Technology Metals Report (03.08.2024): Chinese Investment in Asia rose 37% in 2023, and the BYD Push in Australia is Underway

written by Tracy Weslosky | March 8, 2024

Welcome to the latest Technology Metals Report (TMR) where we highlight the top news stories that members of the Critical Minerals Institute (CMI) have forwarded to us in the last week. Key highlights in this Technology Metals Report include the announcement of Australia and Vietnam upgrading their relations to begin talks on critical minerals, focusing on diversifying supply chains away from China. This significant move aims to enhance cooperation in several sectors, particularly in the energy and resources sector, emphasizing the critical minerals supply chain. Both countries, known for their substantial roles in the production and reserves of critical minerals, are looking to strengthen their global supply chain positions amid rising geopolitical tensions and efforts to reduce dependency on China. Additionally, this edition features updates on Chinese investments in Asia, notably in Indonesia, which have surged by 37% in 2023 despite global economic challenges. This growth, largely concentrated in Belt and Road Initiative (BRI) countries, underscores China's strategic shift towards green energy and mining investments, especially in Southeast Asia.

Moreover, this edition of the TMR delves into several crucial developments in the critical minerals and technology metals landscape. The United States outlined its critical minerals

strategy for the clean energy transition, emphasizing the need to secure and diversify supply chains for essential minerals such as nickel, manganese, cobalt, and lithium. The EU's move to register Chinese electric vehicle (EV) imports for potential retroactive tariffs reflects growing concerns over fair trade practices. Kazakhstan's emergence as a potential major supplier of lithium, along with investments aimed at expanding lithium operations by companies like Albemarle, highlights the global race to secure essential components for green and digital technologies. Furthermore, the report covers strategic shifts in the supply chain, such as Posco's agreement with Syrah Resources for graphite supply from Mozambique and Toyota's multi-pathway approach to CO2 emissions reduction. These stories collectively point to a dynamic and rapidly evolving global landscape for critical minerals and technology metals, underlining the strategic importance of diversification, cooperation, and sustainable development in securing the materials essential for the future of technology and clean energy.

Australia and Vietnam upgrade relations, to begin talks on critical minerals (March 7, 2024, Source) – Australia and Vietnam have elevated their relations to a comprehensive strategic partnership, announced by Australian Prime Minister Anthony Albanese. This upgrade includes an annual dialogue on minerals, focusing on diversifying supply chains away from China. The partnership aims to enhance cooperation on climate, environment and energy, defense and security, and economic engagement and education. Additionally, it will foster collaboration in the energy and resources sectors, especially in critical minerals supply chains. Both countries, significant in the production and reserves of critical minerals, seek to strengthen their positions in global supply chains amid rising tensions and efforts to reduce dependency on China. This move also signifies Vietnam's success in "bamboo diplomacy,"

enhancing its relations with major global powers. The partnership reflects a deep mutual political trust and commits to expanded cooperation across various sectors, marking a milestone in the bilateral relationship between Australia and Vietnam.

Chinese investment in Asia rose 37% in 2023, led by Indonesia (March 7, 2024, Source) – In 2023, Chinese investment in the Asia-Pacific region surged by 37% to nearly $20 billion, outperforming global trends amid economic challenges. Construction contracts also grew by 14% to about $17 billion, supported by Chinese loans. This contrasts with a 12% decrease in foreign direct investment into Asia's emerging economies. The investment was predominantly in Belt and Road Initiative (BRI) countries, focusing on infrastructure that connects Asia to Europe. Non-BRI country investment plummeted by 90% to a mere $120 million. Notably, investment strategies shifted towards green energy and mining, with 50% of China's regional investment directed towards Southeast Asia, and Indonesia receiving the largest share at $7.3 billion. However, certain countries like the Philippines and Pakistan saw significant drops in Chinese engagement due to political and economic risks. The report anticipates a further increase in Chinese investment and construction, especially in green transition initiatives and strategic infrastructure projects, despite China's own economic challenges.

Under Secretary Jose Fernandez Discusses U.S. Critical Minerals Strategy for Clean Energy Transition (March 6, 2024, Source) – Under Secretary Jose W. Fernandez discussed the U.S.'s strategy for securing and diversifying the supply chain of critical minerals crucial for the clean energy transition in a conversation with InvestorNews' Tracy Weslosky. Highlighting minerals like nickel, manganese, cobalt, and lithium, Fernandez underscored efforts to expand their supply and engage with

countries possessing these resources through concrete projects, investment, and financing. He emphasized the challenge of reducing dependency on China, which currently controls a significant share of these minerals, pointing out the strategic vulnerability this poses. Fernandez stressed the importance of adhering to values such as environmental respect, community collaboration, and transparency in these endeavors. Despite slow progress, the U.S. aims to not only secure but also ethically source these minerals to support the global shift towards clean energy.

EU set to allow possible retroactive tariffs for Chinese EVs (March 6, 2024, Source) – The European Commission will start registering Chinese electric vehicle (EV) imports for potential retroactive tariffs, in response to an anti-subsidy investigation. This investigation aims to determine if Chinese EVs benefit from unfair subsidies, potentially harming EU producers. If found guilty, tariffs could be imposed, with provisional duties possible by July and a final decision expected by November. The Commission has found preliminary evidence of subsidy and a significant 14% year-on-year increase in imports since the investigation began in October, suggesting potential harm to EU producers. The China Chamber of Commerce expressed disappointment, attributing the import surge to growing European demand for EVs.

Kazakhstan positions itself for lithium windfall (March 6, 2024, Source) – Kazakhstan is emerging as a significant potential supplier of lithium, crucial for power-storage technology, with reserves estimated at around 75,600 tons. Research by the Korea Institute of Geoscience and Mineral Resources highlighted substantial reserves in eastern Kazakhstan, potentially worth up to $15.7 billion. This discovery, along with European interest in Kazakhstan’s critical raw materials, underscores the country’s growing importance in the global lithium market. The

European Commission and European Bank for Reconstruction and Development have allocated funds for lithium exploration, highlighting the strategic value of Kazakhstan's resources amidst increasing global demand. With investments from various countries, including China and potentially European entities, Kazakhstan is set to play a crucial role in the lithium supply chain, essential for green and digital technologies.

BYD spearheads Chinese electric car push in Australia, a friendlier market (March 5, 2024, Source) – BYD and other Chinese automakers are making significant inroads into the Australian electric vehicle (EV) market, leveraging the friendly trade environment and benefiting from the government's aggressive EV adoption policies under Prime Minister Anthony Albanese since 2022. With no trade barriers, EV subsidies, and tax benefits, EV sales in Australia have soared, with EVs making up 7.2% of new car sales in 2023. BYD, supported by Warren Buffett, has quickly captured 14% of Australia's EV market since its entry in 2022, trailing only behind Tesla. The company plans to expand its product lineup and dealership network in Australia, aiming for mainstream market penetration. Similarly, SAIC Motor under its MG brand is set to launch new models. Incumbent automakers like Ford and Toyota are also adapting, introducing electrified vehicles to compete. Despite being a relatively small market, Australia's lack of local car manufacturing and openness to international trade make it an attractive destination for Chinese EV manufacturers, especially given the geopolitical tensions in other key markets.

Canada and Australia boost collaboration on critical minerals (March 4, 2024, Source) – Canada and Australia have committed to enhancing their cooperation on critical minerals, vital for battery production and clean energy transition, according to a joint statement released on the margins of the PDAC conference in Toronto. Both countries, rich in these essential minerals,

aim to bolster their partnership through R&D collaboration, trade, and investment in the mining sector based on a non-legally binding agreement. This collaboration seeks to ensure supply chain transparency and promote high Environmental, Social, and Governance (ESG) standards globally. The initiative will be spearheaded by Canada's Natural Resources Ministry and Australia's Critical Minerals Office, focusing on policy and investment coordination to support the burgeoning demand for these minerals in the upcoming decades.

Albemarle (ALB) Accelerates Lithium Growth With $1.75B Offering (March 4, 2024, Source) – Albemarle Corporation (NYSE: ALB) announced a $1.75 billion offering in depositary shares, each representing a 1/20th interest in Series A Mandatory Convertible Preferred Stock, with a potential additional offering of $262.5 million under certain conditions. The proceeds are intended for general corporate uses, notably to fund growth capital expenditures for expanding lithium operations in Australia and China, as well as repaying outstanding commercial paper. The depositary shares will carry rights and preferences similar to the Preferred Stock, including conversion into common stock on or around March 1, 2027. Despite a 52.1% decrease in Albemarle's share price over the past year, the company forecasts a 10-20% increase in Energy Storage volumes for 2024, with expected net sales in its Specialties and Ketjen segments ranging from $1.3 to $1.5 billion and $1 to $1.2 billion, respectively.

Posco to source 60,000 tons of graphite from Africa in pull away from China (March 3, 2024, Source) – Posco Future M, a subsidiary of Posco Group, is shifting its supply chain for natural graphite, a crucial battery material, away from China towards Africa. This move is highlighted by a new deal with Australian mining firm Syrah Resources Limited (ASX: SYR), which will provide Posco Future M with up to 60,000 tons of natural graphite annually for six years from its Mozambique Balama

operation, starting no later than 2025. This supply is expected to cover 40% of Posco Future M's anode production, translating to about 30,000 tons of anodes. The agreement comes amid concerns over China's control over graphite exports, potentially as leverage against international policies such as the U.S.'s Inflation Reduction Act. Posco's decision reflects a broader strategy to diversify supply sources and reduce dependency on China, amid rising geopolitical tensions and supply chain vulnerabilities.

