

CRITICAL MINERALS ASSOCIATION AUSTRALIA

OCTOBER 2024

- De-risking critical minerals supply in Australia
- <u>Federal funding boost for HPA project</u>
- Australia courts Japan to deepen resources ties

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October 2024

MONTHLY NEWSLETTER

Welcome to our Critical Minerals Association Australia monthly newsletter & updates on the critical minerals space.

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- CMA UK 4th Annual Conference | London, UK
- Resourcing Tomoorow | London, UK
- GSWA Open Day | Perth, AU

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- WA sets sight on critical minerals projects
- Aluminium must be on critical minerals list, says peak body
- Australian Aluminium Council renews call for critical minerals listing
- Rio to acquire Arcadium in \$10b deal
- Envirostream and Infinitev ink battery recycling agreement
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- Australians back mining for much-needed minerals
- Manufacturers to benefit from new critical minerals strategy
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INTERNATIONAL DEVELOPMENTS

- China files appeal to WTO on Canada's tariffs on EVs, metal products
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CALENDAR OF EVENTS 2024/2025

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CMA AUSTRALIA NEWS

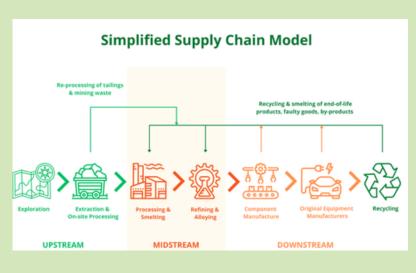
The key ingredients to build a successful processing and refining industry

Olimpia Pilch - Director, Critical Minerals Association Australia | October 2024

Commitments to the energy transition and pledges to create greener economies have shone a spotlight on supply chains, particularly the vulnerabilities associated with heavy monopolisation of critical materials production. Currently, China continues to dominate the midstream - processing of ore and refining of processed materials - across a variety of critical minerals such as rare earths, cobalt, copper, lithium and others. China has been increasingly introducing protectionist measures - including export restrictions for antimony, gallium, germanium, graphite, and rare earths processing equipment - to preserve its ability to source cheap ore and ensure its downstream sector can remain globally competitive.

Western and other like-minded nations have recognised the geopolitical and political risks of relying on a single nation for the supply of critical minerals and are creating policies aimed at re-industrialization as well as onshoring of processing and refining of critical minerals, to create diversified and secure supply chains. However, the buy-in from the ex-China downstream sector has been limited as many manufacturers continue to source materials or ready-made components directly from China (albeit often due to a lack of suitable alternatives) and are still untangling the complexities of these supply chains, including tracking of the origin of materials that feed into components in end-products. Exceptions include General Motor's recent *investment* in North American lithium production.

Policymakers are increasingly promoting valueaddition and are designing policies and incentives to process and refine more critical minerals in-country. However, natural endowment does not automatically equate to a competitive advantage in processing and refining. Building a successful midstream industry for non-commoditised specialty critical materials outside of China is challenging as it relies on the coexistence of the following musthaves:



- Proximity to customers
- Proximity to reagents
- Access to cheap energy
- Cheap capital
- Infrastructure
- Skills and expertise
- Scale and access to feedstock

The strategic location of refineries is key to keeping costs low and boosting the commercial viability of the facilities. Proximity to customer and chemical sectors drive down transport distances, limit import delays, and provide a steady flow of materials, limiting the need for manufacturers to hold stock. Most importantly, specialist applications in green and other tech, require the production of specialty materials as per the customer's specification - in fact, refineries and customers tend to be joined at the hip. To operate viably without significant government subsidies or costs being passed onto the manufacturing segment of the supply chain, further processing and refining plants need to reach scale. This requires accessing feedstock from multiple sources.

Refining is also energy-intensive, and many processes tend to also be water-intensive. This restricts where refineries for specialist critical minerals can be located as access to cheap and reliable energy is a must. Renewable energy is not always suitable (especially where hydropower is not available) to fully replace fossil fuel-generated power but can supplement a facility's energy mix. Favourable locations are restricted based on access to the grid but also port infrastructure. Given that demand for critical materials continues to be driven by China's manufacturing sector, and the US and EU are yet to build cost-competitive green energy manufacturing capacity, potential refineries will need to be built within proximity of deep-water ports and associated transport infrastructure. Freeports and special designated economic zones can also carry benefits.

