



**Fast charging**

**to production mid 2024**

**2023 BMO Global Metals, Mining &  
Critical Minerals Conference**

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Managing Director / Chief Executive

ASX : **LTR**  
[ltresources.com.au](http://ltresources.com.au)





# Important Information



## Forward looking statements

This Presentation contains forward-looking statements which are identified by words such as ‘may’, ‘could’, ‘believes’, ‘estimates’, ‘targets’, ‘expects’, or ‘intends’ and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this Presentation, are considered reasonable. Such forward-looking statements are not a guarantee of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the Directors and the management. The Directors cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this Presentation will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. The Directors have no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this Presentation, except where required by law or the ASX listing rules.

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## Competent person statement

The Information in this Presentation that relates to Mineral Resources for the Kathleen Valley Project is extracted from the ASX announcement “Strong progress with Kathleen Valley Definitive Feasibility Study as ongoing work identifies further key project enhancements” released on 8 April 2021 which is available on [www.ltresources.com.au](http://www.ltresources.com.au).

Kathleen Valley Project – Mineral Resource Estimate as at April 2021

Resource category	Million tonnes	Li <sub>2</sub> O %	Ta <sub>2</sub> O <sub>5</sub> ppm
Measured	20	1.3	145
Indicated	109	1.4	130
Inferred	27	1.3	113
<b>Total</b>	<b>156</b>	<b>1.4</b>	<b>130</b>

Notes: Reported above a Li<sub>2</sub>O cut-off grade of 0.55%. Tonnages and grades have been rounded to reflect the relative uncertainty of the estimate

The Information in this Presentation that relates to Mineral Resources for the Buldania Project is extracted from the ASX announcement “Liontown announces maiden Mineral Resource Estimate for its 100%-owned Buldania Lithium Project, WA” released on the 8 November 2019 which is available on [www.ltresources.com.au](http://www.ltresources.com.au).

Anna Deposit, Buldania Project – Mineral Resource as at October 2019

Resource category	Million tonnes	Li <sub>2</sub> O %
Indicated	9.1	1.0
Inferred	5.9	1.0
<b>Total</b>	<b>15.0</b>	<b>1.0</b>

Notes: Reported above a Li<sub>2</sub>O cut-off grade of 0.5%. Tonnages and grades have been rounded to reflect the relative uncertainty of the estimate

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements.

## Authorisation

This Presentation has been authorised for release by the Managing Director, Mr Tony Ottaviano.

# Corporate Overview

A globally significant provider of battery minerals for the rapidly growing clean energy market

## Kathleen Valley

World-class scale and economics  
**156Mt @ 1.4% Li<sub>2</sub>O & 130ppm Ta<sub>2</sub>O<sub>5</sub>**  
 High-grade

## Buldanina

15Mt @ 1.0% Li<sub>2</sub>O  
 Resource upside

Geraldton Port 

Perth



Kalgoorlie



## Corporate Snapshot

(24 February 2023)

### Market Cap

A\$2.91bn

### Share Price (\$/s)

A\$1.37

### Major Shareholders



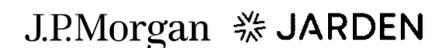
### Foundation Offtake Partners<sup>1</sup>



