GOVERNMENT OF WESTERN AUSTRALIA

Department of
Energy and Economic Diversification

Western Australia's Battery and Critical Minerals Strategy 2024–2030

Acknowledgement of Country

The Government of Western Australia acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal and Torres Strait Islander communities and their cultures, and to Elders past and present.

Cover image: Tianqi Lithium Energy Australia's lithium hydroxide processing plant, Kwinana, in Western Australia. Credit: Tianqi Lithium Energy Australia.

Premier's foreword

Critical minerals are the centrepiece of Western Australia's economic diversification story.

For decades, Western Australia has enjoyed strong economic growth as a reliable and ethical exporter of minerals and energy, including critical minerals.

This strategy looks to build on this foundation to capture more value onshore from Western Australia's abundant critical minerals, through activities such as processing and manufacturing higher-value materials and products.

The success of this strategy will mean a more prosperous and resilient economy, more value shared with our regional and Aboriginal communities and, for other countries, greater access to the minerals and materials needed to decarbonise and grow.

Our first Future Battery Industry Strategy was released in 2019. Since then, there has been significant investment in the development of new mining operations and the establishment of a multi-billion-dollar advanced processing industry of global significance.

The path to success has its challenges. Fierce international competition and volatile pricing will invariably lead to ups and downs for the industry, with low prices an immediate challenge for lithium and nickel producers.

In a competitive world, we've proven that more processing and manufacturing can be done here in Western Australia. Producing this strategy is just one of the Western Australian Government's actions to ensure our state remains an attractive investment destination. Keeping Western Australia at the cutting edge of battery technology and innovation will help maintain the flow of good jobs through the 21st century.

The Western Australian Government will use a targeted approach to implement the strategy. We will take action where we're well placed to act, where our efforts will increase investment, and in a way that maximises outcomes for the Western Australian people.

Right now, this means a more efficient approvals system, planning and investment in common user infrastructure and targeted support for strategically important projects.

I look forward to working with all stakeholders, including industry, our regional and Aboriginal communities, and the Australian Government to deliver this promising future.

Hon Roger Cook MLA

Premier; Minister for State Development; Trade and Investment; Economic Diversification

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Vision

Western Australia will have an internationally competitive, ethical and value adding battery and critical minerals industry that enables global decarbonisation, underpins our economic diversification and delivers meaningful outcomes for regional communities.

Goals

Become a destination of choice for critical minerals mining, processing and manufacturing

Decarbonise global economies by supplying high-ESG critical minerals, materials and products

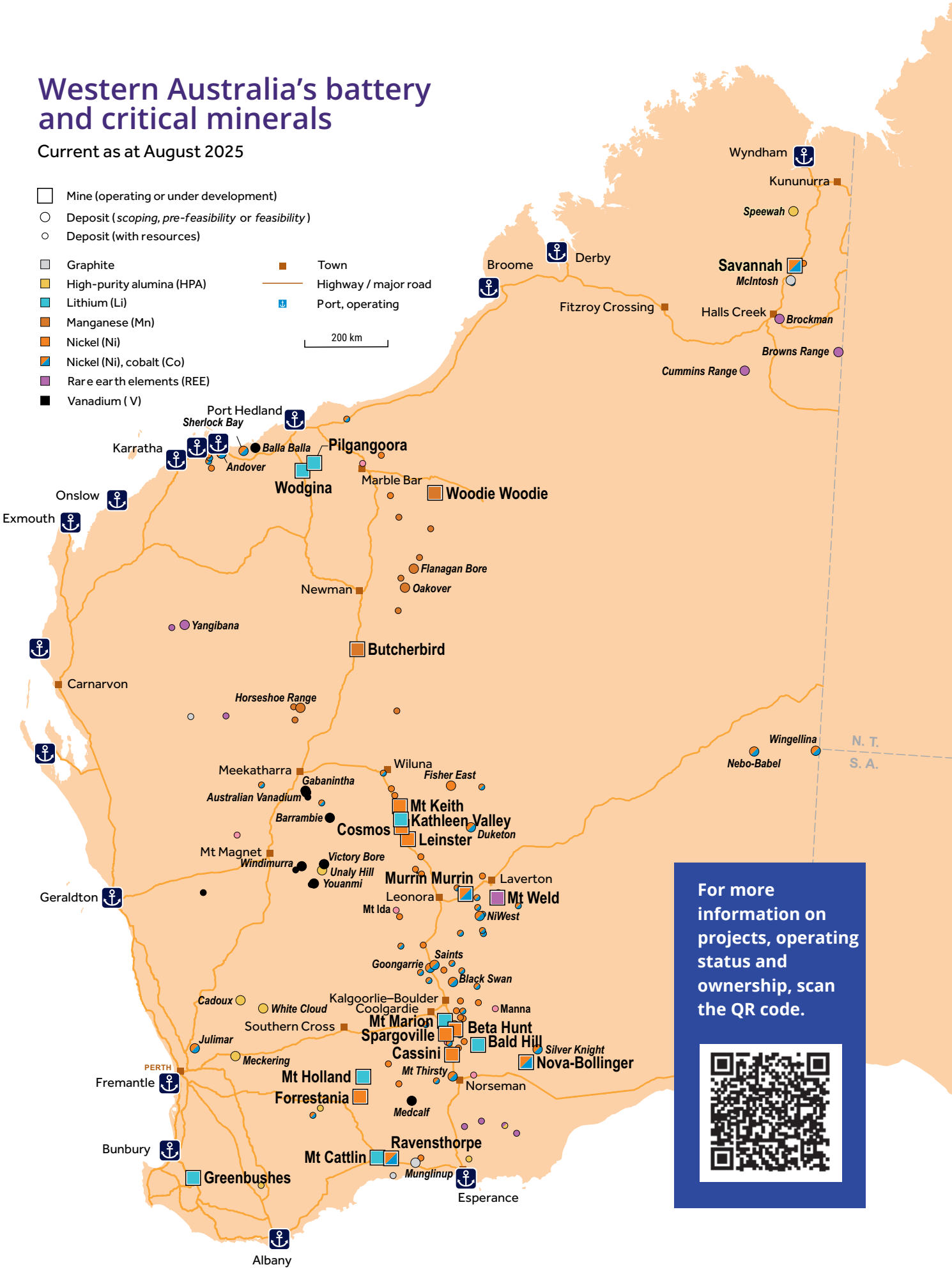
Create quality jobs and support positive outcomes for Aboriginal people

