

# Energy Fuels Secures Strategic Acquisition (A\$375M) of Base Resources to Become a Global Leader in Critical Minerals Productions

written by Tracy Weslosky | April 21, 2024

[Energy Fuels Inc.](#) (NYSE American: UUUU | TSX: EFR), a prominent U.S. producer of uranium, rare earths, and vanadium, has just [announced](#) a definitive acquisition of [Base Resources Limited](#) (ASX: BSE | AIM: BSE). This transformative deal, valued at approximately [A\\$375 million](#) (roughly USD\$240.9M), involves the purchase of 100% of Base Resources' issued shares, marking a significant expansion into the global critical minerals market and reshaping Energy Fuels' strategic capabilities across several key mineral sectors.

This acquisition integrates the Toliara heavy mineral sands project in Madagascar into Energy Fuels' portfolio. Toliara is renowned for its extensive deposits of heavy mineral sands, particularly monazite, which is a byproduct of titanium and zirconium production. This site is one of the world's most advanced and cost-effective sources for monazite, expected to play a pivotal role in Energy Fuels' expansion into low-cost, high-value rare earth oxide production. The monazite from Toliara is slated for processing at Energy Fuels' fully owned White Mesa Mill in Utah, positioning the company as a first-tier producer of separated rare earth element oxides in a U.S.-centered operation.

The strategic significance of this acquisition extends beyond

resource expansion; it encompasses the incorporation of Base Resources' seasoned mine development and operations team. This team has a proven track record in designing, constructing, and operating world-class heavy mineral sand operations in Africa, which will be invaluable in maximizing the operational efficiencies and productivity of the Toliara project.

Financially, the transaction involves an exchange of 0.0260 Energy Fuels common shares plus A\$0.065 in cash per Base Resources share, representing a robust valuation that underscores the anticipated synergistic benefits. The deal, structured as a scheme of arrangement under Australia's Corporations Act, highlights the strategic foresight of Energy Fuels' management in securing a diversified supply of critical minerals essential for modern technologies such as electric vehicles and renewable energy systems.

Energy Fuels is also engaged in high-level discussions with various U.S. government agencies and offices, seeking support for this and other critical mineral projects both domestically and internationally. This engagement underscores the strategic importance of the Toliara project not just to Energy Fuels but to the broader U.S. supply chain for critical materials.

Jack Lifton, Co-Chair of the [Critical Minerals Institute](#) (CMI), underscored the global significance of this acquisition, stating, "This acquisition by Energy Fuels puts them into the world-class rare earth space. This is arguably the biggest rare earth announcement in the last 10 or 15 years in the United States, as it represents not just the reopening of old mines but the introduction of a new, large-scale source of critical materials from Africa, Brazil, and Australia."

The acquisition is expected to be highly accretive to Energy Fuels' shareholders, significantly enhancing the company's asset

value per share and unlocking substantial potential upside through increased production capacities and cost efficiencies. Notably, the Toliara project is set to provide a sustainable, low-cost source of uranium, complementing Energy Fuels' already leading position in the U.S. uranium sector.

In summary, this acquisition not only secures a world-class mineral project at an attractive price but also strategically positions Energy Fuels at the forefront of the global critical minerals industry, ready to meet increasing demand with a robust and diversified production base. The integration of Toliara's resources and expertise from Base Resources promises to enhance Energy Fuels' capabilities across the board, ensuring long-term growth and profitability in the evolving energy and technology landscapes.

---

## **Disruptive Shift to Rare Earth Processing as Aclara Moves into American Market**

written by InvestorNews | April 21, 2024

In an update on the disruptive industry news that broke this morning, Jack Lifton, Co-chair of the [Critical Minerals Institute](#) (CMI), offered a detailed analysis of [Aclara Resources Inc.](#)'s (TSX: ARA) strategic move into the U.S. rare earths processing market. Aclara, backed by the Hochschild Mining Group, has set its sights on exploiting ionic clay deposits from Chile and Brazil to secure heavy rare earth elements (HREEs) like Dysprosium and Terbium, pivotal for high-performance magnet

manufacturing. This venture is marked by partnerships with the Saskatchewan Research Council and Hatch Ltd. for the development and engineering of a processing facility. However, Lifton expressed reservations about the ambitious timeline, stating, "The actual [announcement](#) says they've engaged with the Saskatchewan Research Council to develop a separation technology operation and with Hatch, of Toronto, to actually engineer whatever the plan that comes out of the Saskatchewan Research Council is into hardware, into an actual separation plant."

Lifton's insights illuminate the intricate challenges Aclara faces in pioneering rare earth separation technologies in North America, a domain where success has been limited. He juxtaposes Aclara's emerging efforts against established industry players like [Energy Fuels Inc.](#) (NYSE American: UUUU | TSX: EFR), which has already made significant progress in light rare earth (LREE) separation and is now venturing into HREEs and alloys. This nuanced perspective raises doubts about Aclara's capability to swiftly navigate the complex technological and operational hurdles inherent in rare earth processing.

The interview further delves into the competitive dynamics of the rare earth market, highlighting Aclara's entry into a space occupied by Energy Fuels, and buildouts already in play from [MP Materials](#) (NYSE: MP) and [Ucore Rare Metals Inc.](#) (TSXV: UCU | OTCQX: UURAF). Each company has its unique approach and strategic plans, indicating a fiercely competitive environment. Lifton's critique underscores a broader theme of Aclara's need for deeper industry integration and strategic partnerships, and suggested that this was perhaps a missed opportunity in which they should have engaged with Ucore.

Lifton's comprehensive analysis provides a crucial viewpoint on Aclara's bold yet fraught journey into the rare earths processing industry. While Aclara's plans signify a positive

stride towards diversifying the global rare earths supply chain and enhancing geopolitical supply chain independence, Lifton underscores the formidable challenges ahead. This initiative marks a significant moment in the rare earth industry, setting the stage for Aclara's ambitious endeavor to navigate the technological, logistical, and competitive hurdles that lie in its path.

---

## Mark Chalmers on Energy Fuels as a Profitable Uranium Producer in the U.S.

written by InvestorNews | April 21, 2024

In this interview with Tracy Weslosky during PDAC 2024, Mark Chalmers, President, CEO, and Director of [Energy Fuels Inc.](#) (NYSE American: UUUU | TSX: EFR), shared insights into the company's record [annual net income](#) and its strategic advancements in both uranium production and rare earths processing. He emphasized the dual investment opportunity that Energy Fuels offers in uranium and rare earths, a combination rarely found in the sector.

With the uranium market "on fire right now", Mark highlighted Energy Fuels' unique position in the market as a debt-free and profitable uranium producer. Having recently commenced uranium production at three of its uranium mines, Mark proudly noted Energy Fuels' readiness for immediate production without the need for substantial capital investments.

Mark also shed light on Energy Fuels' ventures into rare earths, particularly the processing of monazite that concurrently allows for uranium recovery. Mark pointed out recent strategic moves, including the acquisition of the Bahia Project in Brazil and a memorandum of understanding with [Astron Corporation Limited](#) (ASX: ATR) to jointly develop the Donald Rare Earth and Mineral Sands Project, located in Victoria, Australia. Mark also highlighted the commissioning of phase one of a separation plant at the White Mesa Mill in Utah to process up to 1000 tons of neodymium-praseodymium (NdPr).

To access the complete interview, [click here](#)

Don't miss other InvestorNews interviews. Subscribe to the InvestorNews YouTube channel by [clicking here](#)

## About Energy Fuels Inc.

Energy Fuels is a leading US-based critical minerals company. The Company, as the leading producer of uranium in the United States, mines uranium and produces natural uranium concentrates that are sold to major nuclear utilities for the production of carbon-free nuclear energy. Energy Fuels recently began production of advanced rare earth element ("REE") materials, including mixed REE carbonate, and plans to produce commercial quantities of separated REE oxides in the future. Energy Fuels also produces vanadium from certain of its projects, as market conditions warrant, and is evaluating the recovery of radionuclides needed for emerging cancer treatments. Its corporate offices are in Lakewood, Colorado, near Denver, and substantially all its assets and employees are in the United States. Energy Fuels holds two of America's key uranium production centers: the White Mesa Mill in Utah and the Nichols Ranch in-situ recovery ("ISR") Project in Wyoming. The White Mesa Mill is the only conventional uranium mill operating in the

US today, has a licensed capacity of over 8 million pounds of  $U_3O_8$  per year, and has the ability to produce vanadium when market conditions warrant, as well as REE products, from various uranium-bearing ores. The Nichols Ranch ISR Project is on standby and has a licensed capacity of 2 million pounds of  $U_3O_8$  per year. The Company recently acquired the Bahia Project in Brazil, which is believed to have significant quantities of titanium (ilmenite and rutile), zirconium (zircon) and REE (monazite) minerals. In addition to the above production facilities, Energy Fuels also has one of the largest NI 43-101 compliant uranium resource portfolios in the US and several uranium and uranium/vanadium mining projects on standby and in various stages of permitting and development.