Total EV Adoption Is Not The Way Forward, Says Toyota Chairman (March 3, 2024, Source) – Akio Toyoda, Toyota's Chairman, expresses skepticism towards full adoption of battery electric vehicles (BEVs), arguing they will not dominate the market beyond a 30% share despite other markets already exceeding this percentage. In a presentation in Tokyo, he emphasized a multi-pathway approach to combating CO2 emissions, suggesting that consumer choice should drive the future of automotive powertrains rather than regulations. Toyota plans to focus on a diverse range of technologies including internal combustion engines, hybrids, and hydrogen vehicles, alongside BEVs. Despite the global push towards electric vehicles, with countries like Norway showing an 80% market share for EVs, Toyoda's stance reflects a broader strategy to embrace multiple solutions for emission reduction. This perspective aligns with Toyota's goal to comply with future regulations and its commitment to sell 1.5 million EVs by 2026, while also investing in alternative technologies like e-fuels.

Kazakhstan plans to export aluminum, gallium and scandium to the US (March 1, 2024, Source) – Kazakhstan is aiming to strengthen its trade ties with the United States by proposing to export aluminum, gallium, and scandium. This initiative was unveiled during Minister of Industry and Construction Kanat Sharlapayev's official visit to the U.S., focusing on promoting Kazakhstani

interests globally and expanding cooperation in critical materials. In addition to these exports, Kazakhstan is offering tolling services and exploring the production of other precious minerals like wolfram, cobalt, lithium, and titan, aiming to discuss long-term contracts and investment support. The country, which processes 17 of the 50 minerals critical to the U.S. economy, already exports several strategic minerals to American companies. Sharlapayev's visit also involved meetings with leading American companies to discuss opportunities in industrial production and geological exploration. The talks highlighted the potential for joint projects in various sectors, including infrastructure development and technology, with the U.S. International Development Finance Corporation expressing interest in deepening cooperation with Kazakhstan.

Chinese money still chasing Canadian critical mining deals despite Ottawa's scrutiny (February 27, 2024, Source) – A year after Canada tightened its foreign investment rules for the critical minerals sector to enhance national security, Chinese investments continue to flow into Toronto-listed mining companies, as per research by the University of Alberta. Despite Canada forcing three Chinese investors to divest their stakes in 2022 and increasing scrutiny on foreign deals, especially in critical minerals, investments from China and Hong Kong surged to C$2.2 billion in 2023, a significant leap from C$62 million in 2022. This influx is buoyed by the perception that Canada remains open to Chinese investments, with junior miners finding it easier to secure funding. The critical minerals sector, vital for Canada's national security, has seen Chinese entities actively investing, notably in copper assets. For instance, MMG Africa Ventures acquired a copper mine for C$1.7 billion, and Jiangxi Copper Co increased its stake in First Quantum Minerals Ltd. (TSX: FM). Some Canadian miners are lobbying for more Chinese investments due to difficulties in raising capital

elsewhere, despite the government's stringent stance on safeguarding critical resources.

Investor.News Critical Minerals Videos:

- March 08, 2024 – Mark Chalmers on Energy Fuels as a Profitable Uranium Producer in the U.S. https://bit.ly/3P9nl1J
- March 07, 2024 – Critical Metals Russell Fryer on Copper and Cobalt Plans for Production in 2024 https://bit.ly/43bGYvJ
- March 06, 2024 – Under Secretary Jose Fernandez Discusses U.S. Critical Minerals Strategy for Clean Energy Transition https://bit.ly/433yBSZ

Critical Minerals IN8.Pro Member News Releases:

- March 8, 2024 – F3 and Traction Begin Drilling to Locate Source of Radioactive Boulders https://bit.ly/436k09t
- March 7, 2024 – American Clean Resources Group Commits to Transfer Federal Tax Credits to Investors to Accelerate the Development of Its Renewable Energy Assets https://bit.ly/3wCIjzu
- March 6, 2024 – Halleck Creek Project Update https://bit.ly/3InYYJV
- March 6, 2024 – Karbon-X Announces Appointment of Brett Hull and Justin Bourque to its Board of Directors https://bit.ly/3TpdYxt
- March 5, 2024 – Panther Metals PLC – Australia: Coglia

Nickel-Cobalt Mineral Resource Exceeds 100Mt https://bit.ly/3IptcMI

- March 5, 2024 – Panther Metals PLC – Obonga: Extension of Purchase Agreement https://bit.ly/3TmYLge
- March 4, 2024 – Ucore Progresses Through Heavy Rare Earth Processing as It Completes Second Milestone of Strategic US DoD Contract https://bit.ly/3uSunkx
- March 4, 2024 – First Phosphate Corp. Receives Mining Research and Innovation Grant from Quebec Ministry of Natural Resources https://bit.ly/3Iny84z
- March 4, 2024 – Voyageur Pharmaceuticals and API Forge Alliance for Carbon-Based Imaging Drug Advancement https://bit.ly/3wBuem6
- March 4, 2024 – Defense Metals Ships Mixed Rare Earth Carbonate Samples to two major REE companies https://bit.ly/43iwmLT
- March 4, 2024 – Power Nickel Defines Initial Volume on its High-Grade Cu-Pt-Pd-Au-Ag Zone 5km Northeast of its Main Nisk Deposit https://bit.ly/3TiZNde

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An update on the graphite sector and what to expect in 2024 and beyond

written by Matt Bohlsen | March 8, 2024

2023 has been a rough year for all the EV metals and graphite was no exception. EV battery anodes contain a combination of spherical graphite (sourced from natural flake graphite) and

synthetic graphite. Today we take a look at the key trends of 2023 and what we can expect in 2024 and beyond.

The Critical Minerals Institute Report (CMI 11.2023): Neodymium price is down 33% over the Past Year, Record Plug-In EV Car Sales for September

written by Matt Bohlsen | March 8, 2024

Welcome to the November 2023 Critical Minerals Institute ("CMI") report, designed to keep you up to date on all the latest major news across the critical minerals markets. Here is the CMI list of critical minerals (CMI List of Critical Minerals) or visit the CMI Library where critical minerals expert Alastair Neill tracks the latest critical mineral lists worldwide.

Global macro view

High interest rates (and cost of living increases) in most Western countries continue to be a drag on the global economy. Europe, in particular, continues to struggle. Last month saw a welcome fall in US inflation to 3.2%pa suggesting the US Fed may not need to raise rates at their December 12-13 meeting.

China has been ramping up support for their beaten down property sector and economy. The key hope for 2024 is that China's property market stabilizes and their economy improves. Some early positive signs are appearing.

The Russia-Ukraine war continues as does the Hamas-Israel war. The outcomes of these conflicts can impact oil prices and hence inflation, meaning they are key events to monitor as we head into 2024.

Global electric vehicle ("EV") update

November 2023 saw strong EV sales reported for September 2023. Global plugin electric car sales for September were a record 1,291,000 up 23% YoY to 17% market share.

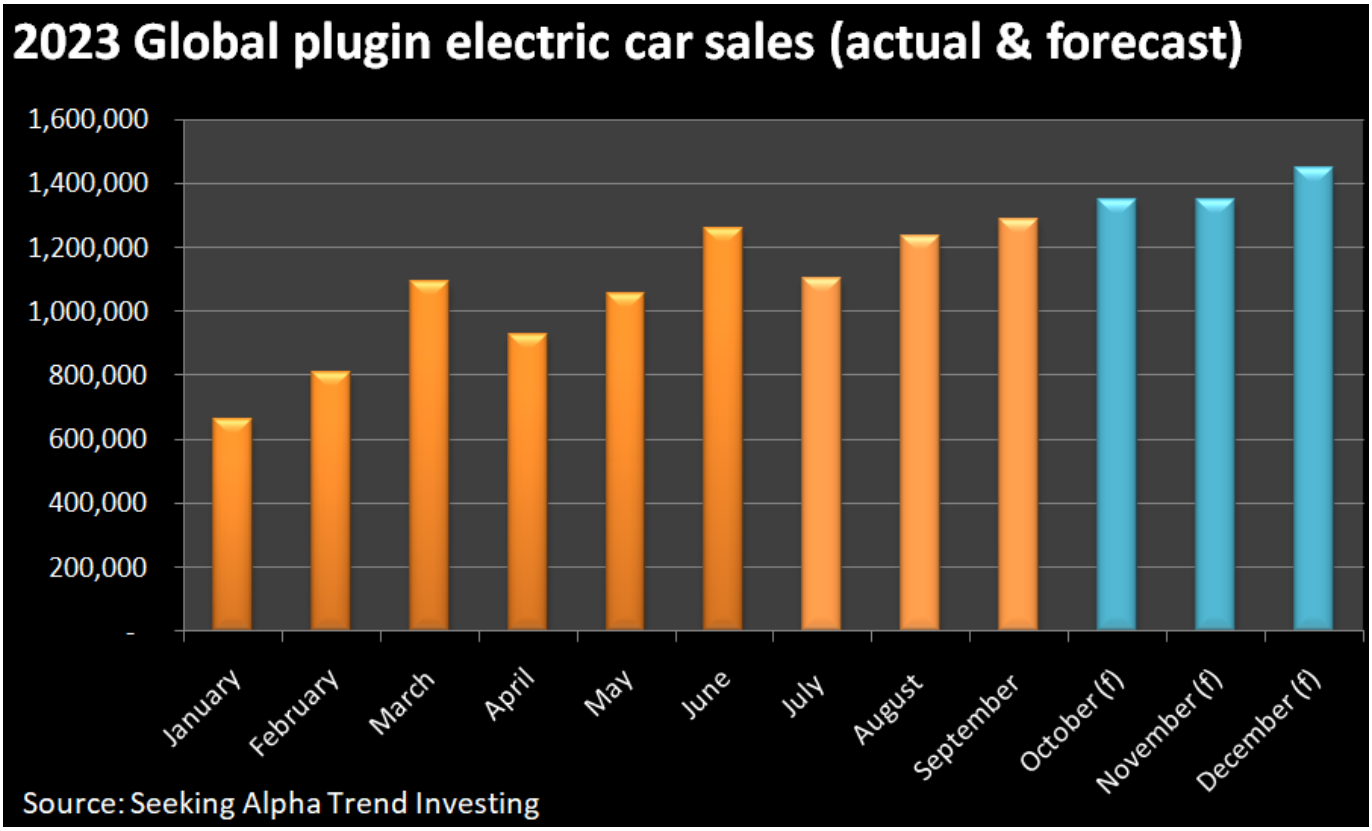
In September, China sales were up 22% YoY to 37% share. Europe sales were up 15% YoY to 25% share. USA sales were up 59% YoY to 9.9% share.

