



# CRITICAL MINERALS ASSOCIATION AUSTRALIA

DECEMBER 2022

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# MONTHLY NEWSLETTER

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

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www.cmaaustralia.org

# CMA - AUSTRALIA NEWS

Dear Supporters,

As 2022 draws to a close, CMA Australia would like to take the opportunity to express our sincere appreciation for the overwhelming support we have received from all those connected with the critical minerals industry – critical minerals companies, including our members; participants in the critical minerals supply chain, consultants and ESG specialists, the State and Federal Governments; academia and our wider supporters.

Being at the start of our journey as an industry body, the first six months have been focused on setting up the organisation, defining industry priorities, creating our Founding Members Advisory Board and linking into the national and international critical minerals frameworks.

In addition, we undertook an Australia-wide roadshow spanning Perth, Brisbane, Melbourne, Adelaide and Canberra where we met with Government and industry representatives operating across the critical minerals value chain. We then kick-started our [monthly newsletters](#) in September, October, November and this December issue and also hosted our first [CMA webinar on Bridging the Gap between Miners and OEMs](#).

Of special note this year is that CMA Australia was awarded funding in partnership with Edith Cowan University, University of Melbourne, Swinburne University of Technology, Queensland University of Technology and Deloitte Australia by the UK Foreign Commonwealth & Development Office, to develop an index identifying resilience factors along the critical minerals supply chain - charting pressure points, potential disruptions, and their likely impacts in order to provide a roadmap for action.

Finally, we were delighted to speak at the [Critical Minerals & Energy Investment Conference](#) in Perth and [IMARC](#) in Sydney and attend [Mines and Money and the UK CMA Annual Conference in London](#).

Internationally, CMA Australia continues to sit equally alongside its counterpart organisations in the UK, USA and Canada under an overarching international umbrella. The CMA network provides a unique opportunity for Australian companies to be part of this international conversation to mobilise an alternative supply pathway for critical minerals through the entirety of the chain.

Looking ahead to 2023, CMA Australis is very focused on taking the organisation to the next level of engagement, where our industry working groups will produce concrete deliverables based on industry's identified priorities.

These priorities include:

1. Forging an independent, collective and unique voice specifically for the Australian critical minerals industry
2. Supporting the industry to move further downstream
3. Leading the industry to create outstanding Environmental, Social and Governance systems
4. Educating both the industry itself and the wider public on a range of issues facing the sector
5. Addressing key finance and risk-based obstacles preventing industry growth

We will be looking to our industry members to lead and drive this agenda in order to place Australia's critical minerals sector at the forefront of Australia's energy revolution.

With those reflections we would like to wish you all a very Happy New Year and look forward to collaborating closely on our goals in 2023!

Best wishes,  
Namali Mackay  
Managing Director, CMA

# AUSTRALIAN NEWS

## Critical Minerals shines spotlight on QLD vanadium

Critical Minerals Group has the white hot battery metals space by the horns with the promise of the latest metal du jour, vanadium, looming large for the company that only listed on the ASX less than three months ago. Critical is seeking to carve out a name for itself with its Lindfield project in the heart of prime vanadium country in Queensland that it says could develop into an ideal operation for open cut mining.

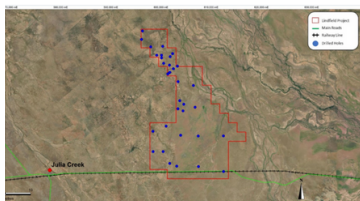


Photo source: [www.criticalmineralsgroup.com.au](http://www.criticalmineralsgroup.com.au)

The growing importance of vanadium amongst metals that are critical to the future of Australia's economy has already been recognised by both State and Federal Governments that have announced funding and incentive schemes designed to secure domestic supply of the important element... [Read More](#)

The West Australian | Dec 15 2022

## More money for NSW critical mineral exploration

An additional \$27 million will be invested by the New South Wales Government to fund advanced stage mining infrastructure projects and exploration for critical minerals in the state... [Read More](#)

Australian Mining | Dec 19 2022

## AUSTRALIAN GOVERNMENT UPDATES

### Critical minerals win \$100m following record Qld surplus

A new \$100 million Critical Minerals Investment Fund will be established by the Queensland government following a record budget surplus.

