180-200ktpa. Production nameplate capacity uplift to 680ktpa subject to completion and commissioning of the P680 Project. Production nameplate capacity uplift to ~ 1Mtpa subject to completion and commissioning of the P1000 Project. Actual production is expected to vary in any year due to ore grade, concentrate grade, mine plan and other factors – refer to P1000 Project ASX release 29 March 2023

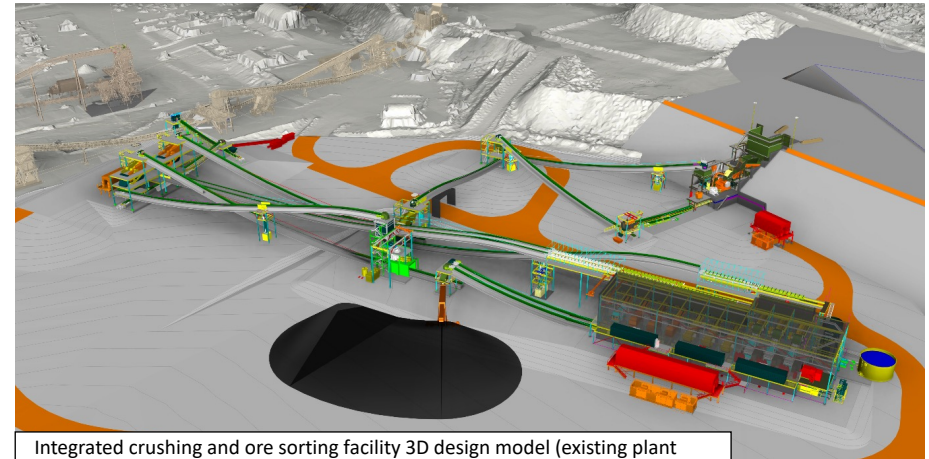
Note A: The abovementioned expansions in production capacity of the Pilgan Plant for the P680 and P1000 projects are underpinned by the Company's existing Ore Reserves that have been prepared by a Competent Person in accordance with the JORC Code (2012 Edition) and were released by the Company to ASX on 6 October 2021 and updated in the Company's 2022 Annual Report. The relevant proportions of proven Ore Reserves and probable Ore Reserves that underpin the production targets are 11% proven Ore Reserves and 89% probable Ore Reserves. The Company confirms it is not aware of any new information or data that materially affects the information included in that release or report and that all material assumptions and technical parameters underpinning the Ore Reserves estimates continue to apply and have not materially changed.

# Expansion to increase production by 100ktpa

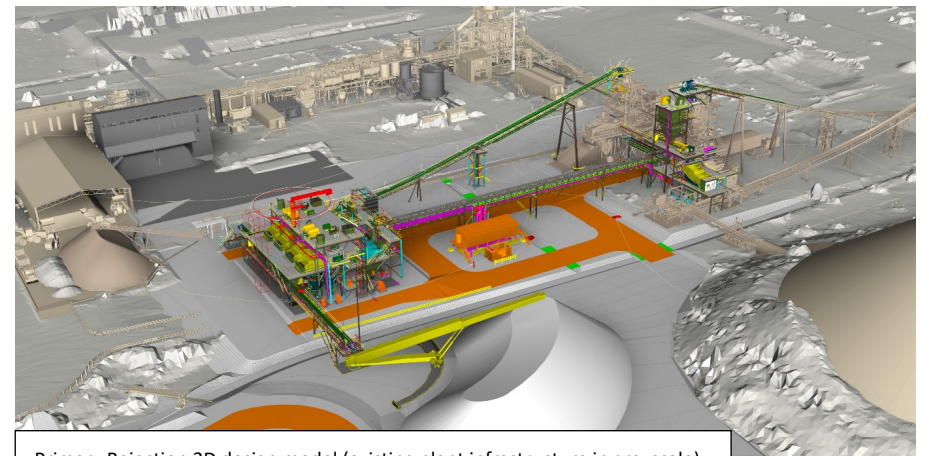
Construction underway

## P680 Expansion

- Increase production capacity by a further 100,000 tpa spodumene concentrate
- First major construction contract awarded to Primero
- Commissioning to begin September Quarter 2023, with full capacity targeted for December Quarter 2023



Integrated crushing and ore sorting facility 3D design model (existing plant infrastructure in greyscale)



Primary Rejection 3D design model (existing plant infrastructure in greyscale).

