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# Sustainability Report 2023

**Acknowledgement of Country**  
Lithium Australia acknowledges First Nations peoples as the Traditional Owners of Country throughout Australia. We recognise the unique cultural heritage of First Nations peoples and their continued connection to lands, waters and communities. We pay our respects to all First Nations peoples, and to Elders past, present, and emerging. We also offer our acknowledgements to the First Nations Peoples of the Country's in which our operations belong: The Whadjuk Noongar People, the Yugara and Turrbal People, and the Boonwurrung People.



Mixed end of life batteries are sorted into chemistry at our Laverton North facility



End of life lithium-ion batteries are stored within our fire walls at our Campbellfield facility



Incoming lithium-ion batteries are received at our Laverton North facility

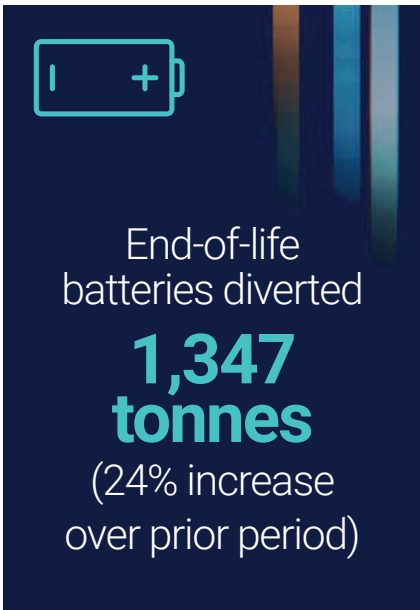
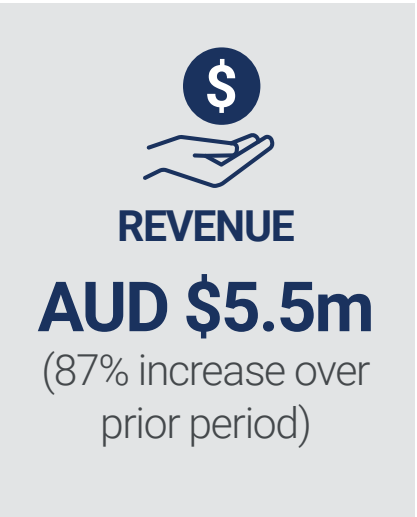
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Highlights

FY23

We are proud to share our environmental, social, and corporate governance ('ESG') performance for 2023 and disclose our efforts towards a sustainable future.



1. Relates to Ravensthorpe Rehabilitation



# Message from our Managing Director

## Sustainability at Lithium Australia

### Dear Stakeholders

It is with pleasure that I present Lithium Australia's (the 'Company's') Sustainability Report for the 2023 Financial Year. At Lithium Australia, we are passionate about contributing to a better world. We will do this through our technology platforms of Lithium Chemicals, Battery Materials and Battery Recycling. These three all come to the forefront of helping the world to decarbonise through a circular battery industry.

We now have a better understanding of who we are both internally and externally and we invested time with our people to develop our vision, mission and values in early 2023. The result was the development of our company values represented by the acronym, SPARCS. Our Values are Safety, People, Active, Respect, Creative and Sustainability. We often explain SPARCS by simply stating that we start with Safety and end with Sustainability. We hope that this resonates through this report.

Sustainability performance and reporting is aligned to our values which seek to achieve zero harm to our people, minimal environmental impact, and drive towards a zero-carbon environment.

Our employees have made a commitment to electrification, via customer focused solutions for the lithium-ion circular battery materials industry. We strive to provide more sustainable solutions to the world in conjunction with the world's most innovative companies.

### Key ('ESG') highlights for the 2023 financial year were:

- Establishment of a Safety and Sustainability Leadership Counsel to assist in the management and promotion of safety and sustainability within the workplace.
- Improved safety culture – a deliberate intervention organisation wide to reset expectations and standards relating to standards, which was called Pause 4 Safety.
- The launch of the Employee Assistance Program ('EAP'), a voluntary professional service that provides confidential counselling and coaching support, and provides information and resources to support our employee's overall health and wellbeing.
- A 24% year-on-year increase in end-of-life batteries diverted from landfill and an increase in the availability of re-purposed materials to generate new batteries.

- Potential customers/off-takers tested our LFP and LMFP cathode powders which have the potential to underpin decarbonisation through electrification.
- Our Scope 2 carbon footprint for the group was developed for the second time.
- Development of the ('ESG') Roadmap for delivery over FY24 and beyond.

For myself, ('ESG') means being a good and ethical corporate citizen. This shows up in the way we are judged to engage with all the stakeholders who are part of or associated with our business.

As Lithium Australia scales up its technology platforms, so too do we need to develop our environmental, social and governance systems and this is demonstrated through the ('ESG') Roadmap.

Looking ahead to 2024, safety remains a primary focus in light of increasing battery volumes available for recycling - we will continue to develop new ways to protect our

employees and stakeholders in the value chain from the risk of fire from these activities.

Partnerships are defined under our value of People and we will utilise partnerships, such as the one with Mineral Resources, to advance our Lithium Chemicals and Battery Materials businesses towards commercialisation, as well as building on current recycling partnerships.

Our Board, through our Audit and Risk Committee, provides oversight to our ('ESG') development and I thank them again along with our employees and management team for their ongoing commitment to improving our ('ESG') performance.



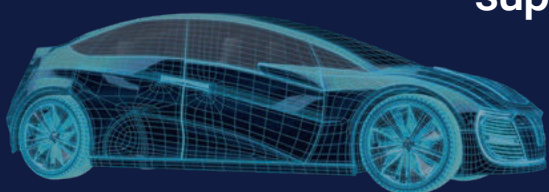
**Simon Linge**  
Managing Director and  
Chief Executive Officer  
Lithium Australia

Sorting line at our Laverton North facility



# What We Do

Lithium Australia Limited ('Lithium Australia' or 'the Company') aims to lead and enable the global transition to sustainable lithium production. The Company is aiming to achieve this through the development of patented lithium extraction technologies, creating leading-edge processing technology to produce lithium ferro phosphate ('LFP'), and the operation of Australia's market leading lithium-ion battery recycler. Lithium Australia is well-placed, via its patented technologies and revenue-generating recycling business, to capitalise on favourable market dynamics including the continued global demand growth and lithium-ion batteries and growing diversification and adoption of alternatives within global lithium supply chains.



At Lithium Australia our values, under the acronym of **SPARCS** define how we work. In our values, we begin with Safety and end with Sustainability:

SAFETY	We choose Safety first, every time
PEOPLE	We take a people centered approach
ACTIVE	We act in a purposeful way that invokes positive action
RESPECT	We respect and trust each other and all have a voice
CREATIVE	We use technology to develop innovative solutions to accelerate global electrification.
SUSTAINABLE	We each play a role in making the world a better place.

## Sustainable Products

Provision of sustainable products is one of the main objectives of our Company. Our Lithium Chemicals, Battery Materials, and Battery Recycling divisions all possess significant business advantages that allow us to have a circular economy business model and be a key contributor in society's energy transition to renewables.

### Lithium Chemicals

Lithium Australia has developed a suite of unique extraction and refining technologies including LieNA® and SiLeach® for the recovery of lithium from un-used fine and low-grade lithium materials and the production of lithium phosphate ('LP') for use as a direct-feed chemical into the production of lithium ferro phosphate ('LFP') cathode powders.

Lithium Australia is developing its proprietary extraction process, LieNA®, with its technology partner, Mineral Resources Limited (ASX: MIN). LieNA® is specifically designed for the processing of fine low-grade spodumene material that is currently discarded as waste. The process intends to deliver critical chemicals to the battery industry in an ethical and sustainable manner. LieNA® has the potential to lift lithium resource utilisation by up to 50%<sup>2</sup>

and upgrade economic potential of new and existing mines improving the feasibility of existing mining operations by extending resource life and enhancing energy security in areas where critical battery minerals are scarce or non-existent.

### Battery Materials

Lithium Australia has over 20 years of experience in developing lithium ferro phosphate ('LFP'), a cathode active material used for battery manufacturing, through the Company's fully owned subsidiary VSPC Pty Limited. The Company utilises a proprietary cost-competitive production process to manufacture LFP at scale. The same propriety production process is also able to produce lithium manganese ferro phosphate ('LMFP') without significant changes in the process. LMFP batteries can reach an energy

density 15% to 20% higher than LFP batteries, with almost no difference in the cost of material inputs. Currently production is dominated by China, with Lithium Australia being one of only a few companies outside of China to successfully produce LFP and LMFP.