Results look very promising for October 2023 with global plugin electric car sales on track to reach or exceed ~1.35 million. China's October sales have been announced and they hit a new record of 956,000 sales.

2023 sales look set to finish at ~13.6 million and 17% market share, which would be a 29% increase on 2022 (10.522 million and 13% market share). A 29% growth rate in 2023 would be a significant slowdown on the 56% growth rate achieved in 2022.

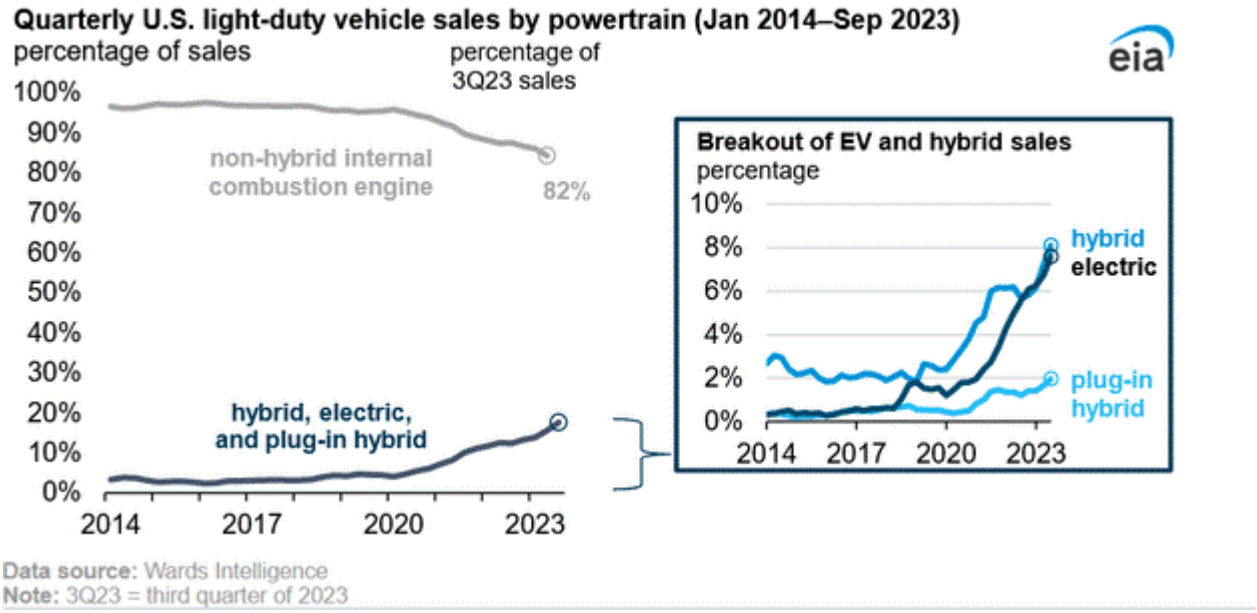
Regarding US Battery Electric Vehicle ("BEV") car sales, the EIA recently reported that "BEV prices are now within $3,000 of the overall industry average transaction price for light-duty vehicles."

Global plugin electric car 'monthly' sales in 2023 (source)



Finally, reports of a slowdown in US EV demand are 'fake news'. US electric car sales are achieving record sales in 2023 as we saw in the US Energy Information ("EIA") announcement on November 27, 2023. The chart below gives a good summary. The fact that Ford Motor Company (NYSE: F) and General Motors (NYSE: GM) are slowing down their EV production plans due to weak EV sales says more about their failure to produce well priced and desirable EVs rather than the US market as a whole. There is a similar situation with Volkswagen AG in Europe. Both BYD Company Limited (OTC: BYDDF) and Tesla Inc. (NASDAQ: TSLA) continue to rapidly expand their production and EV sales. Legacy automakers need to up their game or be left behind by the EV leaders Tesla and BYD who continue to go from strength to strength.

Electric vehicles and hybrids grow to a record-high 18% of U.S. light-duty vehicle sales (source)



Global critical minerals update

Western governments, led by the USA, have continued to ramp up support for a Western EV and battery supply chain. In November we had two key announcements:

- On October 31 The Government of Canada announced: "Government of Canada to enhance critical minerals sector with launch of $1.5 billion Infrastructure Fund…"Our investments will help the mining industry develop important enabling and supporting infrastructure such as roads and energy facilities required prior to construction of mines."
- On November 15 Energy.gov announced: "Biden-Harris Administration announces $3.5 Billion to strengthen domestic battery manufacturing…As part of President Biden's Investing in America agenda, the funding will create new, retrofitted, and expanded domestic facilities for battery-grade processed critical minerals, battery precursor materials, battery components, and cell and pack manufacturing…"

These are positive developments, however not enough is being done upstream to support the critical minerals 'miners' to get into production. The Canadian Government's announcement above is reasonably well directed, but it is to be spread over 7 years and is nowhere near enough money for what is needed. The US Government's effort is further supported on the back of previous announcements as part of the 2022 Inflation Reduction Act ("IRA") which intends to spend US$369 billion in energy security and climate change programs over ten years. However, most of the funds so far are to support battery manufacturing and EV plants and subsidies. More funds need to be put to use to help support the critical mineral mining companies, particularly as key critical minerals such as lithium is the bottle neck to ramp up western production of EV's and energy stationary storage.

The IRA has been extremely successful so far at bringing EV and battery investments to the USA. For example, in November we heard a report of yet another US factory being planned with Toyota planning to invest US$8 billion in a North Carolina battery plant to increase EV capacity.

Over in Europe, the EU Critical Raw Materials Act ("CRMA") has progressed to the next stage with 'provisional' agreement achieved, noting the increased focus on recycling. On November 13, the European Union Council announced:

"*The Council and the European Parliament today reached a deal on the proposed regulation establishing a framework to ensure a secure and sustainable supply of critical raw materials, better known as the Critical Raw Materials Act. The agreement is provisional, pending formal adoption in both institutions…The political agreement reached today keeps the overall objectives of the original proposal but strengthens several elements. It includes aluminium in the list of strategic and critical materials, reinforces the benchmark of recycling, clarifies the*

permitting procedure for strategic projects, and requires relevant companies to perform a supply-chain risk assessment on their sourcing of strategic raw materials…On the global stage, the regulation identified measures to diversify imports of critical raw materials ensuring that ***not more than 65% of the Union's consumption of each strategic raw material comes from a single third country****…The provisional agreement keeps* ***the benchmarks of 10% for extraction of raw materials and 40% for processing but increases the benchmark for recycling to at least 25%*** *of EU's annual consumption of raw materials…The provisional compromise also unifies the timings of the permit procedure.* ***The total duration of the permit granting process should not exceed 27 months for extraction projects and 15 months for processing and recycling projects****…Next steps. The provisional agreement reached with the European Parliament now needs to be endorsed and formally adopted by both institutions."*

Note: Bold emphasis by the author. Synthetic graphite was also added.

In November we did hear some more reports on sodium-ion batteries and how they can help meet the incredible battery demand needed for the green energy transition. Sodium-ion can help around the margin, but it will not replace lithium-ion. Sodium-ion batteries will be used for energy stationary storage and cheap (<US$10,000) low-end, low-range, small EVs. Beyond that, the sodium-ion battery as exists today will have limited demand. CATL is leading the way with sodium-ion battery manufacturing and is one to watch.

On November 25 The Fraser Institute reported:

"A total of 388 new mines must be built to produce the metals required to meet international government mandates for electric vehicle…The International Energy Agency (IEA) suggests that to

meet international EV adoption pledges, ***the world will need 50 new lithium mines by 2030, along with 60 new nickel mines, and 17 new cobalt mines****…Historically, however, mining and refining facilities are both slow to develop and are highly uncertain endeavors plagued by regulatory uncertainty and by environmental and regulatory barriers. Lithium production timelines, for example, are approximately 6 to 9 years, while production timelines (from application to production) for nickel are approximately 13 to 18 years, according to the IEA…The risk that mineral and mining production will fall short of projected demand is significant, and could greatly affect the success of various governments' plans for EV transition."*

Note: Bold emphasis by the author.

