

A stylized graphic of the American flag, with the stars in the upper left and the stripes curving downwards and to the right, creating a sense of movement and depth.

# **THE CRITICAL ISSUE #4**

**OCTOBER 2023  
NEWSLETTER**



**Critical Minerals Association  
United States of America**

# OCTOBER 2023

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### Events Calendar

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# POLITICAL & GEOPOLITICAL HIGHLIGHTS

## U.S. Department of Energy launches critical materials collaborative

The U.S. Department of Energy (DOE) launched a first-of-its-kind Critical Materials Collaborative (CMC) and announced its intent to fund up to \$10 million to establish a Critical Materials Accelerator Program.

The vision of the CMC is to integrate critical materials applied research, development and demonstration (RD&D) across DOE and the federal government, to accelerate the development of domestic critical material supply chains for the nation. The CMC will operationalize coordination and collaboration, while creating a value-add for RD&D performers by expanding their access to world-class expertise, capabilities, and facilities.

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## Indonesia proposes critical minerals trade deal with the U.S.

Indonesia has asked the United States to begin talks on a trade deal for critical minerals so that exports from the Southeast Asian country can be covered under the US Inflation Reduction Act, an Indonesian ministry said on Thursday.

The request was made when Indonesian President Joko Widodo met with US Vice President Kamala Harris on the sidelines of meetings hosted by the Association of Southeast Asian Nations (ASEAN) in Jakarta

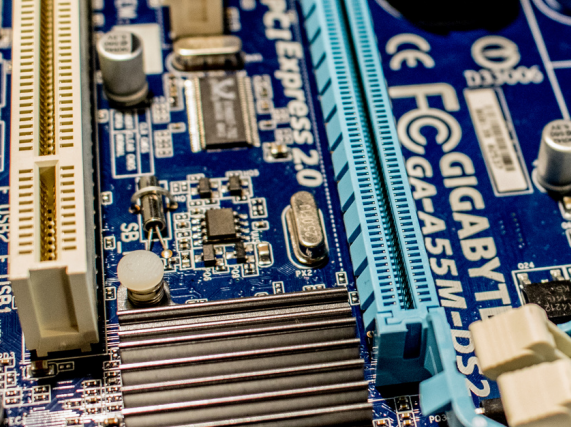
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## US secures closer partnership with Vietnam

[...] Vietnam's complex relationship with China as well as its popularity as a destination for firms from the US and other countries moving production out of China have made it increasingly important to Washington. The Biden administration's Indo-Pacific Strategy identifies Vietnam as one of the "leading regional partners" with which it wishes to deepen relations.

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### **Pentagon eyes microelectronics hubs across US to bolster chip industry**

The U.S. Defense Department is establishing eight regional microelectronics hubs in seven states across the country aimed at helping spur manufacturing innovation to bolster the domestic semiconductor-industrial base.

Deputy Defense Secretary Kathleen Hicks told reporters during a Sept. 20 briefing at the Pentagon that the awards total \$238 million. Each innovation hub is receiving between \$15 million and \$40 million to establish initial operations, she added.

[...] In the last 30 years, the U.S. has gone from producing 37% of the global microchip supply to about 12%. Today, Taiwan produces most of the world's supply of advanced semiconductors, and China exports a large portion of its microchips to the United States. These chips power everything from cellphones to cars to the F-35 fighter jet.

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### **China to launch \$40 billion state fund to boost chip industry**

China is set to launch a new state-backed investment fund that aims to raise about \$40 billion for its semiconductor sector, two people familiar with the matter said, as the country ramps up efforts to catch up with the U.S. and other rivals.

It is likely to be the biggest of three funds launched by the China Integrated Circuit Industry Investment Fund, also known as the Big Fund.

Its target of 300 billion yuan (\$41 billion) outdoes similar funds in 2014 and 2019, which according to government reports, raised 138.7 billion yuan and 200 billion yuan respectively.

