

Critical Minerals: America's Achilles Heel?

Panelist Remarks- January 2022

On January 12, 2022, OurEnergyPolicy held a webinar examining the role of critical minerals in the energy transition. Critical minerals are essential aspects in many clean energy technologies like wind turbines, electric vehicles, and transmission. Find the recording [here](#).

PANELISTS



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Issue Scope

- The U.S. is more than 50% import reliant on 31 of the 35 designated critical minerals and 100% import reliant on around a dozen.
- 80% of the U.S.'s rare earth elements come from China.
- Critical minerals are vital components of fuel cells, batteries and electronics, steel, aluminum, and gasoline, to name a few.

Importance to the Energy Sector

- This topic has gained attention largely because of the clean energy demands, with much of the focus on the cathodes of electric vehicle lithium-ion batteries.
 - Lithium, nickel, cobalt are paramount in that conversation.
- The widespread adoption of electric vehicles among the U.S. public is dependent on the price of that vehicle, which is highly dependent on the cost of making that vehicle. For EVs, a large percentage of the cost comes from the lithium-heavy battery pack.
- Copper and silver are also essential in the energy transition.

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Webinar Summary - January 12, 2022

Challenges Articulated by Panelists

- The topic of critical minerals has not reached the highest levels of priority or attention in government or with consumers.
- The ways in which we think of mineral criticality or mineral security are not as well-developed as how we think about, and approach, "energy security" as an issue.
- We must acknowledge the problems around critical minerals, including child labor in the Democratic Republic of Congo and forced labor in China.
- The critical mineral market is different and much more complex than markets like oil and natural gas because minerals are deeply fragmented, have poor price transparency, and poor market governance.
- The European Union's carbon border adjustment, which includes a tariff on embedded emissions, will influence several critical products beginning in 2026. This has important ramifications for essential critical mineral supply chains.
 - Experts predict a ripple effect where other nations will be forced to examine embedded emissions of products and shipping worldwide in an attempt to avoid these tariffs. This could create significant disturbances in the availability of raw materials powering the energy transition.
- There is a need to consider indigenous communities and their relationship to resource extraction.
 - Opportunities exist to transition indigenous communities from fossil fuel extraction to mineral extraction or recycling.

Actions

- The recent enacted bipartisan infrastructure bill includes:
 - Components that focus on shoring up support to galvanize young people to join the energy workforce.
 - \$430 million for nationwide resource mapping efforts.
 - Funding for demonstration and commercial projects for rare earth extraction and processing, but that takes time and will have inefficiencies. More support is needed to expand domestic production.
- The Biden administration has released a critical mineral strategy that focuses on diversifying supply, developing substitutes, and improving reuse and recycling.
 - Panelists agreed the first priority should be recycling and reuse because the alternatives aren't ready.
- Panelists agreed that the U.S. should play a role in developing efficient international policy around critical minerals, especially as it pertains to resource extraction in developing countries. This issue presents numerous challenges for these countries, including environmental damage and exploitative extraction practices.