Our patents cover the production of advanced powders for next generation lithium-ion batteries, especially LFP and LMFP. Produced at our electrochemistry laboratory and pilot production facility, these powders are necessary to power lithium-ion batteries for which demand continues to grow, due to its superiority over nickel-based cathode materials.

2. Assumes existing mine concentrator is 60%. 60% to 90% Li recovery increase assumes LieNA® recovers 75% of lithium units going to tails



Battery Recycling

Lithium Australia operates a battery recycling division through its fully owned subsidiary Envirostream Australia Pty Limited. The Company is Australia's leading battery recycler, while also being the only battery recycler which processes batteries domestically. Collected batteries are processed at the Company's Victoria-based battery processing facilities, which operates using state-of-the-art safety and processing standards. The Company has secured its future supply for battery collections through strong partnerships, while also benefitting from the Australian government-backed battery recycling scheme, B-cycle, which provides rebates across collection, sorting, and processing of batteries.

A national network of accredited B-cycle drop-off locations has quickly grown through partners who supply end-of-life ('EOL') batteries for recycling, such as Bunnings Warehouse and Officeworks. The Victorian EPA has issued a 20-year operating licence which allows processing in excess of 500 tonnes per annum 'tpa' of specified electronic waste.

Investments and joint ventures

Lithium Australia holds certain investments in Australian listed shares. The Company also holds joint venture holdings of 30% with Charger Metals NL (ASX:CHR) for certain tenements managed by Charger. These tenements include the Lake Johnson, Bynoe and Coates projects. These exploration assets will aim to preserve access to lithium deposits that may provide raw materials for future Company mineral processing and chemical production activities.

Lithium Australia's network of reputable recycling partners:



During FY23, the shredding equipment was upgraded at our Campbellfield recycling facility.



FY23 Milestones

Quarter	Lithium Chemicals	Battery Materials	Battery Recycling	Corporate, Investments and Joint Ventures
July – September	Formal registration for the LieNA® CRC-P autoclave vessel received, allowing commissioning of the autoclave to commence.	A DFS Plant Capacity Assessment Study was initiated. Business development activities increased including visit to the Republic of Korea to engage with potential partners.	Executed an agreement with LG Energy Solution for the processing of a minimum of 250 tonnes ('t') of LIBs. Executed a battery recycling services agreement with Battery World.	Placement in excess of \$12m. Appointment of Mr Simon Linge as Chief Executive Officer of Lithium Australia.
October – December	LieNA® 1st gen patent application was granted (Brazilian Patent Application).	Further development of LMFP cathode materials. Engineering study completed for a pre-qualification pilot plant assisting development path optimisation and allowing engagement with offtake and joint development partners.	Attended the Asia International Li-ion Battery Recycling Summit in South Korea. Meetings with new Mixed Metal Dust ('MMD') customers were held resulting in a shipment to a new trading company.	Binding agreement with Galan Lithium Ltd for the sale of the Company's remaining 20% interest in the Greenbushes South Lithium Project. Reclassification of ASX listing from mining to materials.
January – March	Continued engagement with potential commercial partners for the LieNA® technology. Granted patents in Chile and Brazil.	LFP product was independently tested against commercially available product by leading battery research, test equipment, and services company, NOVONIX Battery Technology Solutions.	Study initiated to assess expansion of battery storage, sorting and processing infrastructure requirements. Water filtration systems upgraded, improving safety, productivity, cost and environmental performance.	Commencement of Mr Simon Linge as CEO. Release of inaugural Sustainability Report.
April – June	Chinese patent application was granted for LieNA® 2nd generation.		Amendment to EPA Victoria's operating licence of 99 years to 20 years.	Lithium Australia further developed its ('ESG') roadmap, defining gaps in its policies and practices to align with ('ESG') standards. Binding agreement with Eastern Resources Ltd for the sale of 70% of the Company's interest in the Lepidolite Hill Project.

Battery Recycling

1,347t of EOL batteries diverted from landfill (24% increase over FY22)	552t of lithium-ion batteries collected (64% increase over FY22)	158t of recovered anode and cathode (black mass) materials sold (11% increase over FY22)	462t of combined steel, copper, aluminium sold (32% increase over FY22)
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Battery Materials

58kg of lithium ferro phosphate ('LFP') cathode powder produce (161kg in FY22)	156kg of lithium manganese ferro phosphate ('LMFP') cathode powders produce (10kg in FY22)
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# Sustainability Approach

At Lithium Australia, we remain committed to achieve continuous improvement and strive to operate at the industry standard levels of Environmental, Social & Governance performance. Our approach remains that of ensuring an ethical and sustainable supply of energy metals to the battery industry. Our ('ESG') Framework follows best practice standards, ensuring that outcomes are delivered in the most sustainable manner. This year, we have maintained our momentum in advancing our sustainable strategy and processes. We continue to draw inspiration from the Global Reporting Initiative ('GRI') and the World Economic Forum's Stakeholder Capitalism Metrics ('WEF') for our sustainability reporting, disclosure, and strategy practices. As our sustainability approach matures, we will aim to better align to these globally-recognised frameworks.

## Sustainability at Lithium Australia

As we progress the development of our sustainable battery business, we aim to simultaneously decrease our environmental footprint. This will be accomplished through our primary activities of battery recycling, development of battery materials, and lithium extraction technologies. All our endeavours are in response to the expanding demand for electric vehicles and battery energy storage, and the global impetus for a decarbonised economy. Our activities will assist in meeting these industry demands by enhancing sustainable energy sources and resource efficiency.

### ('ESG') Roadmap

Preceding Objectives	Status
Established internal ('ESG') project team	Completed
Conducted peer and industry sustainability review	Completed
Mapped key stakeholders	Completed
Conducted initial materiality assessment	Completed
Developed ('ESG') roadmap	Completed
Completed carbon footprint project	Completed
Articulated companywide sustainability positioning	Completed
Published inaugural sustainability report	Completed
FY23 Objectives	Status
Conducted materiality update	Completed
Completed a gap analysis against GRI and WEF reporting requirements	Completed
Reviewed all current Lithium Australia policies	In Progress
Published second sustainability report	Completed
Developed an updated ('ESG') roadmap and risk profile	Completed
Established the Safety & Sustainability Leadership Council 'SSLC'	Completed
Stakeholder engagement survey	Not Started
Publish climate risk strategy and TCFD roadmap	Not Started

FY24 Objectives			
Governance	Planet	People	Prosperity
<ul style="list-style-type: none"> <li>Enhance ('ESG') competency via Board and Management training.</li> <li>☑ Increase ('ESG') focus in organisation including adding ('ESG') as a standard Board agenda item.</li> <li>☑ Improve transparency by reporting bribery and / or corruption incidents in Quarterly Report.</li> <li>☑ Enhance Risk Management Framework.</li> <li>☑ Develop Grievance Policy and reporting mechanism.</li> <li>☑ Promote compliance to standards through the commencement of ethics training.</li> </ul>	<ul style="list-style-type: none"> <li>Develop Water Management Plan and Policy.</li> <li>☑ Implement Environmental Policy.</li> <li>☑ Develop Environmental Management Plan.</li> <li>☑ Set GHG reduction targets and identify initiatives.</li> <li>☑ Increase TCFD readiness by further developing an understanding of requirement by Board and management</li> <li>☑ Develop Permit and Approval Timeline(s).</li> </ul>	<ul style="list-style-type: none"> <li>☑ Promote diversity though enhanced hiring strategy.</li> <li>☑ Enhance business process documentation through review and development of the following Policies: Remuneration; Gender Equality; Health and Safety; Modern Slavery; and Non-discrimination and Anti-harassment.</li> <li>☑ Develop strategy to promote and ensure equal pay and assess entry level wage to minimum wage requirements by gender.</li> <li>☑ Enhance induction processes through improved and consistent processes for operational sites.</li> <li>☑ Develop a Training register.</li> <li>☑ Develop Recruitment, Retention and Termination Policies and Procedures.</li> <li>☑ Implement Employee Training Plan.</li> </ul>	<ul style="list-style-type: none"> <li>Develop an Employee Retention Guide.</li> <li>☑ Improve people reporting processes to track key indicators.</li> <li>☑ Improve visibility of social investment via the capture of corporate contributions by category including community contributions.</li> </ul>



Our operations and sustainability endeavours continue to be aligned to contribute to the United Nations Sustainable Development Goals ('SDGs'). Established in 2015, the SDGs are a set of 17 goals and 169 targets intended to be achieved by the year 2030. Focusing on the most urgent economic, social, and environmental global challenges, the SDGs are a key inspiration for the future prosperity of our stakeholders.

