# Resilient Resource Reserve: A Plan to Catalyze the American Critical Mineral Processing Industry



Today's critical mineral processing sector—which turns raw ores into the purified minerals we need for modern technologies, national security, and clean energy—presents immense risk to U.S. national security and economic growth. China dominates this sector, while the U.S. struggles to build capacity.

### **Supporting Organizations:**

- American Critical Minerals Association
- The Breakthrough Institute
- Draslovka
- Employ America
- Federation of American Scientists
- Nyrstar
- 6K

ROCC), to provide price support to U.S. critical mineral processing projects. The U.S. ROCC would be a proactive and nimble market participant, equipped with financing tools to overcome pricing challenges in diverse mineral markets and encourage private investment.

The report includes recommendations for long-term support, near-term options for a pilot program, and leveraging authorities at agencies to improve U.S. critical mineral supply.

Recent bipartisan legislation aims to strengthen our domestic critical mineral supply chains, but does not address extreme price risk and volatility—one of the primary barriers preventing substantial private sector investment. Since all-time highs in 2022, lithium carbonate prices have fallen by 84%, cobalt prices by 64%, nickel prices 67%, and copper prices by 22%. Many experts attribute the extreme price volatility to Chinese producers flooding the market with low-priced minerals, aiming to undermine emerging U.S. projects and consolidate their market share to achieve geopolitical and strategic priorities.

We recommend that a federal entity deploy price support tools to support the domestic critical mineral industry. As a means to explore how a comprehensive program should be implemented, this report proposes a wholly owned government corporation, the United States Reserve of Critical-Mineral Commodities (U.S.

## U.S. Reserve of Critical-Mineral Commodities (U.S. ROCC)

A Wholly Owned Government Corporation to Secure American Supply Chains

#### Mission Increase U.S. processing, stabilize prices, & ensure long-term supply for the U.S. economy

#### Strategy

Catalyze private investment into U.S. critical mineral processing projects by mitigating price risk and volatility in mineral markets

#### Tools

Authority to use a variety of financial instruments to address price volatility in diverse mineral markets. This strategy acknowledges that different types of projects require tailored support depending on market maturity and existing U.S. capacity. <u>Potential tools include</u>

Forward contracts
Advance market commitments (AMC) Market maker Offtake backstops Nickel Cobalt Graphite **Rare Earths** Copper Lithium Processing Processing Processing Processing Processing Processing located in located in located in located in located in located in FEOCs: 77% FEOCs: 28% FEOCs: 44% FEOCs: 65% FEOCs: 91% FEOCs: 92%

**Additional Minerals** 

 $\label{eq:constraint} \textbf{Adaptive portfolio:} Follow \ \text{and support changing mineral needs and innovations of the private sector}$ 

Gallium Germanium	Tungsten	Neodymium	Manganese	Others
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## Designing the United States Reserve of Critical-Mineral Commodities (U.S. ROCC)

**Mission:** Serve as the federal government's primary financial instrument for securing critical mineral supply chains. It aims to 1) increase domestic processing capacity and 2) stabilize critical mineral prices.

**Structure:** Operate as a wholly owned government corporation, similar to the Development Finance Corporation, Export-Import Bank, and Credit Commodity Corporation. This design provides financial flexibility and a budgeting structure needed for significant private sector interaction.

**Strategy:** Employ flexible financial support to mitigate price risks in varied critical mineral markets, making domestic projects attractive to investors. By prioritizing transactions between U.S. producers and industry offtakers, the strategy aims to create sustainable and competitive private markets.

**Tools:** Utilize a range of financial tools to support mineral markets, that could include contract-for-differences, offtake backstops, market maker, and advance market commitments. Tools should enable the U.S. ROCC to generate revenue when prices are high. Support should be provided competitively.

**Project Eligibility:** Domestic critical mineral processing projects are eligible for support if they acquire their feedstock from domestic or reliable sources, with priority given to domestic feedstock acquisition. Projects are not eligible if they do not meet DOE's Foreign Entity of Concern regulations.

**Funding:** \$50 million to stand up the entity and operational expenses. To deploy support, the U.S. ROCC will need permanent annual borrowing authority from the U.S. Treasury. We recommend \$1 billion in initial borrowing authority, which may need to be expanded in the future to accomplish the mission. The U.S. ROCC should be authorized to implement a revolving fund to reinvest returns it generates.

**Location Within Government:** The U.S. ROCC requires critical mineral market expertise and a culture of private sector commercialization. This report identifies the pros and cons of housing the U.S. ROCC at four agencies — DOE, DOD, DOC, and DOI — or making the entity independent.

## Deploying Price Support in the Near-Term

**Legislate a Pilot Program:** Congress should enact legislation to launch a \$100 million pilot program to test the effectiveness and cost of proposed financial tools and strategies for the U.S. ROCC. The program would implement price support on a limited scale, analyze the impact on market dynamics, and conduct analysis on the cost of specific tools. This effort would lay the groundwork for a comprehensive critical minerals support program while gathering insights on the practical effects of different tools.

**Near-term Options at the Department of Energy:** Although funding is constrained without new appropriations, DOE can leverage its existing Other Transaction Authority to provide price support for specific processing projects, similar to the agency's recent clean hydrogen demand program. DOE's recent <u>Request for Information</u> indicates their interest in price support for U.S. critical mineral projects.

**Near-term Options at the Department of Defense:** DOD could use new authorities provided by the FY2024 <u>National Defense Authorization Act</u> (NDAA), which allows the National Defense Stockpile to enter into long-term offtake agreements with individual processing projects. The FY2024 NDAA also establishes a commercial best practices pilot program within the stockpile, which could use new tools to procure and resell critical minerals in a way that facilitates market development. Additionally, DOD can leverage its existing critical mineral procurement by prioritizing domestic projects in long-term offtake agreements, providing individual projects with stable demand that improves their investment profile.