The Time is Now to Prioritize Responsible Sourcing and Domestic Supply Chains

Converging headwinds have elevated the topic of responsible sourcing and domestic supply chains to the forefront of our national discourse:

President Biden signed an Executive Order in February 2021 to help strengthen and secure U.S. supply chains, with an emphasis on critical minerals and large batteries commonly used in electric vehicles. This comes on the heels of his "Made in America" push to increase the procurement of American-made goods.

Business leaders, like Tesla CEO Elon Musk—who is pleading for more responsibly sourced minerals to meet the demand for electric vehicles and other green energy technologies—now view responsible and ethical sourcing as a greater concern than shareholder value.

Experts in healthcare, manufacturing and defense sounded the alarm when the global pandemic exposed our overreliance on foreign sources for essential imports to our nation's healthcare system, economy and national security.

Lifting up conversations on the consequences of consumption

Consumers must also give serious thought to the global implications of our daily consumption habits and the realization that everything we purchase or use invariably impacts the environment in some way. It's imperative to elevate the conversation and revisit local, regional and national environmental policies and decisions that only serve to divert the impacts of our local consumption to other parts of the world.

An increased reliance on imports

78 out of 94 metals, metalliods and non-fuel minerals are imported in the U.S.

33 of those minerals are deemed critical to U.S. national security.

The U.S. Department of Energy has made critical minerals a national priority given the increase in global energy consumption and minerals' contributions to energy sources.

Our nation needs more minerals

As our global economy continues to grow at more than twice the rate of population growth, the rate of consumption is also increasing. Mineral consumption is growing at approximately four times the rate of population growth. These critical minerals must be mined to meet the accelerating demand.

Recycling alone isn't enough to meet our increasing need for minerals, because demand will far outpace available supply due to population growth and economic development. Certain metals, like copper, are often used in end products like copper electrical wiring for decades. Additionally, some metals do not maintain their durability or value once they become recycled.

Therefore, new mine production will be necessary to meet tomorrow's mineral demands.

If the U.S. wants to be a global innovator and meet the government-projected 28 percent increase in energy demand by 2040, we must work to secure a reliable supply of domestic minerals, which is essential for a strong energy portfolio.

TWIN METALS MINNESOTA

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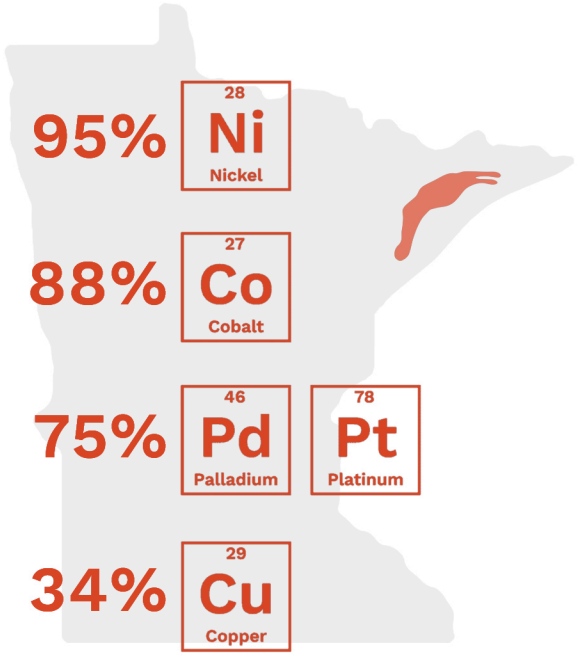
Minnesota: where domestic critical minerals are located

Northeast Minnesota has the largest known undeveloped copper-nickel deposit on the planet, world-class mineral reservesneeded for a low-carbon economy and shoring up domestic supply chains.

In addition, the regulatory and environmental standards set in place in Minnesota are some of the most stringent in the U.S., and the world. The alternative is obtaining these minerals from overseas locations that can't guarantee the same environmental and humanitarian standards will be met.

Consider that when local actions aim to prevent resource extraction, the effect is not to stop these activities, but to simply shift them to some other location—often magnifying impacts in the process.

Known U.S. Mineral Reserves in the Duluth Complex



Twin Metals Minnesota: The company to mine responsibly

Twin Metals Minnesota spent 10 years designing a modern 21st century underground mine, using the most advanced technology available today, that is safe for workers and the environment.

"It is incumbent upon us to responsibly mine the metals that we consume as a nation, and do that with the highest environmental and labor safety standards in the world."

-Nancy Norr, Board Chair, Jobs for Minnesotans

Twin Metals will use the dry stack tailings management method for its mine, which is recommended by Earthworks and endorsed by 140 NGOs as the best available technology. This means there will be no permanent tailings pond or dam on site. So there's no risk of dam failure.

This mine will be built entirely with a union workforce. Construction will generate several million union labor hours, on par with a major sports stadium project. Once operational, the mine will create 750 direct jobs and 1,500 non-mining spinoff jobs.

As the U.S. is forced to rethink its sourcing strategy, northeast Minnesota will need to play a significant role in our country's transition to a low-carbon economy, in lessening our reliance on foreign sources, and ensuring we source these critical minerals in responsible and environmentally safe ways. Twin Metals is the ideal company to meet these challenges.

Dovetail Partners Consuming Responsibly Report No. 19. Accepting Responsibility for Impacts of Consumption. Oct. 15, 2020. https://dovetail-inc.org/upload/tmp/1602799151.pdf, International Copper Association, Copper Alliance. The Long-Term Availability of Copper. 2018. https://cop-peralliance.eu/uploads/2018/02/ica-long-term-availability-1404-a4-low-res-1.pdf, U.S. Geological Survey (USGS). 2020. Mineral Commodity Survey https://pubs.usgs.gov/periodicals/mcs2020/mcs2020.pdf, Dovetail Partners Consuming Responsibly Report No. 19., 2020 EarthWorks Report – Safety First: Guidelines for Responsible Mine Tailings Management

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