Lithium

China lithium carbonate spot prices fell significantly in November 2023, with the price now at CNY 126,500/t (US$ 17,870/t) and down 78% over the past year. At these prices, marginal cost lithium producers in China are shutting down and Albemarle Corporation (NYSE: ALB) and JV partners at the Greenbushes Mine are considering production cuts in H1, 2024. A bottom is likely to form soon at or above CNY 100,000/t assuming global EV sales hold up at current rates of about 30% growth in 2023 and 2024.

Lithium takeovers continue despite weak sentiment

Chile's SQM recently increased their takeover offer for Azure Minerals Limited (ASX: AZS) to US$900 million. Meanwhile, Mineral Resources Limited (ASX: MIN) has been building an equity stake in Azure Minerals as well as buying a 19.85% equity interest in Wildcat Resources Limited (ASX: WC8), another WA lithium junior miner. Not to be outdone, Australian billionaire

Gina Reinhart has recently bought a 19% interest in Azure Minerals. Reinhart was active in buying Liontown Resources Limited (ASX: LTR), ultimately leading Albemarle to withdraw their takeover offer.

At least it looks like the Allkem-Livent merger is still going ahead. Allkem Limited (ASX: AKE) and Livent Corporation (NYSE: LTHM) have received all required regulatory approvals globally for their 'merger of equals', expected to close by January 4, 2024.

All of this takeover activity from the major lithium companies suggests that we are near a bottom in the lithium price cycle and that the mid to long-term outlook for lithium remains very strong.

Rare Earths

Neodymium ("Nd") prices fell in November and are currently sitting at CNY 610,000/t. The neodymium price is down 33% over the past year, but still well above the 2019 price.

Neodymium 5 year price chart (source)

On November 16 Rare Element Resources Ltd. (OTCQB: REEMF) announced receipt of the final NEPA approval for their rare earth processing and separation demonstration plant to be built in Upton, Wyoming, USA. The news stated: “The Company is awaiting next stage budget approval from the DOE, which is providing approximately 50% of the project costs, to commence construction.”

Cobalt, Graphite, Nickel, Manganese and other critical minerals

Cobalt prices (currently at US$14.85/lb) remained flat the past month and continue to be very depressed. China’s demand for NMC cathode material for EVs has been weak as LFP cathodes (no nickel or cobalt) have gained in popularity.

Flake graphite prices also remain very weak with prices near the marginal cost of production. The big news in the graphite world is China’s intention to temporarily enforce export license permits on three synthetic graphite-related items and six

natural graphite-related items, starting from December 1, 2023. As a result, we have seen some buying activity and flake graphite prices rising in Europe.

Nickel prices fell further to US$16,593/t in November due to oversupply concerns from Indonesia and the depressed Chinese property sector.

Manganese prices also fell slightly in November.

BMW Probes Moroccan Supplier for Critical Mineral Compliance

written by Tracy Weslosky | March 8, 2024

BMW (Bayerische Motoren Werke AG (OTC: BMWYY)), the prominent German automaker, is currently investigating a Moroccan cobalt supplier, Managem, following a report that raised serious concerns over labor and environmental violations at a cobalt mine in Morocco. The report, which surfaced in the German daily newspaper Sueddeutsche Zeitung, in collaboration with broadcasters NDR and WDR, alleged that the mining operations at Bou Azzer, southern Morocco, were releasing excessive arsenic levels into the environment. This revelation has significant implications given the critical role of cobalt in manufacturing electric car batteries, a market in which BMW is a key player.

Investor.Coffee (11.13.2023): Moody's downgrade on U.S. Credit Rating Outlook "Negative", Japanese wholesale inflation slows

written by Tracy Weslosky | March 8, 2024

Pre-Open Market Overview, Canada

Canadian markets are showing a downtrend, aligning with Wall Street futures which are slightly down after Moody's downgraded the U.S. credit rating outlook to "negative." European shares experienced a boost, primarily in the healthcare sector, while Japan's Nikkei index remained unchanged. Oil prices have seen a minor increase due to concerns over reduced demand in the U.S. and China, coupled with mixed signals from the Federal Reserve. Meanwhile, gold prices have risen marginally, and the U.S. dollar remains relatively stable against other major currencies.

Tax Selling Deadlines

For Canadian tax filers, December 27, 2023, marks the deadline for tax-loss selling. I mention this as we have a CMI Masterclass on Critical Minerals and Flow Through that I am hosting next Monday, November 20th at 7PM EST that I urge you to attend. Use the promo code CMI3 and you can secure a complimentary pass. I am writing the news release today. Transactions post this date will be counted for the 2024 tax

year. The U.S. deadline, as per the IRS, is December 29.

European Stock Futures

Euro STOXX 50 futures rose by 7 points to 4,215, FTSE futures gained 6 points reaching 7,378, and German DAX futures increased by 5 points to 15,297 as of 0530 GMT.

Asian Market Trends

Asian stocks saw an upward trend, taking cues from Wall Street's Friday rally, despite Moody's downgrade of the U.S. credit outlook. Oil prices, however, receded after the initial rally, influenced by concerns over diminishing demand in the U.S. and China.

U.S. Market and Economic News

U.S. markets have witnessed two consecutive weeks of gains. Key factors that could impact this trend include Moody's recent downgrade of the U.S. credit outlook and the upcoming consumer price index release. Retail earnings reports from major U.S. companies are also anticipated.

Company-Specific News

- **Alphabet Inc. (NASDAQ: GOOGL)**: Google is in discussions to invest in Character.AI, with negotiations ongoing regarding the terms.
- **Exxon Mobil Corporation (NYSE: XOM)**: Exxon plans to start lithium production in Arkansas by 2026. Also, Exxon has reached a settlement with Iraq over the West Qurna 1 oilfield.
- **Ford Motor Company (NYSE: F)**: UAW workers at Ford's Kentucky plants have mixed opinions on the new labor

agreement, with production workers voting against it.

- **Livent Corporation (NYSE: LTHM)**: Livent is set to meet Allkem investors regarding a merger that would create a significant lithium producer.
- Streaming Giants (Netflix, Disney, Warner Bros Discovery): They have agreed to pay significant bonuses as part of a labor deal with the SAG-AFTRA actors union.
- **NVIDIA Corporation (NASDAQ: NVDA)**: The U.S. restrictions on China are prompting Nvidia to innovate to meet market needs.
- **Tesla Inc. (NASDAQ: TSLA)**: EG Group plans to buy Tesla ultra-fast charging units to expand its EV charging network in Europe.

Economic Data Release

- The Federal budget for October is expected to show a deficit of -$30.00 billion, compared to the previous -$171.00 billion.

Europe/Asia Political and Health Updates

- UK Interior Minister Suella Braverman was dismissed amid allegations of political bias against London police.

- Former UK PM David Cameron surprisingly returned as foreign minister.
- U.S. Senator Tim Scott withdrew from the 2024 Republican presidential nomination race.
- Japanese wholesale inflation slowed, indicating easing price pressures.
- **Bayerische Motoren Werke AG (BMW) (OTC: BMWYY)** is

investigating operations at a Moroccan cobalt mine following reports of legal breaches.

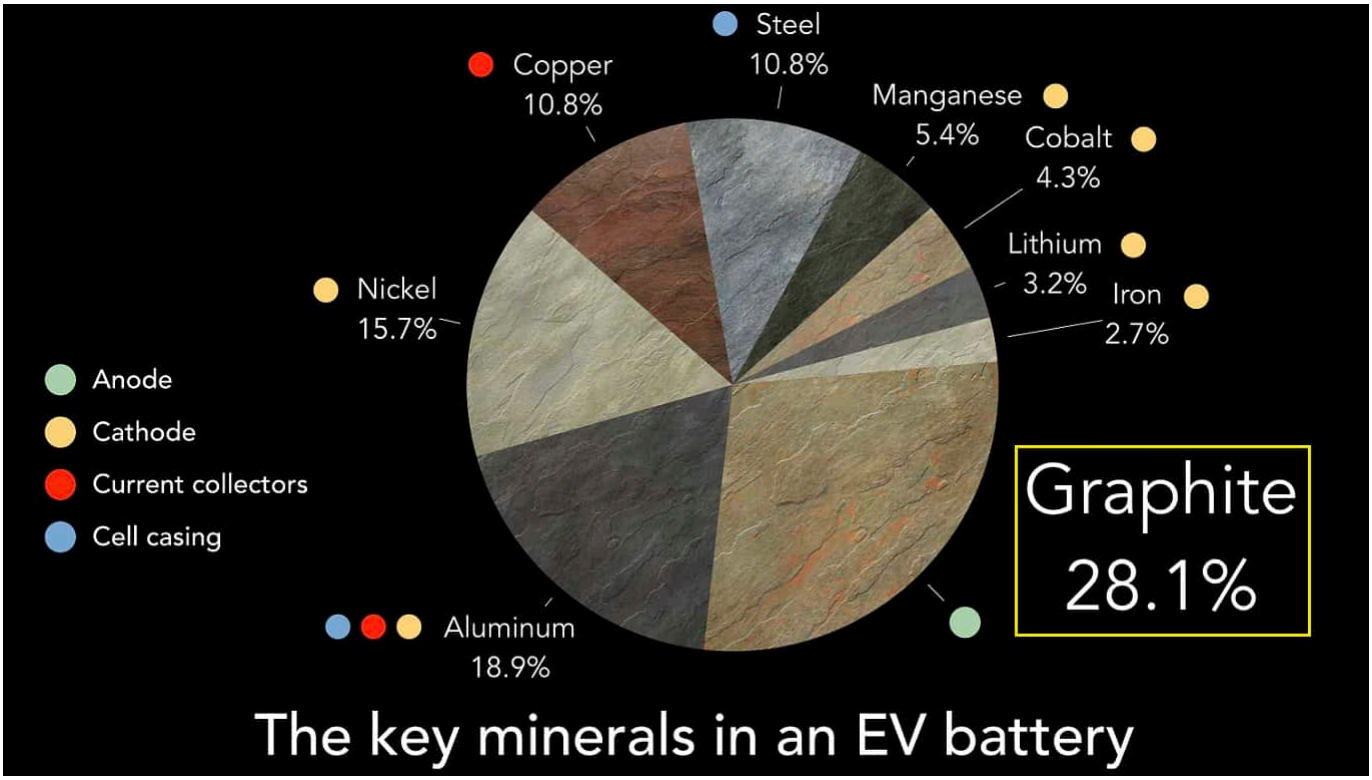
Can the Western graphite and anode industry rise to meet China's challenge?

