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COMMODITIES, FOOD & AGRI

How rare earth users can navigate the US's mine-to-magnet strategy

The US is rolling out a multipronged strategy to reduce its reliance on China s rare earth supply chain. While it is unlikely to challenge China s dominance, it could provide meaningful alternative supply. End users therefore need to evaluate, reconfigure, and invest in supply chain resilience



Rare earths mine in Mountain Pass, California

Rare earth security rises to the top of the national agenda

Rare earth materials are critical to sectors such as semiconductors, defence, wind energy, and EVs, but the US remains heavily dependent on China for its supply. As trade uncertainty persists, securing the rare earth supply chain has become a national priority for the US.

After decades of underinvestment, the US is unlikely to challenge China's global dominance anytime soon. But that is not necessarily the goal. Its increasingly sophisticated strategy is designed to build a meaningful alternative supply chain that can protect strategic sectors during geopolitical disruption.

For rare earth manufacturers, this creates opportunities to expand production and build more integrated supply chains. For end users, it highlights the need to better understand supply chain risks while investing in long-term resilience.

How the US is strengthening its supply chain

The US's government-led rare earth supply strategy is becoming increasingly comprehensive. It is expanding supply sources, combining domestic production, friend-shoring (manufacturing and sourcing from countries that are geopolitical allies), and recycling. It is also targeting the most vulnerable segments of the value chain: refining and downstream manufacturing.

1 Enhancing domestic production

Federal support has extended well beyond the traditional tools of grants and loans, to purchase agreements, price floors, and equity investments.

In June 2026, the Department of Commerce struck a deal with USA Rare Earth. In addition to $277m in direct grants and a $1.3bn senior secured loan to help develop vertically integrated production, the government will also acquire a 16% equity stake in the company, giving it a direct interest in the development of a domestic rare earth supply chain. Similarly, in 2025, the Department of Defence (DOD) announced it would acquire a 15% stake in MP Materials, alongside a 10-year purchase agreement for the company's magnets and a 10-year price floor for neodymium-praseodymium (NdPr) oxide, a critical input for permanent magnets.

These measures are critical in reducing investment risk and helping manufacturers expand production. Below are examples of new capacity announcements in the US, particularly at supply chain weak spots.

- **Processing and refining**: Ucore announced in May 2026 that it will build a facility capable of processing 9,000 tons of rare earth feedstock per year, a major step up from its demonstration-scale facility in Canada. MP Materials has not disclosed a production target, but output is already rising, with 1,757 tons of NdPr oxide produced in the first half of 2026 versus about 2,600 tons in all of 2025.
- **Magnets**: MP Material, Vulcan Elements, and USA Rare Earth have all announced plans to produce 10,000 tons of NdFeB magnets each at their respective facilities. In comparison, MP Materials produced its first magnets in Q4 2025, and USA Rare Earth expects to produce 600 tons/annum of magnets by Q4 2026.

These developments suggest government support is beginning to deliver results, with rising output in key supply chain bottlenecks and an ambitious pipeline of new capacity. However, high production costs (discussed below) remain key hurdles. As a result, some parts of the supply chain could scale rapidly, while others will take longer to develop.

2 Friend-shoring

The challenge above shows that relying solely on domestic capacity is not enough. The US is therefore deepening collaboration with trade partners to further boost supply.

Australia and Brazil stand out as major partners. Although Australia's reserve is only 14% of China's, it is a global leader in exploration, with 89 active rare earth projects. Just as importantly, Australia is investing heavily in processing capacity, which can help address US supply chain vulnerabilities.

Following China's temporary rare earth export restrictions in October 2025, the US and Australia agreed to deepen cooperation on critical minerals and rare earths through an $8.5bn partnership. As such, companies such as Energy Fuels and Lynas Rare Earths are sourcing Australian feedstock for processing and manufacturing operations in the US.

Brazil's strength lies in its resource base. The country holds the world's second-largest rare earth reserves, estimated at roughly 25% of China's. In 2026, USA Rare Earth announced a $2.8bn deal to acquire Serra Verde, the operator of Brazil's only producing rare earth mine in Goiás.

> **Friend-shoring allows the US to secure supply more quickly and cost-effectively.**

The US DOD is actively supporting friend-shoring efforts in both countries, through methods such as loans and purchase agreements. While the US also has its own rare earth resources, developing new mines remains expensive and time-consuming. Partnering with countries such as Australia and Brazil allows the US to secure supply more quickly and cost-effectively.

