

Technology Metals Report (TMR)

08.09.2024: The Politics of Critical Minerals

written by Tracy Hughes | August 9, 2024

Welcome to the latest issue of the Technology Metals Report (TMR), brought to you by the [Critical Minerals Institute](#) (CMI). As we race into the final two weeks leading up to the [Critical Minerals Institute Summit III](#), I am pleased to announce that we are officially at capacity. I would also like to extend a special thank you to CMI Director [Stephen Lautens](#), former President of the historic National Club, where this event is being held as it celebrates its 150th anniversary this year. This week's TMR offers an update summary from the top dozen or so news stories identified from the last week that the [CMI Board of Directors](#) finds most impactful from our sector.

The highlight of this week, of course, is the final preparation for the [Critical Minerals Institute Summit III](#), aptly themed "The Politics of Critical Minerals." This theme is especially timely, as CMI Director [Melissa 'Mel' Sanderson](#) will kick off the event by highlighting the [65 elections](#) happening around the world and how they will impact the critical minerals sector. This summit promises to be a landmark event, gathering investors, world-class experts, and industry leaders. This week's stories reflect the CMI Directors' assessment of the top dozen events impacting the sector, including [Pat Ryan](#) of [Ucore Rare Metals Inc.](#)'s (TSXV: UCU | OTCQX: UURAF) upcoming [keynote speech](#) on breaking China's rare earth supply chain control, Cyclic Materials' [partnership](#) with SYNETIQ to recycle rare earth elements from vehicle motors, and the significant [growth](#) in the U.S. domestic uranium market. Additionally, you'll find updates

on the global lithium market, China's rapid [expansion](#) of nuclear power plants, and other critical events shaping the industry.

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The CMI Summit III Welcomes Pat Ryan of Ucore Rare Metals as Keynote Speaker: "Breaking China's Rare Earth Supply Chain Control with Western Innovation": (August 8, 2024, [Source](#)) – The [Critical Minerals Institute](#) (CMI) is hosting the [CMI Summit III](#) on August 21-22, 2024, in Toronto, themed "The Politics of the Critical Minerals Market." Pat Ryan, Chairman and CEO of [Ucore Rare Metals Inc.](#) (TSXV: UCU | OTCQX: UURAF), will deliver a keynote address titled "Breaking China's Rare Earth Supply Chain Control with Western Innovation." Ryan will discuss China's dominance in the rare earth elements (REE) supply chain and the need for Western innovation to establish an independent and resilient supply chain. He will highlight Ucore's efforts in developing the RapidSX™ technology and plans to establish REE processing facilities in North America. These initiatives aim to reduce reliance on Chinese imports and support the growing electric vehicle market. Ryan will also participate in a panel discussion on critical mineral technology trends on Day 2 of the summit.

Cyclic Materials and SYNETIQ Sign Agreement To Recycle Rare Earth Elements from Vehicle Motors: (August 8, 2024, [Source](#)) – Cyclic Materials, a leader in advanced metals recycling, has partnered with SYNETIQ, the UK's top vehicle salvage and recycling company, to recycle rare earth elements from electric and hybrid vehicle motors. This agreement, marking Cyclic Materials' first overseas contract, aims to enhance circularity by efficiently recovering valuable materials from end-of-life motors. Cyclic's proprietary technologies, Mag-Cycle™ and REEPure™, will process the recovered materials at their Hub100 plant in Kingston, Ontario. This collaboration supports the

global shift towards sustainable practices, reducing the environmental impact of rare earth mining and meeting the growing demand for these critical elements in the production of electric vehicles and electronics. Cyclic Materials is expanding its operations across North America, Europe, and Asia to support the electrification of the global economy.

Domestic uranium market will grow between 2023 and 2024: (August 8, 2024, [Source](#)) – The U.S. domestic uranium market is poised for growth between 2023 and 2024, as evidenced by a substantial increase in production and exploration activities. In Q1 2024, uranium miners produced over 82,000 pounds of uranium concentrate, surpassing the total output for 2023. Exploration and drilling efforts surged significantly between 2021 and 2023, indicating heightened interest in domestic uranium production. Additionally, U.S. civilian nuclear reactors increased their uranium purchases by 27% in 2023, driving up prices. While most uranium in 2023 was imported, primarily from Canada, Australia, and Kazakhstan, a recent U.S. ban on Russian uranium imports and new funding for domestic production may shift the supply landscape in the coming years.