written by Matt Bohlsen | March 8, 2024

China to impose some graphite and processed graphite materials 'export permits' from December 1, 2023

Last week it was reported that China, the world's top graphite producer plans to curb exports of key battery material by implementing export permits for some graphite products from December 1 to protect national security. Another report stated: "China graphite export restrictions could hinder ex-China anode development….if it lasts into the longer term, it is likely to accelerate the build-out of a localized graphite and battery anode supply chain outside China."

Graphite is the number one metal required for lithium-ion batteries making up about a 28% share. It is used in the anode.



The key metals and minerals in a battery of an electric vehicle

The world is very dependent upon China to supply processed graphite material and anodes for Li-ion batteries

The reason why this is huge news in the graphite world is that China produces 67% of global natural flake graphite supply and refines more than 90% of the world's graphite into active anode material (typically spherical graphite). If China were to deny or delay permits for spherical graphite it will cause major problems for anode manufacturers outside China, such as those in South Korea, Japan, or North America.

China currently produces ~77% of global lithium-ion batteries and 75-80% of global electric cars, thereby completely dominating the industry. If the West is shut out from sourcing

processed EV battery materials from China then they will have a major problem producing their own EVs. China plans to prioritize EV battery materials for their own needs. This is why President Biden introduced the Inflation Reduction Act (IRA) and the EU introduced the EU Critical Raw Materials Act. Both are designed to address the shortages in the EV supply chain and the forecast shortages of future supply of critical raw materials. The problem is the IRA has done little to address the supply of raw materials and the EU Critical Raw Materials Act is woefully inadequate and targets fall way short of what will be needed.

Which western graphite companies can rise to meet the challenge to establish an ex-China graphite supply chain

The leading western graphite companies that are working to establish an ex-China supply chain for flake graphite, synthetic graphite, and spherical graphite include:

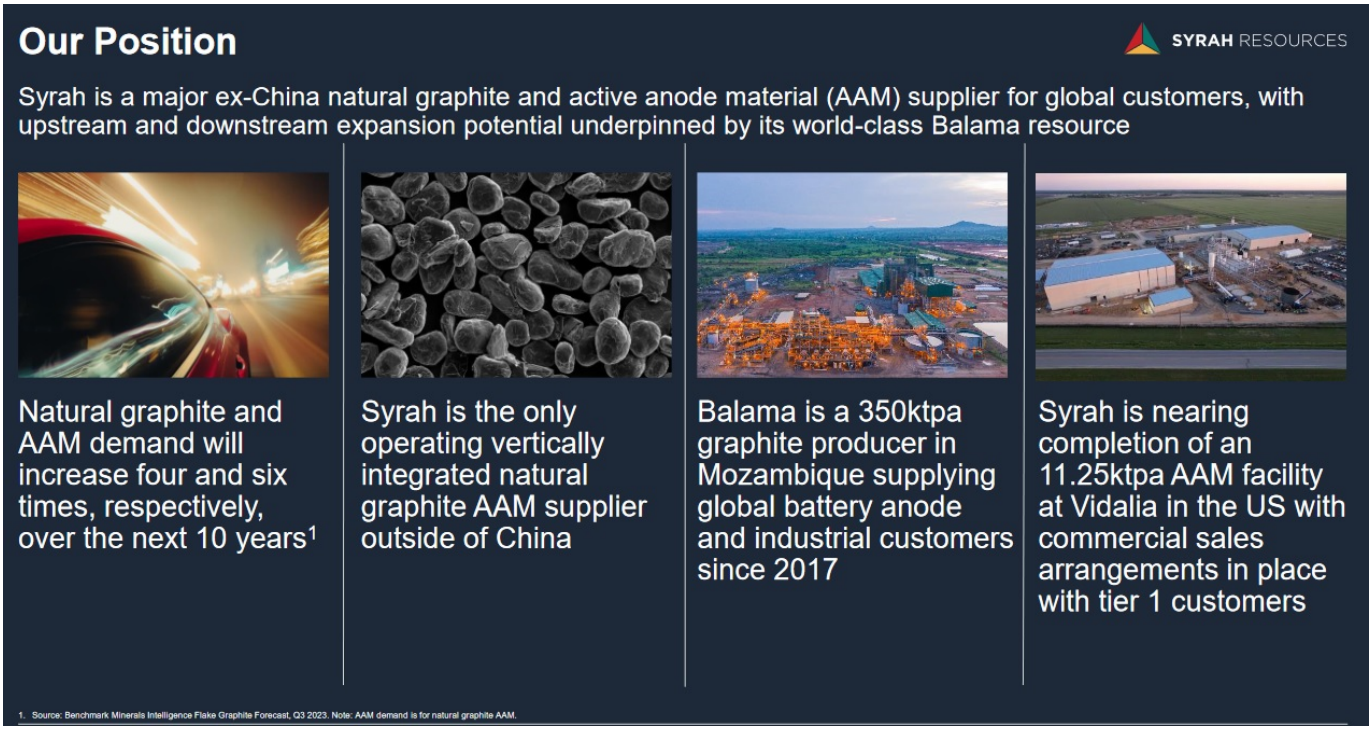
- **Syrah Resources Limited (ASX: SYR)** – Largest western flake graphite producer with their 350,000tpa flake graphite capacity Balama Mine in Mozambique. Currently constructing the Vidalia spherical graphite facility in Louisiana, USA with Stage 1 production plans to produce 11,250tpa of spherical graphite. Longer term they plan to expand to 45,000tpa in 2026 and then to >100,000tpa by 2030 with an Europe/Middle East facility. Syrah already has an off-take agreement with Tesla (NASDAQ: TSLA). Syrah's stock price has surged ~80% higher the past week following the release of the China export permits news.
- **Nouveau Monde Graphite Inc. (NYSE: NMG | TSXV: NOU)** – Is

rapidly progressing their plans for their Matawinie Graphite Mine and Bécancour Battery Anode Material Plant in Quebec, Canada. The company is working with Panasonic to qualify their graphite anode material. Panasonic supplies Tesla with batteries.

- **Northern Graphite Corporation (TSXV: NGC | OTCQB: NGPHF)** – Owns graphite producing and past producing mines in Quebec, Canada and Namibia. They also own the Bissett Creek graphite Project in Ontario, Canada. The Company state that they are "North America's Only Significant Natural Graphite Producer". The Company plans to develop one of the world's largest battery anode materials facilities in Baie-Comeau Québec with 200,000tpa of capacity.
- **NextSource Materials Inc. (TSX: NEXT | OTCQB: NSRCF)** – A new graphite producer from their Molo Graphite Mine in Madagascar with Phase 1 capacity of 17,000tpa of flake graphite production and plans to expand to 150,000tpa. The Company's short term plan is for a Battery Anode Facility in Mauritius and longer term for similar facilities in USA/Canada, UK, EU.
- **Magnis Energy Technologies Ltd.** (ASX: MNS | OTCQX: MNSEF) – Magnis aims to produce high performance anode materials utilising ultra-high purity natural flake graphite from their Nachu Graphite Project in Tanzania. Magnis' partially owned U.S.-based subsidiary Imperium3 New York, Inc ("iM3NY") operates a gigawatt scale lithium-ion battery manufacturing project in Endicott, New York.
- **Talga Group Ltd. (ASX: TLG)** – Own the integrated mine to anode Vittangi Graphite Project in Sweden. In September 2023 Talga broke ground on their 19,500tpa anode facility, stating "the refinery is projected to be the first commercial anode production in Europe for electric vehicle Li-ion batteries".