To achieve this, there must be cooperation in developing strategies that encourage economic growth and address a range of social needs such as education, health, human rights, and job opportunities, while tackling climate change and environmental security. We are remaining focussed on making positive impacts on four SDGs, 7, 9, 12 and 13 and will subsequently expand our contributions to more of the 17 goals as our projects mature.

SDG	Specific Indicator or Target
	<p><b>Target 7.1 - By 2030, ensure universal access to affordable, reliable, and modern energy services</b>  <b>LIT Target: Increasing the availability of battery materials to meet future demand</b></p> <p>During FY23, we continued to develop LFP and LMFP including customer product testing. A study for a pre-qualification pilot plant (200-300tpa) was completed to assist in the determination of the optimal commercialisation pathway and allow engagement with offtake and development partners. Following customer demand, the Company is assessing this 200-300tpa against a 2,000-3,000tpa facility for its scale up.</p>
	<p><b>Target 9.4 - By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes</b>  <b>LIT Target: Developing innovative techniques that enhance lithium extraction capabilities and improve resource efficiency</b></p> <p>During FY23, we advanced disruptive lithium chemicals technology, LieNA®, towards a landmark joint development agreement with Mineral Resources Limited ('MinRes', ASX: MIN), completed subsequent to the period end. LieNA® has the potential to lift lithium resource utilisation by up to 50% and upgrade economic potential of new and existing mines improving the feasibility of existing mining operations. MinRes is an optimal strategic partner for the Company, as it mines substantial quantities of lithium at its own operations. Global licences are being targeted from the joint venture with MinRes.</p>
	<p><b>Target 12.5 - By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse</b>  <b>LIT Target: Reducing disposal of EOL batteries to landfill</b></p> <p>During FY23, the Company collected 1,347t (24% increase over FY22) of EOL batteries avoiding disposal into landfill.</p>
	<p><b>Target 13.2 – Integrate climate change measures into national policies, strategies, and planning</b>  <b>LIT Target: Aligning with the requirements of IFRS S1 and S2 to ensure climate-related measures are integrated into our strategic planning</b></p> <p>During FY23, in preparation for future reporting, key personnel undertook training on the requirements. In addition, the Company continued to measure its scope 1 and 2 carbon footprint.</p>

3. Tonnes per annum

4. Assumes existing mine concentrator is 60%: 60% to 90% Li recovery increase assumes LieNA® recovers 75% of lithium units going to tails

## Stakeholders' engagement

Stakeholder engagement is essential for our business. We are dedicated to ensuring early, active and continuous collaboration and dialogue between ourselves and our stakeholders. We rely on having strong relationships to be granted access to resources, obtain, and maintain our regulatory and social licence to operate, as well as delivering mutually beneficial partnerships with our communities.

The Global Reporting Initiative ('GRI') framework defines stakeholders as those people or organisations who are directly or indirectly affected by, or have an interest in, our business. We prioritise stakeholders based on their ability to impact our business and our ability to impact their lives or activities. Significant identified stakeholders and engagement during FY23 are summarised below:

Stakeholder Group	Priorities	Engagement
<b>Employees</b>	Provision of a safe and healthy workplace; job security; professional development and training opportunities	Regular communication and consultation, including Town Halls; regular 1:1's; training and development programs
<b>Board of directors</b>	Prudent governance; risk management; protection and creation of shareholder value	Regular Board and Committee meetings; direct communication lines between executive and Board
<b>Shareholders &amp; investors</b>	Return on investment and equity; sensible allocation of risk and capital	Investor presentations, annual and quarterly financial reports, direct engagement, AGM
<b>Industry, Industry groups and influencers</b>	Sharing and receiving of knowledge, peer networking and industry development	Regular engagement and collaboration
<b>Customers</b>	Safe, sustainable and reliable products	Direct engagement; communications, including site visits
<b>Local Communities</b>	Provide long term mutual opportunities for employment and contracting	Limited activity during the year
<b>Government departments</b>	Compliance policies and frameworks; access to funding and approvals	Direct engagement and consultation at both state and federal levels.
<b>Peers &amp; competitors</b>	Sharing and receiving of knowledge, peer networking and industry development	Direct engagement; communications, including sharing of industry insights
<b>Creditors, insurers and grant providers</b>	Credit and business protection, including business continuity. Strong relationships and prompt payment	Direct engagement; communications
<b>Brokers, advisors and institutions</b>	Describe business strategy and demonstrate governance principles	Annual and quarterly financial reporting; regular briefings and correspondence
<b>Suppliers and partners</b>	Development of mutually beneficial relationships	Direct engagement; communications, including site visits

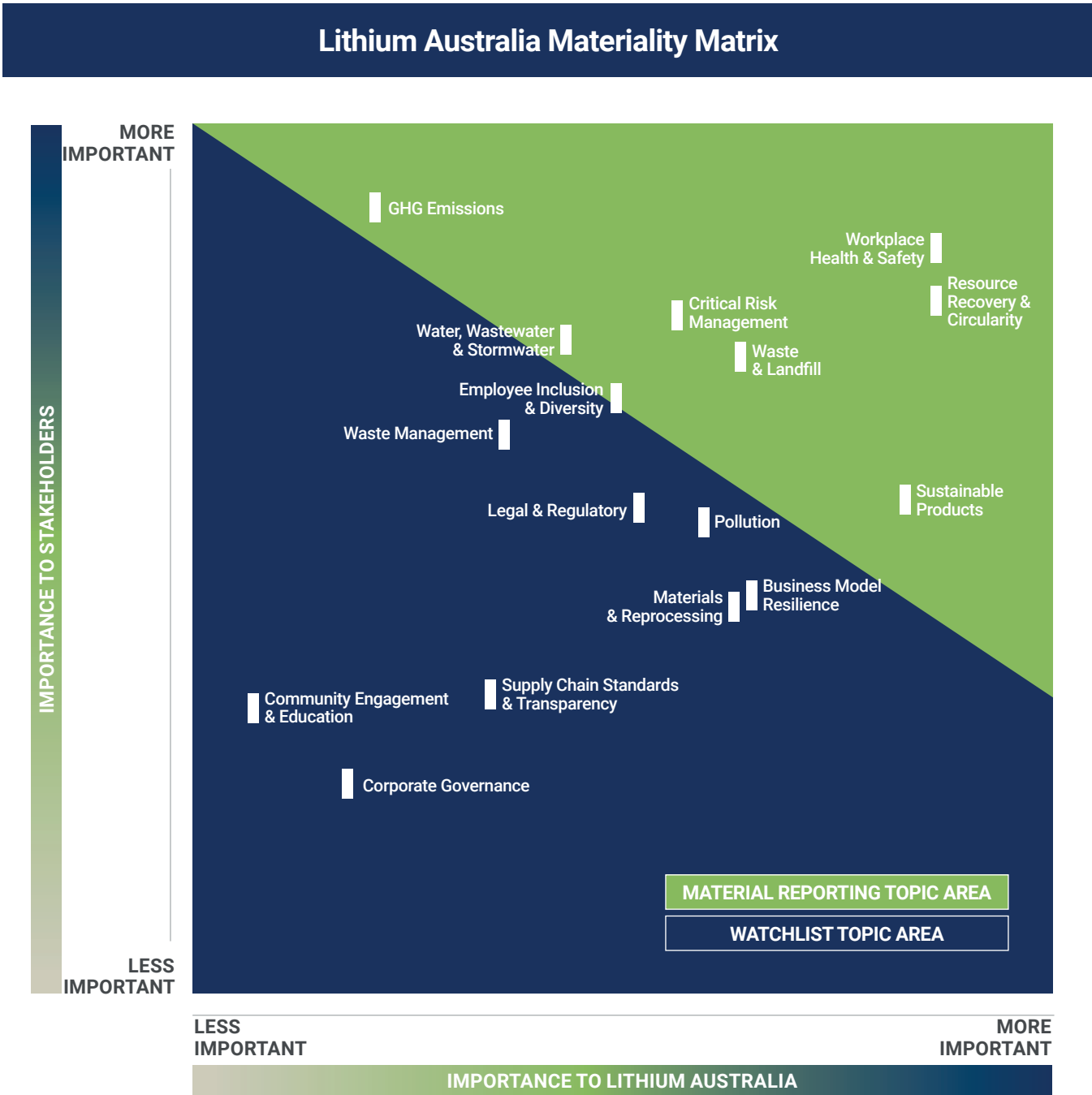


# Materiality Assessment

We continue to measure and report our performance against the same material topics established in the materiality assessment conducted in FY21, which followed GRI recommendations. However, this year we have included Employee Inclusion and Diversity as a material topic following an internal materiality update with key internal executives. The updated topics aim to improve our focus on our relevant ('ESG') impacts and capture the expectations of our stakeholders and the broader external environment. Each topic falls under the sustainability pillars of 'Environment, Social, and Governance'.

