Congressman Wittman Opening Remarks

Critical Minerals Policy Working Group: Roundtable 4 (Recycling and Polymetallic Nodule Harvesting)

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as prepared for delivery

Good afternoon and thank you all for joining us for today's session of the Critical Minerals Policy Working Group. Today we continue the discussion to explore alternative approaches to address the growing challenge of ensuring the United States has a secure, sustainable, and resilient supply of critical minerals.

Alternative energy sources, industrial automation, and advanced defense systems will increasingly rely on minerals like lithium, cobalt, and rare earth elements.

As we've heard in previous roundtable discussions, China's dominance in the critical mineral supply chains is pervasive. For decades, Beijing has pursued aggressive industrial policies that have allowed the CCP to capture and control 90% or more of rare earth, battery manufacturing, and as we'll hear today, recycling as well as emerging sources like deep sea polymetallic nodule harvesting. These practices, from price manipulation to export restrictions, have left the United States vulnerable to coercive PRC actions. Just last month, the PRC imposed new export controls on antimony, re-enforcing the urgent need for action.

Today's focus is on two key strategies that can help the U.S. reduce its reliance on imports: recycling and the exploration of non-traditional sources, like deep-sea polymetallic nodule harvesting. Though heavily controlled by the PRC today, the enormous volume of government and private end of life products containing critical minerals and materials offer an opportunity for the U.S. to retake its strategic position in the future.

As the adoption of electric vehicles and renewable energy technologies accelerates, so too does the volume of end-of-life products that can be recycled. Currently, less than 1% of rare earth elements are recycled globally, leaving a significant opportunity for expanded U.S. market share. Legislation and appropriations that created the Department of Energy's Battery Recycling Prize are helping to advance the technological innovations needed to scale recycling efforts. However, much more remains to be done to develop the infrastructure and economic incentives that will make recycling a central part of our critical mineral supply strategy and help develop a mineral-to-metal supply chain in the United States. There is already one such effort in Virginia, where a firm will soon commission a titanium scrap recycling facility which can accept mineral feedstock from another project in Tennessee, the only fully-permitted titanium resource of its kind.

These facilities produce black mass, a material derived from used batteries rich with critical minerals like lithium, cobalt, and nickel. However, most of this black mass is currently exported to China for recycling, where it is processed into its constituent materials. This export reliance

undermines our efforts to develop domestic critical mineral processing. To address this, Congress should take additional actions to ensure material produced with U.S. government funds can be processed domestically. We can do so by controlling the export of black mass and incentivize domestic processing facilities. Doing so would promote the growth of a robust recycling industry here at home, reducing our dependence on the PRC and develop domestic U.S. manufacturing jobs in the process.

Additionally, programs like the Defense Logistics Agency's (DLA) Strategic Materials Recovery and Reuse Program have shown that domestic recycling and processing can yield tangible results. In 2022, the DLA recovered germanium from end-of-life night vision products, turning these systems into germanium ingots that represented 10% of U.S. demand for a material that is export controlled by the PRC. This is a model we should build upon across strategic minerals and materials.

But recycling alone will not be enough. As we consider the future of critical mineral supply chains, we must also explore non-traditional sources, including deep-sea harvesting. Polymetallic nodules, found in abundance on the ocean floor, contain valuable minerals like manganese, cobalt, and nickel—essential components of lithium-ion batteries and other technologies critical to both our economy and national security. As we explore these new processes, the U.S. will face important environmental and legal questions. International law, through frameworks like the United Nations Convention on the Law of the Sea, governs much of this space, and we must work closely with international partners to ensure that our activities lead to mineral resiliency.

As we move forward, it is essential that we develop bipartisan policy solutions. The challenges posed by China's control of critical mineral supply chains are not insurmountable, but they require a comprehensive strategy. That strategy must include advancing recycling technologies, incentivizing domestic recovery efforts, and responsibly exploring new sources of critical minerals.

· Today we have three witnesses to walk us through the opportunities in recycling and nodule harvesting:

· Mr. Ahmad Ghahreman is the CEO of Cyclic Materials. He will discuss how end of life permanent magnets can be repurposed into robust sources of rare earth elements.

· Gerard Barron is the Chief Executive Officer of The Metals Company. He'll discuss the company's investments in deep sea harvesting vessels and efforts to refine polymetallic nodules.

· Kijune (KEE-JUNE) Kim is Executive Vice President, Korea Zinc. He'll discuss critical mineral recycling from the perspective of industry.