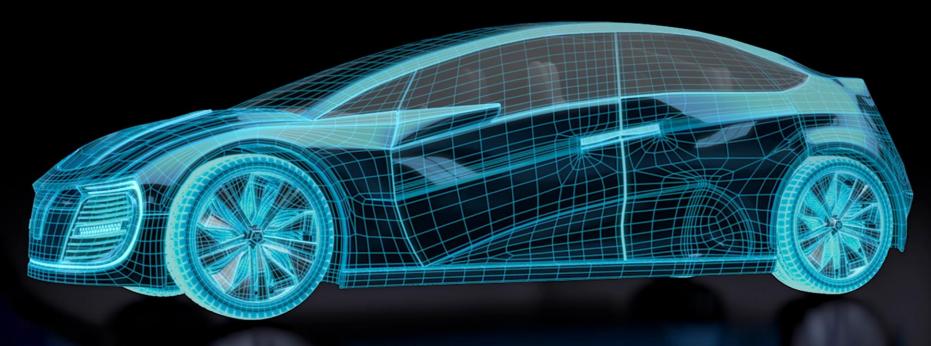
Lithium Australia



Energising Sustainable Electrification

Corporate Presentation | May 2023

Lithium Australia Limited (ACN: 126 129 413)

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VSPC LFP Manufacturing Facility, Conceptual View

The investment proposition





Clarity of purpose

Energising Sustainable Electrification



An outstanding portfolio

of critical material technologies being commercialised



At the centre

of a global megatrend towards electrification





Enabling the diversification and security

of battery supply chains



Proven

Board and Management

About Lithium Australia



Lithium Australia (ASX:LIT):
Passionate people delivering customer focused solutions for the lithium-ion circular battery materials industry that will accelerate global electrification

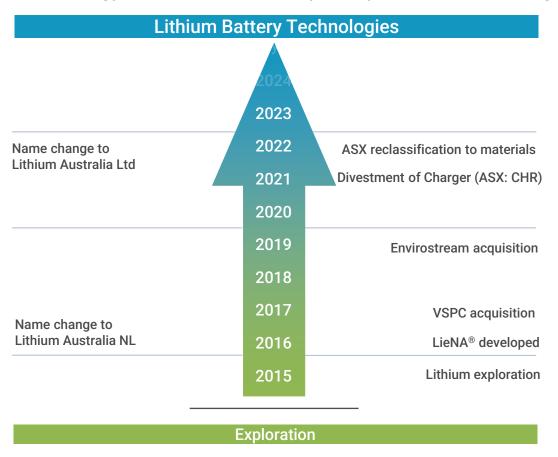
We will do this through lithium-ion battery recycling at Envirostream, development of leading-edge cathode active materials for e-mobility and energy storage applications at VSPC, and through the development of other novel technology solutions, such as the lithium extractive processing technology LieNA®.

Our values ground our thinking and approach. Our people's capabilities are at the heart of our success. They are focussed on creating a safe and inclusive work environment, working with a people centred approach to build meaningful partnerships, and actively respecting and trusting one another. All with the aim to deliver creative technology solutions to improve sustainability and help decarbonise the world.

A focus on battery materials with proven leadership capability



Technology and commercial capability in the midst of a global battery materials megatrend











LIT Management







Simon Linge Chief Executive Officer



Head of People & Culture



GM-Technology Developmen

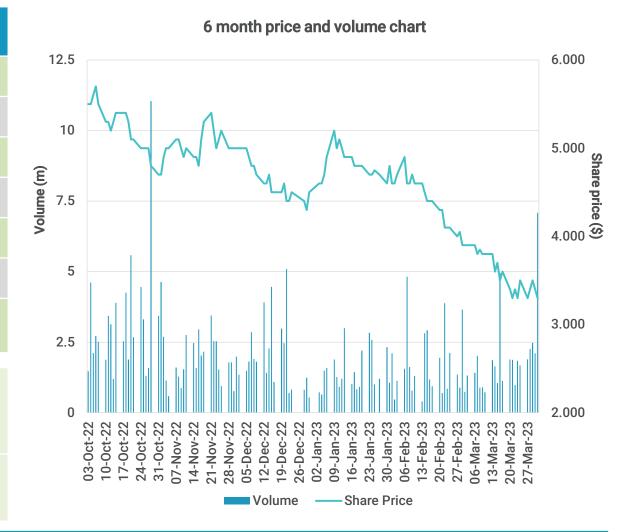
Corporate Snapshot



ASX Ticker	LIT
Share Price (at 17 April 2023)	\$0.041
Shares On Issue ^A	1.22Bn
Market Cap	\$50.1M
Cash (at 31 March 2023)	\$11.1M
Listed investments ^B (at 31 March 2023)	\$4.5M
Cash and listed investments (at 31 March 2023)	\$15.6M
Estimated quarters of funding available (at 31 March 2023)	6.6

^A At 31 March 2023, additional securities exist: 61.7M Listed Options at \$0.0499 expiring 28/02/2025 (ASX:LITOA), 139.3M Listed Options at \$0.100 expiring 19/10/2025 (ASX: LITOB) and 83.7M Performance Rights with various vesting conditions.

