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

written by InvestorNews | February 19, 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

## Analyzing Conflicting Reports of a Rare Earths Technology Ban by China

written by Steve Mackowski | February 19, 2024

Dynamic Reading — Is this the prodigy of today's AI Report
Writing phenomenon? I have been asked to write my thoughts on
the latest news about potential rare earths technology bans from
China. The first reference I received was written by Shunsuke
Tabeta, a staff writer for Nikkei Asia: China weighs export ban
for rare-earth magnet tech

The second reference I received was written by Jingyue Hsiao of

DIGITIMES Asia, Taipei. This was in response to the Nikkei Asia news: A rare earth war simmers as China reportedly to impose export ban

I then received the preparatory title of a response from one of the InvestorIntel journalists: "What happens next if China bans rare earths technology needed to process rare earths and to make high-performance magnets".

#### Lessons from the past

Got me thinking about how people's reading styles, capabilities, and mental processes appear to be controlling how they understand the reading matter and therefore influence the way they report or comment. Reminded me of a few years back when my granddaughter wasn't achieving at high school.

I purchased National Geographic subscriptions for us both and commenced a weekly telephone hook-up routine. We took turns investigating each article, with one being the interviewer developing the questions and the other, being the interviewee who had to answer the questions. Who, What, When, Where? With those satisfactorily answered you could then ask the key question: Why? Look at what this does. It focuses the mind to search for factual information BEFORE you look for answers that may be swayed by things such as bias, agendas, or less well-informed previous interactions. It also aids in memory retention.

#### Unpacking the articles

Look at the Nikkei headline: "export ban". The DIGITIMES headline reads: "Rare earth war". The InvestorIntel "What happens next". These all point to and highlight the differences in the author's history, experience, and understanding of the

topic or their editorial bent.

I thought back and my favorite primary school teacher came to mind. She used these Who, What, When, Where, and Why prompts when I was learning to read. No, not read but <u>understand</u>. So Mrs. long-since-forgotten surname, thank you for your skills. But, I'll lay claim to the Dynamic Reading title. BTW, it's about now I'm expecting some hi-tech whiz kid to jump in and say that this tool is similar but opposite to the AI report writers that aggregate multi-article "Who, What, When, Where, and Why" information. Strange place the past!

So I'll use Dynamic Reading to get to my response to the articles.

	Nikkei Asia (Japanese)	DIGITIMES Asia (Taiwanese)
Who	China. Un-named Beijing Officials	China
		China had updated a
	Considering prohibiting	technology export restriction
What	exports of certain rare	list which may ban the
	earth magnet technology	exports of certain rare earth
		elements
When	Later this year	Later this year
Where	Beijing	Beijing

### What is really being written

Note already the difference in the What. Banning Rare earth magnet technology versus Rare earth elements. So, do I have enough to comment? To provide a Why? Well, not from that information, I need more.

The DIGITIMES Asia article cites Quartz as reporting that China

is trying to defend its dominance in rare earths by increasing investments at home and abroad. This position is not supported by the Off-Market Sale of the East China Exploration (ECE) Group of their holdings in Arafura Resources Ltd. (ASX: ARU). Especially since Arafura is well progressed on its Nolans Project development schedule. And then Lynas Rare Earths Ltd. (ASX: LYC) is very well developed on their North American value-adding schedule.

To be honest, I have always had difficulty in developing an overview of how China aggregates and controls the Rare Earth business in China. Although the quotas and technology strategies appear to be working well on paper (their paper), it is not without some resistance from the regions that want more self-governance over their resources. Go no further than looking at the resource development battle between the light rare earths in Baotou, the heavy rare earths in Guangzhou, and the historic separation plants around Nanjing.

### My conclusions

My take? Well, I would question: Is the news real or not? Is it part of a grander plan? I am sure that China can see the many developments occurring outside of China. And I am sure that China sees the projected growth in rare earths that are needed and coming from developing towards a Net Zero Carbon future. And I am sure that China must acknowledge that its pre-eminent position is not so much as under threat but that it will lessen as the whole of the world looks to resource development for a global benefit.

