# Liontown

Fast charging towards a low carbon future

Bell Potter Emerging Leaders Conference

**ASX:LTR** 

September 2022



# Important Information

## Liontown

The production targets and forecast financial information referred to in the Definitive Feasibility Study (DFS) and Downstream Scoping Study (DSS) were based on Proven Ore Reserves (3.4%). Probable Ore Reserves (79.4%) and Inferred Mineral Resources (17.2%). The Inferred material included in the inventory was 14.3Mt @ 1.1% Li<sub>2</sub>O & 120 ppm Ta<sub>2</sub>O<sub>5</sub>. The Inferred material was scheduled such that less than 10% of the Inferred material is mined in the first ten years, with the remainder mined through to the end of the mine life.

The Inferred material does not have a material effect on the technical and economic viability of the project.

There is a low level of geological confidence associated with inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of indicated Mineral Resources or that the production target itself will be realised.

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.

Whilst care has been exercised in preparing and presenting this presentation, to the maximum extent permitted by law, Liontown Resources Limited and its representatives:

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The Information in this Presentation that relates to Exploration Results and 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.

Kathleen Valley Project – Mineral Resource Estimate as at April 2021

Resource category	Million tonnes	Li₂O %	Ta₂O₅ ppm
Measured	20	1.3	145
Indicated	109	1.4	130
Inferred	27	1.3	113
Total	156	1.4	130

Notes: Reported above a Li2O 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 metallurgical testwork and process design, Ore Reserves, Production Target and DFS for the Kathleen Valley Project is extracted from the ASX announcement "Kathleen Valley DFS confirms Tier-1 global lithium project with outstanding economics and sector-leading sustainability credentials" released on 11 November 2021 which is available on www.ltresources.com.au.

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.

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

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

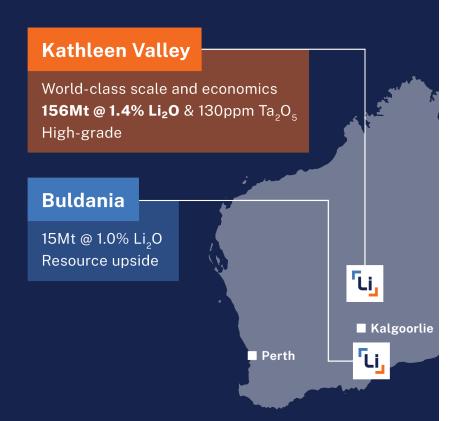
Notes: Reported above a Li2O cut-off grade of 0.5%. Tonnages and grades have been rounded to reflect the relative uncertainty of the estimate

As detailed in the ASX announcement "Liontown Board approves development of Kathleen Valley Lithium Project" released on 29 June 2022, as part of the Final Investment Decision, the capital expenditure budget for the Kathleen Valley Project was increased to \$545 million. 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 the updated capital expenditure budget referenced in the announcement dated 29 June 2022 and that all material assumptions and technical parameters underpinning the estimates or production targets or forecast financial information derived from a production target (as applicable) 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.

This Presentation has been authorised for release by the Managing Director

## Foundations Established for a Tier-1 Project

Liontown is focused on the development of the world-class Kathleen Valley Lithium Project







#### **Tier-1 Offtakes Secured**

- Offtakes secured for majority of production over first 5-years
- Tier-1 counterparties including Tesla, LG **Energy Solution and Ford**
- Significant upside exposure via pricing formulas, negotiated in a strong lithium market



### **Attractive Financing In Place**

- Low-cost financing
- Creditworthy and strategically aligned customer financing
- Kathleen Valley funded to first production
- Additional funding capacity available to manage project through to delivery



### **Construction Underway**

- Experienced team built (with new hires expected) to drive project delivery
- Leading engineering firm, Lycopodium appointed to complete EPCM and commissioning services
- Lycopodium has already issued 61 tenders & 48 packages awarded.



### **World Class Project**

- World-class lithium deposit with significant 156Mt @ 1.4% Li<sub>2</sub>O resource driving long-life
- Outstanding **economic potential**, especially at current prices
- Located in a well-established mining jurisdiction, reducing development risk and accelerating timetable

# Liontown's Strategy

Liontown,

We aim to be an ESG-leader, and a globally significant provider of battery minerals for the rapidly growing clean energy market

