

Technology Metals Report (12.27.2024): Japan Expands Nuclear Power, China's EV Sales Set to Surpass Traditional Cars, and Arcadium Lithium Shareholders Challenge \$6.7B Acquisition by Rio Tinto

written by Tracy Hughes | December 27, 2024

Last week brought noteworthy shifts in global markets and energy sectors. In China, electric vehicles (EVs) are [forecasted](#) to surpass traditional car sales in the upcoming year, with anticipated sales reaching over 12 million by 2025. This pivotal change highlights China's advancements in technology and supply chain management, positioning it to potentially accelerate its 2035 EV market share targets years ahead of Western countries. Meanwhile, Japan has revised its energy policy to heavily [incorporate](#) nuclear power, planning to increase its contribution to the national energy supply from 8.5% last year to 20% by 2040, in an effort to meet escalating electricity demands and aggressive decarbonization goals.

In the United Kingdom, a [report](#) from the think tank Labour Together has called for reduced reliance on China for critical minerals essential for high-tech and green technologies, citing increased geopolitical risks amid escalating US-China trade tensions. In corporate news, shareholders of Arcadium Lithium PLC (NYSE: ALTM | ASX: LTM) have [approved](#) a \$6.7 billion acquisition by Rio Tinto Group (NYSE: RIO | ASX: RIO | LSE:

RI0). This acquisition, set to close in mid-2025, will position Rio Tinto as the third-largest lithium miner globally. However, Arcadium Lithium is facing legal challenges from shareholders alleging misrepresentation and negligence related to the transaction.

Political and strategic developments also surfaced in North America. The Canadian government has announced a conditional \$10 million [grant](#) to support infrastructure development in Northern Quebec and Labrador, aimed at facilitating the mining and transport of rare earth elements. In the United States, there are considerations to utilize the Defense Production Act to establish a proactive mineral stockpile in response to China's recent export restrictions on antimony, gallium, and germanium, materials crucial for U.S. defense and industrial applications. These initiatives are part of broader efforts to secure supply chains and strengthen domestic production capacities in critical sectors.

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China's EV sales set to overtake traditional cars years ahead of west (December 25, 2024, [Source](#)) – Electric vehicles (EVs) are projected to outsell traditional cars in China next year, marking a significant milestone that positions China ahead of Western markets. According to forecasts by four investment banks and research groups, China's EV sales, including pure battery and plug-in hybrids, are expected to grow 20% yearly, reaching over 12 million by 2025—more than double the sales in 2022. This growth contrasts with declining sales of traditional cars, which are anticipated to fall over 10% next year. The surge in Chinese

EV sales, despite slowing growth rates from a post-pandemic peak, underscores China's advancements in technology and global supply chain dominance, enabling reduced manufacturing costs and lower consumer prices. This rapid industry transformation, highlighted by intense competition and market consolidation, indicates a significant shift in the global automotive landscape, potentially accelerating China's 2035 EV market share target by a decade.

Japan to maximize nuclear power in clean-energy push as electricity demand grows (December 25, 2024, [Source](#)) – A Japanese government panel has endorsed a draft energy strategy emphasizing a significant increase in nuclear power to meet rising electricity demands and decarbonization goals. The plan, slated for Cabinet approval by March, proposes that nuclear energy should contribute 20% to Japan's power supply by 2040, a considerable rise from last year's 8.5%. Additionally, it aims to expand renewable energy sources to 40-50% from the current 22.9% while decreasing reliance on coal-fired power from nearly 70% to 30-40%. This shift marks a departure from Japan's post-Fukushima phase-out policy, reflecting a broader strategy to enhance energy security and diversify energy sources. The draft also discusses accelerating the restart of nuclear reactors meeting safety standards and building next-generation reactors, despite challenges in achieving these targets and ongoing concerns about nuclear safety and feasibility.