To learn more about Energy Fuels Inc., [click here](#)

**Disclaimer:** *Energy Fuels Inc. is an advertorial member of InvestorNews Inc.*

*This interview, which was produced by InvestorNews Inc. ("InvestorNews"), does not contain, nor does it purport to contain, a summary of all material information concerning the Company, including important disclosure and risk factors associated with the Company, its business and an investment in its securities. InvestorNews offers no representations or warranties that any of the information contained in this interview is accurate or complete.*

*This interview and any transcriptions or reproductions thereof (collectively, this "presentation") does not constitute, or form part of, any offer or invitation to sell or issue, or any solicitation of any offer to subscribe for or purchase any securities in the Company. The information in this presentation is provided for informational purposes only and may be subject to updating, completion or revision, and except as may be*

required by applicable securities laws, the Company disclaims any intent or obligation to update any information herein. This presentation may contain “forward-looking statements” within the meaning of applicable Canadian securities legislation. Forward-looking statements are based on the opinions and assumptions of the management of the Company as of the date made. They are inherently susceptible to uncertainty and other factors that could cause actual events/results to differ materially from these forward-looking statements. Additional risks and uncertainties, including those that the Company does not know about now or that it currently deems immaterial, may also adversely affect the Company’s business or any investment therein.

Any projections given are principally intended for use as objectives and are not intended, and should not be taken, as assurances that the projected results will be obtained by the Company. The assumptions used may not prove to be accurate and a potential decline in the Company’s financial condition or results of operations may negatively impact the value of its securities. This presentation should not be considered as the giving of investment advice by the Company or any of its directors, officers, agents, employees or advisors. Each person to whom this presentation is made available must make its own independent assessment of the Company after making such investigations and taking such advice as may be deemed necessary. Prospective investors are urged to review the Company’s profile on [SedarPlus.ca](http://SedarPlus.ca) and to carry out independent investigations in order to determine their interest in investing in the Company.

---



# Technology Metals Report (03.01.2024): Biden Calls Chinese EVs a Security Threat and the Greenest Car in America May Surprise You?

written by InvestorNews | April 21, 2024

Welcome to the latest issue of the Technology Metals Report (TMR), brought to you by the [Critical Minerals Institute](#) (CMI). In this edition, we compile the most impactful stories shared by our members over the past week, reflecting the dynamic and evolving nature of the critical minerals and technology metals industry. Among the key stories featured in this report are President Joe Biden's initiatives to restrict Chinese electric vehicles (EVs) citing national security concerns, the American Council for an Energy Efficient Economy's report naming the Toyota Prius Prime SE as the greenest car in America, and insights into the lithium market with investors remaining keen despite a price plunge. We also delve into the broader context of these developments, including the potential solution to the rare earth crisis through tetrataenite, BYD's exploration for a factory location in Mexico, and the ongoing challenges and opportunities facing the global electric vehicle and critical minerals markets.

This week's report also highlights various strategic collaborations and developments, including the significant challenge posed by China's EV industry to Detroit's Big Three automakers and Australia's navigation of a critical minerals market meltdown amidst declining prices for key exports such as

iron ore, nickel, and lithium. Furthermore, we cover Lynas Rare Earths Ltd.'s (ASX: LYC) call for government vigilance in the volatile nickel market, China's lithium-ion battery industry facing excess inventory and production capacity issues, Energy Fuels Inc.'s (NYSE American: UUUU | TSX: EFR) record net income and uranium production ramp-up, and Mercedes-Benz's adjustment of its electrification goal. These stories underscore the rapidly changing landscape of the technology metals and critical minerals industry, spotlighting strategic collaborations, market dynamics, and the critical role of innovation and policy in shaping the future of sustainable technology and energy.

**Biden Calls Chinese Electric Vehicles a Security Threat (February 29, 2024, [Source](#))** – President Joe Biden has initiated measures to potentially restrict the entry of internet-connected Chinese electric vehicles (EVs) into the U.S. market, citing national security concerns over their ability to transmit sensitive data to Beijing. The Commerce Department has launched an investigation into these security threats, marking the beginning of a broader strategy to prevent low-cost Chinese EVs from undermining U.S. automakers. This move comes amid growing tensions between the U.S. and China over trade and technology, with Biden emphasizing the need to protect the domestic auto industry from unfair Chinese practices. The investigation, a result of discussions with major automakers and unions, could lead to new regulations on vehicles using Chinese software, which is feared to collect extensive data on American users. This action is part of Biden's wider efforts to bolster U.S. technology restrictions against China and maintain competitiveness in the global auto market.

**The 'greenest' car in America might surprise you (February 29, 2024, [Source](#))** – A new report from the American Council for an Energy Efficient Economy challenges the common perception that electric vehicles (EVs) are the greenest cars in America by

naming the Toyota Prius Prime SE, a plug-in hybrid, as the top environmentally friendly vehicle. The Prius Prime SE can travel 44 miles on electricity before switching to hybrid mode, combining electric and gasoline power. The report assesses over 1,200 vehicles on their road and manufacturing emissions, including pollutants beyond carbon dioxide. Despite the growing market for EVs, the report emphasizes that a car's green credentials depend on factors like weight, battery size, and overall efficiency, not just its electric capabilities. Plug-in hybrids like the Prius Prime offer a balance for drivers by allowing short electric commutes and longer gas-powered trips, presenting a practical alternative amidst America's evolving charging infrastructure. Critics argue that fully electric vehicles remain the best option for environmental benefits, especially as renewable energy sources increase. However, the report suggests the importance of offering consumers a range of environmentally friendly choices to suit different needs.

**Lithium Investors Are Looking Beyond Price Plunge, Chile Minister Says (February 28, 2024, [Source](#))** – Despite a recent downturn in lithium prices, investors remain keen on new lithium projects in Chile, as confirmed by the country's Mining Minister, Aurora Williams. This interest is fueled by the long-term prospects associated with the global shift towards renewable energy and electric vehicles, rather than short-term price fluctuations. Chile, home to the world's largest lithium reserves, has seen prices drop significantly since the introduction of a new public-private partnership model aimed at attracting investment while ensuring major deposits remain under state control. Despite this, major international companies like Rio Tinto Group and Tsingshan Holding Group have continued discussions with Chilean authorities, demonstrating a sustained interest in the sector. Chile plans to offer exploration rights in certain salt flats, with the possibility of private investors

gaining either minority or majority stakes depending on the strategic importance of the area. This initiative is part of a broader effort to maintain Chile's status as a key player in the global lithium market, amidst growing competition and as the country also seeks to bolster its position in the copper industry.

**Navigating the Climate Change Storm of ESG Withdrawal and Climate Change Commitment (February 28, 2024, [Source](#))** – Recent decisions by JPMorgan, State Street, and Pimco to exit Climate Action 100+ (CA+), amid political pressures, have sparked debate over the fate of global ESG initiatives. Nevertheless, CA+'s extensive network, including over 700 members and its collaborations with high-emission companies for a low-carbon transition, exemplifies the resilience of ESG efforts. Despite these withdrawals, the broader commitment to ESG principles, especially in the extractive industries with initiatives like Copper Mark and Responsible Steel, remains robust. This commitment is further reinforced by regulatory measures against greenwashing and heightened public activism for environmental protection and equitable benefits. These trends underscore that, far from diminishing, ESG remains a crucial driver of corporate strategy and societal expectations, suggesting a sustained impact on global business practices.

**Tetrataenite as a solution to the rare earth crisis (February 28, 2024, [Source](#))** – The rare earth crisis, pivotal for modern technologies such as electric motors and wind turbines, stems from the scarcity and environmental impact of mining rare earth elements like yttrium and neodymium. As demand for these materials grows due to their importance in reducing fossil fuel reliance and combating climate change, shortages are anticipated. A potential breakthrough in 2023 by an international research team suggests tetrataenite, a meteorite mineral with similar magnetic properties to rare earths, as a

solution. Unlike its natural slow formation in space, the team discovered a method to synthesize tetrataenite on Earth rapidly using common materials like iron, nickel, and phosphorous, potentially offering an alternative to address the rare earth crisis.

**Chinese automaker BYD looking for Mexico plant location, executive says (February 28, 2024, [Source](#))** – Chinese electric vehicle manufacturer BYD is scouting locations in Mexico for a new factory, targeting the local market to enhance its share, as stated by BYD Americas CEO Stella Li. With an annual production capacity of 150,000 cars, the company plans to finalize the plant location by year-end. Recently surpassing Tesla in global EV sales, BYD's expansion into Mexico signals a potential competitive challenge to U.S. auto companies, amidst concerns from the Alliance for American Manufacturing about low-cost Chinese cars impacting the U.S. auto sector's viability. BYD's strategy focuses on serving the Mexican market, particularly eyeing central and southern regions for factory sites. The company's cost competitiveness is attributed to early investments in EV technology and extensive vertical integration. BYD also announced the launch of its Dolphin Mini EV in Mexico, priced significantly lower than the cheapest Tesla, aiming to make electric cars accessible to more Mexican consumers. However, challenges remain, such as the limited network of charging stations in Mexico.