Focus areas

- Unlock investment in enabling infrastructure and project-ready land
- Accelerate research and skills development
- Attract investment through strategic partnerships and incentives
- Ensure robust and efficient ESG frameworks
- Engage and share benefits with Aboriginal people and communities
- Continue to support strategically important projects

Western Australia's battery and critical minerals

Current as at August 2025



For more information on projects, operating status and ownership, scan the QR code.

1. Introduction

Advanced processing of critical minerals is identified as one of nine targeted sector-specific opportunities outlined in Western Australia's economic development framework, *Future State: Accelerating Diversify WA.*

This strategy outlines the Western Australian Government's vision and approach to developing the State's battery and critical minerals sector.

The Western Australian Government aims to capture more value onshore, with a particular focus on expanding our advanced processing capabilities (or 'midstream' industries).

Which minerals are 'critical'?

Critical minerals are metallic or non-metallic elements that are essential to the functioning of modern technologies, economies or national security, and whose supply chains are at risk of disruption.

Individual countries maintain their own lists of critical minerals based on the relative importance of particular minerals to their industrial needs and strategic assessment of supply risks.

The Western Australian Government's industry support initiatives will take into consideration the critical mineral lists of Australia and our trading partners.

Critical minerals are key enablers of the global energy transition as they are essential for manufacturing batteries, electric cars, wind turbines and solar panels. They are also essential for defence systems and many other advanced technologies.

The International Energy Agency predicts demand for critical minerals could be up to four times higher in 2040 than in 2022, driven by growth in electric vehicle sales and renewable energy projects. Countries around the world are competing to cement their place in critical minerals supply chains.

As a well-established, reliable and ethical supplier of critical minerals and processed materials, Western Australia is well placed to expand our role in global supply chains. Some of the world's largest critical minerals producers have already committed to developing processing operations in Western Australia.