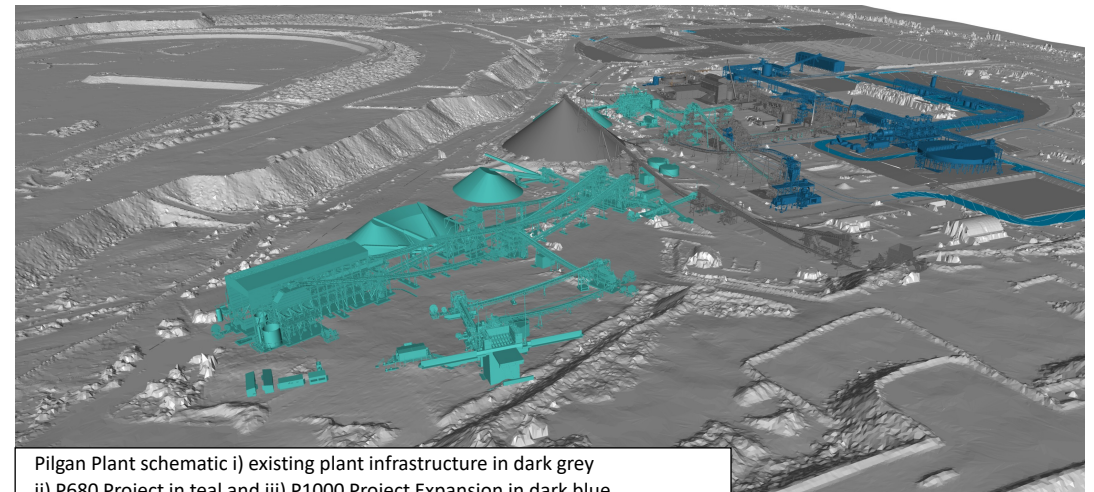
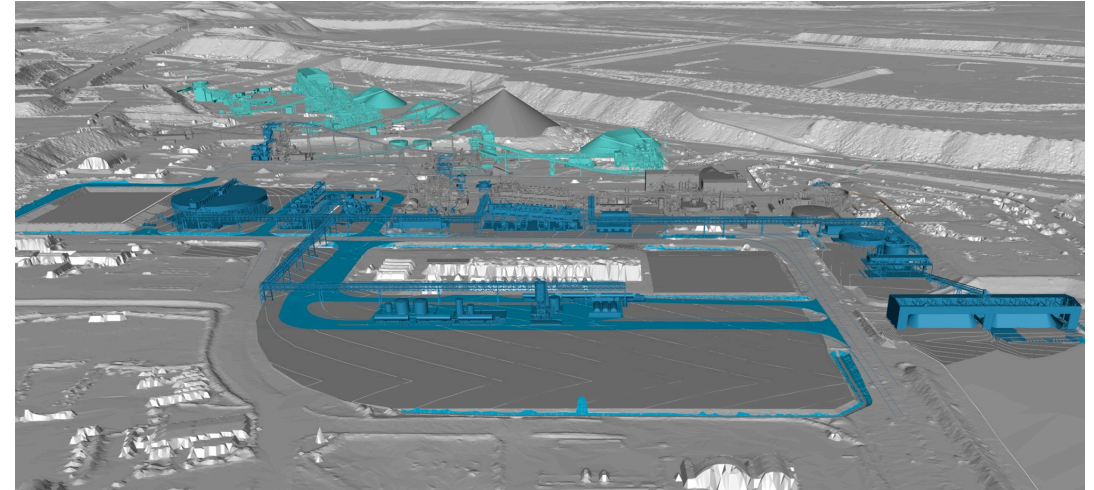


# Expansion to increase production to ~ 1Mtpa

P1000 FID complete during the March Quarter 2023

## P1000 Expansion

- Final Investment Decision (FID) made – total investment ~\$560M (includes \$38M pre-FID investment)
- Increase combined production capacity to ~ 1Mtpa spodumene concentrate from both Pilgan and Ngungaju
- Downstream strategic partnering options being evaluated to maximise value from additional product
- Targeting first ore in the March Quarter 2025 and full production following commissioning and ramp-up at the end of the September Quarter 2025



