

BUILDING A SUSTAINABLE MINERAL SUPPLY CHAIN FOR A CLEAN ENERGY ECONOMY

To avoid the worst effects of the climate crisis, we must swiftly ramp down our reliance on fossil fuels and transition to clean energy. But we have the opportunity to do what the fossil fuel industry never did—to protect the communities and environments impacted by energy development. The transition to clean energy will require more of certain types of minerals to build the solar panels, batteries, and other clean energy technologies of the future. These minerals, including lithium and cobalt, are often referred to as “critical minerals.” The current policies we have in place are not sufficient to ensure we have a truly sustainable supply chain that protects communities from the impacts of mining and extraction.

A just transition should not come at the expense of communities or the environment. This threat is real: According to EPA, hardrock mining is the country’s most toxic industry. Tribes and communities across the country are worried about the impacts of mining near their homes, schools, and sacred places. For example, the Hualapai Tribe are fighting the Big Sandy lithium project in Arizona, which threatens their sacred spring.

It is imperative that we protect communities that could be harmed by critical minerals mining and development by providing sufficient protections for the environment, health, and cultural resources, and by creating a more sustainable supply chain for the products we use to make and store clean energy. We can’t move energy “sacrifice zones”—where people bear the brunt of the impact—from oil-and-gas-impacted communities to mining-impacted communities.

Ways to Create a Sustainable Clean Energy Supply Chain:

- **Reforming Domestic Mining Law:** Mining in the United States is currently governed by a more than 150-year old law. Updating this outdated law for the 21st century can provide protections to communities, lands, waters, and cultural resources while also ensuring community input is robust from the outset of a mining project, which will reduce permitting delays and uncertainty. Legislation like the Clean Energy Minerals Reform Act and ensuring Free, Prior, and Informed Consent (FPIC) would do just that.
 - **Setting Standards for Domestic and Imported Minerals:** If we want other countries to have strong labor and environmental standards for mining, the U.S. must lead by example and implement high standards for itself, as well as negotiate high standards in trade agreements—including through verifications and certifications like the Institute for Responsible Mining Assurance (IRMA).
 - **Employing a Precautionary Approach to Deep Seabed Mining:** The exploitation of the deep sea for critical minerals poses unknown risk to the ocean, climate, fisheries, biodiversity, and the people, economies, and communities that depend on the ocean. We must protect these ecosystems and resources for generations to come.
 - **Creating the Circular Economy:** We must meet the demand for critical minerals in the most sustainable way possible: by recycling, reusing, and extending the life of materials and products we already have. The U.S. is behind our international partners on the creation of a circular economy for our minerals. A more sustainable supply chain will ensure we have an adequate supply of products necessary for an equitable transition by reducing the need for virgin material.
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How We Jumpstart our Circular Economy:

- **Federal Government Leadership:** Build on language in the 2023 National Defense Authorization Act to establish a recycling program within the federal government, including the Department of Defense, to show leadership by example, and create a market. This should include both electronics and the federal fleet of vehicles.
- **Recycled Content Requirement:** Require all purchasers of critical materials and producers (clean energy manufacturers, car manufacturers, etc.) to purchase or use a certain percentage of critical materials from recycled sources. In the EU, a recycled content requirement will go into effect for electric vehicle batteries in 2026.
- **Domestic Battery Labeling:** Require all batteries manufactured or sold in the United States to be labeled with sourcing data and other important information. This enables consumers and recyclers to identify the source of the critical materials used, the percentage of the critical materials that were sourced from recycled content, and other key environmental and social factors. One way to do this is through a digital identifier or “Battery Passport,” which will be required for EV batteries under the EU battery regulation.
- **Tax Incentives:** Tax credits could be established for entities such as waste recyclers for recycling qualified electronic waste, companies for building responsible recycling facilities, or manufacturers for reducing the use of virgin critical minerals.
- **Certification Program/Consumer Education:** EPA can establish a certification program, modeled after the Energy Star program, that will give recognition to batteries and other renewable energy products made with the highest environmental, human rights, and labor standards. Such a certification program should also recognize, and thus incentivize, high percentages of recycled materials.
- **Producer Responsibility Model:** Extended producer responsibility is defined as “an environmental policy approach in which a producer’s responsibility for a product is extended to the post-consumer stage of a product’s life cycle” by the OECD. Following the example of the European Union, the U.S. can put the onus on producers to collect and recycle products at end-of-life.

FOR MORE INFORMATION CONTACT:

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