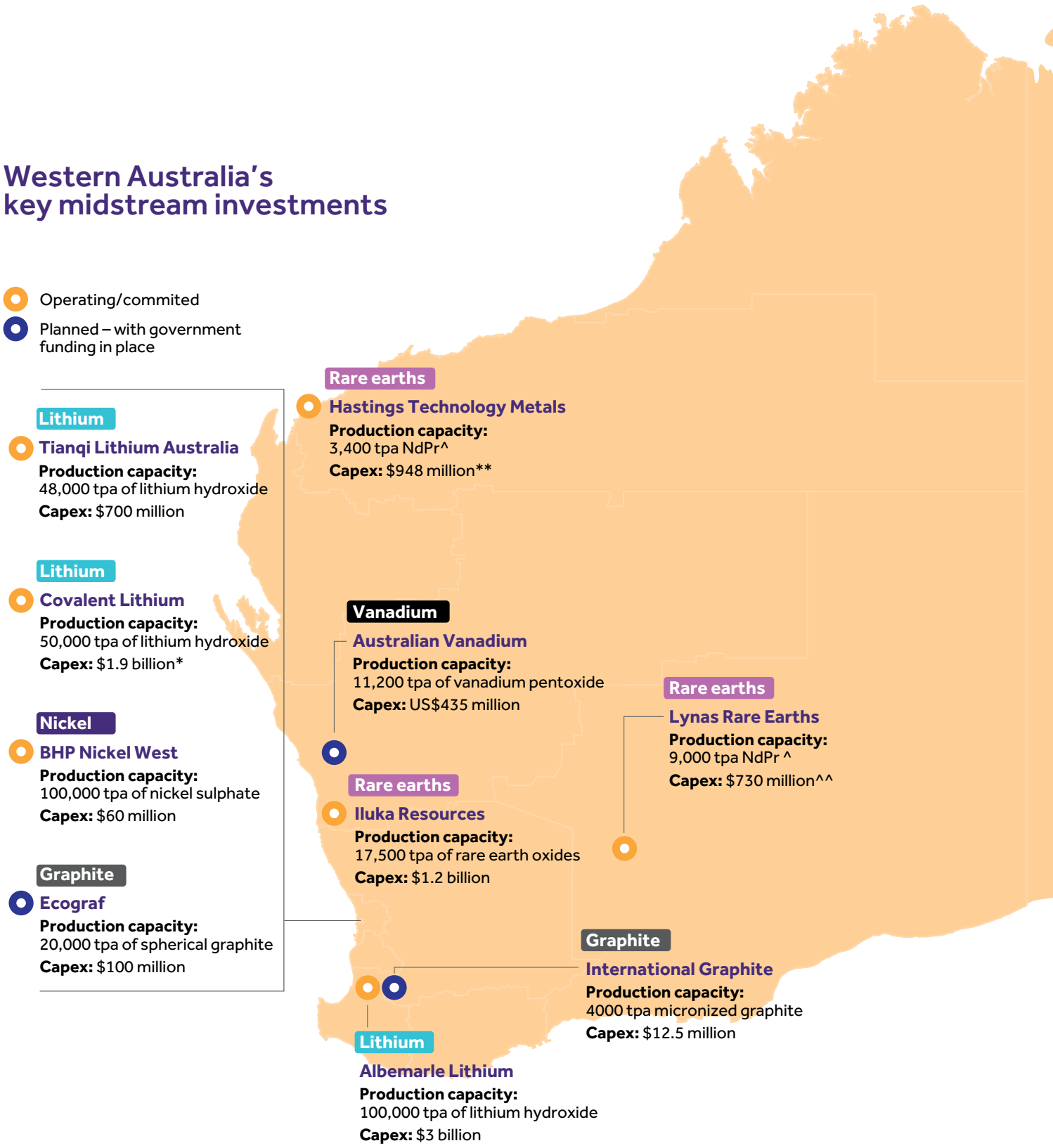
However, competition for capital is intense, particularly for downstream processing projects. Many countries have adopted bold new policies to grow their critical minerals industries, and this is changing the investment landscape.

Through this strategy, the Western Australian Government is seeking to leverage our State's existing strengths and address growing cost pressures to support a resilient and internationally competitive local industry.

This strategy was developed in consultation with key stakeholders, including representatives from industry, research organisations, and the Australian Government. More than 50 written submissions were received in response to a public discussion paper.

The Western Australian Government will continue to consult and collaborate with stakeholders throughout the strategy's implementation phase.

Western Australia's key midstream investments



tpa = tonnes per annum
*inclusive of mine and concentrator
** Total project cost for stage 1 and 2
^ Neodymium and Praseodymium equivalent
^^ Figure inclusive of Malaysian plant upgrades
Production capacity and capex figures are provided as estimates only. Actual production and costs may vary

2. Western Australia's advantages

Western Australia is internationally recognised as having one of the world's most successful resource sectors.

This is due to many factors, including the diversity and abundance of our natural resources and history of effectively promoting our prospectivity and development opportunities.

Western Australia has some of the most significant critical mineral deposits in the world, including virtually all the minerals on Australia's critical minerals list. We are a leading supplier of lithium, nickel, cobalt, manganese, mineral sands and rare earths.

Western Australia also has advanced critical mineral processing capabilities, with about $9 billion invested across large-scale battery chemicals and rare earth refineries since 2015.

Further projects are being developed across a range of commodities and products.

Western Australia's comparative advantages

Mineral endowment

An abundance and diversity of critical minerals deposits and mines, and significant resource upside potential.

Existing capabilities

A well-established resources industry, including industrial precincts, infrastructure, and services and transport networks.

