Green Economy Transition Depends on Responsibly Sourced Minerals

Imagine a day without minerals. Whether it's waking up to a heated home in winter or a cooled home in summer, commuting to work or working from home, turning on the lights, checking your smartphone for the latest news, grabbing a quick bite from the fridge, streaming a video, or driving your vehicle to run errands. All these technologies that power our standard of living are dependent on minerals—like copper, nickel, cobalt, platinum, palladium and more—that can only be mined.

WHY MINE NOW? DEMANDS FOR A GREEN ECONOMY

Consider the need to transition to a green economy and reduce the global carbon footprint. The shift from traditional fossil fuels to renewable energy technologies, like wind, solar and electric vehicles, is driving significant increases in the need for these metals.

World Bank projects significant increases in minerals needed to meet demand by 2050.

We are going to need as much copper in the next 25 years as we've mined in the last 5,000.

460%
increase in Cobalt

100%
increase in Nickel

350%
increase in Copper

Recycling alone will not meet the demands of increased urbanization and a growing world population. Approximately 840 million people lack electricity access today, and they will also need to be connected—further increasing demand for copper.

Efficient recycling is also dependent on a number of supporting factors, including regulatory policies that encourage recovery and recycling at the industry and individual levels; and advanced recycling technologies with reliable low-carbon electricity production to counter the energy intensiveness of some recycling processes.

Bottom line:
We cannot recycle our way to a green economy.

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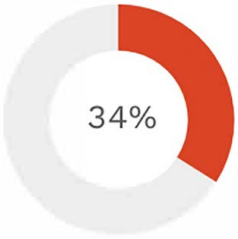
To ensure the transition is done effectively and safely, it's extremely important we think globally and have conversations about how and where we get these minerals.

Much of these minerals come from overseas and developing countries where mining practices often involve virtually non-existent environmental standards, routine child labor, and lax labor laws that jeopardize worker safety.

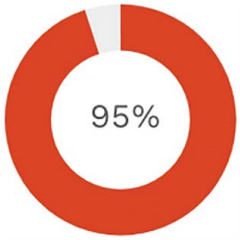
The COVID-19 pandemic has also taught us that sourcing these strategic metals domestically improves our national economic security and lessens the economic and financial risks from overreliance on foreign sources.

WHY MINNESOTA?
THE METALS ARE HERE

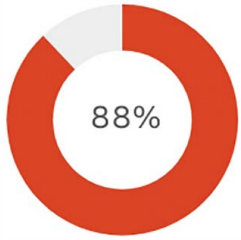
Northeast Minnesota's Duluth Complex is the world's largest known undeveloped copper-nickel deposit holding nearly all of the known domestic nickel and cobalt reserves as well as the majority of domestic platinum group metals resources.



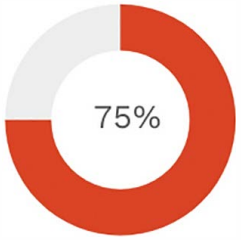
of U.S. copper reserves



of U.S. nickel reserves



of U.S. cobalt reserves



of U.S. platinum group reserves

WHY TWIN METALS?
THE RIGHT PROJECT TO MEET DEMANDS

Twin Metals has spent 10 years designing a modern mine, using the best available technology, that prioritizes worker safety and environmental protection and [illegible] stewardship. It's an underground mine, which means very little surface impact, and it won't have a dam, which means no risk of dam failure.

The Twin Metals project would contribute to establishing Minnesota as a world leader in the production of clean-energy metals critical for our country's transition to a green economy.

We're committed to help lessen our reliance on foreign sources and ensure that we are developing these critical minerals in the safest, most responsible way possible.

TWIN METALS MINNESOTA

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