One main area of investment will be equipment for chip manufacturing, said one of the two people and a third person familiar with the matter.

President Xi Jinping has long stressed the need for China to achieve self-sufficiency in semiconductors. That need has become all the more pressing after Washington imposed a series of export control measures over the last couple of years, citing fears that Beijing could use advanced chips to boost its military capabilities.

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## Department of Defense enters an agreement to expand domestic manufacturing with rare earth magnet maker, E-VAC

The Office of the Assistant Secretary of Defense for Industrial Base Policy, through its Manufacturing Capability Expansion and Investment Prioritization (MCEIP) office, issued an award to E-VAC Magnetics, LLC (E-VAC) to establish a domestic rare earth permanent magnet manufacturing capability. E-VAC is part of VAC Group, a manufacturer of rare earth permanent magnets.

The agreement will provide \$94.1 million to E-VAC to acquire and install manufacturing equipment, operationalize technical infrastructure, and engineer production lines. E-VAC will perform this work to establish high volume rare earth permanent magnet production by 2025.

Rare earth permanent magnets are essential components in the F-35, Unmanned Aerial Vehicles, and numerous other defense systems. These national security related uses, represent a small part of the US commercial need for rare earth element magnets. As a result, MCEIP is dedicated to using its resources to help stimulate private capital as evidenced by the E-VAC investment.

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## US says it can't cut China out of critical minerals supply chain

The US won't be able to cut China out of the critical minerals supply chain even as Washington seeks to diversify its sources of the ingredients that go into everything from electric vehicle batteries to solar panels, a top Biden official said on Friday.

"This is not about China," Jose Fernandez, the US under secretary for economic growth and the environment, told a briefing in New York. "We are perfectly happy to work with them on this and right now we purchase many of the minerals from Chinese companies. It's about diversifying."

China's key role in the processing of raw minerals means it will remain a key US partner, Fernandez said, especially because those minerals are a crucial component for the batteries that power electric vehicles. The broader use of EVs is a central tenet of the administration's climate change efforts.

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# INDUSTRY HIGHLIGHTS

## **DoD enters agreement to expand domestic lithium mining for U.S. battery supply chains**

The \$90 million agreement, entered into under Defense Production Act (DPA) Title III authorities and utilizing funds appropriated by the Inflation Reduction Act, will help support Albemarle's planned re-opening of their Kings Mountain, N.C. lithium mine to increase domestic production of lithium for the nation's battery supply chain. Albemarle estimates that Kings Mountain will be operational between 2025 and 2030.

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## **US has huge lithium reserves, but concerns mount over mining**

As President Joe Biden courts domestic lithium production for electric vehicle batteries, opposition by affected local communities grows against the impacts.

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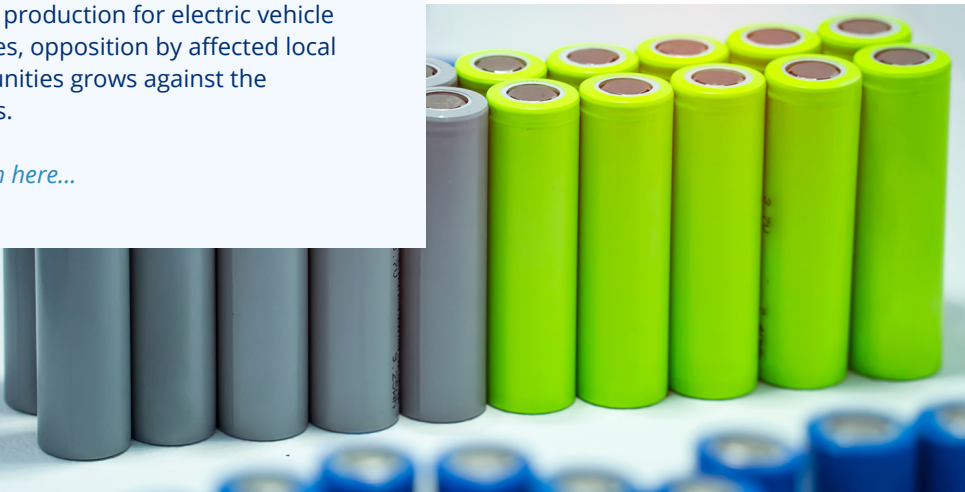
## **Tampa magnet producer, USA Rare Earth, is building a \$1B operation**