Reliability

A stable investment environment with low sovereign risk, governed by strong democratic institutions and free market rules.

Ethical standards

Robust and transparent regulatory frameworks, ensuring projects meet high environmental, social and governance (ESG) standards.

Image: Graphite concentrate feedstock for the production of micronised graphite. Credit: International Graphite

3. Target opportunities

Western Australia is already a major player in global battery and critical minerals supply chains, mainly as a trusted and reliable supplier of raw materials.

While the production and processing of battery minerals is expected to remain the major driver of investment in the State's critical minerals sector in coming years, the mining and refining of other critical minerals will also support future industry development and diversification of the industry.

This strategy aims to maintain the competitiveness and resilience of our existing industries, while also capturing a growing share of midstream processing and, where viable, downstream manufacturing. This will enable us to realise the full value of our natural resources and maximise the benefits flowing to Western Australian communities.

Battery mineral value chain

The battery mineral value chain can be defined in three segments:

Upstream:

Exploration, mining and some processing.

Midstream:

Refining and processing of minerals, including manufacture of battery chemicals and active materials.

Downstream:

Manufacturing of goods, such as battery cells and assembled battery packs, and provision of services, including maintenance and end-of-life activities.

Western Australia will continue to support upstream industries

Western Australia is internationally renowned for its exploration and mining capabilities.

These upstream strengths underpin Western Australia's comparative advantages, and continuing to find and develop critical mineral deposits is crucial to achieving the vision of this strategy. Further, with structural market changes and low prices currently affecting our nickel and lithium producers, maintaining the resilience of our existing industries is a key focus of this strategy.

Western Australia will prioritise midstream development

Building on our upstream strengths, Western Australia has established a global-scale midstream critical minerals industry. This includes investments in projects manufacturing battery chemicals, such as lithium hydroxide and nickel sulphate, and the processing of rare earths.

Additional critical mineral processing activities are planned, including production of battery-grade vanadium, graphite, high purity alumina, cobalt sulphate, manganese sulphate and precursor cathode active materials, with significant funding already committed to many of these ventures.

Global demand for battery chemicals and other processed critical minerals supports further investment, and the key priority of this strategy is to expand Western Australia's midstream industries.

Western Australia will remain open-minded to downstream opportunities

Success in the midstream sector may unlock further opportunities to advance local downstream industries. While Western Australia's fledgling downstream capabilities, strong international competition and relatively low domestic demand are factors to overcome, there are likely to be opportunities for Western Australia to further develop battery manufacturing.

As Australia's primary source of battery chemicals, Western Australia is well placed to capitalise on the advantages of co-location to pursue niche battery manufacturing opportunities. For example, the creation of custom-made solutions to support the electrification of the State's power grids and off-grid mining industries. In particular, vanadium redox flow batteries are emerging as a long duration storage technology that could be made locally to support domestic decarbonisation.

4. Vision and goals

Vision

Western Australia will have an internationally competitive, ethical and value adding battery and critical minerals industry that enables global decarbonisation, underpins our economic diversification and delivers meaningful outcomes for regional communities.