China auto market hits milestone as EVs, hybrids make up half of July sales: (August 8, 2024, [Source](#)) – In July, half of all vehicles sold in China were new energy vehicles (NEVs), including pure electric vehicles (EVs) and plug-in hybrids, marking a significant milestone in the adoption of environmentally friendly vehicles. NEV sales increased by 37% compared to last year, capturing a record 50.7% of the market, as reported by the China Passenger Car Association. This surge contrasts starkly with the U.S., where EVs and hybrids accounted for only 18% of sales in the first quarter. Despite robust growth in the NEV sector, overall domestic car sales in China declined by 3.1%, continuing a four-month downturn amid economic challenges and weak consumer confidence. In response, the

government doubled cash subsidies for vehicle purchases and relaxed purchase restrictions in some cities to stimulate the market. Additionally, vehicle exports rose by 20% year-on-year, though they slowed from June's growth rate.

Glencore has ceased to stockpile battery material cobalt: (August 7, 2024, [Source](#)) – Glencore PLC (LSE: GLEN) has ceased stockpiling the electric vehicle battery material cobalt, as announced by CEO Gary Nagle. Last year, Glencore had amassed cobalt reserves to help stabilize prices by reducing market supply. However, despite these efforts, a significant surplus has arisen due to increased production in the Democratic Republic of Congo, the leading producer. This surplus has led to a drop in cobalt prices to their lowest since 2016. Nagle predicts it will take up to two years to resolve this excess, although he notes strong demand from the aerospace and defense sectors. Concurrently, China's CMOC Group is expanding its cobalt output in Congo, expecting to hit 100,000 tons by 2028. Despite current market conditions and evolving battery technologies that may decrease cobalt use, Nagle views this surplus as a temporary misalignment rather than a long-term market shift.

Serbia's strongman ruler leans west with a lithium deal: (August 7, 2024, [Source](#)) – Serbian President Aleksandar Vučić is increasingly aligning his country with Europe and the US, despite maintaining close political ties with Russia and China. This shift is exemplified by a recent memorandum of understanding between Serbia and the EU to develop Serbia's lithium resources, which are crucial for electric vehicle battery production. Vučić's decision to reverse a 2022 ban on Rio Tinto's lithium mining project, despite environmental concerns, signals Serbia's growing economic integration with the West. However, this move has strained relations with Russia, evidenced by a tense meeting with Russia's deputy foreign

minister. While Vučić's strategy could bring economic benefits, it also carries significant political risks, both domestically and internationally.

Qatar invests in US-backed fund to loosen China dominance of critical minerals: (August 7, 2024, [Source](#)) – Qatar has joined a US-backed initiative, investing \$180 million in TechMet Limited, a Dublin-based mining investment vehicle, to reduce China's dominance over critical minerals essential for clean energy. This marks the first collaboration between Western and Gulf states aiming to diversify the supply chain of rare earths, lithium, and cobalt—key components in electric vehicles. The US, under President Biden, is intensifying efforts to secure these minerals outside of China, urging allies like Qatar, Saudi Arabia, and the UAE to contribute financially. Qatar's investment represents a strategic move in the geopolitical rivalry between the US and China, leveraging its significant financial resources and neutral stance. Despite this investment, China remains a dominant player in the global market, controlling significant portions of global refining and processing capacities for these critical minerals.

Australia's lithium industry seen bearing brunt of supply cuts: (August 7, 2024, [Source](#)) – Australia's lithium industry is facing significant challenges due to falling prices and slower-than-expected demand for electric vehicles (EVs). Arcadium Lithium PLC (NYSE: ALTM | ASX: LTM) is reassessing its Mount Cattlin operations, joining other producers in reviewing operations amid the price drop. The lithium market, which saw rapid supply growth, now struggles as prices for spodumene, a key lithium raw material, have hit their lowest in nearly three years. High-cost Australian producers, who are less integrated compared to South American counterparts, are particularly vulnerable to production cuts. Analysts predict tough times ahead, especially for companies like Liontown Resources Limited

(ASX: LTR) and Pilbara Minerals Limited (ASX: PLS), which are expanding amid the downturn. The market's future remains uncertain as companies delay expansions and closely monitor market conditions.

Canada should spend more on adapting to climate change instead of just fighting it: researcher: (August 7, 2024, [Source](#)) – Canada should prioritize spending on climate adaptation alongside efforts to reduce greenhouse gas emissions, argues researcher Anabela Bonada. Despite the growing impacts of extreme weather, the federal government has allocated significantly more funds to mitigation than adaptation, with \$42 billion spent on reducing emissions since 2015, compared to just \$1.9 billion on adaptation. The National Adaptation Strategy introduced in 2023 outlines crucial targets for managing climate impacts, but inadequate funding has limited its effectiveness. The Insurance Bureau of Canada advocates for increased adaptation spending, suggesting \$5.3 billion annually over six years. The rise in climate-related disasters, such as wildfires, which have significantly increased carbon emissions, underscores the urgent need for balanced investment in both mitigation and adaptation strategies.