We recognise that our material topics will continue to evolve over time as the Company matures and we will adjust appropriately. In FY24 we plan to reassess our material topics taking into consideration our feedback from key internal and external stakeholders and how they rate the importance of these sustainability topics. The results will help inform an updated materiality assessment.

Our material topics are outlined in the materiality matrix below. The topics plotted within the shaded area are most material to the Company. Watchlist topics continue to be monitored accordingly.



Material Topics	Watchlist Topics
Workplace Health & Safety	Pollution
Resource Recovery & Circularity	Business Model Resilience
Critical Risk Management	Materials & Reprocessing
GHG Emissions & Energy	Legal & Regulatory
Sustainable Products	Waste Management
Waste & Landfill	Supply Chain Standards & Transparency
Employee Inclusion & Diversity	Corporate Governance
Water, Wastewater & Stormwater Management	Community Engagement & Education

Stoyan Ilich and John Worsley at our LFP pilot plant in Wacol, QLD



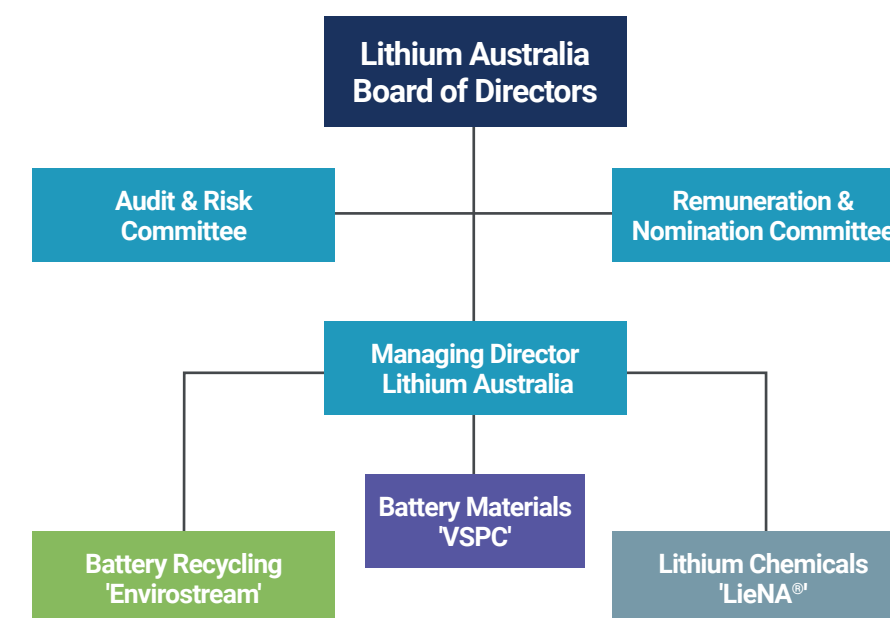


# Our Company

## Corporate Governance

At Lithium Australia, we adhere to robust standards of corporate governance and strive to deploy the highest standards of corporate behaviour, accountability, and responsibility. Our companywide Corporate Governance Plan, held on the Company’s website (<https://www.lithium-au.com/corporate-governance/>), establishes the basis of this comprehensive system of standards, principles, and policies.

The Board is responsible for overseeing the implementation of these policies and procedures with honesty and integrity, pursuing the true ethos of corporate governance commensurate with the Company’s needs. To the extent they are applicable to the Company, the Board continues to employ the ASX Corporate Governance Council’s Corporate Governance Principles and Recommendations 4th Edition (‘the Principles and Recommendations’). These Principles and Recommendations determines the standards for our Company to follow as we continue to introduce elements of the governance process. More information on how we uphold to the Principles and Recommendations can be found in the Corporate Governance Statement, held on the Company’s website: <https://www.lithium-au.com/corporate-governance/>



Our Board of Directors act in the best interest of the Company and strives to conduct business in a responsible manner that will drive high levels of performance across the Group. The Board maintains oversight of all activities and risk, including those related to sustainability. In carrying out its role, the Board must ensure that the Company complies with all its contractual, statutory, and other legal obligations, including the requirements of regulatory bodies. It is the role of senior management to manage the Company in accordance with the direction and delegations of the Board.

To ensure operations are conducted appropriately, the Board will review and approve the Company’s financial status, systems of risk management and internal compliance and control.

Formalised policies and procedures have been approved by the Board and are consistent with our objectives of acting ethically and responsibly across all areas of business. The Audit and Risk Committee (‘ARC’) and the Nomination and Remuneration Committee act as sub-committees to the Board, assisting to perform some of its responsibilities. (‘ESG’) oversight is managed by the ARC on behalf of the Board.

Our Code of Conduct Policy ensures that a culture of fairness, respect, and support exists within the workplace. These values aid in facilitating teamwork and the continual development of our people. All employees, directors and officers must comply with this policy as it is an expectation of all stakeholders to act in the highest professional manner.

There were no significant changes made to the company governance structure in FY23.

**Sustainability Governance**

Sustainability remains an important component of the Company’s overall governance system, with the Board maintaining ultimate responsibility for (‘ESG’) performance. We consider our economic, environmental, and social sustainability risks by way of internal review. These risks are recognised, included, and managed by the risk management register. The Audit and Risk Committee (‘ARC’) carries out functions which oversee the establishment and implementation of systems for identifying, assessing, monitoring, and managing material risk throughout the Company.

On a quarterly basis, the ARC



is presented with a status of compliance to regulatory bodies including (updated from time to time): Companies Act 2001; ASX Listing Rules; Australian Taxation Office; Australian Securities and Investments Commission (ASIC); EPA Victoria; Office of State Revenue; Mines Department WA .

In FY23, we established the Safety & Sustainability Leadership Council

('SSLC') to assist in the management and promotion of safety and sustainability within the workplace. Council members are responsible for developing and implementing effective policy, procedures and systems relating to Health, Safety, Environment, and Sustainability. The SSLC will review and improve the effectiveness of programs and regularly report to the Board on safety

and sustainability matters. The SSLC references various regulations including: Work Health and Safety Regulation 2011 (NSW, QLD, ACT, NT); Work Health and Safety Regulation 2012 (SA, TAS); Work Health and Safety Act 2020 (WA); Occupational Health and Safety Act 2004 (Vic); Occupational Health and Safety Regulations 2017 (Vic); Environment Protection Act 2017 (Vic) (Act).

## Corporate Values

Throughout the financial year, a series of workshops were held with the Board and Executive Leadership Team to develop a five-year strategy and supporting vision, mission and values for the Company. This strategy forms the basis of commercialisation plans for battery recycling, battery materials and lithium chemicals. Our Company values 'SPARCS' are presented below.