**China's Electric Vehicles Are Going to Hit Detroit Like a Wrecking Ball (February 27, 2024, [Source](#))** – China's electric vehicle (EV) industry, led by automakers like BYD, poses a significant challenge to Detroit's Big Three (Ford, General Motors, and Stellantis). Despite recent profits and optimistic forecasts for 2024, these American giants are struggling with their EV sales goals amidst the rapid emergence of affordable and efficient Chinese EVs. BYD, in particular, has sold millions

of electrified vehicles, expanding its global manufacturing footprint to meet increasing demand. The competitive pricing and technological efficiency of Chinese EVs underscore China's evolving industrial capabilities, transitioning from basic manufacturing to complex, high-tech production including cars and batteries. This shift represents a broader challenge to American automakers, who must navigate a changing market landscape while addressing structural vulnerabilities in their business models, heavily reliant on sales of trucks and SUVs to a niche market. The U.S. government faces a delicate balance of supporting domestic industries through subsidies and trade restrictions while fostering a competitive environment that encourages innovation and adaptation to the global shift towards electrification.

**Australia's Precarious Position: Navigating a Critical Minerals Market Meltdown (February 26, 2024, [Source](#))** – Australia is at a critical juncture, facing a significant downturn in the prices of key exports such as iron ore, nickel, and lithium, which underscores the country's vulnerability due to its heavy reliance on these commodities and its dependence on China, its main buyer. The global implications of this market meltdown are profound, with the economic viability of mining and refining operations being challenged, as demonstrated by Lynas Rare Earths Ltd.'s (ASX: LYC) struggles at its Kalgoorlie ore processing plant. The decline in the nickel industry has uncovered manipulations of market prices, reflecting China's strategic dominance over the global supply chain for rare earth elements and other critical minerals. In response, Australia is attempting to reduce dependence on Chinese processing by offering subsidies to local mining and processing operations, while also dealing with the economic repercussions of collapsing metal prices. This situation necessitates a strategic reevaluation of Australia's role in the global minerals market,

exploring options like underwriting national processing facilities to enhance the value of its mineral exports and diversify its economic base amidst changing global trade dynamics.

**Rare earths leader Lynas warns govt on nickel fallout (February 26, 2024, [Source](#))** – Lynas Rare Earths Ltd. (ASX: LYC), a leading rare earths producer, has highlighted the importance of government vigilance in response to the nickel market's volatility and its broader impact on the mining sector. The company reported a 74% decrease in net profit to \$39.5 million for the half-year ending December 31, attributing this decline to subdued prices for critical minerals, largely due to China's dominance in supply. Despite the market challenges, Lynas, the largest producer of rare earths outside China, emphasizes its strategy of being a low-cost producer to sustain profitability even in a weak market. Lynas is expanding its operations, including projects in the United States, and making contingency plans for potential disruptions in supply chains, such as sourcing sulphuric acid due to the possible closure of BHP's nickel refinery. The company's experience underscores the interconnected nature of the minerals industry and the need for strategic planning and government engagement to ensure resilience and competitiveness, especially in securing sovereign supplies of critical minerals.

**China's lithium-ion battery industry faces excess inventory, production capacity as EV market downshifts: industry analysts (February 25, 2024, [Source](#))** – China's lithium-ion battery industry, pivotal in the global EV market, is navigating through a phase of excess inventory and production capacity due to decreased demand for electric vehicles. Analysts predict a challenging year ahead, with companies facing losses amidst a price war triggered by overcapacity. The situation has led to significant price drops in lithium carbonate and battery cells,



exacerbated by reduced subsidies for EVs. With production far exceeding installation into products, further price declines are expected. The market is undergoing a clearing phase, with expectations of breaking even next year. Investment in new capacity is likely to decelerate. Despite a forecasted slowdown in domestic EV sales growth, the global lithium market faces a ballooning excess supply, raising concerns over the long-term growth prospects for lithium. Top battery and lithium mining firms may only see profitability by 2025, as the industry grapples with these challenges.

**Energy Fuels Announces 2023 Results: Record Net Income and Earnings per Share, Uranium Production Ramp-Up, and Near-Term Production of Separated Rare Earth Elements (February 23, 2024, [Source](#))** – In 2023, [Energy Fuels Inc.](#) (NYSE American: UUUU | TSX: EFR) announced significant achievements including a record annual net income of nearly \$100 million and the commencement of uranium production across three mines, aiming for a production rate of 1.1 to 1.4 million pounds per year by mid-to-late 2024. The company highlighted a strong balance sheet with over \$220 million in liquidity and no debt. Revenue was primarily driven by uranium sales, with significant contributions from rare earth elements (REE) and vanadium. The sale of the Alta Mesa project funded investments in uranium and REE production. Energy Fuels is preparing for the near-term production of separated REEs, anticipating to become a leading producer outside of China. With a focus on growth, the company is also exploring expansions into additional uranium and REE sources, aiming to significantly increase production capabilities while capitalizing on market opportunities in both sectors.

**Mercedes-Benz delays electrification goal, beefs up combustion engine line-up (February 22, 2024, [Source](#))** – Mercedes-Benz announced a postponement of its electrification target by five years, aiming for electrified vehicles to comprise up to 50% of



its sales by 2030, a shift from the initial 2025 goal focused mainly on all-electric cars. This adjustment reflects a broader trend among automakers recognizing the slower-than-anticipated adoption of electric vehicles (EVs), as investments in EV technology and capacity have surpassed current demand. CEO Ola Kaellenius highlighted that even in Europe, a complete switch to electric vehicles by 2030 is unlikely, noting that EVs currently represent a small fraction of total sales. Mercedes-Benz reassured investors and customers of its commitment to refining its combustion engine vehicles alongside its EV ambitions, with plans for a significant lineup refresh by 2027. The announcement, coupled with a €3 billion share buyback program, positively impacted the company's stock, which saw a 5.9% increase. However, challenges such as economic slowdowns, supply chain issues, and geopolitical tensions have led the automaker to anticipate lower sales and reduced profitability for 2024.

## **Investor.News Critical Minerals Media Coverage:**

- February 28, 2024 – Navigating the Climate Change Storm of ESG Withdrawal and Climate Change Commitment <https://bit.ly/3SXymnP>
- February 26, 2024 – Australia's Precarious Position: Navigating a Critical Minerals Market Meltdown <https://bit.ly/3uWQo0Z>

## **Investor.News Critical Minerals Videos:**

- February 29, 2024 – PDAC President Raymond Goldie Bolsters

Toronto's Status as Global Mining Investment Capital in Lead-Up to PDAC 2024 <https://bit.ly/42VBDss>

## Critical Minerals IN8.Pro Member News Releases:

- March 1, 2024 – Voyageur Pharmaceuticals Ltd. Announces Closing of Private Placement <https://bit.ly/432eRzi>
- February 29, 2024 – Ucore Rare Metals to Present at the 2024 PDAC Conference <https://bit.ly/3TglcUa>
- February 28, 2024 – First Phosphate and Craler Sign MOU for the Development of Global Logistical Competencies to and from the Saguenay-Lac-St-Jean region of Quebec, Canada <https://bit.ly/49xD5DI>
- February 27, 2024 – American Rare Earths to present at two leading industry conferences in March PDAC and International Battery Seminar <https://bit.ly/49uaFuu>
- February 27, 2024 – Nano One Commences Feasibility Study for First Commercial LFP Plant and “Design-Once-Build-Many” Growth Strategy <https://bit.ly/3TaFtum>
- February 27, 2024 – Media Advisory – Neo Performance Materials Inc. Fourth Quarter 2023 Earnings Release & Conference Call <https://bit.ly/3uSkeU0>
- February 26, 2024 – Appia Reports High-Grade Total Rare Earth Oxide Results up to 22,339 ppm or 2.23% on Diamond Drill Hole #1 Within Target IV at PCH IAC Project, Brazil <https://bit.ly/48DKQHe>
- February 26, 2024 – Kraken Energy Commences Drilling at Harts Point & Provides Corporate Update <https://bit.ly/49r02bS>

---

# Industry Leaders Lifton and Karayannopoulos China's Influence on Rare Earth Prices and Markets Today

written by InvestorNews | April 21, 2024

In a thought-provoking Investor.News interview hosted by the [Critical Minerals Institute](#) founder [Tracy Weslosky](#), [Jack Lifton](#) and [Constantine Karayannopoulos](#), two renowned figures in the rare earths market, share their insights on the sector's current trends and future prospects. Constantine Karayannopoulos, reflecting on the state of the market, observes, "There is never a dull moment in the rare earths industry," highlighting the ongoing slide in prices for critical rare earth elements like neodymium and praseodymium. He expresses a cautious outlook, noting, "I'm a little pessimistic about the near term... it's a cyclical industry."

[Critical Minerals Institute](#) (CMI) Co-Chair Jack Lifton adds: "The low prices may be here for a while because the principal producer in the world is China, and China's having a very bad time economically right now." He emphasizes the opportunities presented by the current market conditions for strategic investments, advising, "This is the ideal time for real mining and real processing companies to get into the game."

Karayannopoulos also touches on the disconnection between market interest and actual market trends, suggesting, "There's always a disconnect between reality versus expectation." He elaborates on

the nuanced dynamics within China, mentioning, “The Chinese consumer has not stopped buying, China grew at 5% last year.. However, the main consumer of rare earths today, the magnet industry that feeds the electric vehicle production in China, it’s not growing as fast as people thought it was going to grow.”

Lifton further discusses the broader implications of supply and demand, cautioning, “As long as the supply is in excess, the prices are not going to go up.” He also highlights the strategic importance of investments in raw material sources and processing capabilities, particularly in light of China’s dominance in the market.