China Is Rapidly Building Nuclear Power Plants as the Rest of the World Stalls: (August 7, 2024, [Source](#)) – China is rapidly expanding its nuclear power capabilities, positioning itself as a global leader in the industry. With the construction of the Linglong One, the world's first small modular nuclear reactor for commercial use, China aims to reduce its reliance on coal and imported fuels. While nuclear power development has slowed globally, China continues to build new reactors, with 30 currently under construction. The country has invested heavily in research, including advanced technologies like fourth-generation reactors and nuclear fusion. China's approach, characterized by large-scale, state-supported projects and

standardized designs, has made nuclear power more cost-effective. However, concerns remain over safety, geopolitical tensions, and environmental impacts, particularly as China plans to build inland reactors. Despite these challenges, China's model may influence a broader nuclear revival worldwide.

The End of the Fantasy Demand Cycle in Critical Minerals: (August 5, 2024, [Source](#)) – The critical minerals market has experienced a major correction due to unrealistic government targets for electric vehicle adoption and net zero emissions, leading to a surge in investment that outpaced actual demand. This resulted in an oversupply, especially noticeable in minerals like lithium, prompting companies to scale back operations as expectations fell short. The preference is now shifting towards hybrid powertrains as a more viable solution given current resources. The piece also highlights the financial strain of maintaining subsidies for green technologies and advocates for a reassessment of investment strategies and market expectations. It underscores the need to transition from speculative to tangible investments based on realistic market conditions.

Leidos awarded \$276 million Defense Department contract to research and develop critical minerals and materials for use in munitions: (August 5, 2024, [Source](#)) – Leidos Holdings, Inc. (NYSE: LDOS) has secured a \$276 million contract from the U.S. Department of Defense (DoD) to conduct research and development (R&D) on critical minerals and materials for munitions. This contract aims to bolster the U.S. energetics supply chain, reducing reliance on foreign sources and ensuring military readiness. The task order was awarded under the DoD Information Analysis Center's multiple-award contract vehicle by the U.S. Air Force's 774th Enterprise Sourcing Squadron. Leidos, with over 30 years of experience in energetics R&D, will support the DoD in enhancing domestic production of these essential

materials. The DoDIAC program, established in 1946, facilitates innovation and collaboration within the DoD's science and technology community.

InvestorNews Media Highlights:

- August 8, 2024 – The CMI Summit III Welcomes Pat Ryan of Ucore Rare Metals as Keynote Speaker: “Breaking China’s Rare Earth Supply Chain Control with Western Innovation” <https://bit.ly/3yA8yYL>
- August 7, 2024 – InvestorTalk Alert: Stephen Burega from Appia Rare Earths & Uranium Corp. to host on Thursday, August 8, 2024 <https://bit.ly/3Wy2s3b>
- August 6, 2024 – It Was Bound To Come <https://bit.ly/3WCBgQE>
- August 5, 2024 – The End of the Fantasy Demand Cycle in Critical Minerals <https://bit.ly/4cd3g3c>

InvestorNews Member News:

- August 9, 2024 – Neo Performance Materials Reports Second Quarter 2024 Results <https://bit.ly/4dlRHYP>
- August 9, 2024 – F3 Shareholders Approve F4 Spin Out <https://bit.ly/4dyUrBS>
- August 8, 2024 – Appia Announces Extension of Its Non-Brokered Working Capital Private Placement <https://bit.ly/4cihCz6>
- August 8, 2024 – Zentek Announces Preliminary Battery Results and University of Toronto Receives NSERC Mission Alliance Grant to Optimize Graphite for Battery Anode Use <https://bit.ly/3WC6uYf>
- August 7, 2024 – Halleck Creek Expansion Potential Assays return TREO grades up to 5,280 ppm <https://bit.ly/46DKUar>
- August 6, 2024 – Neo Wins New Award with Leading European

Tier 1 Manufacturer of EV Traction Motors
<https://bit.ly/4fxuQLr>

- August 6, 2024 – Neo Announces Agreement to Sell its Quapaw, Oklahoma Rare Metals Facility
<https://bit.ly/3SEe8A4>
- August 6, 2024 – Nord Precious Metals Prepares for Recovery Permits and Plans for Future Operations at Castle Mine
<https://bit.ly/3SGt0mB>
- August 5, 2024 – Updated Figueira MRE drives +4,000ppm TREO upside to early production outlook
<https://bit.ly/4cdq0gk>
- August 5, 2024 – Share Purchase Plan Opens – Letter and SPP Offer Booklet <https://bit.ly/46B0S56>