^B Includes Charger Metals (ASX: CHR) and Galan Lithium (ASX: GLN). Joint venture holdings of 30% for certain tenements held by CHR also exist (refer announcement 7/2/2023).



LIT technology platforms underpin our ESG credentials



all operations in

since 2018 for

Installation of

Campbellfield site

Value Driver



Battery recycling seeks to deliver sustainable outcomes to a circular economy



Inaugural group sustainability report published in 2023



Company commenced reporting GHG Scope 1 and 2 emissions in FY2022



ESG Roadmap being further developed during FY2023



Lowering the carbon footprint of the process has been a key consideration in the design of future LFP facilities



Lithium chemical extraction technology, LieNA®, has the potential to improve recovery of lithium from primary resources and reduce waste

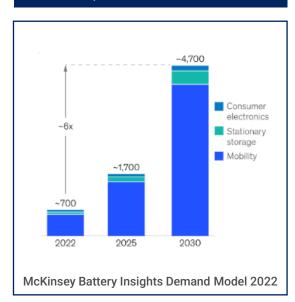


At the centre of a rapidly increasing demand for battery materials.....



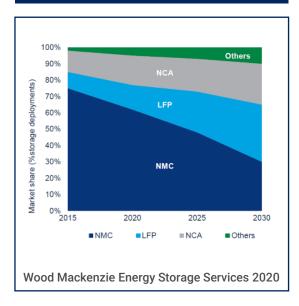
Very high demand environment with significant geopolitical diversification drivers

Global Li-ion Battery Cell Demand, GWh



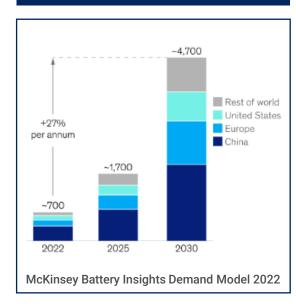
Growth in electric vehicles (EV) and energy stationary storage (ESS) driving 30%+ annual growth rates¹.

Global ESS Battery Chemistry Share, %



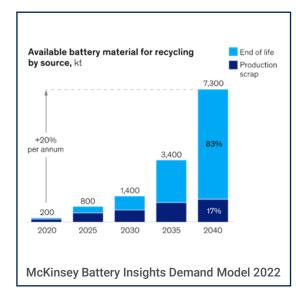
LFP is growing chemistry share at the expense of NMC due to superior cycle life and safety characteristics. New chemistries will emerge but with long lead times¹.

Global Li-ion Battery Cell Demand, GWh



China dominates battery supply chain today but security of supply is driving supply chain diversification in EU, USA and Australia¹.

Battery material for recycling kt



End of life lithium-ion batteries forecast to rise dramatically as batteries fulfil their useful life¹.

LIT has technologies to support the energy transition

LITHIUM AUSTRALIA: MAY 2023

1. Company analysis.

.....with geopolitical diversification and security imperatives creating opportunities......



Reduce reliance on highly consolidated critical materials supply chains

Lithium-ion Value Chain Market Value 2030, US\$bn

Revenues, base case 2030, \$ billion Active Reuse and Refining Pack recycle ~400 110 (27%) 121 (30%) 74 (18%) 13 (3%) Total 52 (13%) 6 ~5x 3 Europe United 2 States 61 Rest of 3 2 world 39 2022 2030



Inflation Reduction Act (2022)



European Battery Alliance (2017)
Strategic Action Plan on Batteries (2018)
EU regulatory framework for batteries (2022)



Canadian Critical Minerals Strategy (2022)



Australian Critical Minerals Strategy (2022) Battery Strategy (2023)

McKinsey Battery Insights Demand Model 2022

.....for an outstanding portfolio across the battery materials supply chain



A unique position across the lithium value chain. Technology platforms have separate strategic pathways but have the potential to be integrated once commercialised

UPSTREAM »

Chemical Converter

Cathode Active Materials

MID-STREAM »

Cell/Battery Manufacturer

DOWN-STREAM »

Auto Manufacturer CIRCULAR »

Battery Recyclers



- ANZ wide network: processing facilities in Melbourne
- · Safe management for end-oflife battery value chain
 - Sourcing and operational refinement in FY2\$
- National expansion in FY25-26