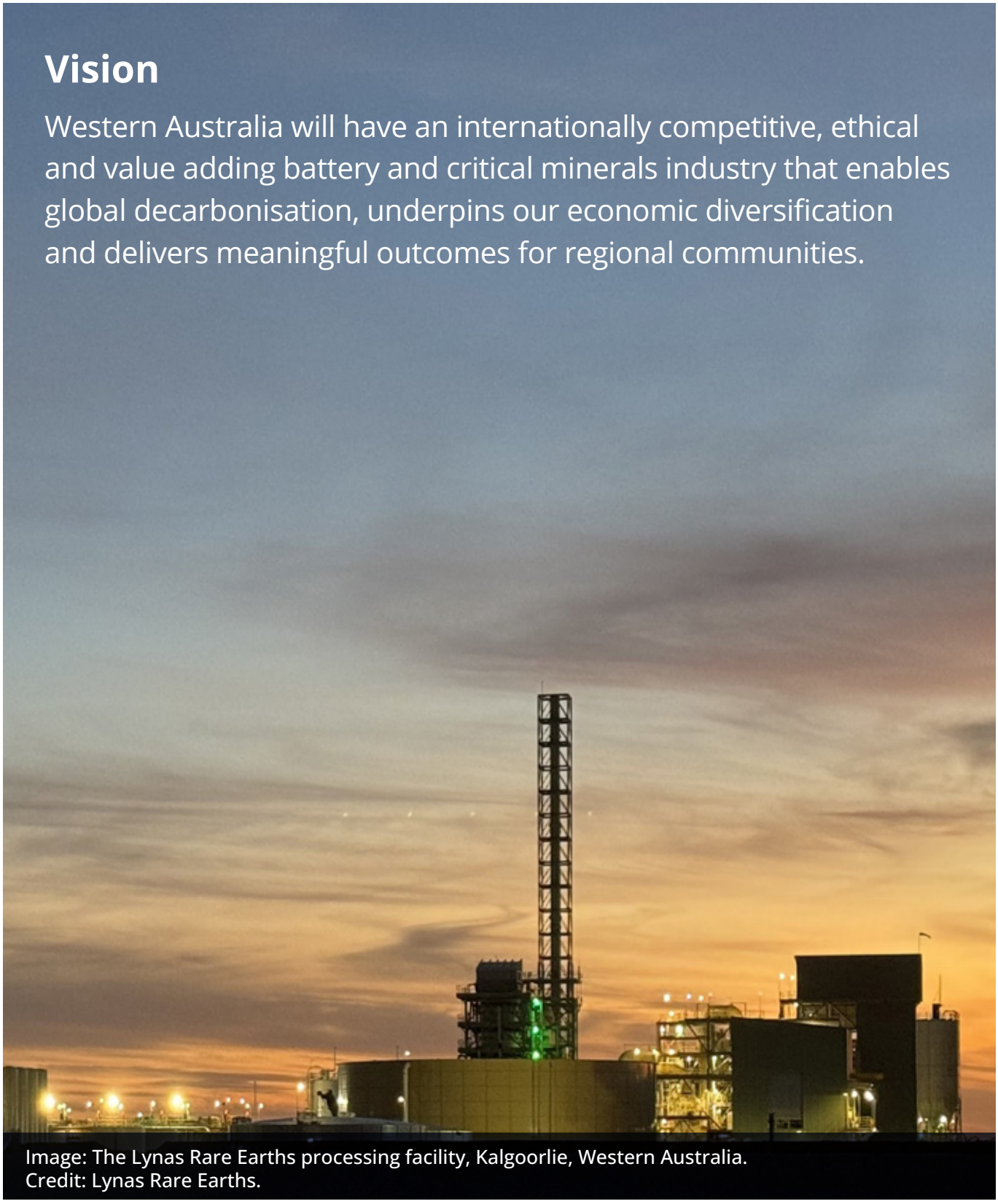


Image: The Lynas Rare Earths processing facility, Kalgoorlie, Western Australia.
Credit: Lynas Rare Earths.

Goal 1: Western Australia to become a destination of choice for critical minerals mining, processing and manufacturing

Objectives:

- find and develop more critical minerals deposits, enter new critical minerals value chains and increase our share of global production
- increase onshore processing of raw materials to higher-value products and expand our critical minerals processing capabilities
- scale up current processing activities through pilot, demonstration and full-scale projects
- pursue opportunities to manufacture end products, where Western Australia has a comparative advantage, and the opportunity aligns with broader Government strategies
- improve our resilience to supply chain shocks.

Goal 2: Help decarbonise global economies by supplying high-ESG critical minerals, materials and products

Objectives:

- promote and improve our environmental, social and governance (ESG) standards and performance
- continue to minimise local environmental impacts of critical minerals mining and processing through technological advancements and use of low-emissions energy
- reduce global greenhouse gas emissions by mining and processing critical minerals in Western Australia
- maintain environmental and cultural values as the industry grows.

Goal 3: Create quality jobs and support positive outcomes for Aboriginal people

Objectives:

- create quality jobs and a stronger, more resilient economy
- attract the best talent to Western Australia to build and operate projects and carry out world-leading research
- share value with regional communities and Aboriginal people committed to many of these ventures.

5. Priorities

This strategy identifies six focus areas that will guide the Western Australian Government's policy decisions to 2030:

- unlocking investment in enabling infrastructure and project-ready land
- accelerating research and skills development
- attracting investment through strategic partnerships and incentives
- ensuring robust and efficient environmental, social and governance (ESG) frameworks
- engaging with and sharing benefits with Aboriginal people and communities
- continuing to support strategically important projects.

This approach provides a framework to support agile and strategic decision-making. The Western Australian Government's actions will evolve as the needs of the industry change.

In the near-term, there are three priorities:

- a robust and more efficient approvals system
- planning and investment in common user infrastructure
- targeted financial support for strategically important projects or industries.

Delivering these priorities will improve the resilience of Western Australia's existing industries, while also driving long term foundational improvements to support future investment. They are reflected in the Action Plan (pages 20 to 21).

The Action Plan will be updated and reviewed, as needed, to ensure actions remain contemporary and effective.