Skills and workforce are also a consideration, particularly as ESG-focused investors and government funding often stipulate percentages of local employment. Any processing and refining operations require experts and a highly skilled workforce. Since the majority of processing and refining has been offshored from Western nations, a talent gap has emerged, and the IP and operational know-how are held in China. In some instances, once a suitable location is identified for a further processing or refining facility, the workforce will need to be relocated, with limited low-skilled job opportunities being created for local communities. Due to the highly technical nature and decades of experience needed to successfully manage and critical materials operate specialty plants, apprenticeships and upskilling programmes promoted by Western Governments will not be sufficient; a healthy talent pipeline of experienced metallurgists and minerals engineers is needed.

Finally, access to cheap capital determines how quickly a further processing or refining plant can be built. Commercial and investment banks do not provide debt financing to new projects or junior companies without a track record of capital generation. Project finance and equity are limited. Midstream operations for non-commoditised critical minerals are notoriously difficult to finance without some government underwriting due to their risk profiles. Blended finance approaches have been adopted, however, the scale of the investments needed, usually over \$1 billion, renders raising finance difficult. Building new refineries is achievable for major mining companies, however, few have substantial critical minerals portfolios outside of copper, aluminium, and nickel.

Value-added activities for specialty critical materials rarely generate substantial returns and tend to be strategic activities aimed at bolstering the security of supply, controlling supply chains, and ensuring commercial advantage of a nation's downstream sector. There is little in the way of a business case for companies to invest in or attempt to build plants that will not meet minimum profitability criteria. As a result, nations with developed downstream markets benefit the most from smart policies aimed at nurturing domestic further processing and refining. Strategic onshoring of select critical minerals necessary for specific commercial sectors that a nation wants to lead in is more likely to yield desired outcomes, only however, if demand can also be boosted via economic growth and customer purchasing power. Demand outside of China is key.

While Australian policy focuses on capturing more value-add from its resources, it is worthwhile reemphasising that the value is not often commercial but strategic in nature. The grass is not always (commercially) greener in the midstream. A greater push for more refineries for any critical mineral must be balanced by an increase in the ore extracted to meet the scale requirements to profitably operate refineries. An increase in refining capacity without an increase in extraction will replicate the recent copper ore imbalance threatening the shutdown of copper smelters. Further processing and refining are challenging to achieve profitably, the complexity of which varies from critical mineral to critical mineral. Australia should focus on building out niche downstream capacity and supporting the creation of refineries that support those niche sectors on a case-by-case basis. Blanket policy approaches that liken apples to oranges or rare earths to aluminium are unlikely to achieve long-term desired outcomes.

The CMAA Australia is actively bringing its members, governments, traders, downstream users of critical minerals and the wider finance community to address the challenges of capturing more value-add in Australia.

> **Olimpia Pilch** Director, Critical Minerals Association Australia October 2024



IMARC Coverage

The Critical Minerals Association Australia was delighted to partner with IMARC this year and to have our members and friends participate in and collaborate on the following key meetings and events:



CMAA Roundtable: What will it take to create a midstream in Australia?

Sponsored by GHD, we wrapped up a busy day with an excellent CMAA roundtable focused on the practical solutions it will take to create a midstream processing and refining industry in Australia.

It was an insightful discussion bringing in financiers, governments, researchers and industry to discuss the barriers and realities of operating in the midstream.

Thank you to all those who attended – a fantastic turnout!

The CMAA had a private meeting with the Federal Minister for Resources

Thank you to our partners, i2i Global for joining us and representing Indigenous interests in critical minerals.



Financing Critical Minerals Projects

Olimpia Pilch joined a panel on financing critical minerals projects, discussing market failure, geopolitical risk and the likelihood of green premiums for specific critical minerals, alongside speakers from the TMX Group, Tribeca Investment Partners, and Export Finance Australia.

ERM ESG Equivalence

We were delighted to support ERM at their private event showcasing their ESG equivalency tool which is an industry game-changer.



Critical minerals supply session

Namali Mackay chaired the critical minerals supply session providing opening remarks ahead of talks by the Chilean, New South Wales, and the United States Department of Defense and industry interviews with copper and lithium players.





Qld Critical Minerals

Namali Mackay chaired an excellent session showcasing Queensland's critical minerals ecosystem alongside Tony Knight and Paul Holden of the Queensland Government, Rob Williamson of Alpha HPA and Mark Lollback of Graphinex.

Finland's critical minerals landscape

➡ Olimpia Pilch moderated Business Finland's panel session, from bedrock to benefit, showcasing Finland's leadership in sustainable solutions from Metso, Elmery Ltd, Lumo Analytics, and Sumitomo SHI FW and emphasising collaboration opportunities with Australia.



An alternative pricing mechanism for Critical Minerals

We were delighted to have had the wonderful Michelle Woolhouse of NAB, Darryl Cuzzubbo of Arafura Rare Earths Limited , Robin Griffin of Wood Mackenzie, and John Dorian of Orion Resource Partners join us to discuss price volatility, indexes, floor pricing, and debt and equity approaches to financing critical minerals projects.