The fund will be managed by the Queensland Investment Corporation. While equity investments are expected to be made in a similar way to other government funds, the final framework is still being determined with the state Treasury.

Individual projects will likely be able to receive between \$2.5 million and \$10 million in support, given they represent significant and sustained growth opportunities. It will open for applications in the first half of 2023... [Read More](#)

InnovationAus.com | Dec 8 2022

### Investment opportunities for Australian critical minerals

The Australian Government is promoting international investment opportunities in Australia's critical minerals industry as part of Australian Critical Minerals Prospectus 2022.

Now in its fourth year, the Prospectus showcases Australia's world class production capabilities across 55 investment-ready Australian critical minerals projects.

These projects have significant potential to address forecast production shortfalls, build supply chain security, and deliver progress on a net-zero future... [Read More](#)

[www.trademinister.gov.au](http://www.trademinister.gov.au) | Dec 14 2022

## Queensland critical minerals threatened by labour and transport issues

Future mining plans in north-west Queensland could be undermined by a lack of highly skilled workers, industry experts have warned.

It seems Australia may lack the workforce needed to fully utilise 18 per cent of the world's vanadium supply.

Queensland Resources Minister Scott Stewart travelled to the UK last week to promote the state as a global minerals hub to investors, focusing specifically on the acquisition of vanadium, a mineral that is used in steel alloys and creating batteries for renewable energy... [Read More](#)

Australian Mining | Dec 2 2022

## Critical Minerals Strategy 2023: discussion paper

The Australian Government is developing a new critical minerals strategy. The strategy will outline our priorities for the development of the critical minerals sector, including how Australia can create economic opportunities across the nation, including in our regions, and seize the opportunities of the net zero transformation...

We are seeking responses to issues raised in the discussion paper to help us formulate the new strategy. We welcome written submissions in response to questions in the discussion paper alongside general feedback... [Read More](#)

Department of Industry, Science and Resources  
| Dec 21 2022

## QPM granted approvals for \$2.1 billion battery materials plant



Photo source: [www.pv-magazine-australia.com](http://www.pv-magazine-australia.com)

Queensland Pacific Metals (QPM) said it has received development approval to construct its Townsville Energy Chemicals Hub (TECH) project that would refine approximately 1.6 million tonnes of ore annually to produce critical materials to support the growing battery and electric vehicle (EV) industries...

[Read More](#)

pv-magazine | Dec 16 2022

## Black Swan gets the go-ahead

Poseidon Nickel has reported that final work streams are now underway at its Black Swan project in Western Australia.

In November 2022, Poseidon released its bankable feasibility study for a standalone 1.1-million-tonnes-per-annum mill feed option to produce smelter-grade concentrate.

Final work streams are now underway as Poseidon heads towards the restart of the project... [Read More](#)

Australian Mining | Dec 16 2022



Photo source: [www.australianmining.com.au](http://www.australianmining.com.au)

## BHP, Oz Minerals extend deadline for \$9.6b takeover



Mining giant BHP has been given another week to finalise the terms of its \$9.6 billion takeover of Australian copper and nickel producer Oz Minerals after the companies agreed to an indicative deal in November...

BHP, the largest Australian mining company, has been looking to acquire Oz Minerals as part of its accelerating efforts to boost its supplies of copper and nickel, two minerals the world needs much more of in coming years to build electric cars and clean energy infrastructure. BHP last month sweetened its bid to buy Oz Minerals from \$25 a share to \$28.25 a share. Its revised offer valued the company at \$9.6 billion... [Read More](#)

The Sydney Morning Herald | Dec 20 2022

## Godolphin nears resource update after rare earths hit

Godolphin Resources has used a 5-hole diamond drilling campaign to light up rare earths mineralisation at its Narraburra project in NSW that will ultimately flow into a new year resource update. Significant intercepts from the program include 2m at 1238 parts per million total rare earth oxides, or "TREO" from 15m and on the back of the latest results the company believes a much larger rare earths system may be on offer given the strikes were acquired outside of the site's known mineralisation...

Narraburra currently holds an inferred, JORC 2004 compliant resource of 73.2 million tonnes at 1250 grams per tonne zirconium oxide, 327g/t rare earth oxides, 146g/t yttrium oxide, 126g/t niobium oxide and 118 g/t lithium oxide.