### Available Funds<sup>1</sup>

A\$384m cash  
 A\$300m debt

### Research Coverage



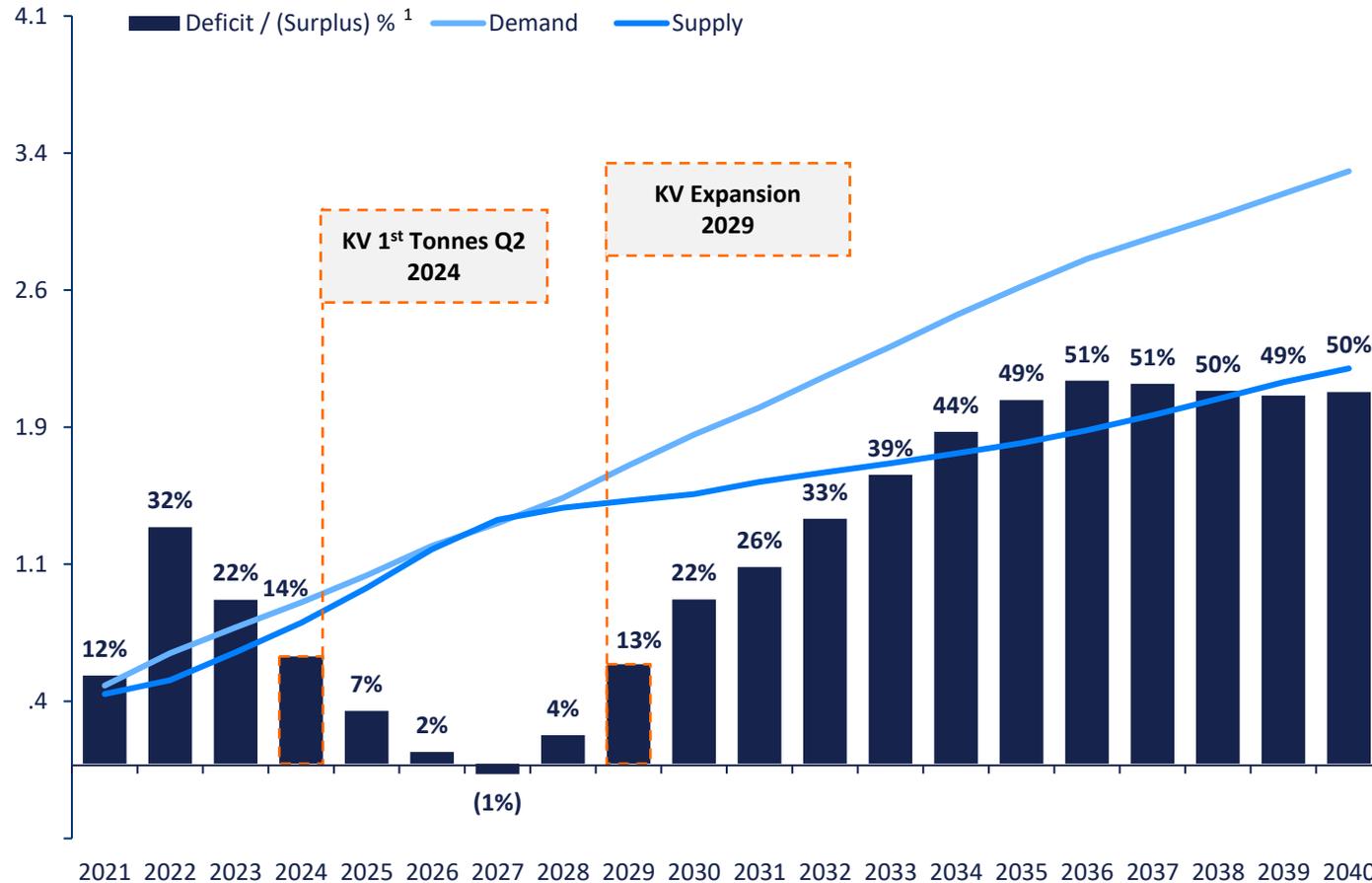
1. First 450,000 DMT 6.0 LCE per annum committed from first production  
 2 Deposit Balance as of 31 December 2022 + Undrawn Ford Debt Facility



# Lithium Supply Dynamics

Forecast lithium market deficit is expected to grow out to 2040, driven by significant demand and tight supply

## Demand / Supply Forecast, 2021-40, kt LCE (Battery Grade)



### Demand

- Consensus shifting to **significant demand gap emerging ~2030**
- **Over ~100 new projects** needed by 2030 to support demand<sup>2</sup>
- EV penetration expected to reach **~50%** by 2030, equating to **5.5x growth**

### Supply

- **Near-term supply-side risk** as many development peers extend project timelines
- **Lower-grade, higher-cost projects** likely required to fill growing demand gap<sup>2</sup>
- Significant **shortage of high-quality, high-grade product** expected.
- Market wide **cost escalation** impacting developers, with increased capital costs while **long-term price expectations in the market remain constant**