Building the largest magnet production operation in the Western Hemisphere is no small feat.

CEO Tom Schneberger estimates the cost of assembling the intended scope of USA Rare Earth's onshore mining, production and manufacturing value chain to exceed \$1 billion.

Tampa-based USA Rare Earth, or USARE, is mitigating the capital intensity of its plans by building in phases, and the company has already attracted significant investor interest through its earliest stages, according to Schneberger.

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## Former mining site becomes regional park in Utah

Butterfield Canyon, which once hosted a Rio Tinto Kennecott mine that was part of the Bingham Canyon complex, has turned into the Butterfield Trailhead Regional Park following land reclamation efforts.

Located in the Oquirrh Mountains in southwest Salt Lake County, Utah, Butterfield Canyon rises 2,800 metres above sea level and contains the Butterfield Canyon Road, a paved road owned by Kennecott Utah Copper. The miner's operations are famous for being the first to apply large-scale open-pit mining and economical mechanical processing to low-grade copper ores in the area.

Bingham Canyon is also considered to be one of the deepest open-pit mines in the world and a top producer with more than 17 million tonnes of copper extracted from its pits since 1906.

[...] The 17-acre Butterfield Trailhead Regional Park is the result of a 2022 lease agreement between Salt Lake County and Rio Tinto Kennecott and is part of the Southwest Canyon Trails Network, which is composed of 2,500 acres including Rose and Yellow Fork canyons.

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## It's getting harder to find mining engineers a green world needs

Digging up the metals that go into power grids and electric cars is crucial to the energy transition. While the mining industry has plenty of reserves to tap, it faces a worrying shortage of young workers needed to get materials out of the ground.

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## Albemarle and Caterpillar collaborate to pioneer sustainable mining technologies and operations

Albemarle Corporation, a global leader in providing essential elements for mobility, energy, connectivity and health, signed agreements with Caterpillar Inc. to collaborate on solutions to support the full circular battery value chain and sustainable mining operations.

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# INTERNATIONAL HIGHLIGHTS

## Is potash a critical mineral? It is in Canada, and could soon be one in the U.S. too

The vital role of fertilizer minerals in food production has propelled a niche corner of the mining industry to the centre of a global debate about the security of supplies.

Potash and phosphate rock surged in price after Russia's full-scale invasion of Ukraine last year. In June, United States lawmakers even proposed adding them to the country's list of critical minerals in new legislation in Congress.

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## EU to investigate 'flood' of Chinese electric cars, weigh tariffs

The European Commission launched an investigation on Wednesday into whether to impose punitive tariffs to protect European Union producers against cheaper Chinese electric vehicle (EV) imports it says are benefiting from state subsidies.

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## Ionic partners with LCM, Ford on rare earth magnet recycling

Belfast-based Ionic Technologies is partnering with the UK's Less Common Metals (LCM), Ford Technologies and the British Geological Survey (BGS) to create a UK rare earth supply chain from magnet recycling, after receiving fresh funding from the government to establish a commercial plant in Northern Ireland.