Notably, the company claims its latest batch of diamond drill results indicate it could have its hands on a much larger rare earths system in both the site's weathered and fresh rock zones... [Read More](#)

The West Australian | Dec 13 2022



## Liontown roars with Zenith power

Liontown Resources has contracted Australian independent power producer Zenith Energy for the supply of power to its Kathleen Valley lithium project in Western Australia...

Zenith Energy will finance, design, construct, own, operate and maintain a 95MW hybrid power station at Kathleen Valley for an initial term of 15 years from commercial operation of the station, which is expected to coincide with the commissioning of the process plant in the first half of 2024... [Read More](#)

Australian Mining | Dec 20 2022

# BIG PICTURE THINKING . . .

## Australia joins global commitment to ESG for critical minerals

Australia has joined an international grouping to commit to sustainability and the highest environmental, social and governance standards for the mining and processing of critical minerals, which are essential components for low-emissions technologies.

Australia has signed on to the Sustainable Critical Minerals Alliance, which is an initiative led by Canada to promote sustainable, environmentally and socially responsible mining practices for the critical minerals sector. Other signatories will include Canada, the United Kingdom, France, Germany and the United States... [Read More](#)

Minister for Resources | Dec 13 2022

## World Wide Fund for Nature lays path for Australia to become clean energy superpower

Whether it is gold, wool, timber, apples, salt, education, beef or even sea cucumbers, Australia has long punched above its weight in the trade stakes, even centuries before it was named Australia. It wasn't until Lang Hancock found a red, magnetic rock in WA's Pilbara in the 1950s however that the nation became a global trade superpower.

That discovery gave rise to iron ore mining behemoths Rio Tinto and BHP.

More recently, Fortescue Metals got in on the Pilbara iron ore action and is now also a major exporting powerhouse... [Read More](#)

The West Australian | Dec 16 2022



Photo source: [www.australianmining.com.au](http://www.australianmining.com.au)

## Miners collaborate on tailings innovations

OZ Minerals, Boliden and Rio Tinto will collaborate to unlock new and innovative technologies for managing tailings, helping the mining industry to further reduce risk while extracting the materials the world needs for the energy transition from what was previously regarded as 'waste'.

Under the umbrella of the Think and Act Differently (TAD) incubator initiative, the three companies will fund and support innovators who are working to reimagine mining and processing to eliminate, minimise, reuse or find value in mine tailings.

They will also collaborate on other selected innovations to pursue improved productivity while delivering benefits such as lower emissions and reduced waste... [Read More](#)

Australian Mining | Dec 12 2022

## Australian resource exports surge as project pipeline grows

Australian resources and energy exports will earn a record A\$459-billion in 2022–23, before easing to A\$391 billion in 2023–24, new data from the Department of Industry, Science and Resources show

The latest Resources and Energy Quarterly publication forecasts combined export earnings for resources critical to low-emissions energy technologies, such as copper, nickel and lithium will reach almost A\$33-billion in 2022–23 compared with A\$22-billion in 2021–22... [Read More](#)

Mining Weekly | Dec 19 2022



Photo source: Bloomberg

## Australia's minerals riches can power energy revolution

As the world accelerates towards a low-carbon economy, a geopolitical race has emerged between nations aiming to secure the supply of the critical minerals required for the energy transition. Australia's abundant reserves of critical minerals places it at the forefront of this race.

These minerals include lithium, silicon and rare earth minerals, all of which are key components of low-emissions technologies such as solar panels, wind turbines, batteries and electric vehicles (EVs). The energy transition is a global phenomenon that creates wonderful opportunities for Australia... [Read More](#)