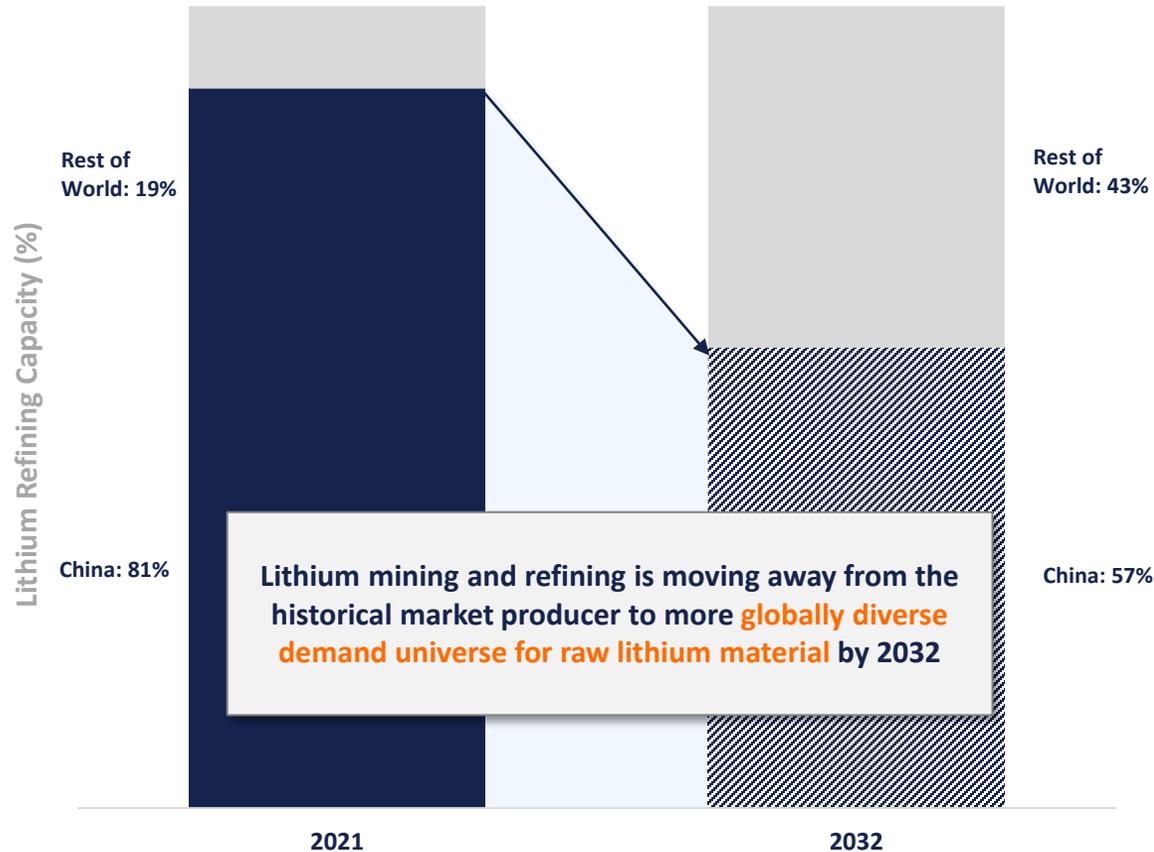
Source: Wood Mackenzie – Global Lithium Investment Horizon Outlook (Q4 2022)  
 Note (1) As a % of Supply (2) Albemarle Strategic Update, January 2023

# Global Lithium Demand

Global demand for high quality lithium is expected to diversify rapidly by 2031 as countries increasingly aim to localise battery manufacturing capacity to meet electric vehicle demand

## Lithium Refining Capacity by Country, 2021-32<sup>1</sup>

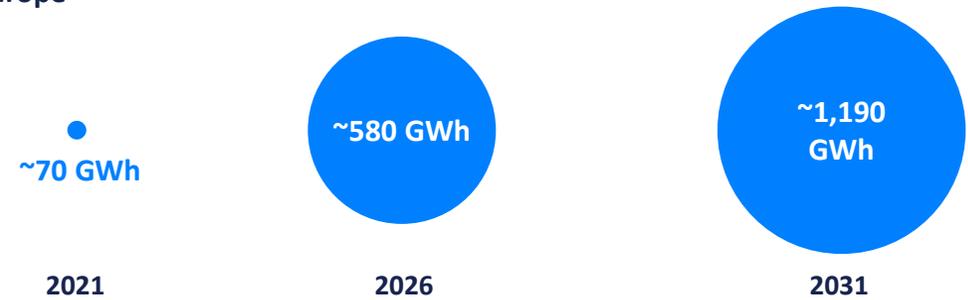
% of kt LCE



## Battery Cell Capacity<sup>2</sup>

GWh

### Europe



### North America



EV future is not just a China-led story. US and EU Government policy to expand localised supply chains coupled with strong EV demand expected to increase lithium demand in new growth regions