Through their conversation, Lifton and Karayannopoulos provide a nuanced analysis of the rare earths market, blending perspectives on economic trends, geopolitical strategies, and investment opportunities. To access the complete interview, [click here](#)

---

**Technology Metals Report  
(02.16.2024): Australia makes  
Nickel a ‘Critical’, Hastings  
Rare Earth Deal with Baotou,**

# and Uranium Market Continues to Rise

written by Tracy Weslosky | April 21, 2024

Welcome to the latest issue of the Technology Metals Report (TMR), brought to you by the [Critical Minerals Institute](#) (CMI). In this edition, we compile the most impactful stories shared by our members over the past week, reflecting the dynamic and evolving nature of the critical minerals and technology metals industry. Among the key stories featured in this report are the Australian government's decision to classify nickel as a 'critical' mineral, entitling it to support from a significant stimulus fund, and the emerging competitive landscape in Africa as Western countries endeavor to reduce China's dominance in the critical minerals sector, particularly in cobalt production.

This week's report also highlights various strategic collaborations and developments, including Hastings Technology Metals Ltd.'s (ASX: HAS) offtake agreement with Baotou Sky Rock for the Yangibana Project, and the U.S. Department of Energy's funding allocation for projects aimed at extracting rare earth elements and critical minerals from coal-based resources. Furthermore, we cover the notable surge in uranium prices to a 17-year high and the strategic expansion plans by Energy Fuels Inc., alongside LG Energy Solution's efforts to secure lithium supply through a second agreement with WesCEF. Lastly, we touch on the advancements in battery technology, such as the pilot production of battery-grade purified phosphoric acid by First Phosphate Corp. and the formation of the China All-Solid-State Battery Collaborative Innovation Platform (CASIP) by leading Chinese battery and automobile manufacturers, including CATL and BYD, aiming to propel the development of all-solid-state batteries.

**Australia classifies nickel as a 'critical' mineral to protect ailing industry (February 16, 2024, [Source](#))** – The Australian government has recognized nickel as a critical mineral, making it eligible for support from a A\$6 billion stimulus fund due to concerns over the nickel industry's decline, exacerbated by a supply glut from Indonesia and falling EV demand. This move aims to protect thousands of jobs and key producers like IGO Limited (ASX: IGO) and BHP Group (ASX: BHP | NYSE: BHP) from the impacts of falling nickel prices, which have dropped 43% in the past year. BHP has announced a significant impairment charge on its Nickel West division, highlighting the industry's dire situation. The government's intervention, including potential low-interest loans and grants, is a response to the challenges posed by cheaper Indonesian nickel, driven by Chinese investment and a ban on nickel ore exports from Indonesia. This situation has led to reduced investment and operational suspensions in Australia's nickel sector, threatening its survival and the country's ambition to develop alternative supply chains to China.

**West challenges China's critical minerals hold on Africa (February 16, 2024, [Source](#))** – In a significant development in the global minerals market, China's CMOC Group has surpassed Glencore PLC (LSE: GLEN) to become the leading producer of cobalt, primarily through its operations at the Kisanfu mine in the Democratic Republic of Congo. This surge in production has created one of the largest cobalt surpluses in recent years, despite a drastic fall in cobalt prices. Western countries, recognizing the strategic importance of cobalt and other critical minerals for clean energy and military applications, are challenging China's dominance in Africa. They are particularly focused on the rich copper and cobalt reserves in the Copperbelt region, which spans Zambia and the Congo. Western entities, including companies backed by prominent investors like

Bill Gates and Jeff Bezos, are venturing into this region, despite political and infrastructural challenges. The U.S. and other Western nations are supporting infrastructure and energy projects to facilitate mining and reduce logistical costs. Efforts to de-risk mining in the Copperbelt include upgrading rail lines and developing solar power projects. Meanwhile, the Congolese government is asserting more control over its mineral resources, revising deals with Chinese companies and aiming to formalize artisanal mining to secure a fairer share of the revenue from its mineral wealth. This marks a pivotal shift in the geopolitics of critical minerals, highlighting the strategic competition between the West and China over Africa's mineral resources.

**Hastings And Baotou Sky Rock Sign Binding Term Sheet For Integrated Tolling And Offtake Arrangement (February 16, 2024, [Source](#))** – Hastings Technology Metals Ltd. (ASX: HAS) has entered into a binding term sheet with Baotou Sky Rock Rare Earth New Material Co., Ltd for an integrated tolling and offtake arrangement concerning the Yangibana Project's rare earth concentrate. This arrangement allows Hastings to toll treat its concentrate in China, transforming it into separated rare earth oxides, and sell them, improving Hastings' revenue and cash flows beyond previous models. The agreement, lasting seven years with a possible five-year extension, guarantees a minimum of 10,000tpa of concentrate processing. This deal complements Hastings' existing contract with thyssenkrupp and is part of negotiations with other potential customers for further offtake agreements. The updated financial model reflecting this integrated approach will support the project's funding, showcasing significantly enhanced project economics, including a notable increase in post-tax NPV, IRR, and life of mine free cashflow, while reducing the capital payback period.

**The Up and Coming Uranium Boom (February 15, 2024, [Source](#))** – In

an interview with Hallgarten + Company's Christopher Ecclestone and the [Critical Minerals Institute](#)'s (CMI) Tracy Weslosky, the discussion centered around the uranium market's burgeoning prospects. Ecclestone expressed skepticism regarding the effectiveness of a US ban on Russian uranium, suggesting that Russian uranium could be rerouted through Kazakhstan. He highlighted the challenges Western countries might face in replacing Russian uranium sources. Ecclestone described the uranium market as vibrant, contrasting it with the stagnation in battery metals, and emphasized uranium's unique investment appeal. He advised investors to focus on proven assets from previous booms, cautioning against investing in new, unproven fields. Ecclestone also critiqued the hype around thorium and small modular nuclear reactors, advocating for their potential but also indicating a need for realism. Lastly, he mentioned Argentina and the Athabasca region as key areas for uranium investment, highlighting the importance of geographic and asset-based considerations in the uranium industry.

**DOE Awards \$17M To Conduct FEED Studies for Production of Rare Earth Elements, Critical Minerals (February 15, 2024, [Source](#))** – The U.S. Department of Energy (DOE) is allocating over \$17 million to three projects for extracting rare earth elements and critical minerals from coal-based resources. Funded by the Bipartisan Infrastructure Law, this initiative aligns with President Biden's Investing in America agenda to diminish reliance on foreign critical minerals vital for clean energy technologies, including solar panels and electric vehicles. Leveraging America's substantial coal reserves and waste, the projects aim to foster a self-reliant supply chain, enhance national security, support environmental sustainability, and create quality jobs. This strategic move towards utilizing domestic resources for critical mineral production underscores a significant push towards energy independence, aligning economic



revitalization with clean energy advancements.

**India to Capitalise on Coveted ‘Critical Minerals Club’ to Acquire Overseas Assets (February 15, 2024, [Source](#))** – India is strategically enhancing its position in the global critical minerals market by focusing on acquiring overseas assets through collaborations with Western countries and leveraging partnerships within the US-led Minerals Security Partnership (MSP). This international coalition aims to ensure reliable critical mineral supply chains amidst global disruptions. India, which joined the MSP in 2023, is encouraging public sector undertakings (PSUs) like Coal India Limited, NLC India Ltd., and NTPC Ltd. to secure strategic assets in lithium, cobalt, and graphite to bolster its green energy transition and manufacturing capabilities in electronics, including electric vehicles and semiconductors. Deals have been made, notably with Australia and countries in South America and Africa, to secure these essential materials. The initiative reflects India’s ambition to become self-reliant in critical minerals crucial for the technology-driven world economy, particularly as it aims to accelerate its green energy transition and indigenous manufacturing.

**Uranium Prices at a 17-Year High, Energy Fuels Rapidly Increases Uranium Production in 2024 (February 14, 2024, [Source](#))** – Uranium prices have surged to a 17-year high at \$106/lb, driven by reduced supply and increased demand, with [Energy Fuels Inc.](#) (NYSE American: UUUU | TSX: EFR) poised to benefit significantly. The uranium market’s optimism is further bolstered by a commitment from over 20 countries at COP28 to triple nuclear energy capacity by 2050, highlighting a significant shift towards nuclear energy to meet clean energy goals. Additionally, 118 governments have pledged to triple renewable energy capacity by 2030. Energy Fuels, the leading uranium producer in the USA, has initiated production at three

mines, targeting a significant increase in uranium output to over 2 million lbs by 2025, alongside exploring additional production avenues. With uranium's strategic importance in the clean energy transition underscored, Energy Fuels is leveraging favorable market conditions and long-term growth prospects, underlined by its ambitious expansion and production plans.

**LG Energy signs 2nd agreement with WesCEF to expand lithium supply (February 13, 2024, [Source](#))** – LG Energy Solution from South Korea and Wesfarmers Chemicals, Energy, and Fertilisers (WesCEF) from Australia have signed their second agreement to expand LG's lithium supply chain. WesCEF will supply LG with 85,000 tons of lithium concentrate, expected to yield about 11,000 tons of lithium hydroxide, sourced from the Mt. Holland project in Western Australia, set to start in early 2025. This agreement builds on a previous deal for 50,000 tons of lithium hydroxide in 2022. Additionally, LG Energy is focusing on expanding its presence in India's electric vehicle market, already leading in supplying battery cells to e-scooter makers. In 2023, LG secured a deal with Chile's SQM for 100,000 tons of lithium for seven years, highlighting its efforts to bolster its supply chain amidst increasing lithium demand for rechargeable batteries.