The Australian Business Review | Dec 16 2022

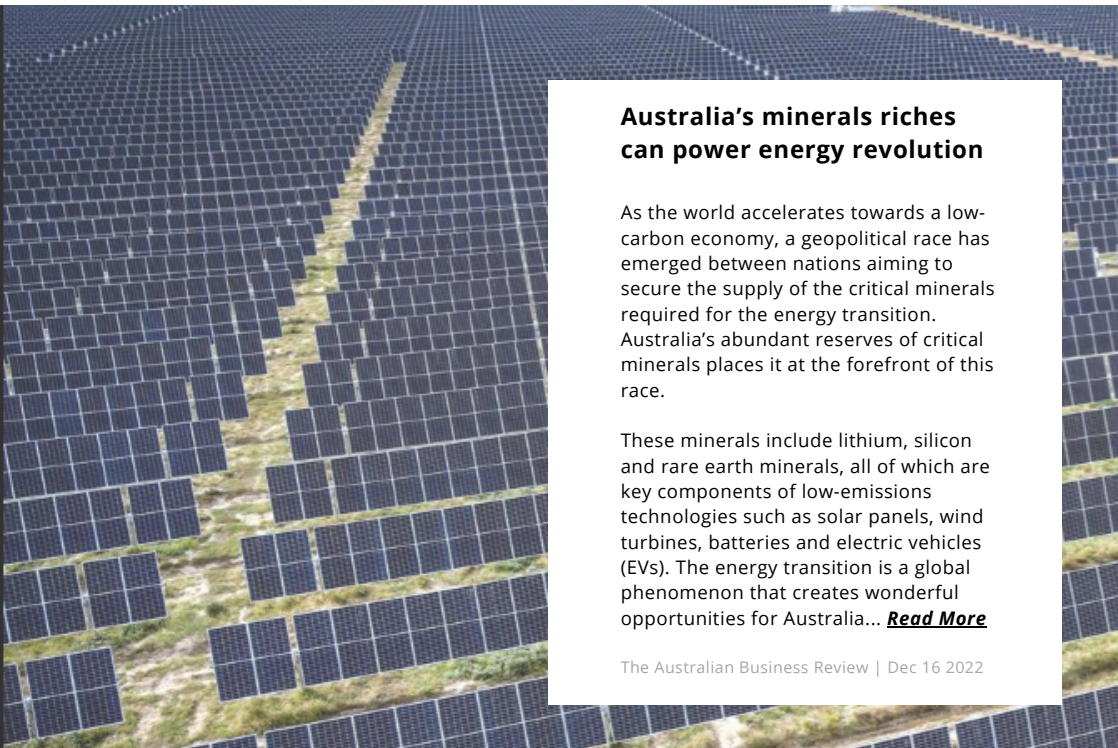


Photo source: Shutterstock



# INTERNATIONAL DEVELOPMENTS

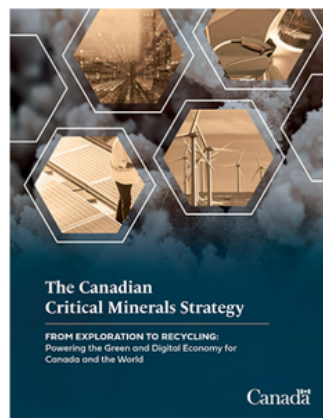
## Canada unveils \$2.78bn critical minerals strategy

Canada has announced Critical Minerals Strategy as part of its efforts to become a global supplier for critical minerals and clean digital technologies.

The strategy aims to boost the production and processing of the country's 31 critical minerals, which include lithium, nickel, cobalt, graphite and zinc, among others, reported Reuters...

Critical minerals are considered vital in the making of electric vehicle (EV) batteries and contribute to the global transition towards cleaner technologies... [Read More](#)

Mining Technology | Dec 12 2022



The Canadian Critical Minerals Strategy... [Read More](#)

## China dominates the rare earths market. This U.S. mine is trying to change that.

On a dusty road at the northern edge of the Mojave Desert, a pair of 100-ton haul trucks — their wheels twice the height of a fully grown man — emerge from a deep chasm, their cargo beds loaded with ore.

The 400-foot pit, nestled in the foothills of California's Clark Mountain Range, is home to the only rare earths mine in the United States. The Mountain Pass mine, which resumed operations in 2012 after years of dormancy, today supplies around 15 percent of the world's production of rare earths, a group of 17 minerals used to make the magnets in America's most advanced commercial and military technology, from electric vehicles to Virginia-class attack submarines. ... [Read More](#)

POLITICO | Dec 14 2022

## Drive to bypass China in lithium refining grows in Australia

Pilbara Minerals Ltd., one of Australia's biggest lithium producers, plans to build a demonstration plant in Western Australia capable of refining the material that's key to the booming global battery metals market.

