



Department of
Jobs, Tourism, Science
and Innovation

Strategy Update Western Australia's Future Battery and Critical Minerals Industries

November 2020 – November 2022



Minister's foreword

This Strategy Update outlines the Western Australian Government's ongoing commitment to the development of the state's future battery and critical minerals industries.

Since the launch of the Future Battery Industry Strategy in January 2019, the WA Government has worked across government and with industry to implement the strategy's vision and objectives. We have attracted significant investment in local mining and processing projects, expanded our contribution to the global battery supply chain and created local jobs.

Market challenges and supply chain disruptions have prompted a refocus of the strategy's implementation activities to support the changing needs of industry and position WA to respond to global partners seeking alternative suppliers of battery and critical minerals and materials.

The WA Government has committed funding to attract the establishment of local operations in battery precursor manufacturing, the next step for the state in the battery value chain. This will cement WA as a destination for value-add activities and advanced chemical manufacturing and help unlock further opportunities to grow the industry.

It is imperative that we seize this opportunity to support sustainable development of the industry and I am confident our planned next steps will continue to progress the government's vision for Western Australia to host a world-leading, value-adding industry by 2025.

Hon Bill Johnston MLA

Minister for Mines and Petroleum; Energy

Vision

In 2025, Western Australian has a world leading, sustainable, value-adding future battery industry that provides local jobs, contributes to skill development and economic diversification and benefits regional communities.



Ministerial Taskforce

The WA Government recognises the importance of working closely with industry to deliver its vision and has therefore updated the Ministerial Taskforce to comprise leading industry players, including:

- » Albemarle Lithium Pty Ltd
- » Association of Mining and Exploration Companies
- » Australian Manufacturing Workers' Union
- » Australian Services Union
- » Australian Vanadium Limited
- » BHP Nickel West
- » Chamber of Commerce and Industry WA
- » Chamber of Minerals and Energy WA
- » Coogee Chemicals
- » EcoGraf Limited
- » Lisle Group
- » Lycopodium
- » Lynas Corporation
- » Magellan Power
- » Northern Minerals
- » Pilbara Minerals
- » Primero
- » Tianqi Lithium Australia

Priority 1

Growing our participation in global supply chains

Changing dynamics in global supply chains provides an opportunity to promote our comparative advantages and increase participation in existing and emerging markets.

For Western Australia to be globally recognised as a leading producer and exporter of battery and critical minerals, materials, technology and expertise, it is imperative that we increase our integration into global supply chains.

The Western Australian Government is working with industry to build greater awareness of our capability and comparative advantages to define trade and investment opportunities for Western Australia in existing and emerging global supply chains, including those relating to renewable energy, defence, aerospace and advanced manufacturing.

Next steps

- » Explore existing and emerging trends in global supply chains.
- » Identify trade and investment opportunities aligned to our comparative advantages.



Image courtesy of BHP Nickel West

Priority 2

Promoting our investment opportunities

Promoting investment across the breadth of the value chain in Western Australia will diversify our industry and create jobs.

Raising Western Australia's profile as a strategic partner and investment destination is critical to attracting investment.

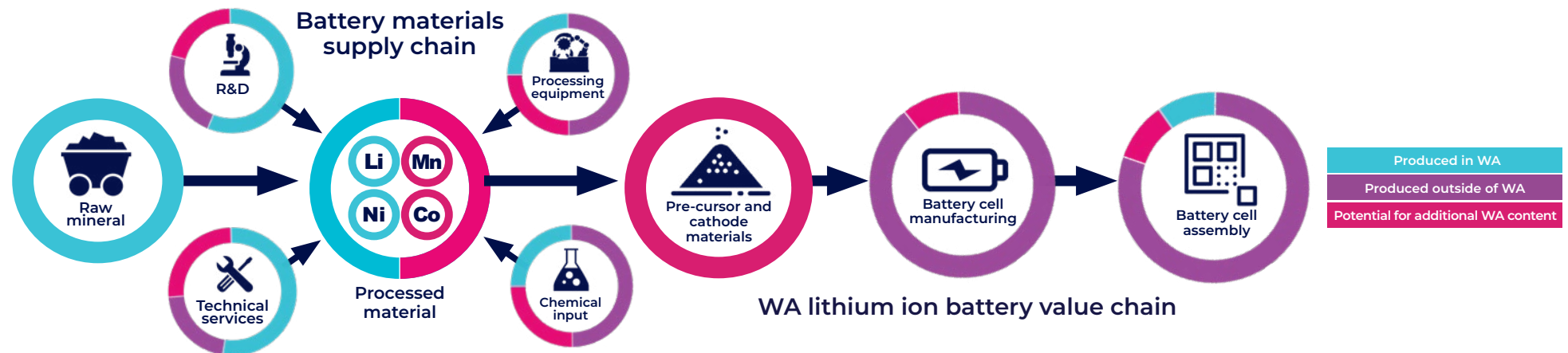
The Western Australian Government is working with industry to facilitate investment in mining, processing and advanced manufacturing projects across the battery and critical minerals value chain. The government is committed to attracting investment in pre-cursor cathode active materials manufacturing as the next value-add step for our industry.