3 Recovery and recycling

Recycling is another source of secure rare earth supply. Today, recycled materials account for less than 1% of global rare earth production, compared to 75% for aluminium and 33% for copper. This is largely because rare earths are embedded in small quantities within complex electronic products, making them difficult and expensive to recover. Therefore, most recycling technologies are still in the pilot or development stage.

> **The long-term recycling opportunity is significant.**

Yet the long-term recycling opportunity is significant. Recycling end-of-life products could meet 10% of global rare earth demand by 2050, according to the International Energy Agency. In North America alone, there could be nearly 14,000 tons of end-of-life magnet rare earth feedstock available by then, from wind equipment, EV motors, and other e-waste. These

could be an important niche to boost US supply security.

Government support will be important in scaling up recycling technologies, and the US has already begun to provide it. For example, Critical Materials Recycling received $3.4m in funding from the Department of Energy (DOE) to recover high-purity rare earth oxides from shredded computer hard drives and other e-waste.

Companies are also developing so-called "short-loop" recycling, which turns end-of-life magnets directly into new magnets without first breaking them down into raw materials. Noveon Magnetics is one example and has received nearly $30m in DOE funding to advance the technology.

Companies in the US have collectively announced 15,000 tons of end-of-life magnets and scrap recycling capacity by 2035, the highest outside China. But there is one catch: this already exceeds the projected available feedstock in North America by 2050. While not all announced projects will be built, the figures suggest that feedstock availability could eventually become a constraint.

US products would carry a premium

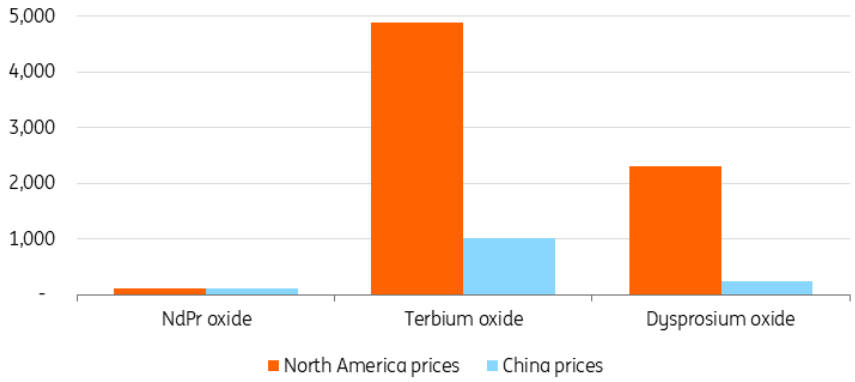
So where is the US's rare earth industry headed with all the government efforts?

We believe it can build a meaningful alternative supply chain that protects strategic sectors from geopolitical risks. However, matching China on cost will remain difficult. New US facilities require significant upfront investment, while China already has extensive production infrastructure. US labour costs are also substantially higher, widening the cost gap.

Competitiveness also varies significantly by rare earth element. For example, NdFeB magnets require neodymium, praseodymium, terbium and dysprosium. The US could become cost-competitive in producing NdPr oxide. But producing terbium and dysprosium oxides remains far more expensive than in China, as reflected in the much higher prices. This partly reflects the composition of US reserves, which contain way less terbium and dysprosium.

Selected rare earth intermediary product prices

$/kg



Source: S&P, ING Research. Data is as of August 2026

All these suggest that US-made rare earth products would continue to command a premium, and a fully localised supply chain remains unlikely in the near term. Friend-shoring supply and government support are critical in narrowing the cost gap, but full competitiveness is still hard and takes time.

What this means for companies that use rare earth products

For industries ranging from semiconductors and AI to defence, electronics, wind energy, and electric vehicles, the past year has highlighted the need to proactively manage rare earth supply chains. This includes three aspects:

- **Evaluate**: Companies need to carefully assess supply chain vulnerabilities, looking beyond direct suppliers to upstream sources of rare earth materials. This helps identify where dependencies on China remain and provides a clearer view of potential risks.
- **Reconfigure**: Where material risks are identified, companies may need to adjust sourcing strategies. This could include paying a reasonable premium for non-Chinese supply to improve supply security, an approach that is attracting growing interest. For particularly vulnerable materials, maintaining larger inventories may also help mitigate disruption risks.
- **Invest**: Companies can strengthen long-term resilience by securing purchasing agreements with alternative suppliers. They can also support broader supply chain resilience through investments in areas such as recycling, processing, and other capabilities.

The US's rare earth strategy aims to support both domestic producers and downstream users. However, end users would not benefit from waiting for these initiatives to deliver results. Proactively managing supply chains today will be critical to securing business continuity tomorrow.

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