So, my feelers are out for more information. Difficult though these days and especially now that TikTok bans are muddying the relationships. Let's just hope for everyone's future that China's People's Liberation Army ("PLA") venture into the Straights of Taiwan is not on, or part of, any strategic China agenda.

Oh, my granddaughter? She went from the bottom quartile of her class to be in the top 10%. And is now running her own business. Simply by being taught how to read.

# Is China's 'reported' potential ban of rare earth magnet technology a paper tiger?

written by Matt Bohlsen | February 19, 2024 On April 6 Nikkei Asia reported: "China weighs export ban for rare-earth magnet tech. Beijing looks to strike back after Washington's chip restrictions". Some investors may have concerns that this news may potentially severely disrupt western markets as they rely heavily on the Chinese rare earths and magnets supply chain.

The unconfirmed report stated: "China is considering prohibiting exports of certain rare-earth magnet technology in a move that would counter the U.S.'s advantage in the high-tech arena......The revisions would either ban or restrict exports of technology to process and refine rare-earth elements. There are also proposed provisions that would prohibit or limit exports of alloy tech for making high-performance magnets derived from rare earths.......In all, there are 43 amendments or additions in the

draft list first announced in December by the commerce and technology ministries. Officials have finished taking public comments from experts, and the changes are expected to go into force this year."

Note: Bold emphasis by the author.

### The rare earths market remains heavily dependent on China

Remember China produces about 70% of all rare earths globally. Rare earths magnets are a key factor in modern day equipment that uses powerful lightweight electric motors. These range from numerous military applications, smartphones, PCs, to wind turbines and electric motors used in many electric vehicles and also in conventional cars.

If China went further to ban the final rare earths and magnet products, a supply chain disruption could have the potential to cause chaos globally.

### Assuming the report is correct and the changes go through, what would be the implications on western markets

Well actually the other is 'nothing' to 'no impact' was the feedback experts shared with me from the Critical Minerals Institute (CMI) Board that I am a new member of, the debate seemed to offer a consensus that this was nothing more than a paper tiger.

My colleagues reason that the West is no longer dependent upon China technology to process rare earths or to make magnet rare earths. In fact, these processes are already being done in the West in multiple locations. For instance, rare earths are refined in Estonia by <u>Neo Performance Materials Inc.</u> (TSX: NEO) and in France by Solvay SA. In Japan, examples ranged, I was reassured that the technology to refine rare earths is well known outside China for both light and heavy rare earths.

While the level of impact ranged in opinions, it was communicated to me that bonded **neodymium magnets** (also known as NdFeB, NIB or Neo magnet), which the the most widely used of the rare earth permanent magnets, are made in Japan, Korea, the Philippines, Thailand, Germany, the UK and the U.S. Rare earth oxides are converted to metals in Vietnam and Thailand. NdFeB alloys are made in Vietnam, Thailand, Japan, Germany and the UK. The highest performance sintered magnets in the world are made in Japan.

### InvestorIntel reached out to rare earths leaders in the Western world for comments

Tracy Weslosky, and Executive Director of the Criticals Mineral Institute (CMI) comment that "Any threat from any country must be taken seriously if only to identify what they are prioritizing. We have a 1.2 trillion EV market demand by 2030 pressing down on the rare earth permanent magnet sector. To build these electric vehicles, finding a magnetic materials such as neodymium (Nd) for instance must be more than identified in the ground, it must be extracted. Qualified professionals, and competitive technologies for what experts describe as a 4-5 step process is much more tech than mining, but all stages clearly rely on each other. Collaborative technologies, and qualified professionals are required and we need more of both."

The CMI Co-Chairman and Co-Founder Jack Lifton, adds: "What we are seeing is 'technology nationalism.' For the entire  $21^{\rm st}$  century China has been whittling away at America's lead in

innovative technology as measured by the number of patents granted in each nation. America's legal system prohibits the theft of intellectual property by imposing severe financial penalties on such perpetrators. China's legal system theoretically protects international patent holders from such theft, but in reality, it has always been ineffective and heavily weighted towards the Chinese defendants.