Pilgan Plant schematic i) existing plant infrastructure in dark grey  
ii) P680 Project in teal and iii) P1000 Project Expansion in dark blue

# Value-add



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# POSCO Pilbara Lithium Solutions

43,000tpa LHM facility under construction at Gwangyang, South Korea in joint venture with POSCO

- Procurement and major construction works continue
- Commissioning of the first train targeted to commence from Q4 CY2023, with second train Q1 CY2024

Below photos of 43,000tpa LHM facility under construction in Gwangyang, South Korea



POSCO Pilbara Lithium Solutions headquarters



Acid roasting preheater



BPED (Bipolar Membrane Electro Dialysis) facility and electrical room

# South Korea – a growing strategic hub

JV with POSCO places Pilbara Minerals at the forefront of the growing South Korean lithium chemicals and battery manufacturing hub

**South Korea**  
Lithium chemical and  
battery producers



**South Korea**  
Car manufacturers



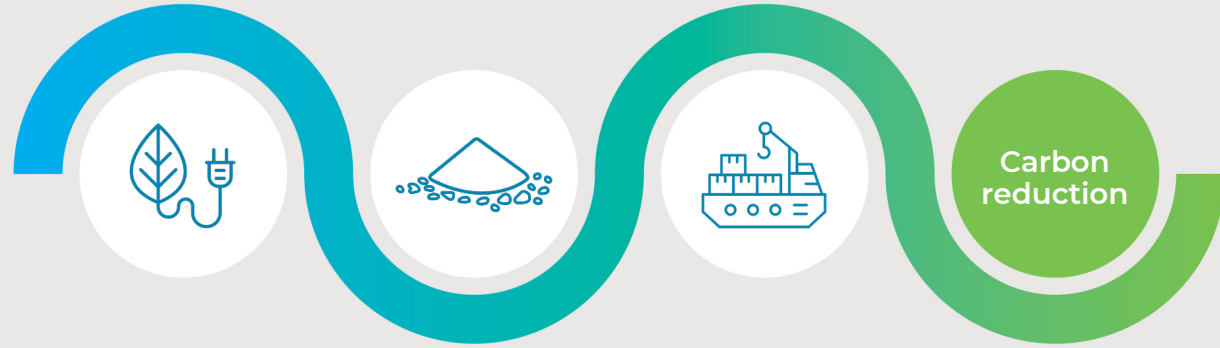


# Mid-stream Project

JV with Calix for the development of a mid-stream product that has the potential to have:

- Increased lithium concentration (high value)
- Reduced waste
- Reduced carbon energy intensity

**Mid-stream process**



Electric calcination on site

Lithium salt >35% Li<sub>2</sub>O  
(18% lithium metal)

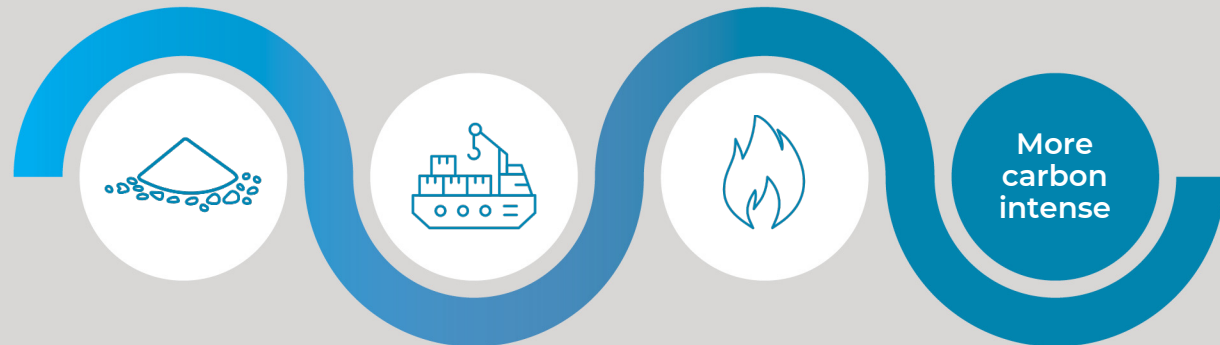
~0% waste shipped<sup>1</sup>

Carbon reduction

**calix**

**Pilbara Minerals**

**Current process**



SC6: 6% Li<sub>2</sub>O  
Spodumene concentrate  
(2.8% lithium metal)