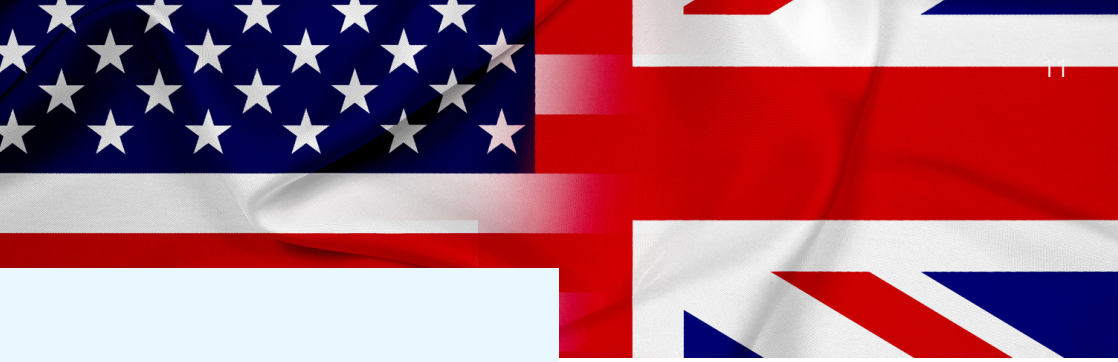
Ionic is receiving an additional £1mn (\$1.25mn) in funding from the government's circular critical materials supply chain (Climates) programme, which will go toward a feasibility study into the construction and supply side dynamics of a magnet rare earth recycling plant in the UK, done in collaboration with the British Geological Survey.

Once constructed and operational, the plant is intended to produce high-purity, separated and traceable rare earths from end-of-life magnets and swarf.

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## **Britain signs trade accord with Washington state, eyes Florida next**

Britain signed a memorandum of understanding on trade with the U.S. state of Washington, and a top official said a similar agreement could be reached soon with Florida.

Britain had hoped for a sweeping bilateral trade deal with the United States after splitting from the European Union, but with President Joe Biden putting all talks on free trade agreements on hold, the British government has pursued state-level agreements instead.

"Florida is next on the list. That should be concluded shortly," junior business and trade minister Nusrat Ghani told Reuters in a telephone interview from Seattle. Discussions were also underway in other big states - Texas, California, Colorado and Illinois, she said.

Ghani, traveling with some 70 business executives from 35 UK firms, said deepening trade ties with Washington and other U.S. states offered "a huge potential for collaboration" given overlapping industrial interests.

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## **Tesla's call for tax breaks for lithium is 'on the table': Australian minister**

Resources Minister Madeleine King says tax breaks for critical mineral projects and lithium processing are "on the table", as the government seeks to compete with the United States and allied nations for international investment.

Tesla chairman Robyn Denholm warned that Australia risked losing out to the US, Europe and Asian trading partners unless it introduced tax breaks for battery-grade lithium processing.

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## **Chips, silk and paper: you can't keep secrets forever**

The Huawei semiconductor breakthrough is just part of a long history of the spread — or theft — of what we now call intellectual property.

China appears to have built a chip that matches some of the West's most advanced semiconductors.

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# TOO CRITICAL TO MISS

## EVENTS 2023

### OCTOBER

**Critical Minerals Africa** | Cape Town, South Africa | 17-19 Oct

- [Register here](#)

**Global Trade Conference** | SMMT |

Virtual | 18 Oct

- [Register here](#)

**19th International Rare Earths**

**Conference** | San Antonio, USA | 18-20 Oct 2023

- [Register here](#)

**121 Mining Investment** | 23-24 Oct

2023 | New York, USA

- [Register here](#)

**IMARC** | Sydney, Australia | 31 Oct - 2

Nov

- [Register here](#)

### NOVEMBER

**Benchmark Week 2023** | Enabling the Most Critical Decisions of the Energy Transition | Los Angeles, USA | 14-16 Nov 2023

- [Register here](#)