OUR VALUES: SPARCS					
Safety	Partnership	Active	Respect	Creative	Sustainability
<b>We choose Safety first, every time</b>  <ul style="list-style-type: none"><li>We don't start unless it's safe</li><li>We stop if it becomes unsafe</li><li>We don't do it if we can't make it safe</li><li>We know our risk; we manage our risks</li></ul>	<b>We are trusted by our partners and build meaningful, long-standing relationships</b>  <ul style="list-style-type: none"><li>We collaborate and communicate in an open and transparent way</li><li>We listen and genuinely seek to understand their perspectives</li><li>We share knowledge to build understanding</li><li>We deliver on our promises</li></ul> <small>Partners = customers, suppliers, regulators, shareholders, NGO's</small>	<b>We are passionate about our work and the difference we make</b>  <ul style="list-style-type: none"><li>We have a can-do attitude and strive to go the 'extra mile'</li><li>We have a strong sense of team</li><li>We encourage discussion and debate</li><li>We learn from our mistakes</li><li>We have access to the tools we need to excel in what we do</li><li>We celebrate outcomes</li><li>We are clear on our role and what success looks like</li></ul>	<b>We respect and trust each other, and all have a voice</b>  <ul style="list-style-type: none"><li>We listen intently to build mutual understanding</li><li>We solicit and act on feedback</li><li>We show appreciation every day</li><li>We are honest and transparent in our dealings</li><li>We are inclusive and embrace diversity of thought and backgrounds</li><li>We take the time to consider the other perspective</li><li>We do what we say we will do</li></ul>	<b>We use technology to develop critical materials solutions.</b>  <ul style="list-style-type: none"><li>We are first movers and ahead of the 'game'</li><li>We create technical solutions succeed</li><li>We challenge the status quo</li><li>We have a good understanding of the market and can pivot quickly</li></ul>	<b>We each play a role in making the world a better place.</b>  <ul style="list-style-type: none"><li>We are working towards a zero-carbon environment by supporting global electrification</li><li>We are focused on zero material harm (to the environment and stakeholders) to grow sustainability globally</li><li>We provide novel solutions to grow a circular critical battery material industry</li></ul> <small>Electrification = essential to achieve global decarbonisation</small>

## Critical Risk Management

Applying robust critical risk management ensures that we achieve more defined outcomes and can deliver on our Company ambitions. The Board has ultimate responsibility for risk management. This includes:

- Approving the Company's policies on risk oversight and management, internal compliance and control, and legal compliance
- Ensuring senior management has established and implemented a comprehensive system of risk management and internal control in relation to reporting risks and continue to review the effectiveness of these systems
- Assessing the effectiveness of senior management's implementation of systems for managing material business risk, including the making of additional enquiries, and to request assurances regarding the management of material business risk, as appropriate

Critical risk reviews are conducted at a minimum once per year. The review involves grouping critical risks into the following categories: Compliance, Environmental, Financial, Health & Safety, IT, Market & Technology, Operation, Partner Organisations and Reputation. The results of risk reviews are included in the Corporate Risk Register. Any risks flagged as 'High' for the Group, require immediate intervention from Senior Management to implement control measures that will eliminate or reduce impacts.

The risk register is presented to the Audit and Risk Committee (ARC), a subcommittee of the Board, on a quarterly basis. The management system for critical risks and the hierarchy of controls is currently being implemented. The management system will seek to achieve regular reviews of the risk environment by risk owners to determine if underlying risks have changed, or if new risks

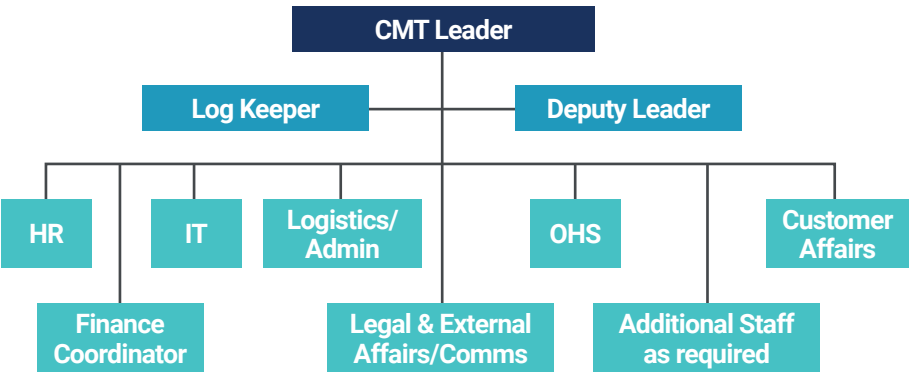
have been identified based on internal and / or external factors.

Our Risk Management Policy has been approved by the Board and delegates day-to-day risk management to the Managing Director ('MD'). It also contains the Company's risk profile and describes some of the policies and practices the Company has in place to manage specific business risks. The MD is required to report on all matters associated with risk management including the effectiveness of the Company's management of its material business risks.

The quality of risk management processes is ensured by the competency of persons who carry them out. The ARC consists of the entire Board who collectively have significant experience across project

development, operations, and broader governance matters, such as risk. From a management perspective Lithium Australia's newly created role of GM – Safety, Risk and Integration leads risk management practices for the Company.

We have implemented a Crisis Management Plan ('CMP') to outline Lithium Australia's response and management architecture to provide the Crisis Management Team ('CMT') with a standardised process to respond to incidents. The CMT is led by the Crisis Manager (typically the Managing Director ('MD') or their nominee) and consists of members of Management based in the Victorian Office in Kew (or virtually) and supported by administrative staff and / or external contractors. The structure of the CMT can be seen below:



The CMT falls under the Company's Crisis & Emergency Framework of which there are three levels. The CMP is maintained at corporate level and will integrate with the site Emergency Management Plan ('EMP') once the EMP is established. The CMP applies to all Lithium Australia sites, subsidiaries, and operations and any other area for which there is a legal obligation.

During the year, the Company arranged crisis management training and participated in a crisis management exercise.

## Crisis & Emergency Framework





## Our People

### Future-Fit Workforce

Lithium Australia values inclusive sustainability and believes that together we achieve more. We form honest and fair relationships with all our stakeholders, encourage collaborative and lateral thinking in our people, and strive for zero-harm in the workplace.

During FY23 we have been focused on improving our workforce organisation and management. This has involved embedding our corporate values, establishing policies and frameworks across the employee lifecycle, and clearly defining roles and responsibilities to remove ambiguity in our organisational structure. To deliver on the Company's strategic and annual implementation plans, we have developed a Performance & Development Review framework to support goal setting and employee development with the outcomes integrated into a competitive remuneration, reward and benefits structure.

### Case Study

#### Employee Assistance Program

**We are committed to the safety and wellbeing of our people, as reflected in our values of SPARCS.**

During FY23, the company launched the Employee Assistance Program ('EAP'). EAP is a voluntary professional service that is confidential, and available at no cost to employees for themselves and their immediate family members. It includes confidential counselling and coaching support and provides information and resources to support our employee's overall health and wellbeing, helping our people get the best out of their physical and mental health. Users are able to access the EAP via an online platform 24 hours a day, 7 days a week.

The EAP is facilitated through a global health and wellbeing solutions company.

#### Employee Inclusion and Diversity

**Employee inclusion and diversity is a core component of our company value of Respect. We are an organisation which takes time to consider the other perspective and embrace diversity of thought and backgrounds. On this basis we are inclusive, respecting all of our employees.**

At this point in time, we have not set any formal targets for employee inclusion and diversity. However, through our newly appointed Chief People Officer ('CPO'), we have committed to the collation and reporting of data which will inform the target setting for the organisation as a whole. The CPO holds management responsibility for employee inclusion and diversity and reports to the Managing Director. Matters are governed on behalf of the Board by the Remuneration & Nominations Committee.

Inclusion and diversity values are upheld through a combination of our Code of Conduct, company values, employee inductions, adherence to industry regulations



LFP team from left to right: Stoyan Ilich, Thushan Senadhi Pathiranalage, Yujia Liu, Jack Buchanan, King Yoong Foong, John Worsley

and our companywide Diversity Policy. The Diversity Policy sets out the Company's objectives and the processes whereby the Company will address, at a minimum, the objectives set out in Principle 1.5 of the ASX Principles and Recommendations. It expresses our commitment to inclusion and diversity at all levels of the organisation, regardless of gender, age, disabilities, ethnicity, beliefs, cultural background, and experience.

During FY23, we launched paid Parental Leave for all employees. This provides 8 weeks' parental leave for all parents regardless of gender. The Company will also continue superannuation payments on the paid and unpaid leave for up to 52 weeks

and the leave is available to men and women with minimum of 12 months service. The Company does not make any distinction between primary and secondary carers which means that all employees could take the leave at the birth or adoption of a child, same sex couples, surrogacy, etc.

Subsequent to the year end, employees and managers conducted training on Discrimination, Harassment & Bullying in line with our policy of zero tolerance. This will be incorporated into the Risk Matrix to identify and include psychosocial hazards and risk mitigation actions. As an equal opportunity employer, discrimination or harassment of any kind will not be tolerated.



