

March 29, 2023

The Honorable Deb Haaland Secretary of the Interior 1849 C Street NW Washington, DC 20240

Dear Secretary Haaland:

On behalf of the great State of West Virginia, I write to you in support of our increasingly important United States' copper industry.

Copper has been and will continue to be critical to our national security, our water infrastructure and our overall electrical grid infrastructure.

With this letter, we aim to elevate the criticality of copper within the U.S by highlighting newly released copper supply risk data. As a result of this new data, we strongly urge that your Department officially include copper on the 2021 U.S. Geological Survey list of "critical minerals" without delay.

The original List required a 50% import penetration threshold, which copper did not meet. In 2021 a new qualitative methodology was created to look more closely at a supply risk score by calculating the economic vulnerability, disruption potential, and trade exposure of various minerals.

Since 2018 data, the risks to copper from imports (particularly from adversarial countries) have increased dramatically. The share of copper consumption that is met by net imports has increased from 31% in 2016 to a staggering 49.3% in 2021. In the first half of 2022, the net import reliance stood at 48%. In addition, Russia, China, Iran and North Korea now account for half of all non-U.S. global refined copper production.

Due to the out-of-date data USGS relied upon, CDA hired an analyst to calculate an updated copper supply risk score with the most recently available data through the first half of 2022. With the new data, copper's supply risk score in 2022 is up to 0.423 and the 4-year weighted average score is now up to 0.407 – both above the USGS 0.40 threshold for inclusion on the CML.

Given the significant change in the supply risk to copper, which shows no signs of slowing down, the Secretary of Interior should exercise the authority given to her by statute to officially add copper to the CML immediately, without waiting for the next update in 3 years. This is a commitment USGS made to (me/other Governor's Offices) in writing earlier this year, saying "If the criticality status of a mineral commodity were to change significantly in the near term, the USGS would publish information on the changed circumstances without waiting for a 3-year update cycle." Clearly, this dramatic rise in the supply risk score is such an incident that requires immediate attention.

This designation will significantly benefit and protect the United States as we continue to substantially invest in a variety of copper intensive applications. By recognizing copper as a "critical mineral," the

## Office of the Governor

The Honorable Deb Haaland March 29, 2023 Page Two

United States Federal Government can more effectively ensure a secure and reliable supply of domestic copper resources in the years to come.

The copper industry is a major contributor to U.S. economic and national security and is essential to nearly every facet of the U.S. economy, including construction, consumer products and the energy sector. Companies manufacturing copper and copper alloys as well as the copper miners, refineries, and other members of the industry directly create approximately 40,000 jobs in 30 U.S. states. This workforce significantly supports local and regional economies through the creation of additional downstream employment opportunities for plumbers, electricians, automotive workers and electronics manufacturers to name just a few. Also, for U.S. national security purposes, copper is the second-most widely used metal by weight in U.S. defense systems.

As states such as West Virginia continue to economically develop with a focus on clean energy and electric vehicle manufacturing, copper and copper alloys will continue to be vital to this high-demand production. Copper is integral to electric vehicles, electric vehicle charging stations, renewable energy applications (solar & wind), data processing centers, and electrical grid-level upgrades. To elaborate, renewable energy has a higher intensity of copper use than traditional power generation, and electric vehicles consume 3-4 times the copper of an internal combustion engine powered vehicle. The International Energy Agency (IEA) noted this year that copper demand for grid lines alone will more than double by 2040.

Unfortunately, the U.S. has moved and continues to move from a net exporter of refined copper to a net importer with net import penetration growing from 30% in 2016 to 37% in 2020, with China leading the world. China now accounts for 43% of ex-USA refined copper production, up from just 10% in 2000. Regrettably, the USGS based the 2021 draft list on older data up to 2018 even though new data through 2020 was available, which shows China's influence is strengthening. The data suggests that if we do not increase domestic production, as the U.S. economy grows, then net import reliance and U.S. vulnerability to supply disruptions and state-led market manipulation will continue to grow.

Given copper's major role in state and national economic development, national security, and infrastructure, we strongly reiterate our State's recommendation that copper be immediately included in the USGS list of "critical minerals".

Thank you for your thoughtful consideration of this request.

Sincerely,

Jim Justice

Governor