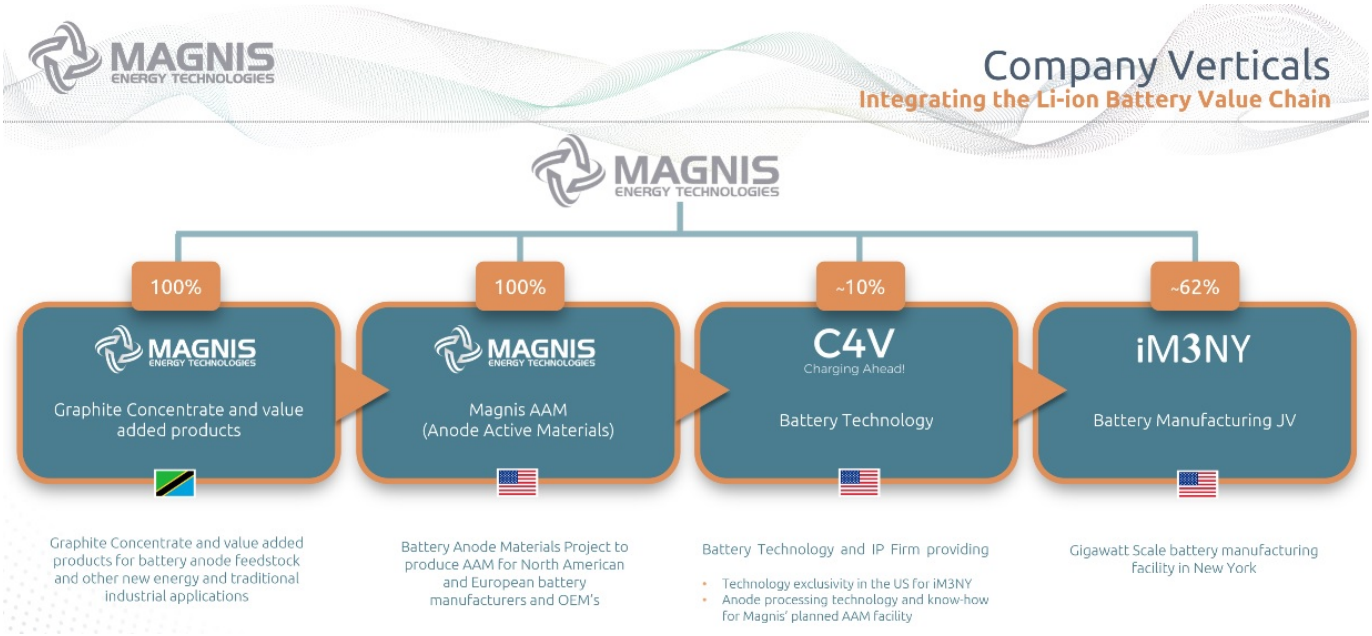
- **Novonix Limited (NASDAQ: NVX | ASX: NVX)** – Has a production capacity target of up to 20,000 tpa of synthetic graphite anode material from their Tennessee facility in the USA.
- **Anovion Technologies (private)** – The USA anode producer plans to invest US$800 million to produce a 40,000tpa synthetic graphite anode material facility in Georgia, USA with plans to expand to 150,000tpa by 2030.

Syrah Resources leads the West's attempt to build an ex-China flake graphite and anode material supply chain



Source: Syrah Resources September 2023 Quarterly Activities presentation

Magnis Energy Technologies is working towards becoming a graphite producer, anode materials producer and is already a small scale JV battery producer in the USA



Source: [Magnis Energy Technologies company presentation]

Closing remarks

The Western world received a loud wake-up call the past week. The China graphite products 'export permits' may only serve to restrict or slow down some anode material supply from China, but it puts the West on notice of how dependent they are upon China.

Given the world is rapidly moving to electric vehicles, the West must urgently build up its EV materials supply chains or risk being left behind in the global EV race.

The USA is making some bold moves and the companies discussed in this article are moving in the right direction. Let's just hope that the western EV supply chain build out accelerates rather than stalls like [GM's latest electric pickup truck plans]. I think Americans will want U.S.-branded electric cars and I know Europeans will want European branded electric cars. If we are not careful our only choice one day might be Tesla and Chinese electric cars. Stay tuned.

The Critical Minerals Institute October Report: A slowing global economy continues to temper demand

written by Matt Bohlsen | March 8, 2024

Welcome to the October 2023 Critical Minerals Institute ("CMI") report, designed to keep you up to date on all the latest major news across the critical minerals markets. Here is the IEA list of Critical Minerals.

A slowing global economy continues to temper demand for critical minerals in 2023

High interest rates in most Western countries continue to be a drag on the global economy. Last month saw the U.S. Fed pause their interest rate hikes, with the reserve rate still at 5.5%. However, U.S. inflation has been rising again and the Fed has indicated rates will need to stay higher for longer. The September CPI was 3.7%, same as August's 3.7%, but up on the July 3.2% figure. Long-term bond rates have adjusted higher leading to higher borrowing rates. All of this is slowing the U.S. and much of the global economy therefore not helping EV sales. China's housing collapse is another negative drag on sentiment and has resulted in slower China EV sales growth in 2023.

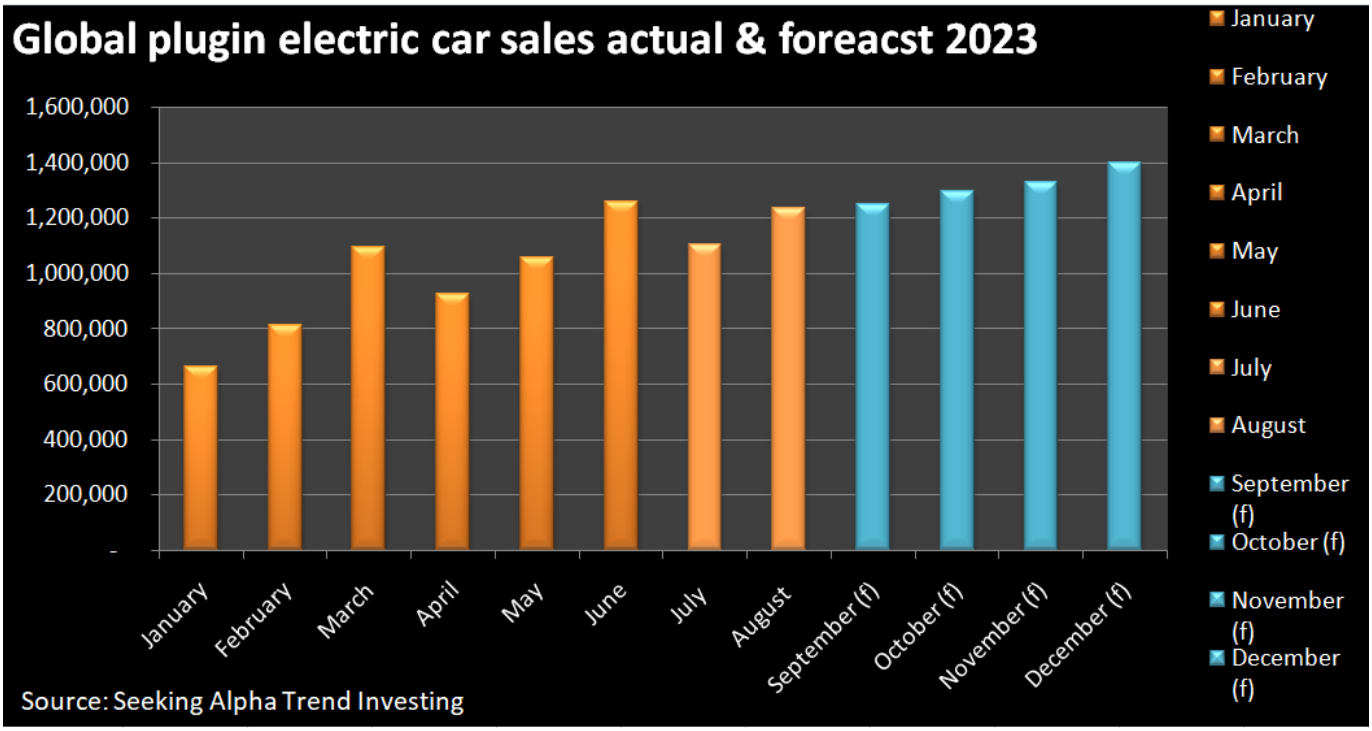
Global critical minerals and electric vehicle (“EV”) update

October 2023 saw some better results coming in for global plugin electric car sales which gives some hope that depressed EV metals prices may soon start to recover. Q4 is traditionally the strongest quarter for EV sales with December usually the best sales month of the year.

Global plugin electric car sales were 1,238,000 in August 2023, up 45% on August 2022 sales. Global plugin electric car market share in August was 18%, led by China with 39% share, Europe with 30% share, and USA with 9.51% share. Reports to date suggest that September sales look like being another strong month of about 1.25 million.

2023 sales look set to finish at ~13.5 million and 17% market share, which would be a 28% increase on 2022 (10.522 million and 13% market share). A 28% growth rate in 2023 would be a significant slowdown on the 56% growth rate achieved in 2022.

Global plugin electric car ‘monthly’ sales in 2023



The West is working hard to build up EV and battery capacity rather than being too dependent on China

One of the biggest news of the last month was that Quebec, Canada is in talks with battery makers and automobile companies looking to invest about C$15 billion (US$11 billion) in Quebec over the next three years to support EV supply chains. The report stated:

"Quebec has secured C$15 billion over the past three years and another C$15 billion is coming in the next three years…Over the past three years, Quebec has attracted investments from auto and battery makers such as General Motors, POSCO and Ford Motors. The biggest investment was announced on Thursday when Swedish battery maker Northvolt announced plans to build a $5.2 billion plant in the province."