UK must be less dependent on China for critical minerals, says thinktank (December 24, 2024, [Source](#)) – A UK thinktank has urged the government to lessen its dependency on China for critical minerals, vital for high-tech and green technologies. The report by Labour Together recommends diversifying supply chains, especially given China's dominant role in the global market, which accounts for 70% of rare earth metal ore extraction and nearly all neodymium magnet production. This

dependency poses risks, heightened post-Brexit and amidst rising US-China trade tensions, illustrated by China's recent bans on certain mineral exports to the US. The upcoming government strategy, aligned with an industrial strategy also due in the spring, should focus on securing supplies essential for the UK's technological and environmental goals. The report advises pragmatic engagement with China on standards and suggests that past UK strategies lacked urgency and detailed focus, emphasizing the need for a more targeted and cooperative approach moving forward.

Arcadium Lithium shareholders approve \$6.7 billion Rio Tinto deal (December 23, 2024, [Source](#)) – Shareholders of Arcadium Lithium PLC (NYSE: ALTM | ASX: LTM) have overwhelmingly approved its \$6.7 billion acquisition by Australian mining titan Rio Tinto Group (NYSE: RIO | ASX: RIO | LSE: RIO). In a recent vote, about 98% of Arcadium's shareholders favored the deal, sending the company's shares up by 7% in extended trading. Scheduled to close in mid-2025, this acquisition will elevate Rio Tinto to the third-largest lithium miner globally, trailing only Albemarle Corporation (NYSE: ALB) and SQM (NYSE: SQM). However, Arcadium faces legal challenges, with lawsuits filed by some shareholders accusing it of misrepresentation and negligence in relation to the deal. Rio Tinto's offer of \$5.85 per share represents a nearly 90% premium over Arcadium's stock price on October 4. The deal grants Rio Tinto access to Arcadium's extensive lithium operations across multiple countries and major clients like Tesla, BMW, and General Motors.

African Dreams on the Rocks (December 23, 2024, [Source](#)) – Western ambitions in Africa, historically seen as a land of opportunity, are now compromised by increasing political instability and external influences. In West Africa, Mali, Burkina Faso, and Niger, grappling with terrorism and military rule, are considering exiting the Economic Community of West

African States (ECOWAS), potentially disrupting regional trade worth nearly \$150 billion. This exit could hinder the transport of mining products and the movement of human capital essential for mining projects. Russian influence in these states is growing, with Mali recently implementing stringent mining laws and escalating conflicts with Western companies like Barrick Gold Corporation (NYSE: GOLD | TSX: ABX) over financial disputes. Concurrently, the Democratic Republic of the Congo has accused Apple of using conflict minerals, indicating systemic issues in the region. These developments highlight a broader challenge for Western entities aiming to secure critical minerals from Africa amidst rising instability and competition from Chinese interests.

Lithium Americas and GM close joint venture for Thacker Pass mine (December 23, 2024, [Source](#)) – Lithium Americas Corp. (TSX: LAC | NYSE: LAC) and General Motors (GM) have finalized their joint venture to develop the Thacker Pass lithium mine in Nevada. Announced in October, the partnership will see GM contributing \$625 million, earning a 38% stake through cash and a credit facility. The closing of this deal marks a significant advancement for the project, which recently secured a \$2.26 billion U.S. government loan. Although the mine received approval during Donald Trump's presidency, a final investment decision is scheduled for early 2025. Thacker Pass is expected to commence operations later this decade, with an initial production capacity of 40,000 metric tons of lithium carbonate annually, sufficient to supply up to 800,000 electric vehicles.

NATO's Defense Vulnerable to China's Control Over Seven Materials (December 23, 2024, [Source](#)) – NATO's military effectiveness is increasingly vulnerable due to China's dominance over seven critical materials essential for modern defense technologies. A recent NATO report highlighted China's control over key materials like gallium, germanium, and

graphite, which are crucial for advanced military hardware such as microchips, night-vision devices, and batteries in defense platforms. China, aligning strategically with Russia, leverages this dominance by imposing export restrictions, notably in response to U.S. limits on chip technology exports. These actions threaten NATO's technological edge and operational readiness. The U.S. is now seeking ways to lessen dependence on Chinese materials, spurred by China's recent imposition of further controls on materials critical for military applications, in a clear signal to the West amidst ongoing geopolitical tensions.

