Australia close to breaking China's critical mineral stranglehold

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Byline: Simon Johanson
Highlight: Australian firms are within a few years of refining most of the rare minerals used in the world's critical defence systems, electric vehicles and clean energy transition.

Body

Australian firms are edging closer to breaking China's production stranglehold on the rare minerals used in the world's critical defence systems, electric vehicles and clean energy transition.

Companies like ***Iluka Resources***, Lynas Rare Earths, and several lithium miners are already refining, or close to producing, the minerals needed for the batteries, electric circuitry and high-strength magnets that underpin the globe's green energy transition.

Light rare earth oxides, such as neodymium and praseodymium, are used in aircraft engines, electronics, wind turbines and electric vehicles. Heavy rare earths, like the dysprosium and terbium over which China has a stranglehold, are a crucial element in the permanent high-strength magnets used in robotics, defence technology and ocean wind turbines, where they require little maintenance to generate electricity far from the coastline.

The minerals refined by Australian companies are now a strategic asset as America swings sharply towards a more transactional trade stance under US President Donald Trump, and Beijing counters US tariffs by clamping down on supply of scarce metals.

If Australia is dragged into a trade war with the US and China, "heavy rare earths could serve as a bargaining chip," said Neha Mukherjee, a senior analyst in rare earths at Benchmark Mineral Intelligence.

Within hours of Trump imposing a 10 per cent tariff on China last week, Beijing introduced export controls on a raft of key minerals such as tungsten, tellurium, molybdenum, bismuth and indium that are critical to a range of high-tech goods. China's Commerce Ministry said the controls were to "safeguard national security interests."

The clampdown exposes a fault line running through the global economy.

China has invested heavily for decades in refining production of critical minerals and rare earths and accounts for 90 per cent of all rare earth oxides used in global manufacturing, effectively controlling all supply of key heavy rare earths. Governments around the world are scrambling to secure supplies of the key minerals, as a result.

Link to Image

Trevor Collens

"Rare earths are among very few metals where China has demonstrated a preparedness to withhold supply to achieve unrelated political or other objectives. We've also seen China previously implement restrictions on the export of rare earth processing technology," ***Iluka*** managing director Tom O'Leary said.

"We've all seen the perils of concentrated supply chain over the last several years, and so there's much greater awareness now of the importance of security of supply," O'Leary said.

Iluka is building a fully integrated rare earths refinery at Eneabba in Western Australia with the help of a $1.65 billion federal government loan. Within a decade of firing up the plant in 2027, it will account for 10 per cent the world's rare earth oxide supply, and refine more than a third of globe's strategically important heavy rare earth oxides, the company says.

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Cameron Perks, analyst at Benchmark Mineral Intelligence.

Meanwhile, ASX-listed Lynas - valued at $6.5 billion - late last year turned on production at its newly built $800 million mixed rare-earth processing plant in Kalgoorlie. It will ship the carbonate output from Kalgoorlie for further refining in Malaysia where it operates the world's largest single rare earths processing plant producing separated rare earths for export.

Lynas is also building a heavy rare earths refinery in Texas, backed by $384 million in Defence Department funding from the Biden administration, in a bid to accelerate America's access to supplies of rare earths.

Another Benchmark analyst, Cameron Perks, said if the US-China trade war escalates, combined with new tariffs and export controls, it's going to have a significant impact on the critical minerals sector as a whole.

"We'***re*** seeing critical minerals being used more and more as bargaining chips in trade negotiations, with countries leveraging their control over supply chains to get a better deal," Perks said.

"Clients in South Korea and Japan have been reaching out to Australia a lot lately, wanting insights on supply, demand, pricing, and cost curves as they try to figure out the impact of Trump's policies. They'***re*** trying to figure out if this is an opportunity or if they should be backing out," he said.

Australia's current heavy rare earth output accounts for just 1 per cent of global mined production, Mukherjee said. But it's projected to jump significantly, reaching 14 per cent by 2029 - the fastest growth outside of China.

Ramping up refining capacity is costly, technically challenging and time-consuming. Few have gained the foothold required to compete with China, even on more basic materials like lithium.

ASX-listed IGO began producing battery-grade lithium hydroxide with joint venture partner China's Tianqi Lithium from its Kwinana Refinery in Western Australia in 2022, only to shutter parts of the operation in January this year as sluggish demand for electric vehicles and slumping prices slowed sales and created a global stockpile of the white battery metal.

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Graphic

Iluka chief executive Tom O'Leary says China has previously implemented restrictions on the export of rare earth processing technology.

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