# Our Policies

At Lithium Australia we promote a work environment where our workers feel welcomed and find the right incentives to progress in their career development. Our Gender Equality, Discrimination, Harassment, and Bullying, and Parental Leave policies are three instruments that help us to ensure we all enjoy the benefits of a healthy workplace.

A diverse and healthy workplace offers a myriad of benefits to our employees and our organisation. One of the benefits of a diverse workforce is potential for developing innovative solutions by bringing together individuals with unique perspectives and experiences, leading to a creative problem-solving mindset. We want to be an inclusive place, one that inspires a sense of belonging and boost the morale of our teams. Their physical and mental wellbeing are key for achieving our goals, and we reinforce daily these three policies with the objective of enhance our employee engagement and overall satisfaction.

Key statistics in relation to employees is summarised in the table below:

At 30 June 2023	Total Employees	% Female	12-month Attrition Rate <sup>1</sup>	Gender Pay Gap
Overall	64	33%	38%	9.0%
Corporate and Lithium Chemicals	17	41%	25%	
Battery Materials	9	33%	0%	
Battery Recycling	38	29%	52%	

1. The Gender Pay Gap includes all employees (Part-Time & Casuals) except for: MD/equivalent, heads of business, overseas reporting managers, non-binary employees and casually employed managers.

2. Attrition rate is calculated by dividing the number of full-time employees who have left by the average number of employees and then multiplying that figure by 100.

The Company's Gender Pay Gap of 9% is below the National average of 13%. A pay gap which is positive indicates an inequality in earnings that favours male employees on average. Attrition rates have been captured for the last few months of FY23. The high attrition rate is a key focus in FY24 to ensure that we have a stable workforce.

In terms of policy development and company initiatives, we are committed to the following activities in FY24:

- Develop a diverse hiring strategy
- Implement a Gender Equality Policy
- Develop a strategy to promote and ensure equal pay
- Continue to deliver broader employee training programs
- Develop strategies to lower attrition rates

**Workplace health and safety**

**At Lithium Australia, we choose safety first, every time. If we cannot do something safely then we will not do it. We regard workplace health and safety 'WHS' as fundamental to the success of the organisation. This commitment is upheld within our company values, under the acronym of SPARCS, to which our employees have determined that Safety is paramount.**

We have a duty to ensure the health and safety of any person who may be impacted by our activities; this extends to contractors, customers, neighbours, visitors, and members of the public. The Company recognises the legal requirement to comply with the Work Health and Safety Act 2022 (previously the Occupational Health & Safety Act

1984) and we ensure that the Act is made available to all parties.

During FY23 we placed a concerted effort into enhancing our safety culture, systems and processes, but remain conscious that there is still some way to go in achieving our goal of zero harm. We acknowledge the importance of continuously striving to improve WHS standards, meet and where possible exceed legislative obligations, prevent injury and ill-health, and demonstrate WHS leadership. We are a learning organisation using work related hazards and incidents/accidents to improve our safety culture, systems and controls to minimise the future potential harm to our employees and visitors to our facilities.

In FY23, our main focus was to consolidate a groupwide health and safety approach to ensure

there is alignment between our business divisions. The first step was establishing the Safety & Sustainability Leadership Council 'SSLC' to develop and promote a healthy and safe environment for all personnel across the Group. Council members are responsible for developing and implementing effective policy, procedures and systems relating to Health Safety and Environment. This will ensure that we comply with relevant regulations and standards. The SSLC will review and improve the effectiveness of these programs and regularly report to the Board on safety and sustainability matters.

We have several health and safety management systems in place including health monitoring through medical examinations, risk identification, and investigation processes that help make up our internal risk register. Periodic audits are in place that can be triggered by non-conformance, near-misses, and other hazard-related incidents.

Safety and compliance is led through the organisational line starting with the Managing Director and their direct reports with support from operational line leaders and functional support. We operate with single point accountability for safety at all of our sites. Under the newly established SSLC, site-based safety committees are now in effect. During FY23, to implement changes to the accountabilities of the Executive Leadership Team, we appointed of a newly created GM - Safety, Risk and Integration. These changes will assist to build momentum for Lithium Australia's next phase of business which is to 'Drive Growth' in FY25-26. This role will specifically provide an increased focus on matters which include safety and risk management, and crisis management.

Standard operating procedures 'SOP' are underpinned by a Job Safety and Environment Analysis 'JSEA' risk assessment with personnel expected to sign-off on the SOP's prior to

performing activities. A 'Take 5' or JSEA process is used to ensure non-routine activities are performed safely.

Some other key highlights during FY23 included the implementation of simple but effective controls to limit the frequency of events including:

- Installation of protection around processing plants to eliminate ability for contact with employees
- Raising of storage to reduce the ergonomic risk of bending from the waist with the back arched
- Installation of multiple mats with a single layer to significantly reduce the risk of slips, trips and falls
- The redirecting of cables off walkways to significantly reduce the risk of slips, trips and falls.

Over the past five years no LTIs or MTIs have been recorded within our Battery Materials division, a trend which was maintained in FY23. There was a single first-aid injury during the year, while eight

H&S Statistics	Corporate*	Battery Materials	Battery Recycling	Total
Metric	FY23	FY23	FY23	FY23
Total Recordable Injury Frequency Rate (TRIFR)	0.0	13.0	14.7	12.5
Total injuries	0	1	5	6
Lost Time Injury Frequency Rate (LTIFR)	0.0	0.0	14.7	10.4
Lost Time Injury ('LTI') number	0	0	1	1
Total number of hours worked	12,466	15,335	68,134	95,935
Total number of employees covered by OHS management system	8	10	43	61

\* Corporate data includes Lithium Chemicals.

^ TRIFR = Number of recordable injuries\* 200,000/Total man hours for the period.^

^^ LTIFR = Number of recorded LTI\* 1,000,000/Total man hours for the period.

Example of shared safety learning across the Lithium Australia Group

SHARED SAFETY LEARNING

Lithium Australia

### Mitigating a Furnace Loading Hazard

**Hazard Details**

The Chamber Furnace at VSPC Wacol takes two stacks of four crucibles, with one stack situated behind the



incidents/near-misses with potential to cause harm were recorded. During FY23, WHS assurance activities were introduced including regular procedural compliance inspections to ensure operating procedures are being followed, and house-keeping inspections conducted every second month. Annual air quality monitoring was introduced, with independent testing confirming that respirable dust and volatile organic compounds (VOC) levels are well below workplace exposure standards.

Health and Safety Risk Identification & Management

Risk identification and investigation is central to ensuring health and safety risks are mitigated appropriately, and if incidents occur, there are steps in place to amend the effects.

We use a Risk Matrix to ensure that the measures have mitigated the risk to the lowest acceptable and practicable residual risk. Tools, including JSEA and hazard and operability 'HAZOP' studies are used as a part of the hierarchy of controls to develop risk mitigation measures. Work related hazards and incidents are recorded and reported to the compliance officer who works with staff to develop and apply mitigative measures. Once root causes are found, mitigation measures are discussed at a senior level and later presented to the employees for consultation. If agreed and approved, necessary modifications are implemented.

Fire from end-of-life lithium-ion batteries remains our single highest risk to our employees. During FY23, we commenced the installation of fire walls and an off-gas and fume detection system at our Laverton North Recycling Facility. The combination of the walls and detection system increases the standard to that of our Campbellfield Recycling Facility.

Risks and Mitigation Strategies across the Company



- Employee training and inductions
- Visitor signing in/out
- Appointment of fire marshals
- Site specific evacuation plans
- First mover EOL battery collection and storage processes



- Implementation of technology to control exposure
- Personal protective equipment ('PPE')



Chemical

- Eliminating/substituting use of some chemicals eg, Battery Materials division phased out hydrogen peroxide
- Automation of processes
- Provision of dust/fume cabinets
- PPE eg, pressurised air hoods and half canister masks



Electrical

- Electrical equipment regularly tested
- RCD testing by licensed electricians
- Tag-out system for damaged equipment



Dust

- Installation of fume/dust cabinets
- Mobile dust extraction
- High-grade PPE

Health and Safety Training and Promotion

Lithium Australia recognises the importance of WHS training and promotion. The Company provides training to employees to ensure an understanding of good WHS practices, procedures, and regulatory requirements exists.