**First Phosphate Corp. Completes Pilot Production of LFP Battery-Grade Purified Phosphoric Acid (February 13, 2024, [Source](#))** – [First Phosphate Corp.](#) (CSE: PHOS) announced the successful completion of a pilot project that converts high purity phosphate concentrate into battery-grade purified phosphoric acid (PPA) for the lithium iron phosphate (LFP) battery industry. In collaboration with Prayon Technologies SA, the company has transformed phosphate concentrate into merchant grade phosphoric acid and then into PPA, conforming to food and battery-grade specifications. This achievement enables the production of LFP cathode active material and battery cells from

a North American source of battery-grade PPA. First Phosphate aims to integrate its mining operations in Quebec, Canada, into the supply chains of LFP battery producers, emphasizing high purity, responsible production, and a low carbon footprint.

**CATL, BYD, others unite in China for solid-state battery breakthrough (February 12, 2024, [Source](#))** – In a bold move to spearhead the electric vehicle (EV) revolution, China's leading battery and automobile manufacturers, including CATL and BYD, have joined forces under the government-led China All-Solid-State Battery Collaborative Innovation Platform (CASIP). Established in January, CASIP aims to commercialize all-solid-state batteries by 2030, enhancing EV performance with greater energy density and safety. This initiative, uniting industry rivals and leveraging AI technology, seeks to position China at the forefront of the next-generation battery technology, challenging current leaders like Japan and Western countries. With the participation of major companies and state support, China is poised to transform the EV market and maintain its global leadership in automotive battery innovation.

#### **Investor.News Critical Minerals Media Coverage:**

- February 15, 2024 – The Up and Coming Uranium Boom <https://bit.ly/3uAUdcv>
- February 14, 2024 – Uranium Prices at a 17-Year High, Energy Fuels Rapidly Increases Uranium Production in 2024 <https://bit.ly/48wVY8N>

#### **Investor.News Critical Minerals Videos:**

- February 13, 2024 – Tom Drivas on the 3 world-renowned rare earths experts on Appia's Critical Minerals Advisory Committee <https://bit.ly/49bVMNj>

## Critical Minerals IN8.Pro Member News Releases:

- February 15, 2024 – First Phosphate and Integrals Power sign Joint Development Agreement to Produce Environmentally Compliant Battery Grade Iron III Phosphate Precursor for the LFP Battery Industry <https://bit.ly/3uDdslR>
  - February 14, 2024 – Imperial Mining Announces Effective Date of New Trading Symbols after TSXV Approves of Name Change to Scandium Canada Ltd. <https://bit.ly/48hRyl0>
  - February 13, 2024 – Western Uranium & Vanadium Mining Operations Update <https://bit.ly/4bvDKHr>
  - February 13, 2024 – Donald Swartz, CEO American Rare Earths, to speak at “The Future Panel” <https://bit.ly/3UF2M05>
  - February 13, 2024 – First Phosphate Corp. Completes Pilot Production of LFP Battery-Grade Purified Phosphoric Acid <https://bit.ly/3P51pF5>
  - February 13, 2024 – Defense Metals Updates Metallurgical Test Work and Preliminary Feasibility Study Progress for its Wicheeda Rare Earth Elements Project <https://bit.ly/3HYiV9R>
  - February 13, 2024 – Power Nickel extends resource mineralization at Nisk Main <https://bit.ly/49aJCE9>
  - February 12, 2024 – F3 Hits 66.8% U3O8 over 0.5m within 42.4% over 2.0m at JR <https://bit.ly/3HUa60a>
-

# Uranium Prices at a 17-Year High, Energy Fuels Rapidly Increases Uranium Production in 2024

written by InvestorNews | April 21, 2024

As shown in the chart below, the uranium spot price remains at its highest level since 2007, currently at [US\\$106/lb](#). A combination of [supply cutbacks](#) from major uranium producers (Kazatomprom etc) and increased demand has led to a uranium deficit, and higher uranium prices.

The longer term outlook for uranium got a boost in December 2023, when [more than 20 countries signed a declaration at COP28](#) that they would triple their nuclear energy capacity by 2050. Reuters [quotes](#): *“Global nuclear capacity now stands at 370 gigawatts, with 31 countries running reactors. Tripling that capacity by 2050 would require a significant scaling up in new approvals – and finance.”*

Also of interest is that [118](#) governments pledged to triple the world's renewable energy capacity by 2030.

**Uranium spot price – 25 year chart**



Source: [Trading Economics](#)

## Energy Fuels is a potential winner as they can rapidly grow their uranium production in the USA

[Energy Fuels Inc.](#) (NYSE American: UUUU | TSX: EFR) is the leading uranium producer in the USA and [according to the Company](#) have “produced 2/3 of all U.S. uranium since 2017”.

Energy Fuels [state](#) their goal as: “To create a profitable, high-margin U.S. critical mineral company –centered on uranium – that produces advanced materials needed for the clean energy transition.” Energy Fuels already produces uranium, vanadium, and rare earths (via processing).

# Short-term uranium production plans

As [announced](#) on December 21, 2023, in response to strong uranium market conditions, Energy Fuels has commenced uranium production at 3 of its permitted and developed uranium mines located in Arizona and Utah (Pinyon Plain Mine, La Sal Mine at La Sal Complex, and Pandora Mine at La Sal Complex). Energy Fuels targets a [run rate of 1.1 – 1.4 million lbs. of U3O8 pa](#) from these mines by the end of 2024.

Next Energy Fuels [is preparing 2 additional uranium mines for production](#), including the Whirlwind Mine (Colorado) and the Nichols Ranch ISR Facility (Wyoming) [within 1 year](#); which combined have short-term potential to produce an additional 300-600,000 lbs. of U3O8 pa.

Energy Fuels is targeting to reach total uranium production of **over ~2 million lbs.** of low-cost production in the short-term ([in 2025](#)).

Energy Fuels is also evaluating total finished uranium production in 2024 from alternate feed materials of an additional [100-400,000 lbs.](#) of U3O8 pa.

**Energy Fuels targets to reach over 2 million lbs of low cost uranium production in 2025**



# Proven U.S. Uranium Production

Leading U.S. Portfolio – Up to 2 Million Lbs. of Short-Term, Low-Cost Production



**White Mesa Mill (Utah) – In Production**

- The only conventional uranium & vanadium mill in US – plus REE's & recycling



**Nichols Ranch ISR (Wyoming) – Pre-Production**

- Fully-licensed & developed; 1.2 million lbs. of  $U_3O_8$  produced (2014 -2019)



**Pinyon Plain Mine (Arizona) – In Production**

- Licensed & developed high-grade uranium mine in production



**La Sal Complex (Utah) – In Production**

- Series of licensed/developed uranium & vanadium mines; 2 in production

3 large-scale projects in permitting (Sheep Mountain; Roca Honda & Bullfrog) have potential to produce additional 4+ million lbs.  $U_3O_8$  per year

Source: [Energy Fuels company presentation](#)

Energy Fuels is guiding that they expect 200,000 lbs. of  $U_3O_8$  sales in 2024 under long-term contracts, plus potential to sell additional uranium on spot market.

Looking out a bit further, Energy Fuels has 3 large scale projects in permitting (Sheep Mountain, Roca Honda, Bullfrog) that have the potential to produce an additional 4+ million lbs.  $U_3O_8$  pa in the mid-term.

## Closing remarks

Energy Fuels is clearly set to have a huge year in 2024 as they focus to significantly ramp up uranium production (and commission Phase 1 of their NdPr production). In regards to uranium pricing, Energy Fuels uses [a pricing formula which maintains exposure to the upside](#), while limiting downside and adjusting for inflation. They are also seeking additional spot sales and long term contracts as prices rise. Longer term Energy Fuels say they have licensed capacity to reach “[over 10 million](#)



[pounds of U<sub>3</sub>O<sub>8</sub> per year](#)" which is more capacity than any other U.S. company.

Energy Fuels trades on a market cap of [US\\$1.075 billion](#) and a PE ratio (TTM) of [10.31](#).

---

# Technology Metals Report (01.05.24): The Intensifying Competition of BYD Surprises Tesla

written by Tracy Weslosky | April 21, 2024

Welcome to the latest **Technology Metals Report (TMR)** where we highlight the Top 10 news stories that members of the [Critical Minerals Institute](#) (CMI) have forwarded to us over the last 2-weeks.

Key highlights in this **Technology Metals Report** includes Tesla's impressive Q4 delivery record, overshadowed by BYD's surge as the top EV maker, underscoring the intensifying competition in the electric vehicle market. Energy Fuels Inc. has made significant strides, first by entering into an MOU with Astron Corporation to bolster the U.S. rare earths supply, and then by expanding its uranium production in response to favorable market conditions. Nio Inc. has made a technological leap with its innovative EV battery, boasting a 1,000km range, while global trends in the critical minerals and EV market show shifts influenced by economic and political developments. Notably,

Codelco and SQM's new lithium venture in Chile represents a strategic move in the lithium market. The impact of China's rare earths export ban stands as a significant moment, compelling the U.S. to foster technological self-reliance. The landmark merger between Allkem and Livent to form Arcadium Lithium marks a major consolidation in the lithium industry. Atomionics' innovative use of AI and gravity in mining exploration showcases a technological breakthrough. The EU's ambitious goals for critical minerals, despite challenges, indicate a strong commitment to securing essential resources for its green transition. Lastly, KoBold Metals' ambitious global lithium exploration, backed by industry giants, highlights the growing importance of lithium in the clean energy sector.