Waste shipped  
(97.2% by mass)

Carbon intensive calcination

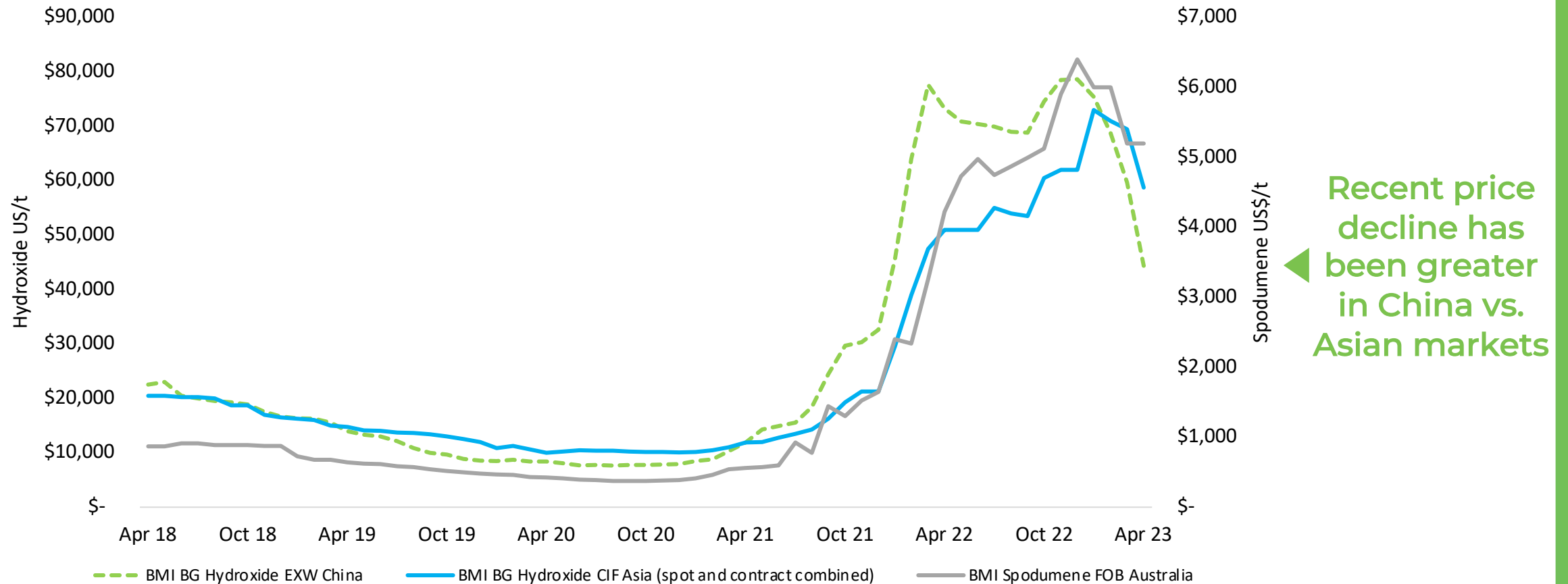
More carbon intense

# Market



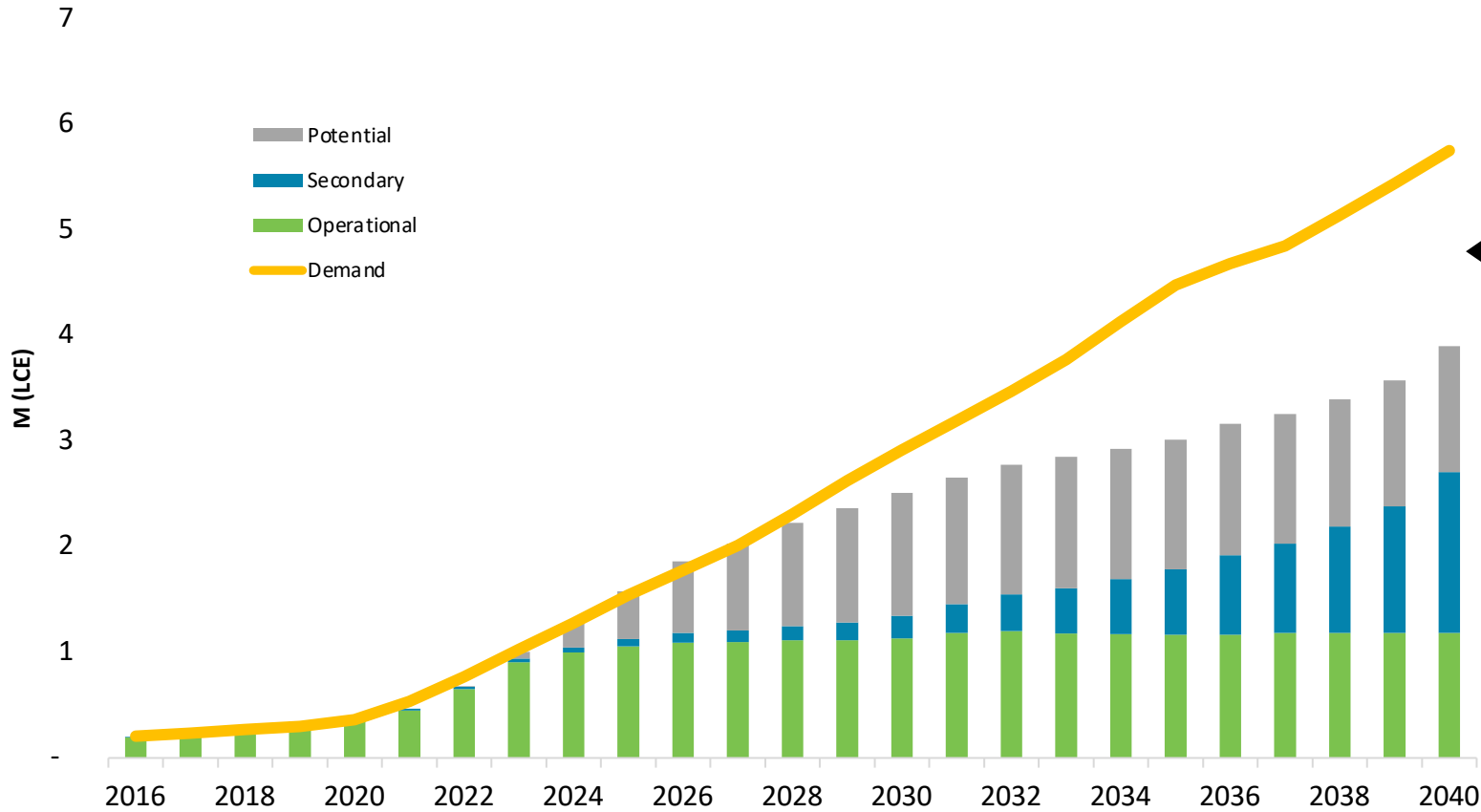
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# Lithium pricing<sup>1</sup> – short-term softness



Source: Benchmark Mineral Intelligence.  
 1. Chart plots averages on a monthly basis for each series as at 28 April 2023.

# Lithium deficit



**Expected deficit in lithium by 2040 is the equivalent of**

**13 - 21** 

Pilgangooras<sup>1</sup> dependent on potential supply coming online



Source: Benchmark Mineral Intelligence 2022, March Quarter 2023 data.

1. Assumed Pilgangoora production of 1Mtpa SC6.0, or 60kt of contained Li<sub>2</sub>O which has been converted to LCE at a 2.473 conversion factor (148ktpa LCE). The range of 13-21 Pilgangooras is determined by the amount of lithium supply available, 21 representing the difference between Demand and the sum of Operational and Secondary supply, and 13 representing the difference between Demand and the sum of Operational, Secondary and Potential supply.
2. Operational includes brownfields expansions, operational supply and care and maintenance/idled capacity. Secondary includes recycling/global supply. Potential includes projects that are possible, probable and highly probable.



# Questions?



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