While this is good news for the EV and battery manufacturers it

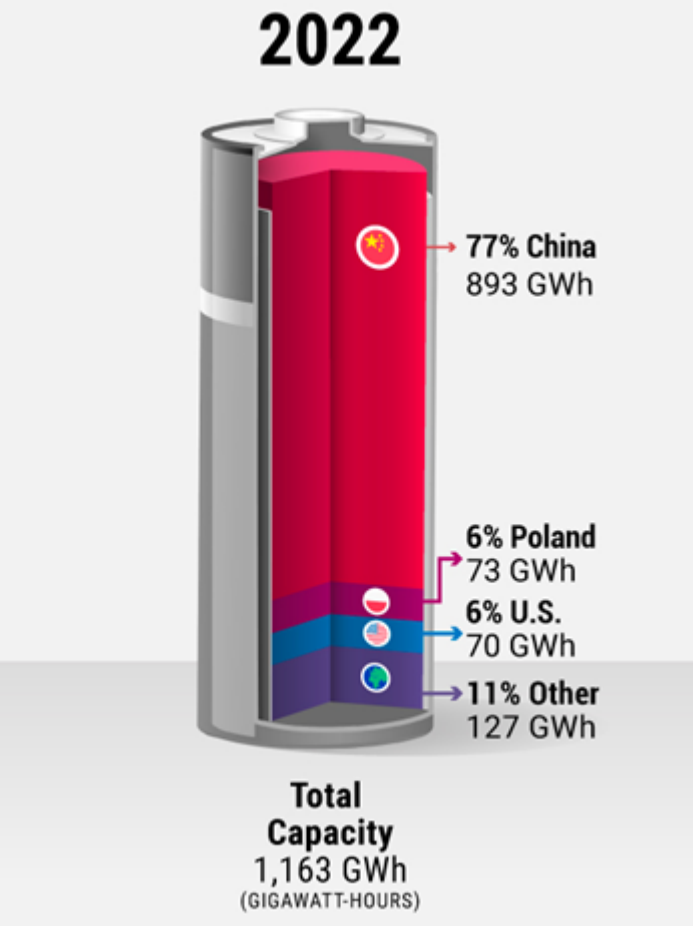
does nothing to support the mining industry. It is similar to the U.S. Inflation Reduction Act, where most funds are going to auto and battery companies and very little to the upstream miners. This will only boost demand for critical minerals needed to feed the EV and energy storage booms. Very little is being done to address the looming supply deficits of these critical materials in the second half of the decade.

For example, there are 18 gigafactories planned to be built in the USA this decade, requiring 715,000tpa of lithium, but only 180,000tpa is currently planned. Similar mismatches of supply and demand exist in the pipeline for several other critical metals. Europe's critical minerals supply chain looks even more dire.

China continues to dominate the EV and battery manufacturing industry

Many people might be unaware that China manufactures ~75-80% of all new global plugin electric cars and ~77% of global lithium-ion batteries. China's BYD is the world's largest seller followed by Tesla, who makes over 50% of their cars in China.

In 2022 China had 77% of the lithium-ion battery global capacity



Source: Visual Capitalist

Lithium

China lithium carbonate spot prices fell so far in October 2023, with the price now at CNY 166,500/t (USD 22,781/t) and down 68% over the past year. At these prices, some of the marginal producers in China have begun shutting down. We did get a glimmer of hope for a bottom this week (mid October) as lithium carbonate futures contracts in Guangzhou jumped by 7% to limit up for the day.

Lithium takeovers and equity

interests are a leading trend in mid 2023

The biggest news the past month in the lithium sector has been the fight for control of Australia's Liontown Resources Limited (ASX: LTR), who 100% own the near production Kathleen Valley Lithium Project in Western Australia. U.S. lithium giant Albemarle Corporation (NYSE: ALB) is currently doing due diligence after upping their offer to A$3.00 per share, or about A$6.6 billion (US$4.23 billion) to purchase all of Liontown Resources. However, in recent weeks Australia's richest woman, Gina Rinehart, via her controlled company Hancock Prospecting, increased its stake in Liontown to 19.9%. Rinehart's motives are not yet known but it appears the iron ore magnate has become very interested in lithium.

Only 2-3 months back Albemarle bought a 6.4% stake in Canadian lithium junior Patriot Battery Metals Inc. (TSXV: PMET | ASX: PMT | OTCQX: PMETF). The purchase price paid was **C$109 million** and it was made just one day after Patriot Battery Metals announced their Maiden Resource of 109.2 Mt @ 1.42% Li2O Inferred, the largest lithium spodumene resource in the Americas. The interesting part is that Patriot Battery Metals market cap is only US$866 million, 4.7x lower than Liontown Resources market cap of US$4.068 billion. Liontown Resources resource is about 50% bigger (156Mt at 1.4% Li2O) and about 4 years more advanced than Patriot Battery Metals Corvette Project. Nonetheless, if Albemarle decides to back away from the Liontown Resources takeover bid then there is a very good chance Albemarle will turn their takeover attention towards Patriot Battery Metals.

Mineral Resources Limited (ASX: MIN) has also been very active in 2023 in the lithium space. In September it was confirmed that

Mineral Resources is bidding for the liquidated Bald Hill Lithium Mine. Mineral Resources has also backed Develop Global's takeover offer for Essential Metals Limited (ASX: ESS) for A$152.6 million (US$101 million), plus *Mineral Resources has also bought equity stakes in Delta Lithium Ltd. (ASX: DLI) and Global Lithium Resources (ASX: GL1).*

Chile's SQM (NYSE: SQM) also recently made a takeover offer for Azure Minerals Limited (ASX: AZS) for US$585 million.

All of this takeover activity from the major lithium companies suggests that we are near a bottom in the lithium price cycle and that the mid to long term outlook for lithium remains very strong.

Rare Earths

Rare earths supply disruptions have led to some price improvements recently. Neodymium ("Nd") prices continued their recent recovery so far in mid October 2023 after a rough 2023, currently sitting at CNY 650,000/t.

Rare earths prices have been falling for most of 2023; however recent supply disruptions in Myanmar have caused most rare earth prices to strengthen. There have also been some reports that Malaysia is developing a policy to ban exports of rare earths raw materials so as to boost their domestic industry. There is no date given yet as to when a ban may start. In any event, Myanmar is a much more important supplier than Malaysia.

This month Australian Strategic Materials Limited (ASX: ASM) announced some world-class test work results with their terbium (Tb) and dysprosium (Dy) heavy rare earth separation test work. Pilot plant test work produced ">99.99% for Tb and > 99.95% for Dy1, at steady state". Results like this from their Dubbo

Project ore should give some more impetus to getting the Dubbo Project financed with probable output of around 140tpa Dy and 20tpa Tb. ASM Managing Director, Miss Rowena Smith stated:

"These excellent results demonstrate the strength of ASM's advanced technical capability…Terbium and dysprosium oxides are not only scarce commodities they are very difficult to separate at high purity. With the continued expertise of the team at ANSTO and the welcome support of the NSW Government, we are positioning the Dubbo Project to be at the forefront of Australia's rare earth and critical minerals evolution."

Dysprosium is a key rare earth used in nuclear reactor control rods and neodymium-iron-boron permanent magnets used in many EVs and wind turbines. Terbium is used in fluorescent lamps and television and monitor cathode-ray tubes.

Cobalt, Graphite, Nickel, Manganese and other critical minerals

Cobalt prices (currently at US$14.84/lb) remained flat the past month and continue to be very depressed. China's demand for NMC cathode material for EVs has been weak, not helped by the popularity of LFP cathodes that don't use nickel or cobalt.

Flake graphite prices remain very weak with prices near the marginal cost of production. A combination of slower EV sales growth in 2023 and increased China graphite supply has led to a depressed graphite market. Macquarie and others forecast graphite to start heading into deficit from about 2024.