The 10-stories selected for this edition of the TMR with source links to source stories for this fast-paced sector are listed chronologically for your ease and review.

**Tesla delivers record Q4 cars, but China's BYD steals top EV spot (January 3, 2024, [Source](#))** – In the fiercely competitive electric vehicle (EV) market, Tesla Inc. (NASDAQ: TSLA) achieved a significant milestone by delivering a record 484,507 vehicles in the fourth quarter of 2023, surpassing market expectations and fulfilling its annual target. Despite this success, Tesla was eclipsed by China's BYD in terms of sales volume, losing its position as the leading EV manufacturer. BYD, backed by Warren Buffett, delivered 526,409 vehicles, primarily in China, indicating a consumer preference for more affordable models in an economy burdened by high interest rates. Although Tesla's aggressive sales strategies led to a notable 11% growth over the previous quarter and a total production of 1.85 million units in 2023, it fell short of CEO Elon Musk's ambitious target of 2 million. The company's stock remained stable amidst a generally declining market. Meanwhile, BYD's strategy of price cuts appears to be paying off, gaining market share despite potential

impacts on profit margins. Tesla, in a bid to boost sales, offered discounts and incentives, such as six months of free fast charging for deliveries made by the end of December. This strategy was partly in response to some models of its Model 3 sedan losing U.S. federal tax credits in 2024. Tesla's delivery performance stands out in comparison to domestic U.S. car companies, but it is also facing challenges like regulatory scrutiny over its self-driving technology and the need to adapt to changing tax credit policies.

**Energy Fuels' Strategic MOU with Astron: Shaping the Future of the U.S. Rare Earths Supply Chain (December 30, 2023, [Source](#)) – [Energy Fuels Inc.](#)** (NYSE American: UUUU | TSX: EFR) has recently entered into a significant Memorandum of Understanding (MOU) with Astron Corporation Ltd. to jointly develop the Donald Rare Earth and Mineral Sands Project in Victoria, Australia. This collaboration, [announced](#) on December 27, 2023, marks a crucial step in establishing a U.S.-focused rare earths supply chain, vital for meeting future national needs. The project will provide Energy Fuels with 7,000 to 14,000 metric tons of rare earth concentrate annually from the Donald deposit, processed at their White Mesa Mill in Utah. This arrangement not only utilizes the mill's capacity to manage radioactive elements but also supports the production of critical minerals like uranium. The project is set to initially produce 800 – 1,000 metric tons of Neodymium-Praseodymium (NdPr) oxide by Q1 2024, with prospects for expansion. This development is strategically important in light of the U.S. government's impending policy to restrict critical minerals sourced from Foreign Entities of Concern, effective from 2025. By fostering a sustainable, competitive, and independent supply chain, Energy Fuels' initiative is poised to significantly impact the electric vehicle and clean energy sectors in the U.S., reducing dependency on foreign sources, especially China, and bolstering

national security and technological advancement.

**A Chinese EV company developed a battery with a 1,000km range – and its CEO tested it out on a 14-hour livestream (December 29, 2023, [Source](#))** – Chinese electric vehicle (EV) company Nio Inc., often compared to Tesla, recently showcased a groundbreaking development in EV technology by introducing a battery with an impressive 1,000km range. The company's CEO, William Li, widely regarded as China's answer to Elon Musk, embarked on a 14-hour live-streamed journey covering 1,044km from Shanghai to Xiamen to demonstrate the battery's capabilities. Despite challenging weather conditions, Li's Nio ET7, powered by the company's new 150 kWh battery with the highest energy density for a mass-produced EV battery, completed the trip with 3% charge remaining. Scheduled for mass production in April 2024, these batteries, though costly at around \$42,100, represent a significant advancement in EV technology. Nio's unique business model allows customers to buy cars without a battery, offering a subscription for battery swaps at over 2,000 stations across China. Despite financial challenges and each car resulting in a \$12,000 loss for Nio, this strategy has elevated Li's stature, drawing parallels with Tesla's Elon Musk. Li further showcased Nio's technological prowess at the annual "Nio Day," revealing the new ET9 flagship to thousands of Nio enthusiasts.

**The Critical Minerals Institute Report (12.27.2023): Politics Driving Marketable Commodities into 2024 (December 27, 2023, [Source](#))** – The December 2023 [Critical Minerals Institute](#) report highlights key global economic and political developments influencing the critical minerals and electric vehicle (EV) markets. U.S. inflation decreases and potential interest rate cuts in 2024 have positively impacted equity markets, while China's anticipated economic recovery bodes well for commodity sectors. The EV market is experiencing significant growth, particularly in China, despite challenges from U.S. and EU

policies aiming to reduce dependency on foreign entities. The U.S. Department of Energy's proposed FE0C guidelines and the EU's Critical Raw Materials Act reflect a strategic shift towards stabilizing and localizing critical minerals supply chains. The report also notes significant fluctuations in the lithium market, with expectations of a bottom forming soon, and discusses the broader market dynamics of other critical minerals like cobalt, graphite, nickel, and manganese, in the context of a global economic slowdown. The performance of uranium in 2023 and the potential impact of lower interest rates in 2024 on the global economy and critical minerals demand are key areas of focus.

**Chile's Codelco to control new lithium venture with miner SQM (December 27, 2023, [Source](#))** – Chile's state-owned copper miner, Codelco, has entered into a significant partnership with mining company Sociedad Química y Minera de Chile S.A. ("SQM") (NYSE: SQM), gaining majority control in a new lithium venture. This move aligns with President Gabriel Boric's directive for greater government involvement in lithium production. Chile, holding the title of the world's second-largest lithium producer, aims to revitalize its market share, which is at risk of declining due to aging mining projects and increasing global competition. The deal, marking a pivotal step in Boric's national lithium strategy, mandates public-private partnerships for all lithium projects. Set to start in January 2025, Codelco will take over SQM's existing contracts and collaborate on increasing lithium production in the Atacama Desert. This partnership is not only a strategic move to stabilize SQM's market position but also sets a precedent for future lithium contracts in Chile, potentially reshaping the country's role in the global lithium market.

**Global Rare Earths Market Heats Up as China Implements Export Ban (December 21, 2023, [Source](#))** – The recent [ban by China](#) on the export of rare earth processing technology represents a pivotal

moment in the global rare earths market, particularly impacting the strategic metals sector. This ban, covering technology for extracting, separating, and producing rare earth metals and alloys, along with some magnet production technologies, has significant implications for industries like electronics, clean energy, and defense. Experts from the [Critical Minerals Institute](#), including Melissa Sanderson and Peyton Jackson, highlight the necessity for the United States to proactively respond by investing in both green technologies, such as bio-extraction, and traditional processing methods. They emphasize the risks of over-dependence on other nations and the importance of developing technological self-reliance. The U.S. government's funding of Lynas Rare Earths Ltd. (ASX: LYC) and Energy Fuels Inc.'s (NYSE American: UUUU | TSX: EFR) advanced solvent extraction system exemplifies a shift towards addressing these challenges through domestic initiatives. This strategic move is not only a reaction to China's export ban but also a step towards ensuring a more sustainable and secure future in the critical minerals sector.

**Allkem shareholders approve \$10.6 billion Livent lithium merger (December 19, 2023, [Source](#))** – Australian lithium producer Allkem Limited (ASX: AKE | TSX: AKE) and U.S. company Livent Corporation (NYSE: LTHM) have agreed on a significant [\\$10.6 billion merger](#), marking a major move in the lithium industry. This decision, approved by 72% of Allkem's voting shareholders, will result in the formation of Arcadian Lithium PLC (NYSE: ALTM | ASX: LTM), a formidable entity in the global lithium market. The merger, which has received all necessary regulatory approvals, positions Arcadium Lithium as one of the world's largest lithium companies, with operations spanning Australia, Argentina, and Canada. The new company will be integral in supplying lithium, a critical component for electric vehicle batteries, to various battery manufacturers. Under the terms of

the deal, Allkem shareholders will exchange their shares on a one-for-one basis for shares in Arcadium Lithium, owning 56% of the new company, while Livent shareholders will receive 2.406 shares in Arcadium for each of their shares. Livent CEO Paul Graves is set to lead the new company, which will be the world's third-largest lithium producer. The merger comes amidst a surge in dealmaking activity in the lithium sector and is recommended by independent financial advisors and proxy firms. Additionally, Livent plans to expand its operations in Western Australia's prominent lithium districts.

**Singapore's Atomionics taps gravity, AI in hunt for critical minerals (December 19, 2023, [Source](#))** – Singapore-based startup Atomionics is transforming the mineral exploration industry with its innovative technology, Gravio, which combines gravity detection and artificial intelligence. This “virtual drill” technique offers a more precise and efficient method for locating ore bodies of critical minerals like copper, nickel, and zinc. Atomionics has already engaged with three major mining companies and is implementing its technology in Australia and the U.S. The technology's real-time data processing significantly accelerates the task of defining ore bodies, offering a cost-effective alternative to traditional exploration methods. The ability to build an accurate virtual picture of mineral deposits before physical drilling can greatly reduce costs, as exploratory drilling is expensive and often misses the target. Atomionics aims to decrease these unsuccessful attempts by at least half. This innovative approach holds the potential to be a game-changer in the mineral exploration sector, presenting a low-cost alternative to traditional methods and contributing to the energy transition.

