Technology Metals Week-in-Review: US Tax Rules Impacts EV Market, $3Bn Raise for ARA Partners & Appian's $230M into USSM

written by Tracy Hughes | December 18, 2023

This week's **Technology Metals Week in Review** captures the multifaceted nature of the critical minerals sector, highlighting key financial deals, policy developments, international trade dynamics, and strategic initiatives that are shaping the global economic and environmental landscape over the last week. Special thanks to the Critical Minerals Institute (CMI) Directors that source these stories for review for both the CMI and InvestorNews audience.

Stricter Federal Tax Credit Rules in 2024 May Limit Electric Vehicle Choice: December 16, 2023 (Source) – In 2024, the eligibility for federal tax credits on electric vehicles will tighten, potentially excluding popular models like Tesla Model 3 and Ford Mustang Mach-E due to more stringent sourcing requirements. The Biden administration's new rules, part of the Inflation Reduction Act, aim to promote North American manufacturing and reduce dependence on China for batteries and essential materials. This change marks a significant shift in the electric vehicle market, which has seen increased sales partly due to these credits. While electric vehicles are a rapidly growing segment, the new restrictions could impact the affordability and availability of certain models, creating a challenge for both consumers and manufacturers. *Referral, CMI*

Co-Chairman Jack Lifton

Appian's Major Financing for US Strategic Metals: December 18, 2023 (Source) – Appian Capital Advisory LLP has made a significant move in the battery metals sector by providing a $230-million financing package to US Strategic Metals (USSM). This financial support aims to boost the development of USSM's cobalt/nickel mine and establish a hydrometallurgical battery metals recycling facility in Fredericktown, Missouri. The package includes a $120-million secured term loan, a $70-million royalty financing arrangement, and warrants. USSM's project focuses on mining and processing critical minerals like cobalt, nickel, lithium, and copper. This initiative will not only aid in recycling but also in the production of battery metals for the electric vehicle (EV) supply chain in the United States, marking a significant stride in the domestic production and recycling of essential battery materials. *Referral, CMI Director Russell Fryer*

Canada's 2035 Zero Emissions Vehicle Mandate: December 17, 2023 (Source) – In a landmark move for environmental policy, the Canadian government will announce regulations mandating all new cars to be zero emissions by 2035. This initiative, termed the Electric Vehicle Availability Standard, aims to address the long wait times for EVs, which have been a major barrier to their uptake. The regulation will gradually increase the required proportion of zero emissions vehicles (ZEVs), including battery electric, hydrogen, and plug-in hybrid vehicles, in new car sales – reaching 20% by 2026, 60% by 2030, and 100% by 2035. This move is complemented by incentives for companies to sell EVs and build public fast chargers, alongside the government's commitment to build 84,500 chargers by 2029. The mandate has faced pushback from auto manufacturers but is seen as crucial in addressing rising carbon emissions and the inefficiency of the current vehicle fleet in Canada. *Referral, CMI Co-Chairman Jack*

Lifton

Vital Metals' Rare Earths Deal with China: December 17, 2023 (Source) – Vital Metals Limited (ASX: VML), operating in Canada's Northwest Territories, has struck a significant deal with Chinese company Shenghe Resources. All the material mined so far at the Nechalacho mine will be sold to Shenghe, which now holds a 9.9% stake in Vital Metals, potentially rising to over 18%. This decision represents a shift in strategy for Vital Metals, which previously aimed to contribute to breaking China's dominance in rare earths supply. The deal will provide Vital with crucial funding for its operations and future developments, including the exploration of the larger Tardiff deposit and lithium-related projects. However, the deal has raised questions regarding national security and the influence of foreign investments in critical mineral sectors. *Referral, CMI Co-Chairman Jack Lifton*

CMI Summit III: Achieving Critical Minerals Mastery in Today's Markets: December 14, 2023 (Source) – The Critical Minerals Institute (CMI) has announced the CMI Summit III, scheduled for August 21st and 22nd, 2024, at The National Club in Toronto, Canada. This event, themed "Achieving Critical Minerals Mastery in Today's Markets," will gather industry leaders, investors, and experts to discuss critical mineral topics such as investment opportunities, the impact of specialist companies, global market trends, and African market dynamics. The summit will address challenges and opportunities in the critical minerals sector, focusing on geopolitical influences and strategies for thriving in a dynamic market. Industry leaders like Mark Chalmers from Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR), Tuan Tran from Ara Partners, Dan Blondal from Nano One Materials Corp. (TSX: NANO), and Pat Ryan from Ucore Rare Metals Inc. (TSXV: UCU | OTCQX: UURAF) will contribute to the high-level discussions and expert-led panels. *Referral, CMI*

Managing Director Tracy Weslosky

Advanced Magnet Lab's Commercial Manufacturing Plan in the U.S.: December 15, 2023 (Source) – Advanced Magnet Lab, Inc. (AML) announced its plan for high-rate commercial manufacturing of non-sintered permanent magnets in the U.S. Utilizing its PM-Wire™ technology, AML focuses on producing magnets for various applications, including electric motors. The company's collaboration with Oak Ridge National Laboratory (ORNL) in developing an electric vehicle motor is a notable example of its innovative approach. AML plans to co-locate manufacturing with customers or supply chain partners, with potential site locations being discussed in several U.S. jurisdictions. This initiative represents a significant advancement in the domestic production of critical magnet technologies, essential for various industries, including aerospace, defense, and automotive. *Referral, CMI Director, Alastair Neill*