Image: Western Australia supplies battery chemicals to electric vehicle manufacturers such as Tesla. Credit: Tesla.

6. Focus areas

Unlocking investment in enabling infrastructure and project ready land

Industrial hubs can be a gamechanger for critical minerals processing, which requires access to infrastructure and services, such as electricity, gas, water and transport networks.

Other requirements include skilled workers, ancillary support industries and waste management solutions.

With critical minerals dispersed across Western Australia, centralised processing hubs can reduce the costs and risks of manufacturing in remote locations. Project-ready industrial hubs, with common user infrastructure and approvals in place, will ensure that proponents can develop projects quickly and cost-effectively.

Industrial hubs also facilitate the co-location of complementary industries which, in turn, can promote innovation and industrial synergies such as the reuse of by-products.

Western Australia has established industrial hubs for critical minerals processing. These include the Kwinana Strategic Industrial Area near Perth, which has nickel sulphate and lithium hydroxide refineries, and the Kemerton Strategic Industrial Area near Bunbury, which processes lithium hydroxide.

To support further investment in Western Australia's battery and critical minerals sector, the Western Australian Government will work to optimise the State's existing hubs and develop new, strategically located, hubs.

We are:

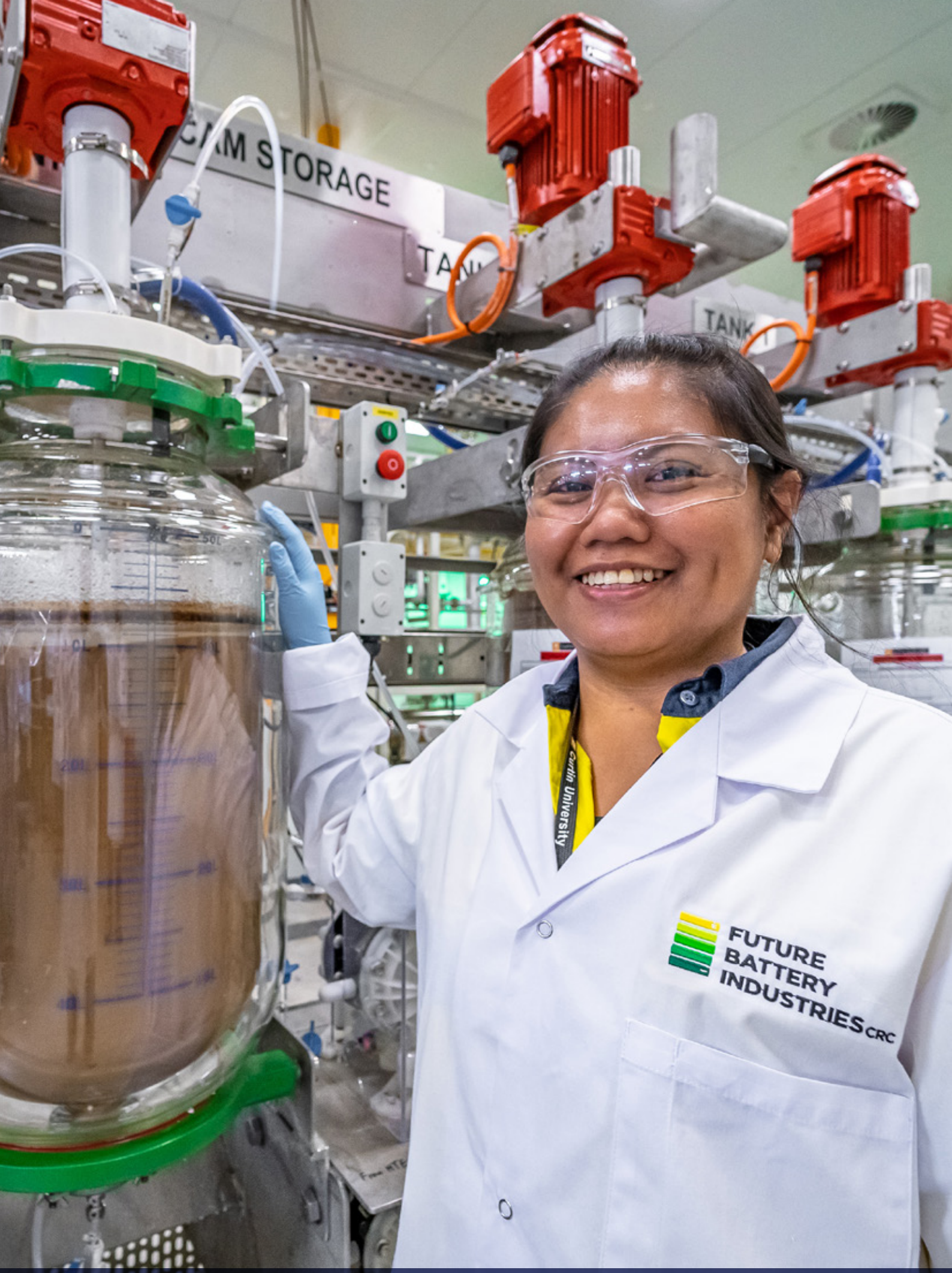
- continuing to optimise our existing critical minerals processing hubs
- establishing new project-ready processing hubs, with funding of $500 million through the Strategic Industries Fund, and strategic and pre-emptive planning underway
- reducing barriers to entry for greenfield industrial hubs, including through our $160 million industrial lease incentive
- transitioning our electricity networks and remote operations to renewables, ensuring producers can access affordable and reliable low-emissions energy
- working with the Australian Government to leverage co-investment and support for common user infrastructure.