(1) McKinsey & Company Australian Lithium Perspective December 2022 (2) Benchmark Mineral Intelligence Battery Megafactory Assessment, October 2022. 2031 battery cell capacity in China estimated at ~5,200GWh



# Liontown's Strategy

Our pathway to become a globally significant provider of battery minerals as the world transitions to a low-carbon future



## Kathleen Valley Full Potential

Become a globally significant sustainable supplier of spodumene



## Downstream Expansion

Develop integrated Australian operations to capture higher margins, create new supply chains



## Liontown Full Potential

Expand portfolio through organic growth, value accretive M&A and exposure to the circular economy



## ESG is in our DNA

A unique opportunity to design our company and operations with ESG at the centre, driving all decisions



### Tjiwarl comprehensive partnership

- First Native Title Agreement signed since Juukan Gorge
- Hand-in-hand in delivery: First siteworks and early mine milestones undertaken by Tjiwarl

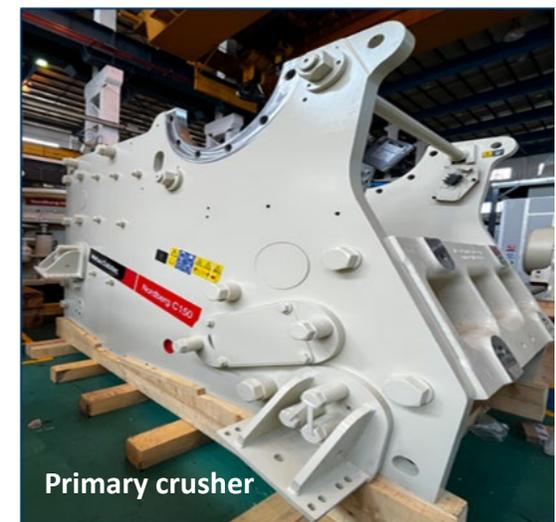
### Net zero target by 2034

- 95MW renewable-hybrid power station among largest offgrid nationally
- Supported by A\$25m guarantee from Australian Govt

Download Liontown's second ESG Report at [ltresources.com.au](https://ltresources.com.au)

# Kathleen Valley Project

- **Globally significant resource** of high-grade, located in tier-1 mining jurisdiction
- Construction underway and **on-track for first production in mid-2024**
- **Plant throughput capacity optimised to deliver 3 Mtpa<sup>1</sup>**, a 20% increase on the DFS <sup>1</sup>
- **Early revenue potential** identified via Direct Shipping Ore (DSO) <sup>2</sup>. Investigations ongoing
- Optimisation and scope adjustments, coupled with industry-wide cost escalation, resulted in **revised capital estimate of A\$895m<sup>3</sup>**
- Advancing a range of further funding options, with time to resolve.



<sup>1</sup> Initial throughput capacity now 3 Mtpa (compared to 2.5 Mtpa in DFS), refer 20 January 2023 Project Update Announcement

<sup>2</sup> Material identified for potential DSO not previously expected to be processed, refer 20 January 2023 Project Update Announcement