**EU sets critical mineral goals, but faces struggle to hit them (December 18, 2023, [Source](#))** – The European Union (EU) has ambitious targets for securing critical minerals essential for



its green transition, as outlined in the Critical Raw Materials Act (CRMA), which aims to mine, recycle, and process significant portions of its annual needs for key materials like lithium and cobalt by 2030. These efforts are crucial for manufacturing clean technology products and reducing dependence on China, the dominant player in global mineral processing. However, the EU faces considerable challenges, including funding shortages, high energy costs, local opposition, and the need to expedite project permits. Additionally, the EU's efforts are comparatively underfunded compared to massive investments in green subsidies by countries like the U.S. The situation is further complicated by higher EU energy costs leading to reduced metal production and delays in mining projects in Portugal and Serbia. Despite these hurdles, there are positive signs, such as potential projects meeting EU supply needs and innovations to minimize material use. The EU also seeks to diversify imports and forge global partnerships, aiming to position itself as a clean tech leader by focusing on high-value manufacturing and relying on reliable allies for mineral sourcing.

**Billionaire-backed KoBold Metals widens lithium hunt across four continents (December 14, 2023, [Source](#))** – KoBold Metals, a California-based startup financially backed by prominent billionaires including Bill Gates and Jeff Bezos, is broadening its search for lithium, a crucial component in the clean energy and electric vehicle sectors, across four continents. Utilizing advanced artificial intelligence technology, CEO Kurt House announced plans to explore for lithium in regions such as South Korea, Quebec, the United States, Australia, and Africa, with specific emphasis on Namibia and the Democratic Republic of Congo. Previously focused on nickel and copper, with successful ventures in Quebec and Zambia, KoBold is now transitioning to include lithium in its mining portfolio. This strategic move aligns with their long-term goal to become the leading supplier



of critical metals within 10 to 15 years. The startup, supported by Breakthrough Energy Ventures, collaborates with major players like BHP Group and Rio Tinto on projects in Australia and Canada. This expansion reflects KoBold's ambition to fill the exploration void left by larger mining firms, which have recently prioritized operational efficiency and shareholder returns over new mineral discoveries.

### **InvestorNews Critical Minerals Media Coverage:**

- January 3, 2024 – Rare earths company stock price has had a 'meteoric' rise of over 21x the past 15 months <https://bit.ly/3vo6Xn3>
- December 29, 2023 – Energy Fuels announces an MOU for a \$122M investment in Astron that will supply a "new U.S.-based supply chain for decades" <https://bit.ly/3tzBfm9>
- December 29, 2023 – Hallgarten Initiates Coverage of Edison Lithium: Pivoting to Sodium-Ion Battery Technology <https://bit.ly/3tG08wq>
- December 27, 2023 – The Critical Minerals Institute Report (12.27.2023): Politics Driving Marketable Commodities into 2024 <https://bit.ly/48sqnVU>
- December 21, 2023 – Global Rare Earths Market Heats Up as China Implements Export Ban <https://bit.ly/3TAClsv>
- December 21, 2023 – Setback for U.S. Rare Earth Industry: China Tightens Export Laws on Key Technologies, Impeding American Efforts to Gain Independence Despite Financial Incentives <https://bit.ly/4aGvQdQ>
- December 20, 2023 – An update on the graphite sector and what to expect in 2024 and beyond <https://bit.ly/3v8xLHG>
- December 19, 2023 – Australia updates their Critical Minerals List and Adds a second, introducing the Australian Strategic Materials List <https://bit.ly/3RQx7aG>

## **InvestorNews Critical Minerals Videos:**

- December 30, 2023 – Jack Lifton with Mark Chalmers on Energy Fuels Rare Earth Deal and Increasing US Uranium Production <https://bit.ly/3TM5wsK>
- December 30, 2023 – Mark Chalmers of Energy Fuels Discusses Increasing Uranium Production in the United States <https://bit.ly/3TDPH7k>
- December 30, 2023 – Energy Fuels' Strategic MOU with Astron: Shaping the Future of the U.S. Rare Earths Supply Chain <https://bit.ly/41PPujp>
- December 18, 2023 – Ucore's Strategic Leap: Pat Ryan Discusses the First Mover Advantage in Rare Earths Processing at Louisiana's Strategic Metals Complex <https://bit.ly/3GKa2jL>

## **Critical Minerals IN8.Pro Member News Releases:**

- January 4, 2024 – Ucore Acquires Alexandria, Louisiana, Facility for Rare Earth Element Processing Plant <https://bit.ly/3RJC00s>
- January 2, 2024 – Panther Metals PLC Corporate Summary: Positioned to Succeed <https://bit.ly/3tDKSQI>
- January 2, 2024 – First Phosphate Closes Second Tranche of Oversubscribed Private Placement for Total Current Financing of \$7.5 Million <https://bit.ly/48jDCbP>
- December 29, 2023 – Panther Metals PLC: Obonga Project Awkward East Claim Purchase Agreement <https://bit.ly/3NKBeTr>
- December 28, 2023 – Appia Rare Earths & Uranium – A Year in Review <https://bit.ly/48xo3gh>
- December 28, 2023 – Kraken Energy Receives Permit to Resume Phase I Drill Program at Harts Point and Provides

Corporate Update <https://bit.ly/48pALxM>

- December 27, 2023 – Energy Fuels Enters into MOU to Secure Near-Term, Large-Scale Australian Source of Rare Earth Minerals to Supply New U.S.-Based Supply Chain for Decades <https://bit.ly/47lDF5v>
- December 27, 2023 – Ucore Comments on China's Ban on the Export of Rare Earth Technology <https://bit.ly/3RYiimD>
- December 27, 2023 – Appia Announces Closing of Non-Brokered Flow-Through Private Placement <https://bit.ly/41EDIbJ>
- December 27, 2023 – Defense Metals Completes Geotechnical Field Data Collection for Wicheeda Rare Earth Element Project Preliminary Feasibility Study <https://bit.ly/3RGLehB>
- December 27, 2023 – F3 to Spend \$16 Million on Drilling at PLN <https://bit.ly/4aCQwDc>
- December 22, 2023 – First Phosphate Announces Closing of Initial Tranche of Private Placement Financing Along with Date of Second Tranche Closing <https://bit.ly/48LgHWR>
- December 22, 2023 – Ucore Announces Extension of Debt <https://bit.ly/3S7KAev>
- December 22, 2023 – Fathom Nickel Announces the Closing of the First Tranche of Private Placement <https://bit.ly/3S6aCyF>
- December 21, 2023 – Imperial Mining Closes \$1M Critical Minerals Flow-Through Private Placement <https://bit.ly/4aEEsSh>
- December 21, 2023 – Western Uranium & Vanadium Provides Market and Company Updates <https://bit.ly/3tyzFAP>
- December 21, 2023 – Ucore Completes RapidSX(TM) Demo Plant Commissioning – Begins US Department of Defense Demonstration Program <https://bit.ly/3tjI4Iz>
- December 21, 2023 – In Response to Surging Prices, Supportive Government Policies, and a Domestic Focus on

Security of Supply, Energy Fuels Has Commenced Production at Three of its U.S. Uranium Mines <https://bit.ly/3Ru3Lxv>

- December 20, 2023 – Panther Metals PLC: Financing Update <https://bit.ly/410C3jB>
  - December 20, 2023 – Critical Metals PLC advances the Molulu Copper-Cobalt Project in DRC <https://bit.ly/3ts5TxH>
  - December 19, 2023 – Auxico Announces Board Decisions on Key Assets and Filing of Technical Reports <https://bit.ly/3TyNx FY>
  - December 19, 2023 – Automotive OEM Validates Nano One LFP and Kicks Off Tonne-Scale Evaluations <https://bit.ly/48g4KZ6>
- 

# Mark Chalmers of Energy Fuels Discusses Increasing Uranium Production in the United States

written by InvestorNews | April 21, 2024

In a recent interview with Tracy Weslosky of Investor.News, Mark Chalmers, President, CEO, and Director of [Energy Fuels Inc.](#) (NYSE American: UUUU | TSX: EFR), discussed the company's response to surging uranium prices and supportive government policies. Energy Fuels, a leading U.S. producer of uranium, rare earth elements, and vanadium, has [commenced](#) production at three of its U.S. uranium mines located in Arizona and Utah. Chalmers highlighted that Energy Fuels has produced roughly two-thirds of

all U.S. uranium in the past five years and is uniquely positioned to increase production.

The decision to ramp up uranium production is driven by strong market conditions, with spot prices reaching a 16-year high, and the need to reduce reliance on Russian uranium. Energy Fuels plans to produce 1.1 to 1.4 million pounds of uranium per year by mid to late-2024, primarily from the Pinyon Plain, La Sal, and Pandora mines. Additionally, they are preparing two more mines in Colorado and Wyoming to commence production within a year, potentially increasing annual production to over two million pounds in 2025.