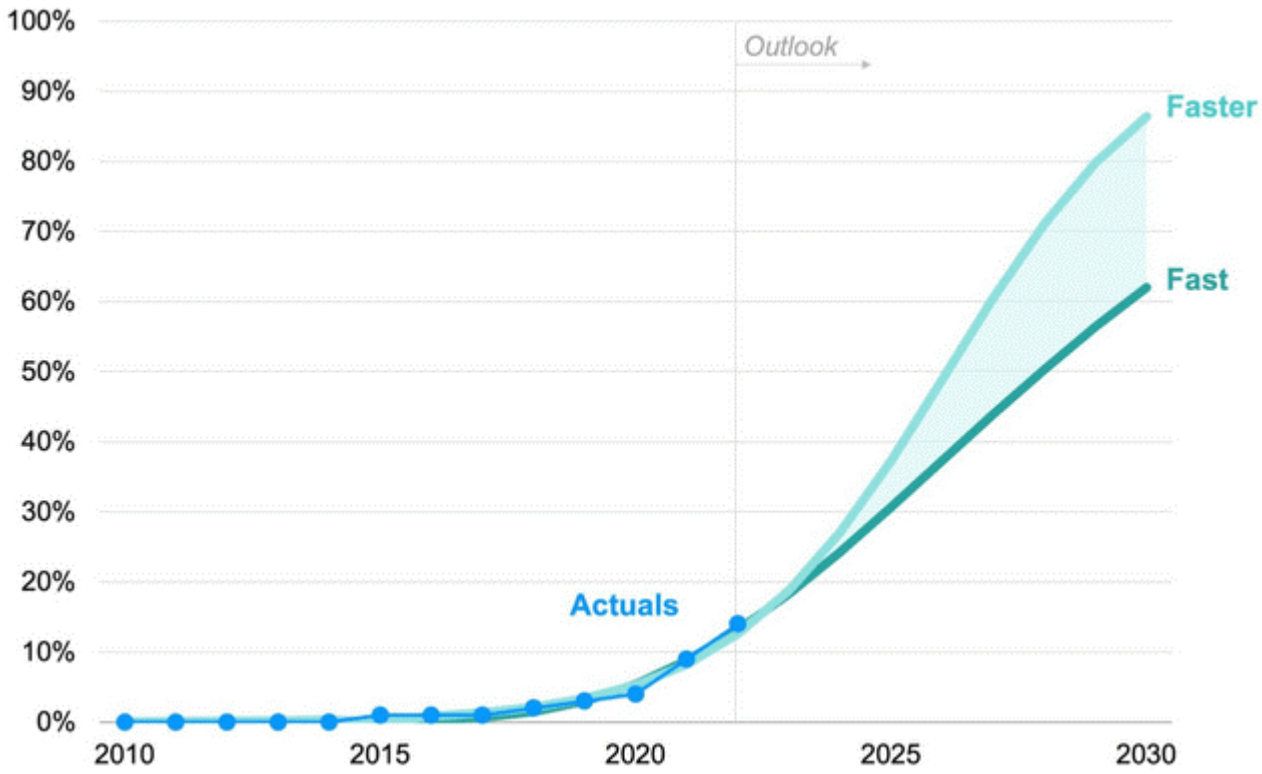
Nickel prices have recently weakened further due to oversupply concerns from Indonesia and a slowing Chinese property sector.

Manganese prices remain weak mostly due to weak Chinese demand

as the Chinese housing industry continues to rebalance after years of over construction and oversupply.

Longer term the outlook for the EV and energy stationary storage ("ESS") sectors looks extremely strong. This is expected to lead to a huge surge in demand for the critical metals that supply these sectors.

EV sales are forecast to increase to somewhere between 62% and 86% market share of global car sales by 2030



Source: [CleanTechnica courtesy Rocky Mountain Institute]

Trend Investing v IEA demand forecast for EV metals

Increase in metal demand 2020 to 2037 (100% EV and sustainable energy world)		
	Trend Investing (f) to 2037	IEA (f) to 2040
Lithium demand	35	13 --42
Cobalt demand	5.7	6--21
Nickel demand	2.8	7--19
Manganese demand	1.7	3--8
Flake Graphite demand	17	8--25
NdPr demand	5.9	3--7
Copper demand	2.3	2--3

Source: **Trend Investing and the IEA**

Latest CMI events

- Friday October 20, 2023 – **CMI Masterclass: Critical Minerals in the Congo.** Details and event tickets here.

Russell Fryer on Critical Metals PLC's Strategic Moves in the DRC and Global Expansion Plans

written by InvestorNews | March 8, 2024

In a recent InvestorNews interview, host Brandon Colwell spoke with Russell Fryer, the Executive Director of Critical Metals PLC (LSE: CRTM), about the recent 'transformational' developments in their critical mineral operations in the Democratic Republic of the Congo ("DRC"). In addition to signing

an offtake agreement for a minimum of 20,000 tons of copper oxide ore, Russell said that Critical Minerals has also secured a hydrometallurgical plant for producing a finished product.

Lithium Ionic Charges Forward with a Growing Portfolio of Lithium Deposits in Brazil

written by InvestorNews | March 8, 2024

InvestorNews discussed Lithium Ionic Corp. (TSXV: LTH | OTCQB: LTHCF) in June 2023 in an article here, where we looked at who might potentially be the next successful lithium company in Brazil. Since then the stock has moved sideways, in part due to falling lithium prices and sentiment, yet the good news keeps coming from Lithium Ionic. The Company continues to advance at ‘warp speed’ with a Maiden Resource totaling ~19.43 MT at ~1.40% Li2O already declared in June 2023, a PEA due out in Q3, 2023, and a DFS by the end of 2023. Added to this will be more drill results and Environmental Impact Assessment (“EIA”) studies expected to be completed within H2 2023. Wow!

Making lithium ion battery

components more durable and efficient to improve battery capacity

written by InvestorNews | March 8, 2024

NEO Battery Materials' Progressing on the Development and Commercialization of Longer Lasting Higher Energy Density Lithium Ion Battery Components

Investors looking for a cutting edge technology company in the electric vehicle (EV) battery components sector need look no further than NEO Battery Materials Ltd. (TSXV: NBM | OTCQB: NBMFF). NEO is a North American battery materials company with a current focus on developing silicon anode (the negative electrode in a battery) materials through its "ion-and electronic-conductive polymer nanocoating technology." Or, in simpler language, a 'silicon material' for batteries, used to make the anode last longer in service (make it capable of being charged and recharged more times without losing integrity or efficiency) and be capable of holding more energy, thus making the battery more durable and efficient

NEO states: "NEO has a focus on producing silicon anode materials through its proprietary single-step nanocoating process, which provides improvements in capacity and efficiency over that of lithium-ion batteries using graphite in their anode materials."

NEO's stock price has been on a tear in 2021; however, the recent pullback potentially gives a better entry point for

investors.

NEO Battery Materials (TSXV: NBM) 1 year stock price chart

Source: Yahoo Finance

Another thing that investors love is active management that can rapidly progress a company and produce lots of good news. We'll take a look at the news flow summary below, just for November 2021.

- Nov. 23, 2021 – NEO Battery Materials appoints lithium-ion battery electrode binder and polymer technology expert, Dr. Byeong-Su Kim, to Scientific Advisory Board. The news states: "Utilizing robust binder technologies with characteristics such as a high elastic modulus can **help contain and control the volume expansion of silicon**, resulting in lower probabilities of particle pulverization and a cracking anode."
- Nov. 18, 2021 – NEO Battery Materials receives approval for a core patent from the Korean Intellectual Property Office.
- Nov. 16, 2021 – NEO Battery Materials announces research consortium LOI with both the University of Toronto **and with an undisclosed global OEM for R&D and scale-up of EV Battery Materials**. The preliminary project will involve the full electrode fabrication of silicon-carbon composite anodes through NEO's silicon particle nanocoating process…..With the active material (silicon and/or graphite), binders and conductive additives as core components….
- Nov. 10, 2021 – NEO Battery Materials appoints Dr. Dongmok Whang, expert in low-dimensional nanomaterials and graphene, to Scientific Advisory Board. His research

expertise lies in the field of fabrication and manufacturing of low-dimensional nanomaterials, especially **graphene**, **semiconductor nanowires**, and **porous nanostructures** for applications in electric vehicle lithium-ion batteries, fuel cells, and various energy storage solutions.

- Nov. 4, 2021 – NEO Battery Materials accomplishes **anode production capacity upscaling Project** over the past three months. The news states: "From the initial production rate of several grams per hour for manufacturing silicon anode materials at the lab-scale, **NEO's engineering team has accomplished to expand the rate to a level of several kilograms per hour.** This is a result of improving productivity by more than 1,000-fold, and the success of the Project at this level has given stronger validation for **the 120-ton semi-commercial plant that is scheduled to be commissioned by the end of next year.**" President & CEO Spencer Huh, added: "As NEO understands the need to fast-track into mass production, we are pleased to announce the accomplishment of the Upscaling Project. The Company is at the forefront of developing unique Si anode lines through the low-cost manufacturing process, and we are customizing solutions for various downstream users to optimize the products for high-power electric vehicle lithium-ion battery applications."

The above 5 news items, when added together' show the rapid pace and progress NEO is achieving. Looking back on the previous two months there were even more great achievements by NEO. The standout news came on October 26 when NEO announced: "**Completion of semi-commercial plant conceptual design** and initiates engineering EPC stage for construction." The facility will be in South Korea. President & CEO, Spencer Huh, stated: "NEO is now another step towards commercializing our silicon anode materials for EV lithium-ion batteries and is actively expediting our

timelines and milestones.”

As shown below the problem with silicon in anodes can be that as the silicon absorbs the electrons it expands then cracks the anode, leading to a low cycle life (low longevity). NEO has managed to improve this by using its cost-effective and efficient one-pot, single-step, nanocoating process.

NEO Battery Materials state that their silicon anode materials are already achieving much higher cycles than competitors

Source: NEO Battery Materials company website

Closing remarks

A lot of the details surrounding NEO Battery Materials’ achievements are not very well understood by investors. This is only natural as most investors are not battery material scientists.

The key to understanding NEO’s work is that its silicon anodes or composite silicon graphite anodes can significantly improve battery capacity, which relates to greater energy density, and hence longer range for the same size battery. What EV manufacturers and customers all want is better performing batteries that result in longer driving range for a given size battery. Silicon anodes today present many challenges, especially cracking leading to poor cycle life. NEO is making great strides in solving this problem by producing silicon anode materials with a much longer cycle life.

If NEO can succeed in meeting commercial standards it will have Tesla and other EV and battery/anode OEMs knocking on its door. For now it appears there is plenty of promise, especially given the longer cycling results (1,000 cycles) and recent production

scaling progress, as well as the interest from an OEM in joining NEO’s research consortium.

NEO Battery Materials trades on a market cap of C$39 million. It’s one to watch.