The panel was chaired by CMA USA Chairman, Dennis Gibson.



Green Taxonomy workshop

The CMAA led a bespoke workshop on aligning UK and Australian Green Taxonomies at the British Consulate.

Thank you to the Foreign, Commonwealth and Development Office for hosting us in Sydney.



CMA UK's Annual Conference

2 Dec 2024

London UK

Followed by drinks reception

REGISTER HERE

Supported by CMA Australia







THE CMA (UK) 4TH ANNUAL CONFERENCE

CRITICAL MINERALS: BREAKING NEW GROUND



Sarah Gordon



Bioscope Technologies







1



Sarah-Jane Gill UK Space Agency Jamie Strauss Digbee



Department of Energy, Mines, Industry Regulation and Safety

Friday, 15 November 2024

9am to 6pm

Pan Pacific Perth

207 Adelaide Terrace

\$75 AUD incl. GST

GET TICKETS HERE



MORE INFO: Sep Newsletter

Friday, 15 November 2024 Pan Pacific Perth \$75AUD including GST demirs.wa.gov.au/gswaopenday

AUSTRALIAN NEWS

Photo source: Australian Mining



WA sets sights on critical minerals projects

The successful applicants for round 30 of Western Australia's Exploration Incentive Scheme (EIS) have been announced, with critical minerals projects firmly in the spotlight...

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Australian Mining | 21 Oct 2024

Aluminium must be on critical minerals list, says peak body

Australia's aluminium sector says the country's competitive advantage is being undermined by unclear regulatory frameworks which weaken investment...

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The Australian (Subscription Required) | 10 Oct 2024

Australian Aluminium Council renews call for critical minerals listing

The Australian Aluminium Council has intensified its appeal for bauxite, alumina and aluminium to be included on the country's critical minerals list, as a new report exposes mounting risks to the nation's upstream aluminium sectors...

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Mining Weekly | 09 Oct 2024

Photo source: Australian Mining



Rio to acquire Arcadium in \$10b deal

Rio Tinto has confirmed it will acquire Arcadium Lithium in a \$US6.7 billion (\$9.97 billion) deal that will establish Rio as the world's third-largest lithium miner...

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Australian Mining | 10 Oct 2024



Photo source: Australian Mining

Envirostream and Infinitev ink battery recycling agreement

Lithium Australia subsidiary Envirostream has signed an exclusive agreement with Infinitev, a provider of repurposed electric vehicle (EV) batteries...

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Australian Mining | 09 Oct 2024

New deal to enable greater green nickel transparency

Wyloo will sell its low-carbon nickel and nickel concentrate products to Metalshub, a company that provides software to buy, sell and trade raw materials, in a bid to set a new global standard for green nickel products...

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Australian Mining | 10 Oct 2024

Australians back mining for muchneeded minerals

A new report from CSIRO has revealed Australians have increased trust in the mining industry but expect the sector to continue to maintain high environmental, social and governance (ESG) standards...

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Australian Mining | 29 Oct 2024

Manufacturers to benefit from new critical minerals strategy

Solar and battery manufacturers are set to benefit from the NSW Government's creation of a \$250 million royalty deferral initiative for critical minerals projects...

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Manufacturer's Monthly | 22 Oct 2024

Australia should lead the energy transition, but is it missing the boat?

Australia is risking missing the boat and losing out to competitor nations when it comes to leading the energy transition and the minerals needed to make the switch from fossil fuels to cleaner power.

<u>Read More</u>

Mining Magazine | 08 Oct 2024

Photo source: Australian Mining



AUSTRALIAN GOVERNMENT NEWS

Photo source: Mining.com.au



Opening the Doors to International Funding for Australian Critical Minerals

Over the past week, several positive announcements have been made for Australian listed critical minerals mining companies and critical minerals projects within Australia. These announcements foreshadow that these companies and projects could benefit from a number of cross-border and collaborative multi-jurisdictional funding initiatives...

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King & Wood Mallesons | 03 Oct 2024





Australia and Japan: A match made in heaven

Federal Resources Minister Madeleine King will be travelling to Japan this week to promote resources, energy trade and investment...

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Australian Mining | 24 Oct 2024

Critical minerals and the race for economic security

Critical minerals are a major economic resource for Australia's future. Crucially, these minerals are no longer just economic resources, but a matter of economic security...

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Australian Institute of International Affairs | 15 Oct 2024

Photo source: Mining Magazine



Federal funding boost for HPA project

Impact Minerals has received a \$2.87 million grant to help position it at the forefront of the global HPA market, ready to meet increasing demands with a sustainably produced, highquality product...