During FY23, training activities within our Battery Materials division included nineteen formal training sessions, including a workshop on safety leadership, first aid/CPR training and fire/evacuation training. Safety was promoted through eleven formal WH&S consultative committee meetings conducted over the year, and the introduction of weekly toolbox talks and safety working group meetings.

Thushan Senadhi Pathiranalage providing a brief safety induction to visitors to our LFP pilot plant in Wacol, Queensland



The Battery Recycling division uses fire resistant bags to collect and store batteries safely.



Pause for Safety

During June 2023, a Pause for Safety was held across the business. This was a purposeful intervention to discuss safety with all employees. A short presentation was delivered to our people to explain some of the frameworks utilised by the business and to explain why safety is our first priority. This was an opportunity for discussion and also included an exercise to identify workplace hazards.



# Environmental Stewardship

Lithium Australia creates customer-focused solutions for the lithium-ion circular battery materials industry. We are leading the way in delivering a circular economy in electrification and believe our actions have the potential to lower carbon footprints outside of our organisation.

## Climate Change

**Our operations will focus on how we can also limit our impact on the environment, including minimising our carbon footprint. We maintain that climate change is the greatest environmental challenge of our time and to be successful as a business, we must contribute in efforts to curtail the threat. Our carbon footprint and intensity will continue to be a critical indicator when examining and assessing future business opportunities and our overall strategic pathway. Matters around greenhouse gas emissions ('GHG') and energy management are governed by the Board through the Audit and Risk Committee.**

Due to our stage of development, we have not yet set targets for our carbon performance, however we seek to set targets and identify our objectives to utilise sources of energy

to limit our carbon footprint. Our three integrated business divisions have the technological platforms to positively impact global carbon emission targets.

Our Battery Recycling division seeks to underpin a circular economy for lithium-ion batteries, allowing the metals to be re purposed, increasing the overall electrification output and then lowering the requirement for metals to be sourced from the extractive industries.

Our Battery Materials division is at forefront of our mission to make a significant contribution to minimising our carbon footprint. Developing cathode powders for the development of lithium-ion batteries, assisting in the electrification of things which, coupled with clean sources of energy, will underpin lower carbon footprints.

Lastly, our Lithium Chemicals division is developing novel technologies to improve the recovery of lithium from hard rock mining.

With the potential to convert low-grade and waste spodumene into lithium chemicals, the reduction in the carbon consumption by the mining community could be significant.

In FY23, the Company undertook a further assessment of carbon emissions with the help of pecialists, Super Smart Energy. This second GHG assessment was conducted to calculate the Scope 1 and 2 emissions associated with our activities. The assessment covered Battery Recycling operations, the Battery Materials pilot plant in Queensland and corporate offices. Emission estimates were prepared using methods and emissions factors from the National Greenhouse and Energy Reporting standards ('NGER'). Our performance data is presented in the tables below. In FY24, the Company will continue to undertake Scope 1 and 2 assessments to inform our carbon baseline.

GHG Emissions	Unit	Corporate and Lithium Chemicals		Battery Materials		Battery Recycling		Total	
		FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22
Scope 1 emissions	(t CO <sub>2</sub> )	n/a	n/a	4	5	8	21	12	26
Scope 2 emissions	(t CO <sub>2</sub> )	14	21	120	116	213	266	347	403
Scope 1&2 emissions	(t CO <sub>2</sub> )	14	21	124	121	222	287	356	429

Energy Consumed	Unit	Corporate and Lithium Chemicals		Battery Materials		Battery Recycling		Total	
		FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22
Diesel combusted	GJ	0	0	0	0	93	219	93	219
Grid electricity purchased	GJ	97	112	594	523	907	996	1,598	1,631
Liquefied Petroleum Gas 'LPG'	GJ	0	0	68	82	16	98	84	180
Total Energy consumed	GJ	97	112	662	606*	1,016	1,313	1,775	2,031

Battery Materials grid electricity was purchased from Queensland grid.  
LPG used for thermal processes.  
\*Includes 1GJ from combusted gasoline.  
Data was obtained from Lithium Australia Greenhouse Gas Assessment prepared by Super Smart Energy.

Energy Consumption	Unit	Corporate and Lithium Chemical	Battery Materials	Battery Recycling	Total
Diesel combusted	kL	0	0	3	3
Electricity purchased	MWh	27	164	251	442
LPG	kL	0	3	1	4

## TCFD

To assist with global efforts in tackling climate change, the Company has commenced working towards alignment with the Task Force on Climate-related Financial Disclosures ('TCFD') framework.

The TCFD framework is structured around four important areas: governance, strategy, risk management, and metrics and targets. The disclosure recommendations provide transparency on our climate-related risk exposure and will help us to implement appropriate mitigation measures and capture opportunities.

The Board has delegated ESG oversight to the Audit and Risk Committee, which is also responsible for approving our ESG reports. The Company's Audit and Risk Committee's Charter will also be reviewed to ensure ESG matters are included. A Company-wide ESG working group, the Safety and Sustainability Leadership Counsel, has been developed comprising of members from all sections of the organisation. This group will help to strengthen ESG performance and ensure effective implementation of the TCFD requirements. TCFD development is the responsibility of the Chief Financial Officer. We plan to continue our preparedness for TCFD in the coming year and progress on our multi-year roadmap that will see ongoing improvement.

**Governance:** The Company's governance around climate-related risks and opportunities.

**Strategy:** The actual and potential impacts of climate-related risks and opportunities on the Company's business, strategy, and financial planning.

**Risk Management:** The process used by the Company to identify, assess, and manage climate-related risks.

**Metrics & Targets:** The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

## GOVERNANCE

## STRATEGY

## RISK MANAGEMENT

## METRICS & TARGETS

## Resource recovery, Circularity and Waste management

Resource scarcity and regulations are driving the need for greater materials efficiency with lower energy consumption and emissions. In this context, it becomes evident that we need to develop effective recycling solutions. Companies that develop these solutions can benefit from increased revenues, market share, stronger competitive positioning, and enhanced brand value. The Battery Stewardship Counsel, which operates the ACCC accredited battery stewardship scheme, estimates that only about 10% of end-of-life (EOL) lithium-ion batteries in Australia are made available for recycling. Most end up in landfill.

The Company continues to investigate methods to utilise these waste products into sustainable solutions. The Company's main goal is to reintroduce the recycled products as raw materials back into the market to help reduce environmental impacts caused by the mining of limited new materials and make available higher volumes of these critical materials.

Improper disposal of EOL batteries also poses a contamination threat to the environment that includes heavy metal migration and fire risks. Recovery of battery metals is important as they are limited resources with rapidly escalating demand that cannot be met solely by mining. Recycling is the key to changing the global practice and reliance on virgin materials. This will continue to be the Company's focus and will contribute to solving climate-related risks. At our Battery Recycling division, we receive many EOL batteries comprising of different chemistries, shapes, and sizes such as household batteries and electrical vehicle batteries. Lithium-ion batteries are shredded and processed to capture the active metals which are later sold back into the market, refined,

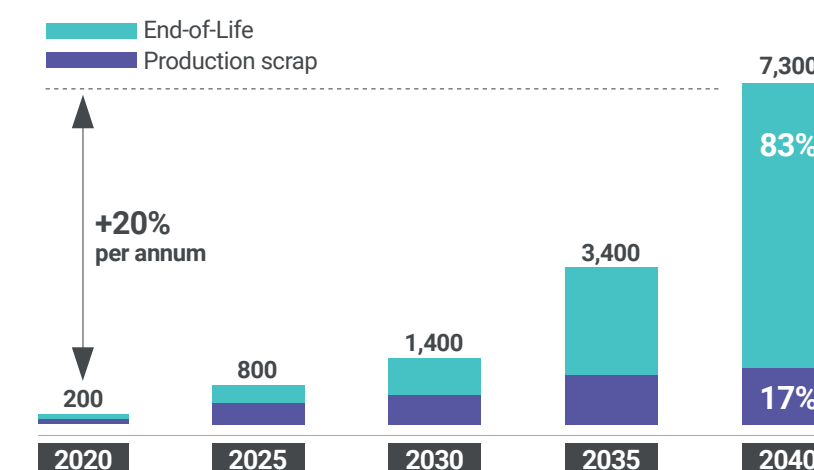
## Case Study

### LIB Waste Recovery

Lithium-ion batteries ('LIB') waste in Australia is set to increase significantly over the next decade. When not in use, LIBs generate large amounts of energy and present a significant fire hazard.

