ZETA | ZERO EMISSION TRANSPORTATION ASSOCIATION

September 25, 2025

U.S. Department of Interior
United States Geological Survey
12201 Sunrise Valley Dr., Reston, VA 20192

RE: Docket No. USGS-2025-0039; GX25GB00PAMR000]
Notice of Opportunity for Public Comment on 2025 Draft List of Critical Minerals
Submitted via Rulemaking Portal: http://www.regulations.gov.

Zero Emission Transportation Association (ZETA) is an industry coalition representing approximately 50 companies spanning the domestic electric vehicle (EV) supply chain end-to-end, including raw and processed critical mineral and material producers, cell and battery manufacturers, vehicle manufacturers, charging companies and electric vehicle supply equipment (EVSE) providers, utility companies, and battery recyclers. Policies that advance these technologies are critical to ensuring competition abroad and opening export markets with allied trade partners for U.S. companies.

We would like to express our gratitude to the Secretary of the Interior for the opportunity to provide comments on the 2025 Draft List of Critical Minerals and for ensuring that the public's perspectives and ideas are considered. ZETA commends the addition of copper to the USGS critical minerals list.

ZETA and our member companies appreciate the Trump Administration's commitment to U.S. economic, national, and mineral security. ZETA looks forward to working with the Administration to deploy policies that derisk current and future investments in domestic manufacturing and mineral processing. We look forward to discussing these policies in future conversations with your staff. If you have any questions or concerns, please contact me at al@zeta.org.

Sincerely,

Albert Gore
Executive Director

I. Electric Vehicle Supply Chain Market Background

EVs are a rapidly growing sector of the global automotive market, and the expansion of the domestic EV sector creates vast economic opportunities for the United States (U.S.). Today, one-half of domestic vehicle shoppers are considering an EV purchase, and this number is projected to rise to 90 percent by 2033.[1] Given current trajectories, global EV sales are expected to make up over 40% of vehicle sales by 2030, with higher market shares in the European Union and China.[2] EVs represented more than 20 percent of new global car sales in 2024, and are projected to increase to 25 percent in 2025.[3]

Confidence in a domestic market for derivative products, including EVs, has driven American industry to invest aggressively in upstream capacity. U.S. end users of critical minerals are undergoing qualification processes with potential domestic suppliers of processed mineral commodities. In many cases, end users are still waiting for the construction of potential domestic suppliers before lengthy product validation timelines can begin.

Control of key EV supply chains—including the production of critical minerals and materials, batteries, and vehicles—will solidify over the coming years as the EV industry matures, with major implications for U.S. economic and national security. Put simply, it is a matter of strategic national interest that the U.S. position itself to become a dominant player in every segment of the EV supply chain.

II. Importance of Copper in the EV Supply Chain

Copper use and demand have shown to be necessary for many advanced technology applications. The International Energy Agency projects a critical 30% copper supply shortfall by 2035, with demand rising from 27 million tons in 2024 to 37 million tons by 2050. At the same time, mine output is expected to decline after the late 2020s.[4] ZETA commends the Trump Administration for the addition of copper to the USGS critical minerals list. Copper is a critical component of transportation electrification and is essential for EVs, electrical equipment, and battery applications. This action will help ensure the U.S. is able to meet its national security, energy independence, and economic growth needs.

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[1] "Cox Automotive 2024 Path to EV Adoption Study," Cox Automotive, May 14, 2024. https://www.prnewswire.com/news-releases/cox-automotive-2024-path-to-ev-adoption-study-suggests-electric-vehicle-consideration-will-surge-in-second-half-of-decade-302145244.html

[2] "Global EV Data Explorer," International Energy Agency, April 23, 2024. https://www.iea.org/data-and-statistics/data-tools/global-ev-data-explorer

[3] IEA Global EV Outlook 2025. May 14, 2025. https://www.iea.org/reports/global-ev-outlook-2025

[4] IEA Global Critical Minerals Output 2025. May 2025. https://www.iea.org/reports/copper-2.