Stage 01

## Kathleen Valley **Full Potential**

Become a globally significant supplier of spodumene

Downstream

**Expansion** 

Stage 02

Develop integrated operations to capture higher margins

Liontown **Full Potential** 

Stage 03

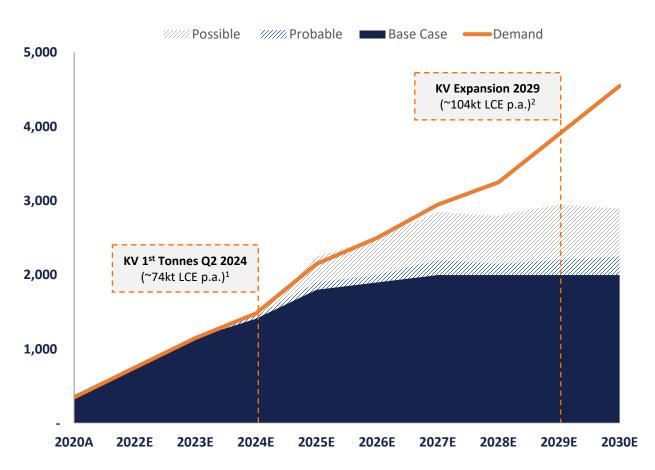
Expand portfolio through organic growth, value accretive M&A and exposure to the circular economy



## **Lithium Supply Dynamics**

Forecast lithium market deficit is expected to grow significantly out to 2030, driven by tight supply. New supply coming from greenfield projects takes between 8 and 10 years to come into first production, with projects globally experiencing permitting, funding and geopolitical hurdles

#### Demand / Supply Forecast, 2020-30, kt LCE



"demand for lithium – the commodity with the largest projected demandsupply gap – is projected to increase sixfold to 500 kilotonnes by 2030 in the APS, requiring the equivalent of 50 new average-sized mines"

August 2022



"We expect lithium demand to grow 8x by 2030e and see a supply side **struggling to keep up**. Despite the largest and lowest cost spodumene mines (e.g. Greenbushes) undergoing brownfield expansions, more supply is required"

August 2022



"Demand growth would outpace supply response in the next few years in our view, which would keep the lithium market in deficit. The market deficit in the longer term also suggests that more new sources of supply will be required to meet the shortfall, with recycling an increasingly meaningful contributor"

August 2022



"BMX pre-auction bid delivers spot sale of over US\$7,000/DMT .... the evidence we are seeing at the coal-face with our customers, suggests that demand remains incredibly strong"

June 2022



Source: Wood Mackenzie, Company Filings, UBSe

<sup>1.</sup> Based on production of 500kt SC6.0 per annum (Calculation: 500kt SC6 \* 6.0% Li<sub>2</sub>O \* 2.473 Conversion Factor = ~74kt LCE)

<sup>2.</sup> Based on production of 700kt SC6.0 per annum (Calculation: 700kt SC6 \* 6.0% Li<sub>2</sub>O \* 2.473 Conversion Factor = ~104kt LCE)



## Lithium Incentive Pricing

Given the significance of demand and lack of substitutability in battery chemistries, material additional lithium supply willneed to be incentivised by higher pricing. This positions tier-1 projects to generate significant margins into the long-term

## **Spodumene Project Incentive Price** Higher price required to incentive supply **Spodumene Incentive Price SC6.0 (CIF China)** from tail end of cost curve to meet demand UBS New LT SC6.0: US\$1,100/dmt CIF China Additional ~2mtpa SC6.0 incentivised UBS Previous LT SC6.0: US\$800/dmt CIF China Significant margin opportunity for low-cost producers