China's dominance of the supplies and processing into industrially useful forms of the critical minerals for the ten technologies it has targeted for domestic self-sufficiency by 2025 is the reason for the latest move. China does not want the rest of the world to know how close it may be to accomplishing its goal of technological self-sufficiency, so to its unofficial but very real critical minerals resource nationalism it is now adding selected technology nationalism. The ultimate goal, a Chinese economy independent of the rest of the world for resources and technology, is being advanced by deglobalization and the reformation of regional trading blocks."

### Closing remarks

Global supply chains are very interconnected for the vast majority of consumer products made today. This means any threats to this chain send investors into a panic. on this occasion the loss of China 'processing technology' for rare earths and magnets is a non-issue. The technology is already out and the leader in magnet technology is in fact Japan, not China. For example, smartphones cannot be assembled in China without imported Japanese and increasingly, Korean rare earth containing components.

Western rare earths experts all agree the Nikkei Asia story is sensational and misleading. There is nothing to worry about says some; however, if China was to go a big step further and ban all rare earths and rare earth magnet exports then everyone agrees, we would have a real problem. This is why the West is moving to build up their own independent supply chains, not only in the rare earths sector, but also across numerous other critical materials and components in the supply chain.

## Mark Chalmers on Energy Fuels planned vertical integration into commercial rare earth products

written by InvestorNews | February 19, 2024
In a recent InvestorIntel interview, Tracy Weslosky spoke with Mark Chalmers, President and CEO of Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR) about developing a fully-integrated rare earths supply chain in the US with commercial scale rare earths separation capability at Energy Fuels' White Mesa Mill.

In this InvestorIntel interview, which may also be viewed on YouTube (click here to subscribe to the InvestorIntel Channel), Mark Chalmers said that Energy Fuels is currently seeking to secure additional monazite supply for their White Mesa Mill in Utah and is in advanced discussions with half a dozen monazite suppliers globally. "If we had more monazite right now, we could process it immediately into mixed rare earth carbonate," he added. With the rare earths market rising sharply, Mark went on to provide an update on Energy Fuels' collaboration with the French chemical engineering firm, Carester SAS, to support

development of a downstream rare earth separation system at its operating White Mesa, Utah, uranium and vanadium processing mill.

To watch the full interview, click here.

#### **About Energy Fuels Inc.**

Energy Fuels is a leading U.S.-based uranium mining company, supplying U<sub>3</sub>O<sub>8</sub> to major nuclear utilities. Energy Fuels also produces vanadium from certain of its projects, as market conditions warrant, and is ramping up to commercial-scale production of REE carbonate. Its corporate offices are in Lakewood, Colorado, near Denver, and all of its assets and employees are in the United States. Energy Fuels holds three of America's key uranium production centers: the White Mesa Mill in Utah, the Nichols Ranch in-situ recovery ("ISR") Project in Wyoming, and the Alta Mesa ISR Project in Texas. The White Mesa Mill is the only conventional uranium mill operating in the U.S. 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 carbonate from various uranium-bearing ores. The Nichols Ranch ISR Project is on standby and has a licensed capacity of 2 million pounds of U<sub>3</sub>O<sub>8</sub> per year. The Alta Mesa ISR Project is also on standby and has a licensed capacity of 1.5 million pounds of U<sub>3</sub>O<sub>8</sub> per year. In addition to the above production facilities, Energy Fuels also has one of the largest NI 43-101 compliant uranium resource portfolios in the U.S. and several uranium and uranium/vanadium mining projects on standby and in various stages of permitting and development. The primary trading market for Energy Fuels' common shares is the NYSE American under the trading symbol "UUUU," and the Company's common shares are also listed on the Toronto Stock Exchange under the trading symbol "EFR."

To learn more about Energy Fuels Inc., <a href="click here">click here</a>.

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If you have any questions surrounding the content of this

interview, please contact us at +1 416 792 8228 and/or email us direct at info@investorintel.com.

### The Rare Earths Market in Review — June 2020

written by InvestorNews | February 19, 2024

"I think Energy Fuels is serious about going into the rare earths business. What I was told is that they are going to begin by selecting a rare earths mineral produced in the United States..." States critical materials expert Jack Lifton, in an interview with the Technology Metals Show hostess Tracy Weslosky.

