

CRITICAL MINERALS SUPPLY CHAIN

ISSUE SUMMARY:

As demand for clean energy technology increases over the short- and medium-term, increasing our supply of critical minerals and materials will be necessary to meet national and global climate goals. EPA supports supply chain resilience and risk mitigation associated with critical minerals availability, by taking steps – with federal partners – to address how to responsibly move forward on domestic mining reform, critical minerals recycling, efficient facility permitting and international trade standards.

BACKGROUND:

The rapid shift to clean energy technologies is expected to significantly increase demand for certain minerals, including lithium, nickel, cobalt, graphite, copper, aluminum and rare earth elements. This increased demand has already fueled the global development of new mines, processing facilities and refineries.

While critical mineral supply chains must grow rapidly, this growth must not be at the expense of the environment, human health, or human and labor rights. It is imperative that mines, processing and recycling facilities develop in a way that protects the environment, promotes good governance and provides economic benefit to communities.

In addition to mining regulatory reform, market mechanisms can create demand and incentivize recycling and – where mining/processing is needed – incentivize the use of strong international Environmental, Social and Governance (ESG) standards. Ensuring that U.S. investments are viewed as responsible is key to competing with the People's Republic of China and upholding U.S. values. Global implementation of strong ESG standards will also help “level the playing field” so that companies with commitments to uphold strong environmental and social standards can compete in critical mineral markets to access the supply of materials needed for a secure energy transition.

Executive Order 14017, “America’s Supply Chains,” (EO 14017) directs the government to review critical U.S. supply chains, including the critical minerals supply chain, to identify risks, address vulnerabilities, and develop strategies to strengthen resilience. EO 14017 ordered a review and report of vulnerabilities in our critical mineral and material supply chains. The report recommends expanding domestic mining, production, processing, and recycling of critical minerals and materials — all with a focus on strong labor, environmental and environmental justice, community engagement, and Tribal consultation standards.

KEY EXTERNAL STAKEHOLDERS:

☒ Congress ☒ Industry ☒ States ☒ Tribes ☐ Media ☒ Other Federal Agency
☒ NGO ☐ Local Governments ☒ Other: International

EPA works with US Government stakeholders (NEC, NSC, CEQ, DOI, DOE, USGS, DOL, DOS, USAID, DOD, USDA) to implement policies and programs that strengthen critical minerals supply chain resilience. EPA also works with domestic mining and permitting stakeholders such as tribes, states, industry, and NGOs. In addition, EPA is engaged in a strong international trade and security dialogue on critical minerals supply chains.

MOVING FORWARD:

1. EPA has begun work authorized under the Infrastructure Investment and Jobs Act (IIJA) to develop best practices for the collection of batteries to be recycled and voluntary battery labeling guidelines. Congress allocated \$10 million and \$15 million respectively to the Agency to complete these tasks by September 30, 2026.
2. EPA plans to propose new rules to improve the management of and recycling of solar panels and lithium batteries.
3. DOE and EPA are developing a task force to examine frameworks for extended producer responsibility to address battery recycling goals, mandatory recycling, product design, collection models, transportation of collected materials, and related regulations. (BIL 40207(f)(5)).
4. Together with DOE, EPA will continue co-leading U.S participation in the technical development and implementation of international standards, including those developed by the Initiative for Responsible Mining Assurance (IRMA) and the International Organization for Standardization (ISO). EPA's Office of International Affairs will continue engagement in an interagency effort to develop and implement a USG strategy to build international coherence on support for strong critical mineral ESG standards through US leadership in multilateral fora and bilateral agreements and developing capacity-building efforts for key partners on the implementation and governance of strong ESG standards.
5. EPA will participate with other federal agencies in the ongoing interagency permitting councils such as the Critical Minerals Permitting Interagency Working Group, which establishes the federal environmental review and permitting process for critical minerals production and processing projects.
6. EPA's Office of Land and Emergency Management and Office of Research and Development work collaboratively to assess, demonstrate or test the performance of environmental monitoring and remediation technologies that can identify and recover critical minerals from legacy hard rock mining sites or metal processing (e.g., smelting, refining, etc.) sites.
7. EPA's Office of Research and Development, through the Sustainable and Healthy Communities National Research Program, is conducting site characterization and remediation research on technologies and approaches for the recovery, remediation, and reuse of critical minerals from contaminated sites.

LEAD OFFICE/REGION:

OTHER KEY OFFICES/REGIONS:

- Lead Office: Office of Policy (Office of the Administrator)
- EPA Cross-Agency Work Group on Critical Minerals and Supply Chains: Chaired by the Office of Policy with representatives from Program Offices and Regional Offices
- National Science and Technology Council – Critical Minerals Subcommittee: Chaired by White House NSTC with representatives from federal Agencies and Departments (www.criticalminerals.gov)
- International Critical Minerals IPC: Chaired by White House NSC with representatives from federal Agencies and Departments
- American Battery Materials Initiative: Chaired by the White House and Department of Energy with representatives from federal Agencies and Departments.
- Critical Minerals Permitting Interagency Working Group: Chaired by the White House CEQ and representatives from federal Agencies and Departments.