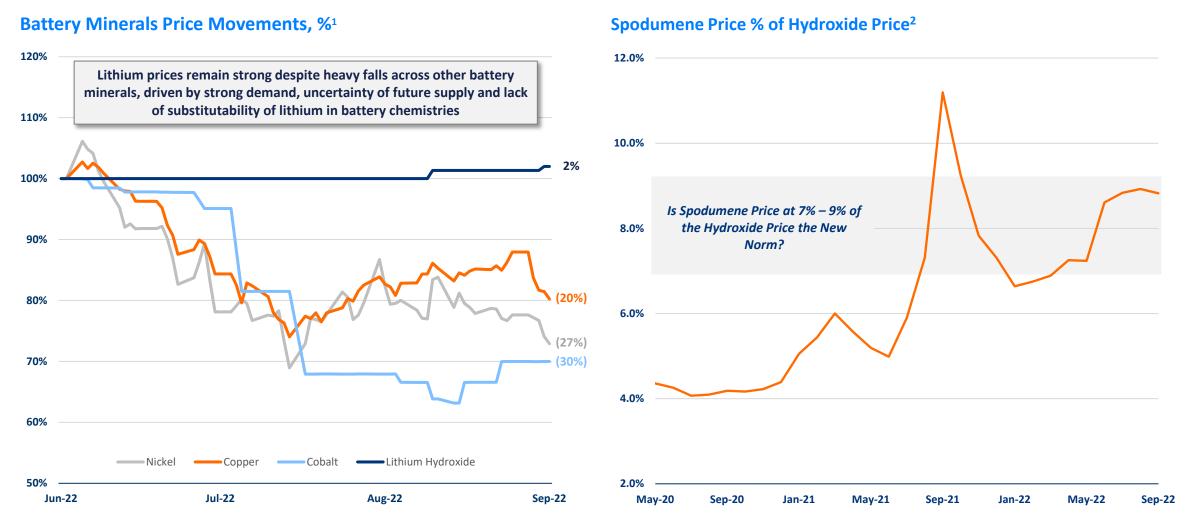
**Spodumene Production (ktpa)** 

Source: Company filings, UBSe SEPTEMBER 2022 | 6

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## Lithium Hydroxide and Spodumene Pricing

Lithium hydroxide prices have increased over the last three months, whilst other battery minerals prices have fallen, demonstating demand for product and reflecting the importance of lithium in battery chemistries, given limited substitutability. Spodumene producers are capturing greater margin share of the lithium supply chain



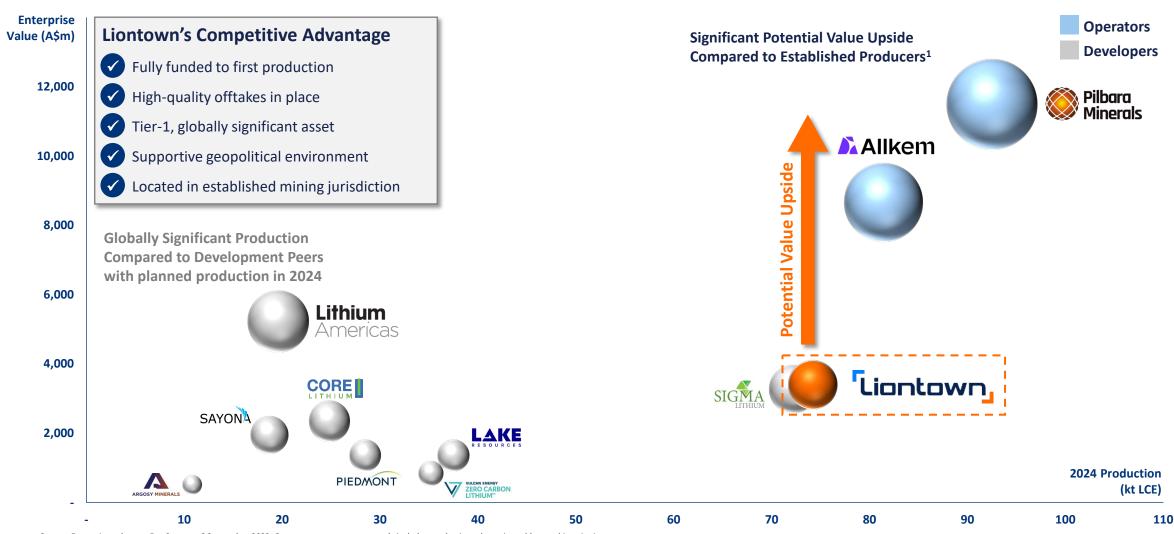
Source: Fastmarkets, FactSet (as at 2 September 2022)

<sup>1.</sup> Price movements over last three months, rebased to 100

## Liontown,

## Globally Significant Production Supports Value Upside

Liontown's expected production is greater than the majority of development peers, in line with established producers, supporting potential for a material re-rate in market value given the de-risked nature of Kathleen Valley, now that financing and offtakes are in place and construction is underway





## **Project Execution Strategy**

Relentless pursuit of the basics to strive for good safety and execution discipline – The Liontown Way!

### **Cost Management**

Construction environment remains challenging, focus on rapid award of key contracts to high-quality vendors and locking in long lead items to manage

- 85% of mechanical equipment by value now ordered
- Commitments to date of \$147m, ~85% to date is on a fixed price basis
- ~40% of total project spend is expected to be fixed price basis

#### **Execution**

Personnel continuity, quality and recruitment of owner's team the key priority to execution

- EPCM awarded to leading engineering firm, Lycopodium
- Owner's project execution team ~80% recruited
- Traditional owners **extensively involved** in the execution process
- Key approvals expected to be granted in line with project schedule



# Project Execution Strategy – cont.

Liontown

Relentless pursuit of the basics to strive for good safety and execution discipline – The Liontown Way!