In the interview Tracy and Jack discussed some of the major news in the rare earths space for the month of June. Jack also commented on Lynas and shared his view on Alkane's plan to demerge their poly-metallic and rare earths holding company Australian Strategic Materials Limited (ASM).

To access the complete interview <u>subscribe</u> to the <u>Technology</u> <u>Metals Show</u> and get exclusive access to member only content through this exclusive site! Or <u>Log-In Here</u> for the latest conversations, debates, updates and interviews with the leaders, thought leaders <u>and</u> investors focused on issues relating to sustainability in the critical materials sector.

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## Jack Lifton on the effect of COVID-19 pandemic on the rare earths sector

written by InvestorNews | February 19, 2024

"All producing mines have been at a standstill. Mines are extremely touchy about health and safety. Before anybody goes into a mine, they are drug tested because the mines do not want anybody who is drunk or high on a drug to go underground and endanger lives. When something like COVID occurs, they add that too. I am sure they are testing anybody who is going underground." States critical materials expert Jack Lifton, in an interview with the Technology Metals Show hostess Tracy Weslosky.

Jack went on to advise on what people should do in the current market situation and where the rare earths market is heading.

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### Search Minerals CEO on the trending rare earths market

written by InvestorNews | February 19, 2024
March 26, 2018 — "In the rare earths market we are excited again because interest is starting to come back. We are in an increasing trending market, especially electrification of vehicles is leading it. The permanent magnet space is what we are really in with our key components of our rare earth deposit would fuel that industry of the permanent magnets." states Greg Andrews, President, CEO and Director of <a href="Search Minerals Inc.">Search Minerals Inc.</a> (TSXV: SMY), in an interview with InvestorIntel's Jeff Wareham.

**Jeff Wareham:** Greg, you are in rare earths in Newfoundland. I am going to start with this. What is happening in the rare earths market?

**Greg Andrews:** In the rare earths market we are excited again because interest is starting to come back. We are in an increasing trending market, especially electrification of vehicles is leading it. The permanent magnet space is what we are really in with our key components of our rare earth deposit would fuel that industry of the permanent magnets.

**Jeff Wareham:** North America is basically out of the rare earth business. Do you guys think you can change that?

**Greg Andrews:** Absolutely. Every day that we wake up we are looking to see how we can get to our bankable feasibility study. Yesterday we wanted to drill our Deep Fox Property. We released our assay results to confirm the geological footprint that

FOXTROT has. Deep Fox was compelling because of the higher grades and bigger surface expression. We are excited that we may have worked towards 2 resources in our district concept and that will help support that.

**Jeff Wareham:** You are in Newfoundland, but you are actually in Labrador, which may give people the impression of being somewhat remote. That is not my impression.

Greg Andrews: No. One of the key things in the rare earth space is to get the operating cost down, the capital cost down. We are in great infrastructure. Where our mine, our FOXTROT deposit is 12 kilometers from the town of St. Lewis, which already has a deep-sea port for infrastructure. A road runs right through our property. We have power that we just need to put in and move 12 kilometers down the road. Our Deep Fox project that we are just working on is 2 kilometers. It is in close proximity that we are working in with the environmental use and the infrastructure.

**Jeff Wareham:** I have had a little bit of experience with it. How are you finding Newfoundland to work with?

Greg Andrews: It is fantastic; the support that we have from everybody, from the governments down. We are just starting our environmental impact statement process so we are meeting with Canadian CEAA and providence to get the baseline studies. We will start with that. They work together cohesively as a team to make sure they want to see the projects through the proper environmental, which we will be transparent and work with all our stakeholders to get it there for our bankable feasibility that we will need.

**Jeff Wareham:** Good stuff. Investors have already seen great drill results this year. What else should we be watching for?

Greg Andrews: The drilling was only 3 holes out of 500 meters

out of 2,000 so we are looking to complete our 2,000. We will start that in May and June. If we have our positive results we are looking to expand that to 4,000 meters and try to catch up Deep Fox with our FOXTROT resource and have two resources at the same level of PEA discussion...to access the complete interview, click here

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