**Critical Minerals Conference** |

AusIMMM | Perth, Australia |

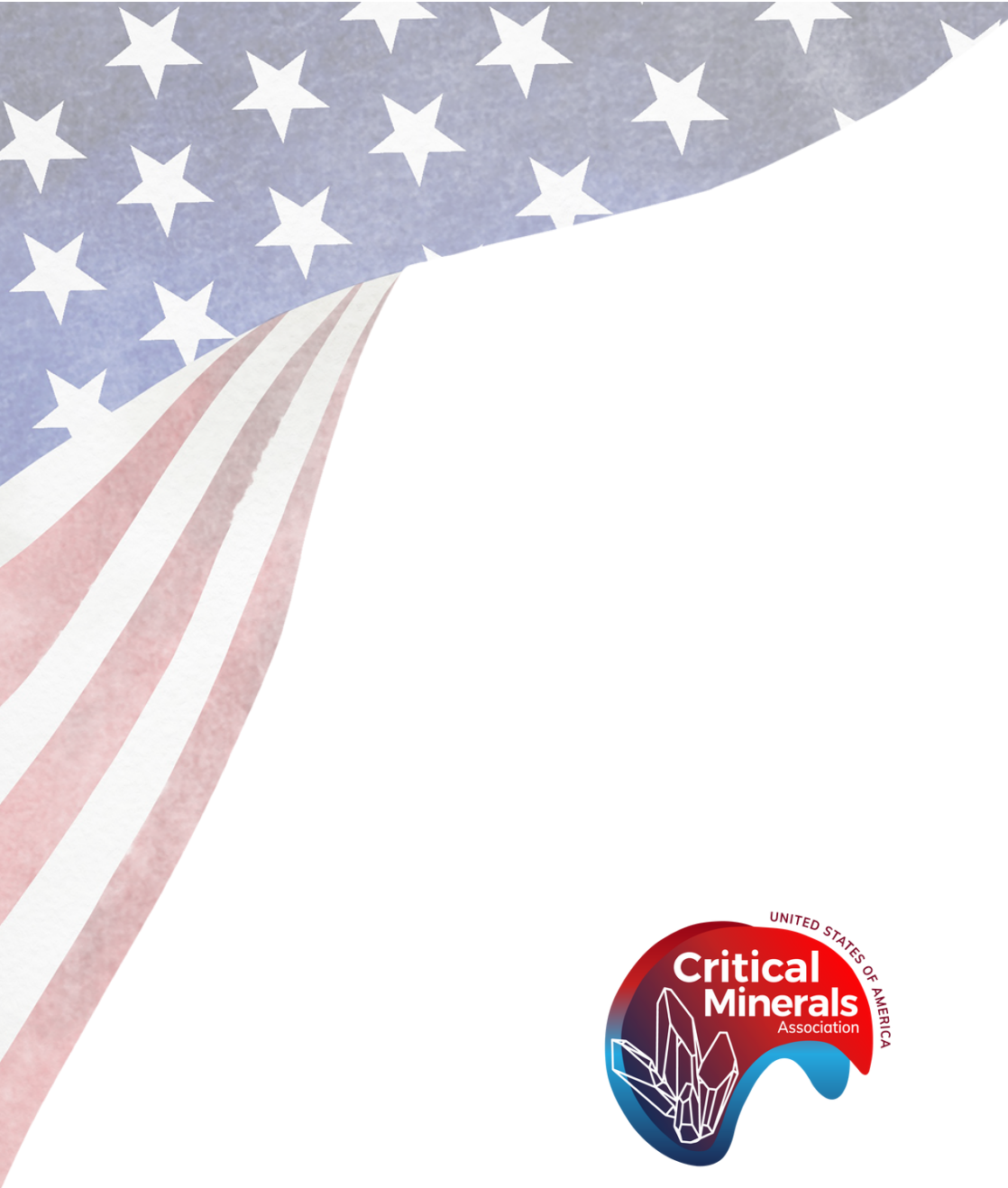
21-23 Nov

- [Register here](#)

**Mines & Money** | Resourcing

Tomorrow | London, UK | 28-30 Nov 2023

- [Register here](#)



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