Accelerating research and skills development

Accelerating research and skills development is vital in an increasingly competitive global market.

Mining and processing critical minerals requires a highly skilled and specialised workforce of professionals and tradespeople. These workers are in high demand globally.

As outlined in the State's Innovation Strategy, staying at the forefront of applied research is also important. For example, there are opportunities to improve extraction and processing efficiencies to improve the competitiveness of Western Australian projects.



The Cathode Precursor Production Pilot Project, Future Battery Industry Cooperative Research Centre (FBICRC), Curtin University. Credit: FBICRC

Focus areas

Western Australia has well-established research, training and education institutions and an existing workforce that is highly skilled in mining and minerals processing. This includes local businesses and workers experienced in building and operating advanced critical minerals processing facilities.

Western Australia will need to build on this skills base and continue to attract international talent to ensure our State has the workers and researchers needed to support industry growth.

We are:

- supporting research commercialisation and facilitating investment in pilot and demonstration-scale infrastructure, including supporting the development of a $200 million Critical Minerals Advanced Processing Hub (subject to joint funding from the Commonwealth)
- supporting key national research organisations, such as Cooperative Research Centres, being located in Western Australia
- working with industry, and training and education organisations to identify and deliver the training needed to grow the sector
- exploring opportunities to attract more skilled workers, including through national migration policies
- encouraging young people to pursue education and careers in science, technology, engineering and mathematics (STEM) disciplines.

Attracting investment through strategic partnerships and incentives

Strategic partnerships are fundamental to the success of this strategy, as they provide essential sources of capital and technical expertise.

Critical minerals projects can be challenging to finance due to their technical complexity and factors such as high upfront costs, immature markets, and unclear and volatile pricing.

Partnerships have played a key role in growing Western Australia's local industry. Many of our processing projects have been developed between Australian miners and international chemical companies and financed by international investors.

Western Australia will work to support a national approach to strategic partnerships, with a view to fostering mutually beneficial supply chains with partner countries.

Financial incentives are an important tool for attracting investment, as well as supporting our existing industries. These incentives can help stimulate private investment and reduce risk for projects while they get up and running.

We are:

- working with the Australian Government and our trade and investment offices to foster international partnerships, attract investment and promote diversified and ethical supply chains

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Focus areas

- providing targeted financial support, including through the State's Exploration Incentive Scheme, Investment Attraction Fund and Nickel Financial Assistance Program
- helping projects access financial assistance, including through national programs such as the $4 billion Critical Minerals Facility and the Northern Australia Infrastructure Facility.

Ensuring robust and efficient ESG frameworks

Western Australia has robust and transparent regulatory frameworks that ensure projects have strong environmental, social and governance (ESG) standards. This is a key point of difference from many other resource-rich jurisdictions.

High ESG standards are important to Australians and many of our trading partners, although a 'green premium' is not yet recognised in global markets.

The Western Australian Government will work with the Australian Government to promote our State's high ESG credentials and elevate the importance of ethically sourced critical minerals and materials to create market opportunities for Western Australian producers.

The Western Australian Government will also work to strike the right balance between robust approvals frameworks and timely, efficient and user-friendly processes. Streamlining approvals processes will support ongoing economic growth in Western Australia by providing greater certainty to businesses and potential investors.

We are:

- carrying out a $44.3 million reform program to overhaul Western Australia's environmental approvals system and improve cross-government coordination and resourcing of approvals agencies
- supporting projects through government approvals processes, including implementing the Green Energy Approvals Initiative
- working with the Australian Government to secure early approvals for high-priority areas, such as critical minerals processing hubs.

Engaging and sharing benefits with Aboriginal people and communities

Aboriginal people are Western Australia's Traditional Owners. Acknowledging and respecting their rights and interests is crucial to maintaining the industry's social licence and ensuring benefits are shared with all Western Australians.

