July 14, 2025

The Honorable Gary Palmer
Chairman, Energy and Commerce Subcommittee on Oversight and Investigations
United States House of Representatives
Washington, D.C. 20515

The Honorable Yvette Clarke
Ranking Member, Energy and Commerce Subcommittee on Oversight and Investigations
United States House of Representatives
Washington, D.C. 20515

Dear Chairman Palmer and Ranking Member Clarke:

I am writing today to submit additional questions for the record following my appearance before the Subcommittee on Oversight and Investigations on Wednesday, May 21, 2025, for the hearing entitled "Examining Ways to Enhance Our Domestic Critical Mineral Supply Chains."

The Honorable Lori Trahan (D-MA)

1. Ms. Hunter, what more can Congress do to develop next generation batteries and manufacturing here in the U.S.?

Congress can play a pivotal role in accelerating the development and domestic manufacturing of next-generation batteries by taking steps that support both diversification of battery chemistries and the commercialization of innovative technologies. While current efforts rightly focus on reshoring supply chains for lithium-ion batteries—which are seen as the chemistry that will likely dominate for the next decade—there is a need for policy to simultaneously support the pipeline for innovation. Alternative chemistries — such as lithium-sulfur, sodium-ion, aluminum air, and liquid metal batteries — can reduce or eliminate reliance on critical minerals most dominated by China, including cobalt, nickel, and manganese. The same is true for other advanced manufacturing products, like magnets, with development of permanent magnets without heavy rare earths and some with no rare earth elements at all.

Congress should strengthen federal loan and grant programs to support not just the expansion of existing commercial technologies, but also the scaling of new chemistries that are currently in pilot or pre-commercial stages. Further, technology-neutral incentives ensure that Congress doesn't unintentionally limit American innovation or undermine our ability to leapfrog past strategic vulnerabilities with next-generation solutions. Lastly, Congress should ensure that any incentive or funding program for all batteries, not just those used in passenger vehicles, includes strong sourcing requirements or Prohibited Foreign Entity/Foreign Entities of Concern provisions. Downstream demand for long duration storage should also be leveraged to drive adoption of alternative technologies that do not rely on adversarial supply chains. This approach is important because different battery chemistries are engineered for specific applications—and as demand surges from data centers

and grid-scale storage, a new market window is opening for new battery innovations. Unlike electric vehicles, where lightweighting (minimizing weight to improve efficiency) and long cycle life (the number of full charge-discharge cycles a battery can sustain before degrading) are critical, grid batteries are stationary and can recharge multiple times a day, making them ideal candidates for emerging technologies that don't rely on traditional performance tradeoffs. These tools would allow the U.S. to lead in battery technologies of the future rather than remaining dependent on technologies already dominated by foreign adversaries.

Thank you for the opportunity to testify in front of the subcommittee in May and for your continued leadership on this vital issue.

Sincerely,

Abigail Hunter
Executive Director
SAFE Center for Critical Minerals Strategy