China's Increased Rare Earth Quotas for 2023: December 16, 2023 (Source) – China, the world's largest producer and consumer of rare earths, has issued its third batch of rare earth mining quotas for 2023, totaling 15,000 tonnes, and smelting and separation quotas of 13,850 tonnes. These quotas are closely monitored as they are critical indicators of global rare earth supply. The increase in quotas indicates a response to higher demand needs, highlighting China's significant role in the rare earth industry. This year, the total rare earth mining and smelting quotas have increased by 21.4% and 20.7%, respectively, compared to last year. The rise in rare earth imports in China also underscores the growing global demand for these essential materials. *Referral, CMI Director, Alastair Neill*

Ara Partners Closes Over $3 Billion of New Capital Commitments: December 13, 2023 (Source) – Ara Partners, a leading private equity and infrastructure investment firm specializing in

industrial decarbonization, has closed over $3 billion of new capital commitments. Fund III, focused on buyout and growth investments in the decarbonization sector, exceeded its initial target, closing on $2.8 billion. Ara's strategy aims to reduce carbon emissions in industries, including industrial and manufacturing, chemicals, energy efficiency, and agriculture. The fund has already made significant investments, demonstrating Ara's commitment to environmentally impactful and high-growth companies globally. *Referral, CMI Managing Director Tracy Weslosky*

China's Interest in US-Vietnam Rare Earths Plan: December 16, 2023 (Source) – Following President Xi Jinping's visit to Hanoi, China has expressed interest in Vietnam's rare earths, suggesting Vietnam should send its rare earth deposits to China for processing. This comes amid US efforts to encourage Vietnam to directly export its rare earths to counter China's dominance. Vietnam, with substantial rare earth reserves, is seen as a key player in diversifying the global supply away from China. Beijing's offer to assist in building a railway through Vietnam's rare-earth heartland further underscores the strategic importance of these minerals and the geopolitical complexities involved. *Referral, CMI Director Russell Fryer*

This week's Technology Metals Week in Review serves as a testament to the dynamic and critical role of technology metals in our contemporary global economy and environmental strategies. For more information, visit www.CriticalMineralsInstitute.com

InvestorNews Critical Minerals Media Coverage:

- December 14, 2023 – The Critical Minerals Institute Announces the CMI Summit III: A 2-Day Event Led by Prominent Industry Leaders Themed "Achieving Critical Minerals Mastery in Today's Markets"

https://bit.ly/41oV1x7

- December 13, 2023 – Top 3 best valued lithium juniors, as lithium prices near a bottom https://bit.ly/48fMKOd

InvestorNews Critical Minerals Videos:

- December 15, 2023 – CMI Masterclass: Securing North America's Future, A Conversation on the Critical Minerals Supply Chains with Jack Lifton https://youtu.be/UgOu0xKlHuw
- December 12, 2023 – CMI Masterclass: Flow Through and Critical Minerals https://youtu.be/SLvpYVCnbTA

Critical Minerals News Releases

- December 15, 2023 – F3 Announces Stock Option and RSU Grant https://bit.ly/48oIkF4
- December 14, 2023 – First Phosphate Announces Intention to Complete $2,000,000 Non-Brokered Private Placement https://bit.ly/3NsoikK
- December 14, 2023 – Continued Exceptional Drilling Results at Halleck Creek https://bit.ly/3tgDbjg
- December 13, 2023 – Elcora Announces Approval of Stock Option Plan and Restricted Share Unit Plan by Shareholders https://bit.ly/48j8OI2
- December 12, 2023 – Western Uranium & Vanadium Corp. Closes Fully Subscribed Brokered LIFE Financing of $7.25 Million https://bit.ly/3Ro3Wu2
- December 12, 2023 – Louisiana Governor Executes Ucore's SMC Industrial Tax Exemption Contract https://bit.ly/4ak1GN6
- December 12, 2023 – Appia Announces Scandium and Cobalt Discovery at Its New Buriti Target at the PCH Project,

Brazil; Reverse Circulation Drill Hole Returns 24 Metres of Mineralization Averaging 128 ppm Scandium Oxide, 272 ppm Total Cobalt Oxides and 2,106 ppm Total Rare Earth Oxides from Surface https://bit.ly/3GCCW5h

- December 11, 2023 – Power Nickel Files Complaint on Widespread Potential Illegal Short Selling of its Shares https://bit.ly/41mQziC
- December 11, 2023 – First Phosphate and Ultion Technologies Enter MOU for Purchase of LFP / LFMP Commercial Production Technology and Offtake of 6,000 annual Tonnes of LFP Cathode Active Material for Specialty Products https://bit.ly/3tbBNyj
- December 11, 2023 – Panther Metals PLC: Substantial Holding Released From Escrow https://bit.ly/3t4DPR1
- December 11, 2023 – Appia Announces Closing of PCH Project Acquisition https://bit.ly/3GDc3Ov