Next steps

- » Facilitate global investment in pre-cursor / cathode active materials manufacturing in Western Australia
- » Market Western Australia's capabilities and comparative advantages to key overseas markets
- » Promote specific local investment opportunities across the breadth of the value chain
- » Explore partnership and collaboration opportunities with international stakeholders
- » Facilitate projects and provide support through access to strategic industrial land and common-user infrastructure

In focus: Pre-cursor manufacturing

Successful establishment of pre-cursor cathode active materials manufacturing in Western Australia supports the state's vision of having a value-adding industry and may unlock more opportunities to move further along the value chain.



Priority 3

Certifying our battery minerals

Certifying Western Australia's battery minerals could create a market advantage for our local industry.

Purchasers of products containing battery and critical minerals are seeking greater transparency of the environmental, social and governance standards across the supply chain.

Certifying our minerals could differentiate Western Australian producers as suppliers of choice in a competitive global environment. This would leverage and market Western Australia's track record and experience in mining, our low sovereign risk, high environmental and social standards, and tried-and-tested regulatory framework.

Next steps

- » Work with the Future Battery Industry Cooperative Research Centre to determine if a certification scheme provides value to the Western Australian industry and, if so, to identify a preferred certification scheme suitable for Western Australian industry.

In focus: Future Battery Industry Cooperative Research Centre (FBI CRC)

- » The FBI CRC, headquartered in Western Australia, is a \$124 million¹ research collaboration between the state and federal governments, industry and the universities. It aims to build a highly competitive future battery industry in Australia through a comprehensive research and development agenda.
- » The Western Australian Government has committed \$6 million towards the FBI CRC whose research program is closely aligned to the Western Australian Future Battery Industry Strategy and informs the delivery of several objectives outlined in this document.
- » The FBI CRC has completed research which confirms the technical and commercial feasibility of establishing lithium ion battery precursor manufacturing in Western Australia as the foundation for laboratory and pilot scale testing. The FBI CRC's next step is to establish a pilot plant in Western Australia which will prove the state's capabilities in cathode precursor production.
- » The FBI CRC is also undertaking research relating to the Government's objective of certifying Western Australia's battery minerals in order to create market advantage for local industry.

¹ Represents both cash and in-kind contributions

Priority 4

Supporting energy storage applications

Increasing the uptake of battery energy storage will support new industry development opportunities.

Large and small-scale batteries offer opportunities for low cost, low emissions energy, and will form a large part of Western Australia's energy transformation into the future.

The increasing uptake of batteries in rural and remote communities, as well as emerging applications in mining, defence and other advanced manufacturing industries will help to create new jobs, skills and technological capabilities in the assembly, installation and management of energy storage in Western Australia.

Next steps

- » Promote the uptake and integration of batteries across a range of settings and industries in Western Australia.
- » Support enhanced workforce capability in the assembly, installation, and management of batteries.



Priority 5

Developing our local capability

Strengthening our workforce capability will support investment and meet industry needs.

Western Australia has a highly-skilled and experienced workforce with strong capabilities developed through our world-leading resources sector.

The Western Australian Government is working to ensure our local workforce is ready to meet the skills and capabilities required by value-adding activities in the battery and critical minerals industries.

The government is working with local industry to identify and address skills gaps across the value chain, especially in emerging opportunities involving downstream processing, advanced manufacturing and the deployment of energy storage applications.

Next steps

- » Analyse skill and job requirements for value-add activities in the battery and critical minerals industry.
- » Update existing training packages or develop and implement new training packages to fill skills gaps.



Contact us

Department of Jobs, Tourism, Science and Innovation
Level 11, 1 William Street
Perth Western Australia 6000
Ph: +61 8 6277 3000
jtsi@jtsi.wa.gov.au