Western Australia's battery and critical minerals sector represents a significant opportunity to share economic and social benefits with Aboriginal people. At the same time, developing the industry must be done in a way that respects the cultural and environmental values of our land and people.

The Western Australian Government recognises that, in some cases, Aboriginal communities may need to build capacity to engage effectively with industry and government on critical minerals issues.

We are committed to early and ongoing engagement and collaboration with Aboriginal communities, to understand and support their diverse interests and facilitate benefit sharing.

We are:

- supporting best-practice engagement and partnerships between government, industry and Aboriginal communities, including early and ongoing engagement based on the principles of free, prior and informed consent
- working with Aboriginal people and representative groups to explore opportunities to build capacity to support effective engagement on critical minerals issues
- making use of existing government programs and initiatives to improve engagement and benefit sharing with Aboriginal people, such as the national First Nations Clean Energy Strategy.

Continuing to support strategically important projects

Growing Western Australia's role in global battery and critical minerals supply chains is a once-in-a-generation opportunity.

While Western Australia is well placed to succeed, global competition is rapidly increasing, and strategic action is necessary to ensure key projects proceed to development and the State remains internationally competitive in a changing global environment.

Continued investment in exploration is needed to ensure a pipeline of mining projects to enable advanced critical minerals processing into the future. There may also be opportunities to repurpose mine tailings and by-products from critical minerals processing to improve project economics, contribute to a circular economy and maximise environmental, social and governance (ESG) outcomes.

The success of important projects will also depend on collaboration and coordination between industry, local communities and governments at all levels to ensure support and a social licence to operate.

We are:

- enabling a pipeline of critical minerals projects by supporting exploration, development of new mines and reprocessing of mine tailings
- investigating opportunities for management of by-products from critical mineral processing
- providing advice to industry and cross-government partners to support strategically important projects
- engaging with the Australian Government and local governments to gain support for key projects.

7. Action plan: 2024-2026

Key = priority action

Unlock investment in enabling infrastructure and project-ready land

- Continue to optimise existing critical mineral processing hubs.
- ✓ Establish new project-ready processing hubs, with funding of $500 million through the Strategic Industries Fund, and strategic and pre-emptive planning underway.
- ✓ Reduce barriers to entry for greenfield industrial hubs, including through the $160 million industrial lease incentive.
- ✓ Transition electricity networks and remote operations to renewables, ensuring producers can access affordable and reliable low-emissions energy.
- Work with the Australian Government to leverage co-investment and support for common user infrastructure.

Attract investment through strategic partnerships and incentives

- Work with the Australian Government and our trade and investment offices to foster international partnerships, attract investment and promote diversified and ethical supply chains.
- ✓ Provide targeted financial support, including through the State's Exploration Incentive Scheme, Investment Attraction Fund and Nickel Financial Assistance Program.
- Help projects access financial assistance, including through national programs.

Engage and share benefits with Aboriginal people and communities

- ✓ Support best-practice engagement and partnerships between government, industry and Aboriginal communities, including early and ongoing engagement based on the principles of free, prior and informed consent.
- Work with Aboriginal people and representative groups to explore opportunities to build capacity to support effective engagement on critical minerals issues.
- Make use of existing government programs to improve engagement and benefit sharing with Aboriginal people, such as the national First Nations Clean Energy Strategy.

Accelerate research and skills development

- Support research commercialisation and facilitate investment in pilot and demonstration-scale infrastructure, including supporting the development of a $200 million Critical Minerals Advanced Processing Hub (subject to joint funding from the Commonwealth).
- Support key national research organisations, such as Cooperative Research Centres, being located in Western Australia.
- Work with industry and training and education organisations to identify and deliver the training needed to grow the sector.
- Explore opportunities to attract more skilled workers, including through national migration policies.
- Encourage young people to pursue education and careers in STEM disciplines.

Ensure robust and efficient environmental, social and governance (ESG) frameworks

- Carry out a $44.3 million reform program to overhaul Western Australia's environmental approvals system and improve cross-government coordination and resourcing of approvals agencies.
- Support projects through government approvals processes, including implementing the Green Energy Approvals Initiative.
- Work with the Australian Government to secure early approvals for high-priority areas, such as critical minerals processing hubs.

Continue to support strategically important projects

- Enable a pipeline of critical minerals projects by supporting exploration, development of new mines and reprocessing of mine tailings.
- Investigate opportunities for management of by-products from critical mineral processing.
- Provide advice to industry and cross-government partners to support strategically important projects.
- Engage with the Australian Government and local governments to gain support for key projects.

Disclaimer

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Statement of accessibility

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