[Energy Fuels](#) will also continue its alternate feed recycling program and commence an ore buying program to further boost production. The company is advancing permitting and development on other large-scale mine projects, aiming to expand production up to five million pounds per year in the coming years.

Chalmers stressed Energy Fuels' commitment to not only uranium production but also advancing its multi-commodity exposure in the energy transition space, leveraging its unique capability to process minerals containing natural radioactivity. To access the complete interview, [click here](#)

Don't miss other InvestorNews interviews. Subscribe to the InvestorNews YouTube channel by [clicking here](#)

## About Energy Fuels Inc.

Energy Fuels is a leading US-based critical minerals company. The Company, as the leading producer of uranium in the United States, mines uranium and produces natural uranium concentrates that are sold to major nuclear utilities for the production of carbon-free nuclear energy. Energy Fuels recently began

production of advanced rare earth element (“**REE**”) materials, including mixed REE carbonate, and plans to produce commercial quantities of separated REE oxides in the future. Energy Fuels also produces vanadium from certain of its projects, as market conditions warrant, and is evaluating the recovery of radionuclides needed for emerging cancer treatments. Its corporate offices are in Lakewood, Colorado, near Denver, and substantially all its assets and employees are in the United States. Energy Fuels holds two of America’s key uranium production centers: the White Mesa Mill in Utah and the Nichols Ranch in-situ recovery (“**ISR**”) Project in Wyoming. The White Mesa Mill is the only conventional uranium mill operating in the US today, has a licensed capacity of over 8 million pounds of  $U_3O_8$  per year, and has the ability to produce vanadium when market conditions warrant, as well as REE products, from various uranium-bearing ores. The Nichols Ranch ISR Project is on standby and has a licensed capacity of 2 million pounds of  $U_3O_8$  per year. The Company recently acquired the Bahia Project in Brazil, which is believed to have significant quantities of titanium (ilmenite and rutile), zirconium (zircon) and REE (monazite) minerals. In addition to the above production facilities, Energy Fuels also has one of the largest NI 43-101 compliant uranium resource portfolios in the US and several uranium and uranium/vanadium mining projects on standby and in various stages of permitting and development.

To learn more about Energy Fuels Inc., [click here](#)

**Disclaimer:** *Energy Fuels Inc. is an advertorial member of InvestorNews Inc.*

*This interview, which was produced by InvestorNews Inc. (“InvestorNews”), does not contain, nor does it purport to contain, a summary of all material information concerning the Company, including important disclosure and risk factors*

associated with the Company, its business and an investment in its securities. InvestorNews offers no representations or warranties that any of the information contained in this interview is accurate or complete.

This interview and any transcriptions or reproductions thereof (collectively, this "presentation") does not constitute, or form part of, any offer or invitation to sell or issue, or any solicitation of any offer to subscribe for or purchase any securities in the Company. The information in this presentation is provided for informational purposes only and may be subject to updating, completion or revision, and except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any information herein. This presentation may contain "forward-looking statements" within the meaning of applicable Canadian securities legislation. Forward-looking statements are based on the opinions and assumptions of the management of the Company as of the date made. They are inherently susceptible to uncertainty and other factors that could cause actual events/results to differ materially from these forward-looking statements. Additional risks and uncertainties, including those that the Company does not know about now or that it currently deems immaterial, may also adversely affect the Company's business or any investment therein.

Any projections given are principally intended for use as objectives and are not intended, and should not be taken, as assurances that the projected results will be obtained by the Company. The assumptions used may not prove to be accurate and a potential decline in the Company's financial condition or results of operations may negatively impact the value of its securities. This presentation should not be considered as the giving of investment advice by the Company or any of its directors, officers, agents, employees or advisors. Each person



*to whom this presentation is made available must make its own independent assessment of the Company after making such investigations and taking such advice as may be deemed necessary. Prospective investors are urged to review the Company's profile on [SedarPlus.ca](https://www.sedarplus.ca) and to carry out independent investigations in order to determine their interest in investing in the Company.*

---

# **Energy Fuels' Strategic MOU with Astron: Shaping the Future of the U.S. Rare Earths Supply Chain**

written by InvestorNews | April 21, 2024

In a recent interview with Tracy Weslosky of InvestorNews, Mark Chalmers, President, CEO, and Director of [Energy Fuels Inc.](#) (NYSE American: UUUU | TSX: EFR), discusses their [recently announced](#) Memorandum of Understanding (MOU) with [Astron Corporation Ltd.](#) (ASX: ATR) for the joint venture development of the Donald Rare Earth and Mineral Sands Project in Victoria, Australia. This MOU, announced on December 27, 2023, is a key milestone in establishing a U.S.-centric rare earths supply chain, which is crucial for the country's future needs.

The Donald Project promises to supply Energy Fuels with 7,000 to 14,000 metric tons of rare earth concentrate, using monazite sand from the deposit. Energy Fuels plans to process this at their White Mesa Mill in Utah, where they can handle the

radioactive elements in monazite and extract valuable components like uranium. This positions them as a leader in the critical minerals.

Energy Fuels' approach is cost-effective, leveraging existing infrastructure and skilled workforce in Utah. The initial phase of the project aims to produce 800 – 1,000 metric tons of the magnetic materials, Neodymium-Praseodymium (NdPr) oxide by Q1 2024, with plans for future expansion.

The U.S. government's policy, set to restrict critical minerals sourced from Foreign Entities of Concern from 2025, highlights the significance of Energy Fuels' project. As a leading U.S. producer of uranium, vanadium, and rare earth elements, the company plays a vital role in reducing U.S. dependence on foreign sources, particularly China.

This venture is expected to have a major impact on the electric vehicle and clean energy sectors in the U.S., offering a sustainable, competitive, and independent supply chain for critical minerals, essential for national security and technological progress. To access the complete interview, [click here](#)

Don't miss other InvestorNews interviews. Subscribe to the InvestorNews YouTube channel by [clicking here](#)

## About Energy Fuels Inc.

Energy Fuels is a leading US-based critical minerals company. The Company, as the leading producer of uranium in the United States, mines uranium and produces natural uranium concentrates that are sold to major nuclear utilities for the production of carbon-free nuclear energy. Energy Fuels recently began production of advanced rare earth element (“**REE**”) materials,

including mixed REE carbonate, and plans to produce commercial quantities of separated REE oxides in the future. Energy Fuels also produces vanadium from certain of its projects, as market conditions warrant, and is evaluating the recovery of radionuclides needed for emerging cancer treatments. Its corporate offices are in Lakewood, Colorado, near Denver, and substantially all its assets and employees are in the United States. Energy Fuels holds two of America's key uranium production centers: the White Mesa Mill in Utah and the Nichols Ranch in-situ recovery ("**ISR**") Project in Wyoming. The White Mesa Mill is the only conventional uranium mill operating in the US today, has a licensed capacity of over 8 million pounds of  $U_3O_8$  per year, and has the ability to produce vanadium when market conditions warrant, as well as REE products, from various uranium-bearing ores. The Nichols Ranch ISR Project is on standby and has a licensed capacity of 2 million pounds of  $U_3O_8$  per year. The Company recently acquired the Bahia Project in Brazil, which is believed to have significant quantities of titanium (ilmenite and rutile), zirconium (zircon) and REE (monazite) minerals. In addition to the above production facilities, Energy Fuels also has one of the largest NI 43-101 compliant uranium resource portfolios in the US and several uranium and uranium/vanadium mining projects on standby and in various stages of permitting and development.

To learn more about Energy Fuels Inc., [click here](#)

**Disclaimer:** Energy Fuels Inc. is an advertorial member of InvestorNews Inc.

*This interview, which was produced by InvestorNews Inc. ("InvestorNews"), does not contain, nor does it purport to contain, a summary of all material information concerning the Company, including important disclosure and risk factors associated with the Company, its business and an investment in*

*its securities. InvestorNews offers no representations or warranties that any of the information contained in this interview is accurate or complete.*

*This interview and any transcriptions or reproductions thereof (collectively, this "presentation") does not constitute, or form part of, any offer or invitation to sell or issue, or any solicitation of any offer to subscribe for or purchase any securities in the Company. The information in this presentation is provided for informational purposes only and may be subject to updating, completion or revision, and except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any information herein. This presentation may contain "forward-looking statements" within the meaning of applicable Canadian securities legislation. Forward-looking statements are based on the opinions and assumptions of the management of the Company as of the date made. They are inherently susceptible to uncertainty and other factors that could cause actual events/results to differ materially from these forward-looking statements. Additional risks and uncertainties, including those that the Company does not know about now or that it currently deems immaterial, may also adversely affect the Company's business or any investment therein.*

*Any projections given are principally intended for use as objectives and are not intended, and should not be taken, as assurances that the projected results will be obtained by the Company. The assumptions used may not prove to be accurate and a potential decline in the Company's financial condition or results of operations may negatively impact the value of its securities. This presentation should not be considered as the giving of investment advice by the Company or any of its directors, officers, agents, employees or advisors. Each person to whom this presentation is made available must make its own*

*independent assessment of the Company after making such investigations and taking such advice as may be deemed necessary. Prospective investors are urged to review the Company's profile on [SedarPlus.ca](http://SedarPlus.ca) and to carry out independent investigations in order to determine their interest in investing in the Company.*