While Chile, Canada, Mexico, and Peru accounted for more than 90 percent of U.S. refined copper imports last year, China has a clear midstream advantage when it comes to processing of the material—with control of over 40% of capacity. Furthermore, announced copper projects are anticipated to meet only 70 percent of global demand requirements by 2035. Similar to lithium, China mines less than 10 percent of the global copper supply.

In 2024, the U.S. produced 1.1 million tons of recoverable copper content.[5] Across 25 copper mining sites, Arizona accounted for 70 percent of domestic production, while Michigan, Missouri, Montana, Nevada, New Mexico, and Utah accounted for the remaining 30 percent.[6]

In 2024, about 50 percent of domestic copper resources are in production, while the other half remain in pre-production (11 percent), feasibility (4 percent), and reserve development (36 percent) phases.[7] Despite half of the known domestic copper reserves remaining undeveloped, U.S. copper mine capacity has steadily grown in the last 25 years, and is expected to further increase.[8]

Aligned with global trends for other minerals, it is economically difficult to bring a refinery online in the U.S. Notwithstanding the difficult economic conditions, domestic companies are attempting to bring refineries online in response to geopolitical uncertainties and the need to reorient away from China. Despite efforts to increase domestic refining, copper refining capacity has decreased by 40 percent since 2000.[9] The asymmetry between domestic copper mining and refining capacity has resulted in increasing exports of U.S. copper for processing and refining.[10] Presently, the U.S. only has two copper smelters that can convert copper ore into processed materials for manufacturing inputs, and one secondary smelter that processes scrap copper.[11]

The recycling of scrap copper is a significant opportunity for the U.S. and is a substantial supply stream. In 2024, recycled copper from scrap accounted for about 35 percent of the U.S. copper supply.[12] Despite this, as with raw material, the U.S. refined recycling capacity has fallen over the last 30 years, from about 14 percent of refined copper production in 1997 to less than 4 percent.[13]

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[5]USGS Mineral Commodity Summaries 2025. https://pubs.usgs.gov/periodicals/mcs2025/mcs2025-copper.pdf.
[6] Ibid.
[7] "Copper In The US: Opportunities and Challenges." Mohsen Bonakdarpour, Frank Hoffman, and Keerti Rajan. August 2024. https://view.highspot.com/viewer/f15367148e71dbfd68def7b8338645d2#1.
[8] Ibid.
[9] Ibid.
[10] Ibid.
[11]USGS Mineral Commodity Summaries 2025. https://pubs.usgs.gov/periodicals/mcs2025/mcs2025-copper.pdf.
[12]Ibid.
[13]Copper In The US: Opportunities and Challenges. Mohsen Bonakdarpour, Frank Hoffman, and Keerti Rajan. August 2024. https://view.highspot.com/viewer/f15367148e71dbfd68def7b8338645d2#.1

Out of the 1,100,000 metric tons of copper produced by U.S. mines in 2024, only 850,000 metric tons were refined at home due to lack of domestic capacity to do so.[14] Increasing demand for refined copper and the shortfall of refining capacity may exacerbate this trend in exports, unless more processing and refining capacity can come online domestically. We look forward to working with the Trump Administration to advance U.S. critical minerals and advanced manufacturing competitiveness.

III. Conclusion

ZETA commends the Administration's recognition of the strategic importance of processed critical minerals and derivative product supply chains, including batteries and EV manufacturing and recycling. Specifically, ZETA commends the addition of copper to the USGS critical minerals list. Thank you for your consideration—we look forward to working with the Administration to decrease U.S. import reliance and enhance U.S. national and economic security through critical mineral production and refinement.

[14] USGS Mineral Commodity Summaries 2025. https://pubs.usgs.gov/periodicals/mcs2025/mcs2025-copper.pdf.