<sup>3</sup> Capex to first production, inclusive of A\$40 contingency

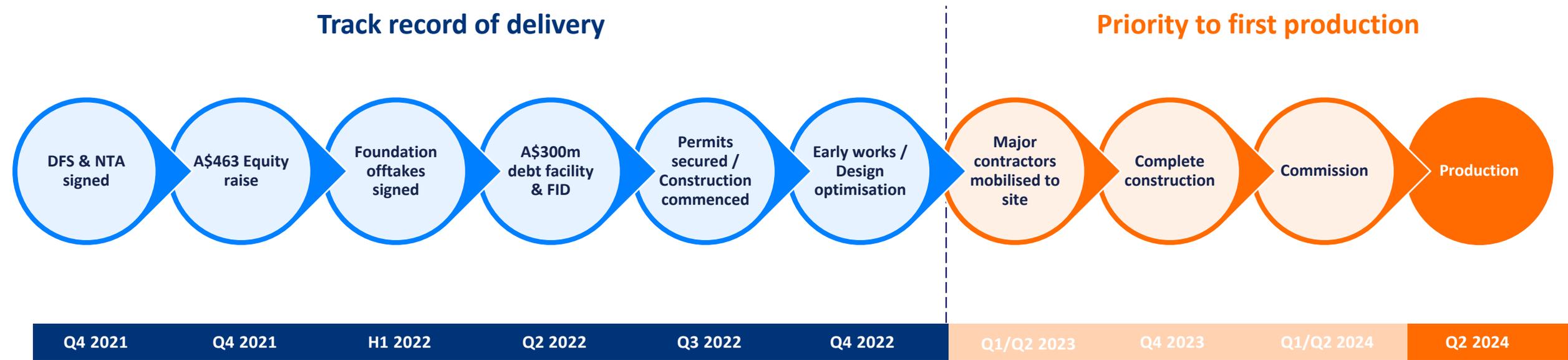
# Clear Pathway to First Production

Liontown is focused on delivering a **major new source of greenfields lithium spodumene** into production by mid 2024.

**Time and options to solve optimal funding mix**, which may be offset by early revenue potential from DSO and/or pre-sales.

## Track record of delivery

## Priority to first production



Continued assessment of growth and downstream processing options →

# Liontown's Downstream Strategy

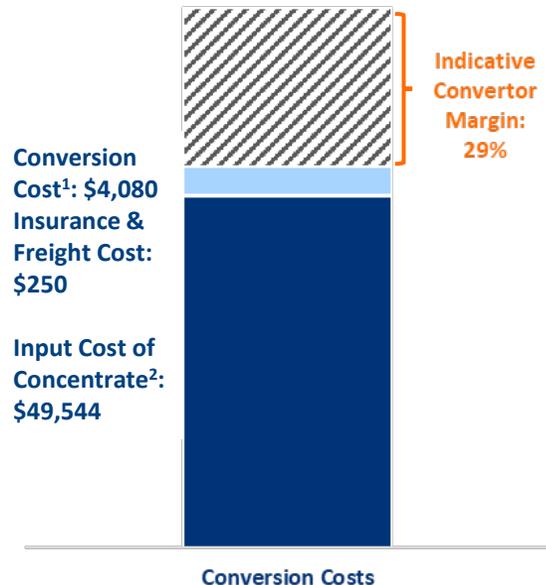
Updated Downstream Scoping Study (2021) confirmed **value maximising pathway** is a staged-build, with an integrated refinery.



Recent discussions in Washington DC reinforced the **strategic intent and economic value of 'IRA compliant' materials** in the value-chain.

Next stage PFS to explore three fundamental questions: **optimal place, product and partner/s:**

## Converter still capturing the margin...



## Three strategic questions we're prosecuting

**Place**

Capacity to provide essential inputs, land and skills

**Product**

Consider intermediate pathways: eg lithium sulphate vs hydroxide

**Partner**

Canvass strategically-aligned and technically advanced partners

Source: Fastmarkets. All prices displayed in USD. Wood Mackenzie

1. Assumed conversion cost allowance of up to A\$6,000/t at exchange rate of 0.68 (as at 24 February 2023) 2. Input cost implied from SC6 to LHM multiplier of 6.98, based on assumed conversion recovery as low as 85%. Indicative calculation: 6.98 x US\$7,097/dmt (February 2023 monthly average of Fastmarkets' Spodumene min 6% Li<sub>2</sub>O spot price, CIF China, \$/tonne). Margin based on February 2023 monthly average of Fastmarkets' Hydroxide Monohydrate LiOH H<sub>2</sub>O 56.5% min, battery grade, spot price CIF China, of US\$76,300/t

# Kathleen Valley – Fast charging to first production mid 2024



Video Link: [Kathleen Valley Snapshot February 2023](#)



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