The pilot plant would process Pilbara Minerals' hard-rock ore into lithium salt near the company's Pilgangoora Project in Western Australia, in a joint venture with Australia's Calix Ltd. that uses the latter's patented "calcination" technology.

It's part of a push by Canberra to boost the country's onshore lithium refining industry, responding to demand from carmakers in the US and Europe for battery metals that bypass China... [Read More](#)

Bloomberg | Nov 28 2022

## Australia to compete for China's rare earths boom

Treasurer Jim Chalmers is calling for Australia to invest in critical minerals, to prevent Beijing from capturing a future monopoly on global tech supply chains.

Critical minerals, including rare earth elements like lithium and copper, are essential for producing gadgets like smartphones, but they also underpin the transition to clean energy by powering electric cars, solar panels, storage batteries and wind turbines.

China dominates the mining of rare earth and therefore controls tech supply chains from beginning to end. They also process the majority of the world's lithium - used to make batteries for electric vehicles - despite Australia being the largest producer of the mineral and supplying about 55% of the world's lithium... [Read More](#)

The Australian | Nov 25 2022

## US can strengthen security by developing domestic rare earth resources

U.S. foreign policy is increasingly focused on combating China. There is constant news of China seeking geopolitical power and control — from the possible invasion of Taiwan, to strengthening their alliance with Russia, to the competition for space supremacy. That's why the Defense Department's recent 2022 China Military Power Report called China, "the most consequential and systemic challenge to our national security and to a free and open international system."

But earlier this year – in a move that made few headlines – the U.S. made a necessary but concerning decision that gives China power over a critical piece of our vital military equipment. Lockheed Martin had to halt delivery of the Air Force's new F-35 fighter jet because it used a Chinese-produced cobalt and samarium alloy in the turbomachine that helps start the engine. ... [Read More](#)

c4isrnet | Dec 23 2022

## Australian battery metals key to South Korea's EV goals

Australia will play a big role in South Korea's ambition to lead the electric vehicle batteries market and diversify from China for its battery metals needs, a top South Korean executive has said.

Ben Bosung Kim, the managing director for steel giant POSCO in Australia, said the company has already invested around \$5 billion in the country, which covers traditional raw material such as iron ore and coal, and more recently lithium, nickel, graphite and other minerals needed to manufacture electric car batteries.... [Read More](#)

Australian Mining | Nov 30 2022



Photo source: [www.australianmining.com.au](http://www.australianmining.com.au)

# DRIVING MARKET DEMAND



Photo source: Getty Images: VCG

## How a lack of copper could slow the transition to renewable energy

In November, the Global Carbon Project released its latest stocktake figures of the world's total greenhouse emissions.

According to the report, the world will, at the current trajectory, exceed the carbon limit for a global warming of 1.5 degree Celsius within nine years...[Read More](#)

ABC News | Dec 8 2022

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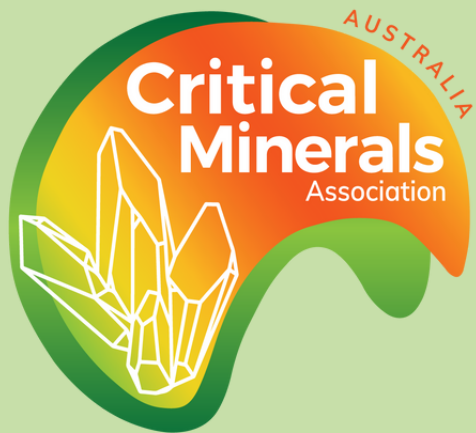
## Critical minerals driving future growth

The Australian Government's Resources and Energy Quarterly: September 2022 underlined the central role critical minerals will play in the future of the resources sector...

The world is changing, and as it continues its march towards a greener future the importance of critical minerals vital to achieving rapidly approaching net-zero targets – lithium, copper, nickel, et al – is only going to grow...

Produced by the Department of Industry, Science and Resources, the report found that despite weakening iron ore prices, the surging global demand for critical minerals necessary for new low-emissions technologies is expected to deliver a record windfall of \$450 billion for Australia's 2021–22 resources and energy exports.... [Read More](#)

Australian Mining | Dec 15 2022



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