## **Design & Schedule**

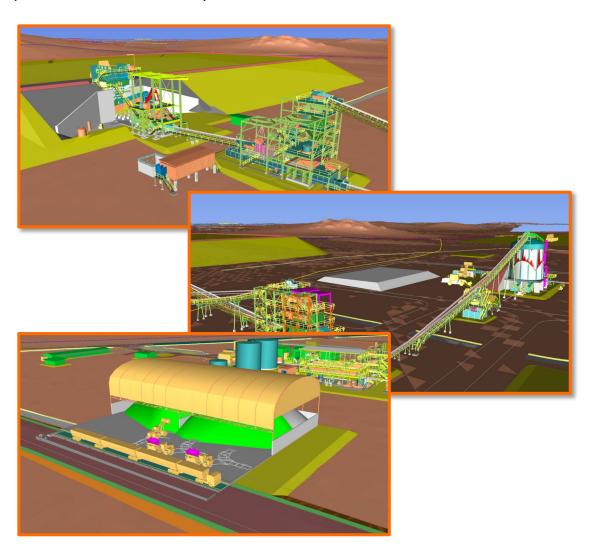
Work to date and continued focus on design positions Liontown to drive hard to execution

- Long lead items ordered, mechanical design at 60% completion
- Lycopodium has already issued 61 tenders & 48 packages awarded
- Key works packages such as CAMP **awarded**, and installation works have commenced on site

## **Ramp-up Timing**

Starting key activities early ensures a smooth and effective ramp-up to deliver production on time

- Owner's mining team already building capacity with key leadership roles filled
- Mining planned to commence 1+ year ahead of processing
- Grade control drilling for initial pit/s complete ahead of mining commencing in early 2023



# Liontown's Investment Proposition





### Tier-1 Asset

Kathleen Valley is a worldclass lithium deposit, with exceptional economics and growth optionality



## **Timed to Perfection**

Significant supply deficits forecast to emerge from 2024, which is expected to align with start of production at Kathleen Valley



### **ESG-Positive**

Clear net zero aspirations, with a climate strategy roadmap under development prior to start-up



## **Integrated Opportunity**

Integrated, long-term lithium producer, positioned to capture value from mine to end-use in the electric vehicle market

### **Near Term Priorities**

- Continue to award major contracts (including Power Purchase Agreement, Concentrate transport, concrete supply/install and Structural steel) to established and high-quality contractors
- Continue to advance detailed engineering and permitting
- Accommodation village build and construction – first occupants Q4 2022
- Continue to develop downstream strategy

# Liontown

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## Peer Comparison Information – 2024 LCE Production<sup>3</sup>

Company	Project	Status	2024 Spodumene Production, Grade & Ownership (Kt, %) <sup>1, 2</sup>	2024 LCE Production (Kt LCE) <sup>3</sup>	Information Source
Liontown Resources	Kathleen Valley	FID	500kt, 6.0%, 100%	74	ASX Announcement – Kathleen Valley DFS Presentation, 11 November 2021
Pilbara Minerals	Pilgangoora	Producer	680kt, 5.5%, 100%	92	ASX Announcement – Final Investment Decision to Increase Pilgangoora Production Capacity, 29 June 2022
Allkem	Various	Producer	n.a.	814	ASX Announcement – Strategy Presentation, 5 April 2022
Lithium Americas Corp.	Various	Construction	n.a.	20	Lithium Americas Website – Corporate Presentation, July 2022
Sigma Lithium Corporation	Grota do Cirilo	Construction	531kt, 5.5%, 100%	72	Sigma Lithium Website – Corporate Presentation, August 2022
Core Lithium	Finniss	Construction	173kt, 5.8%, 100%	25	ASX Announcement – Definitive Feasibility Study Investor Presentation, 26 July 2021
Sayona Mining	Authier	DFS	168kt, 6.0%, 75%	19	ASX Announcement – Positive Pre-feasibility Study Enhances NAL Value, 23 May 2022
Piedmont Lithium	Authier	PFS	168kt, 6.0%, 25%	28	ASX Announcement – PLL Partner SYA Announces Positive PFS for NAL, 25 May 2022
	Ewoyaa		300kt, 6.0%, 50%		ASX Announcement – Corporate Presentation, 16 June 2022
Lake Resources	Kachi	PFS / Demonstration Plant	n.a.	38	ASX Announcement – LKE Presentation Benchmark Minerals, 26 April 2022
Argosy Minerals	Rincon	Construction	n.a.	11	ASX Announcement – 2022 AGM Presentation, 31 May 2022
Vulcan Energy Resources	Various	PFS	n.a.	35	ASX Announcement – Corporate Presentation, 12 July 2022

<sup>1:</sup> Included for informational purposes where the company is a spodumene producer only

<sup>2:</sup> Example calculation for spodumene producers: 500kt Spodumene \* 6.0% Li2O \* 2.473 Conversion Factor = ~74kt LCE

<sup>3:</sup> Attributable production planned for 2024

<sup>4:</sup> Average of FY24 and FY25 attributable proudction taken to equate to CY24 production