Canada to Unlock Critical Minerals Rare Earth Development in Northern Quebec and Labrador With New Funding (December 20, 2024, [Source](#)) – Canada is boosting its critical minerals industry with a new initiative in Northern Quebec and Labrador. The Honourable Jonathan Wilkinson announced a conditional \$10 million grant from the Critical Minerals Infrastructure Fund (CMIF) for Torngat Metals' Strange Lake Northern Transportation Infrastructure Project. This funding will support pre-development tasks for constructing a 170-kilometer road and new port facilities, crucial for shipping rare earth elements (REEs) mined in Nunavik to global markets. This infrastructure is key to advancing Canada's position as a leader in rare earth production, essential for electronics, clean energy, and defense industries. With rising global demand for critical minerals, this project promises significant economic benefits, job creation, and a reduction in reliance on foreign critical minerals, notably from authoritarian regimes.

China's Battery Exports to US Jump to a Record \$1.9 Billion (December 20, 2024, [Source](#)) – China's lithium-ion battery exports to the U.S. surged to a record \$1.9 billion in November, a 27% increase from the previous year. This spike occurred as exporters accelerated shipments in anticipation of China

reducing export tax rebates. Effective December 1, rebates on products ranging from batteries to solar equipment were cut, with the specific rebate for batteries used predominantly in electric vehicles reduced to 9% from 13%. This rush was further motivated by the election of Donald Trump, who may impose additional tariffs, reinforcing fears of tougher trade conditions. Despite this surge to the U.S., China's total battery exports globally grew only 5% year-on-year in November, indicating a focused increase in U.S.-bound exports.

Chilean government preparing national strategy for critical minerals (December 20, 2024, [Source](#)) – Chile is preparing to launch a national strategy for critical and strategic minerals in 2025, targeting economic diversification and increased investments through the mining sector's support for global energy transition demands. The initiative, led by the Mining Ministry, Cochilco, and Sernageomin, includes studies on Chile's geological potential, global demand, geopolitical context, and sustainable supply measures. The strategy aims for inclusive development with planned collaborations across industry, academia, and communities. Chile, a major producer of critical minerals like copper and lithium, recognizes the potential to expand its output to include cobalt, rare earths, and others. This move is timely as global demands for these minerals are expected to surge, driven by green technologies and the need for resilient supply chains to ensure national security.

Leveraging the Defense Production Act to Stockpile Minerals (December 19, 2024, [Source](#)) – On December 3, 2024, China imposed export bans on antimony, gallium, and germanium, crucial for U.S. defense applications like ammunition, radar systems, and infrared lenses. These elements are vital not only for military needs but also for American industry, such as in fiber optics. The U.S. heavily depends on China for these minerals, which risks significant production delays in defense and industry due

to the bans. In response, leveraging the Defense Production Act (DPA), the Trump Administration has the option to establish a proactive mineral stockpile, separate from the National Defense Stockpile, which is typically reserved for national emergencies. This new stockpile would aim to secure a stable supply and support domestic production of strategic minerals. Historically, the DPA has been used to both purchase critical materials and bolster domestic production, aiding in times of both peace and conflict to mitigate supply shortages.

Investor.News Media Highlights:

- December 23, 2024 – Can the US match China’s critical mineral stockpiles? <https://bit.ly/405xRwN>
- December 23, 2024 – African Dreams on the Rocks <https://bit.ly/3VRVsia>

Investor.News Video Highlights:

- December 26, 2024 – How to Dual List in the USA with Expert Guidance from Kingswood’s Kevin Ernst <https://youtu.be/V7EGMRkBAQE>

Investor.News Member News:

- December 23, 2024 – Appia Announces Non-Brokered Private Placement <https://bit.ly/49S169s>
- December 23, 2024 – Neo Provides Update on the Sale of its Majority Equity Interest in China Rare Earth Separation Assets <https://bit.ly/3BFsTgU>

The upcoming **International Critical Minerals Expo & CMI Summit IV (ICMI)**, themed *The War for Critical Minerals and Capital Resources*, is scheduled to take place in Pasadena, California, on May 14-15, 2025. This event aims to unite industry leaders to tackle pressing issues in the global critical minerals market. To learn more about the ICMI, [click here](#)