To capture opportunities and avoid hazards, LIBs must be dealt with appropriately through recycling when entering waste streams. As seen in the graphic below, currently production waste from gigafactories provides the volume for battery recycling however this is expected to shift significantly over the next few decades.

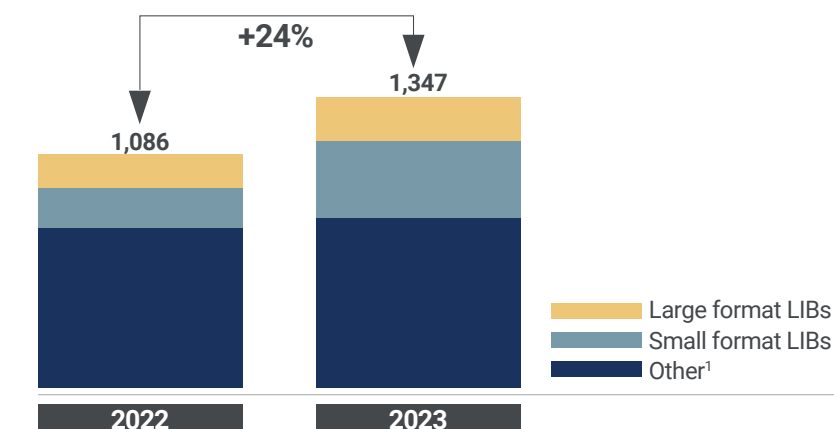
### Available battery material for recycling by source, kt



MCKinsey Battery Insights Demand Model 2022

Within our Battery Recycling division a 24% year on year increase in battery collections was observed driven by a 41% increase in large format LIBs (>5kg) and an 80% increase in small format LIBs.

### Recycling volume growth (tonnes)



1. 'Other' includes alkaline batteries, legacy chemistries and other collections (power tools and e-waste).





Sustainability Victoria partnered with Lithium Australia to develop an upgraded CAPS plant as shown in the image above.

and used to produce new lithium-ion batteries.

Our Battery Recycling division has previously been granted a 20-year operating licence from EPA Victoria for its activity site in Campbellfield, Victoria. The prescribed activities allow the division to reprocess specified electronic waste, including spent batteries, at a capacity exceeding 500 tonnes per annum.

Our Battery Materials division regards resource recovery and circularity as one of the keys to sustainable and cost-effective manufacture of LFP. We aim to be a leader in this area through incorporating recycled battery materials such as lithium and waste iron sources into its LFP product and has already demonstrated the suitability of the RC Process to

use these materials. For Battery Materials, resource recovery involves recovery and utilisation of valuable components from what would conventionally have been regarded as a waste stream. The recovery of lithium as lithium phosphate from the black mass (cathode & anode materials) produced when EOL batteries are recycled, is a suitable feedstock for LFP manufacture.

Our Battery Materials division also recycles paper, cardboard, plastic, and metal from our site via the municipal recycling bin to minimise waste generation. The largest risks associated with resource recovery are ensuring the recovered products meet required quality standards and that the recovery process is economically viable to continue at a large scale.

Our Lithium Chemicals division is developing a proprietary extraction process, LieNA®, which can re-purpose mine wastes arising from current hard rock physical separation methods, by converting them into high quality lithium chemicals. At present, fine and/or low-grade spodumene is generally discharged to either waste or tailings. LieNA® can recover lithium from this type of material, representing an opportunity to increase ore reserves and improve resource sustainability without increasing the scale of existing mining operations. Along with our joint development partner, Mineral Resources Limited (ASX: MIN), we are seeking to advance this technology towards commercialisation.

## Case Study

### Copper, Aluminium, Plastics Separation ('CAPS')

**The Battery Recycling division's achieved productivity improvements during FY23 through improvements in the recycling process made in partnership with Sustainability Victoria. The projects related to the installation and commissioning of new process water management equipment at its Campbellfield processing facility.**

Sustainability Victoria provided a grant totalling \$201,399 to support the following two project phases:

- Phase 1: Process Water Treatment and Management
- Phase 2: Copper and Aluminium Separation & Recovery

The process optimisations have now resulted in significant uplift of recycled copper quality, which the Company expects will increase the value of recovered copper by up to 60% based on recent commercial offers. Furthermore, the optimisations and process improvements are also expected to increase final mixed metal dust output by 15%, representing a significant uplift in yield to drive further operating leverage.

## THE BATTERY RECYCLING PROCESS

### COLLECTION >>

- Innovative collection equipment
- Approx. 715 drop-off points
- Engaged with partners

### STORAGE >>

- EPA approved facilities with high safety and environmental standards in place

### SORTING >>

- Efficient semi-automated process
- Sort a mixture of battery types into categories

### PROCESSING >>

- Recovers over 90% of a lithium-ion battery
- Onshore battery processing

### SALES >>

- Saleable products including copper, aluminium, steel and mixed metal dust

## Water and Wastewater Management

**Lithium Australia recognises water as a scarce resource and will strive to reduce our freshwater usage and minimise wastewater. This will be achieved through efficient use of water and the recycling or repurposing of wastewater where feasible.**

At our Battery Recycling division, the wastewater produced is considered reportable priority waste ('RPW') and is a requirement of the Environmental Protection Authority ('EPA') to be controlled and tracked following the RPW guidelines and requirements. In accordance with the EPA requirements, these systems have been implemented. We have implemented a plan to improve stormwater management at our Campbellfield site. This plan was endorsed by the EPA. Site tanks are currently in place to capture stormwater and reduce the use of potable water. The stormwater captured is not contaminated with waste from battery recycling activities. This is due to all battery recycling activities being completed undercover, inside the factory, with internals being fully banded.

During FY23, the Campbellfield facility consumed 182kL of water.

This included consumption for process, toilets, kitchen, factory cleaning and dust control. In FY23, our Battery Recycling division produced approximately 39kL of wastewater.

Our Battery Material division's approach to management of water usage is to further optimise the RC Process by continuously reducing water usage, selecting technologies that allow water use to be minimised through efficient production of demineralised water, and through recycling or repurposing of wastewater streams.

The key drivers for this are selecting demineralisation technologies that maximise the recovery of pure water and minimise the reject mineral containing stream. The reject mineral containing stream will be repurposed for cleaning of equipment and plant process use (e.g., cooling tower make-up). The solids content of slurry process steps will be maximised so as to minimise demineralised water requirement and energy use in spray drying. All personnel are trained on the requirements for handling and disposing of wastewater.

**Approximately 25kL of wastewater at our Battery Materials division was reused in FY23**



Approximately 269kL of potable water is purchased each year by our Battery Materials division from Queensland Urban Utilities ("QUU"). Approximately 50kL of wastewater is generated per year from the demineralisation water plant, of which about 50% is repurposed for cooling tower make-up and off-gas scrubbing. We have a trade waste licence with QUU for the disposal of excess demineralised water reject and rinse water from cleaning laboratory equipment. Wastewater containing significant levels of chemical contaminants are collected in IBC tanks and disposed of via a licensed waste disposal facility

(currently Cleanaway). Approximately 3kL of this contaminated wastewater is generated annually.

**Sustainable Products**

Provision of sustainable products is one of the main objectives of the Company. Our Battery Materials and Battery Recycling divisions both possess significant business advantages given that lithium-ion batteries are expected to be a key element in society's energy transition to renewables. The Battery Recycling division operates Australia's only EPA-approved battery recycling facilities in

Melbourne. To meet surging demand, plans are underway to expand activities across Australia.

Our LFP product is currently at laboratory and pilot plant scale. From the beginning, our management approach has been to focus on nickel and cobalt free cathode materials and to demonstrate the potential to incorporate lithium, iron and phosphate from recycled batteries and other waste streams into the LFP product. The integration of recycled battery materials and waste iron sources into the LFP, ensures our product is sustainable.

Water treatment plant at our Campbellfield battery recycling facility.







Lithium Australia's FY23 Sustainability Report was prepared in collaboration with sustainability consultants Futureproof Sustainability.

For more information, visit their website: [futureproofconsulting.com.au](https://futureproofconsulting.com.au)

Lithium Australia  
Level 1,  
677 Murray Street  
West Perth WA 6005  
T: +61 8 6145 0288

**[lithium-au.com](https://lithium-au.com)**