Mining/Brine Concentrate



Investments

- Strategic investments in lithium exploration assets
- Positioned for offtake and pricing arbitrage









SiLeach®

- Disruptive technology
- · Low grade hard rock lithium resources to high grade battery-ready materials
 - Pilot plant testing in FY24
- Pre-demonstration plant in FY26-27



- · Over 20 years of material development
- LFP readv
- Advanced in next generation battery technologies, e.g. **LMFP**
- Partnering in FY24
- Pre-qualification in FY25-26

Technologies positioned to take advantage of high demand and sovereign security

LIT has a clear roadmap for value creation



	1. Build Momentum FY24	2. Drive Growth FY25-26	3. Step Up To Next Level FY27+
LieNA®	Development partner(s) signed upPilot plant and scoping study recommence	Targeting: • Demonstration plant design and construction • Extraction technology portfolio extension	Targeting:Commercial plant design and constructionCommence commercialisation of extraction technology portfolio extensions
VSPC	 LFP offtake MoU(s) signed Settle pre-qualification pilot plant (PQPP) location 	Targeting:LFP Offtake(s) and supplier contracts signedConstruction of PPQPLMFP offtake MoU(s) signed	Targeting:LFP Offtake(s) and supplier contracts signedCommercial plant design and constructionLMFP commercialisation
envirostream	 Improvement towards cashflow positive Secure long term agreements for EV/ESS lithium-ion batteries (LIBs) Optimise operational efficiency 	 Targeting: Completion of national network expansion Multiples of LIB supply volumes over FY2023 Increase percentage of EV/ESS in volumes 	Targeting:Offshore expansionFurther increase of LIB supply volumesExtend battery processing auxiliary services
GROUP	 Organisation structure mapped out Processes enhanced to support a larger future organisation 	Targeting:Build capability and develop talentIncreased stakeholder engagement	Targeting:Expand capability to match international footprint











LieNA®: Distinctive value proposition



A transforming technology for the right industry at the right time

Value Proposition



Market demand outstrips supply for lithium chemicals



Value Driver

Lithium-ion ESS battery demand growth at 30%+ CAGR²



Disruptive technology to recover lithium units from low grade and fines materials



Only hydrometallurgical approach compared to pyrometallurgical processing of competing technologies



LieNA® lifts lithium resource utilisation by up to 50% and upgrade economic potential of new and existing mines¹



Existing mine concentrate recoveries are low (50-70%) with flow-on potential to reduce material mined, processed, and waste disposed³



Sustainability benefits for the lithium battery value chain



Increasing community and legislative (particularly in EU) expectations for sustainable value chain



Proven at lab scale with clear pathway to commercialisation



Pilot plant in collaboration with ANSTO planned in FY2024



Potential partners identified



Existing spodumene miners in Australia and emerging miners in Canada, Africa, USA

VSPC: Distinctive value proposition



From making very small particles to advanced cathode materials

Value Proposition



In a megatrend were geopolitics matters (supply chain risk diversification)



Independently assessed proven product



Flexible raw material lithium chemicals including recycled sources



Minimal waste streams



Competitive cost of production, safe, better cycle life, ethically sound sourcing



Know how and experience to commercialise LFP today, LMFP tomorrow

Value Driver



LFP demand increasing by 15%+ CAGR with 95%+ sourced from China¹



Pre-qualification in progress with US, EU, Asian battery manufacturers



Recycled lithium materials and multiple lithium precursors are suitable as raw materials for the process



All raw materials are converted to final product with minimal solid or aqueous waste streams



Manufacturing cost at or below current international comparable processes such as sol-gel and iron phosphate¹



LMFP pre-qualification in progress delivering up to 15% higher energy density than LFP equivalents¹

LITHIUM AUSTRALIA: MAY 2023

1. Company analysis

Envirostream: Distinctive value proposition



An enviable market position in Australia ahead of explosive growth in end-of-life lithium-ion batteries

Value Proposition



Vertically integrated domestic recycler of lithium-ion batteries



Value Driver

Ability to source sort a broad array of battery chemistries to facilitate lithium-ion recycling and profitable trade of other non-lithium-ion battery chemistries



Established operations with high regulatory barriers



Track record of operations ensuring an industry leading safety management system for battery waste management



Government support as the demand for battery end-of-life recycling increases

2. Company analysis



Lithium-ion battery waste forecast to have 20% growth CAGR¹ with increasing government regulation and support such as through the battery stewardship programs²



Established strategic supply relationships for end-of-life lithium-ion battery waste



First to market advantage with strategic supply relationships in both mixed batteries and EV/ESS and specialist equipment



Leading safety capability for the circular battery industry



Management of fire risk with storage and handling and hazardous materials in processing

The investment proposition





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Enabling the diversification and security

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