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Mining Magazine | 23 Oct 2024

Photo source: Mining.com.au

NSW launches critical minerals royalty deferral scheme

The New South Wales Government has today (18 October) committed to a \$250 million royalty deferral initiative for critical minerals projects to ease financial pressures and attract investment to the state...

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Mining.com.au | 18 Oct 2024



Photo source: Mining Technology



De-risking critical minerals supply in Australia

New government funding and international collaborations are building up Australia's critical minerals supply chain, including its processing capabilities...

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Mining Technology | 14 Oct 2024

INTERNATIONAL DEVELOPMENTS

China files appeal to WTO on Canada's tariffs on EVs, metal products

China's commerce ministry said on Wednesday it has asked the World Trade Organization (WTO) to rule on Canada's imposition of steep tariffs on Chinese electric vehicles as well as steel and aluminum products...

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Mining.com | 03 Oct 2024

India, US likely to sign pact on critical minerals

India and the United States are likely to sign an initial pact for cooperation on critical minerals this week, two Indian government sources said, as the two countries try to bolster trade ties despite diplomatic hiccups...

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Mining.com | 30 Sep 2024

Critical Minerals Africa speaker lineup features key industry market experts

The global demand for critical minerals, including cobalt, lithium and copper, will incresse by four times by 2030, driven by the rapid deployment of clean energy technologies...

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Energy Capital & Power | 24 Oct 2024

Rare Earths, Rare Opportunity: India's Potential in Easing China's Chokehold

On October 3, the United States and India announced a major agreement in one of the priority sectors for both countries – critical minerals supply chain cooperation. The two sides vowed to "expand and diversify" supply routes and leverage complementary strengths...

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South Asian Voices | 23 Oct 2024

Photo source: Mining.com.au



Australia courts Japan to deepen resources ties

Resources Minister Madeleine King is heading to Asia this week to further strengthen ties with the country's second largest trading partner, Japan...

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Mining.com.au | 24 Oct 2024

How Europe's battery hope has become a symbol of the EV bust

Northvolt AB was supposed to power Europe's response to the likes of Tesla Inc. and China's fast-growing electric vehicle makers. Instead, the Swedish battery company is fighting to stay afloat...

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Mining.com | 26 Sep 2024

EU Advances Critical Minerals Joint Buying Platform

Commodity trading platforms have raised concerns over the European Commission's tender to develop a centralized procurement platform for critical raw materials and hydrogen, which has now closed...

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Energy Intelligence (Subscription Required) | 23 Oct 2024

Thiess celebrates the start of Stobie Open Pit Mining Project

Thiess recently hosted the Honourable Jonathan Wilkinson, Canada's Minister of Energy and Natural Resources, Sudbury community leaders, and key stakeholders at the Vale Stobie Open Pit Mine site to celebrate the revitalisation of operations, emphasising sustainable practices and partnerships with Indigenous communities...

Read More

Global Mining Review | 23 Oct 2024

Miners welcome IRA component amendments

Alcoa and Sibanye-Stillwater have welcomed the final regulations of the Section 45X Advanced Manufacturing Production Credit, introduced as part of the *Inflation Reduction Act (2022)* (IRA)...

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Australian Mining | 28 Oct 2024

Photo source: Australian Mining

A new beginning for Stobie

Vale Base Metals' Stobie open-pit mining project in Canada has recommenced operations, marking a new era for the asset. The Stobie nickel-copper operation was last mined in March 2017. The mine was placed under care and maintenance due to low metal prices and declining ore grades...

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Australian Mining | 22 Oct 2024

Calendar of events 2024/2025

Do you know of an upcoming event that's not listed? Email: admin@cmaaustralia.org





NOVEMBER 2024

DECEMBER 2024

OCTOBER 2024

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1					6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				



	DATE(S)	EVENT	HOSTS/PARTNERS	LOCATION
ост	7 OCT - 8 OCT	Battery & Supply Chains 2024	IQ Hub	Perth, AU
	29 OCT - 31 OCT	IMARC	International Resource and Mining Conference	Sydney, AU
	30 OCT	<u>CMA Roundtable</u>	Critical Minerals Association	Sydney, AU
NOV	15 NOV	<u>GSWA Open Day</u>	Department of Energy, Mines, Industry Regulation and Safety	Perth, AU
DEC	2 DEC	CMA Annual Conference	Critical Minerals Association	London, UK
	3 DEC - 5 DEC	Resourcing Tomorrow 2024	Mines and Money	London, UK
JAN	14-16 JAN	Future Minerals Forum	Saudi Arabia's Ministry of Industry and Mineral Resources	Riyadh, Saudi Arabia



This Newsletter has been compiled by QUT researchers:

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