

Alaska's mineral production and potential

Deantha Skibinski

Executive Director, Alaska Mining Association

Karen Matthias

Executive Director, Alaska Metal Mines

October 5, 2023

Fairbanks Industry Forum



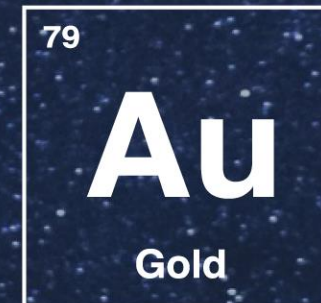
MAKE THE IMPOSSIBLE POSSIBLE



akmetalmine.com



ALASKA MINERS
ASSOCIATION







Growing Demand for Responsibly Sourced Minerals

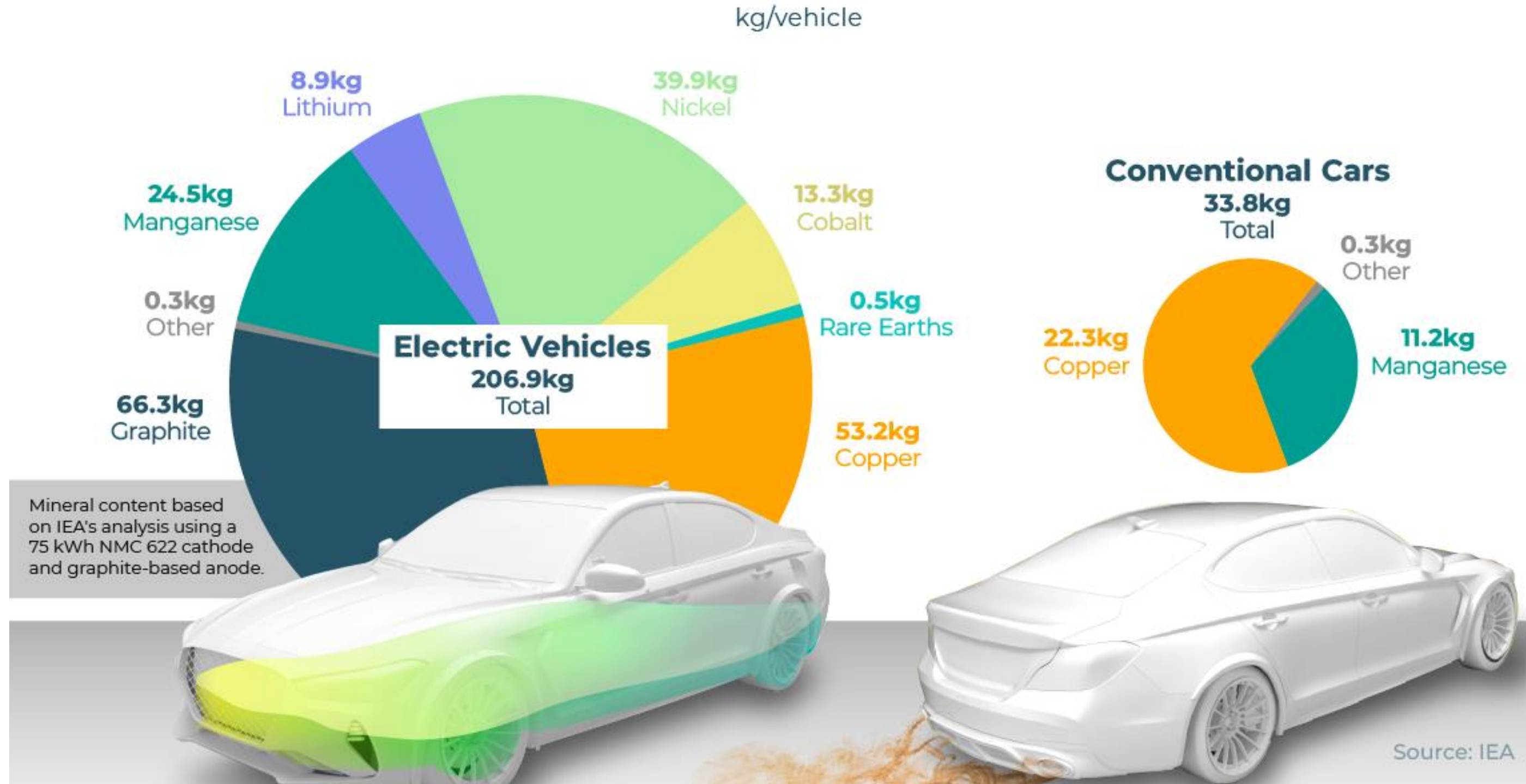
“Over 3 billion tons of minerals and metals will be needed to deploy wind, solar and geothermal power, as well as energy storage...”

Mineral Production to Soar as Demand for Clean Energy Increases

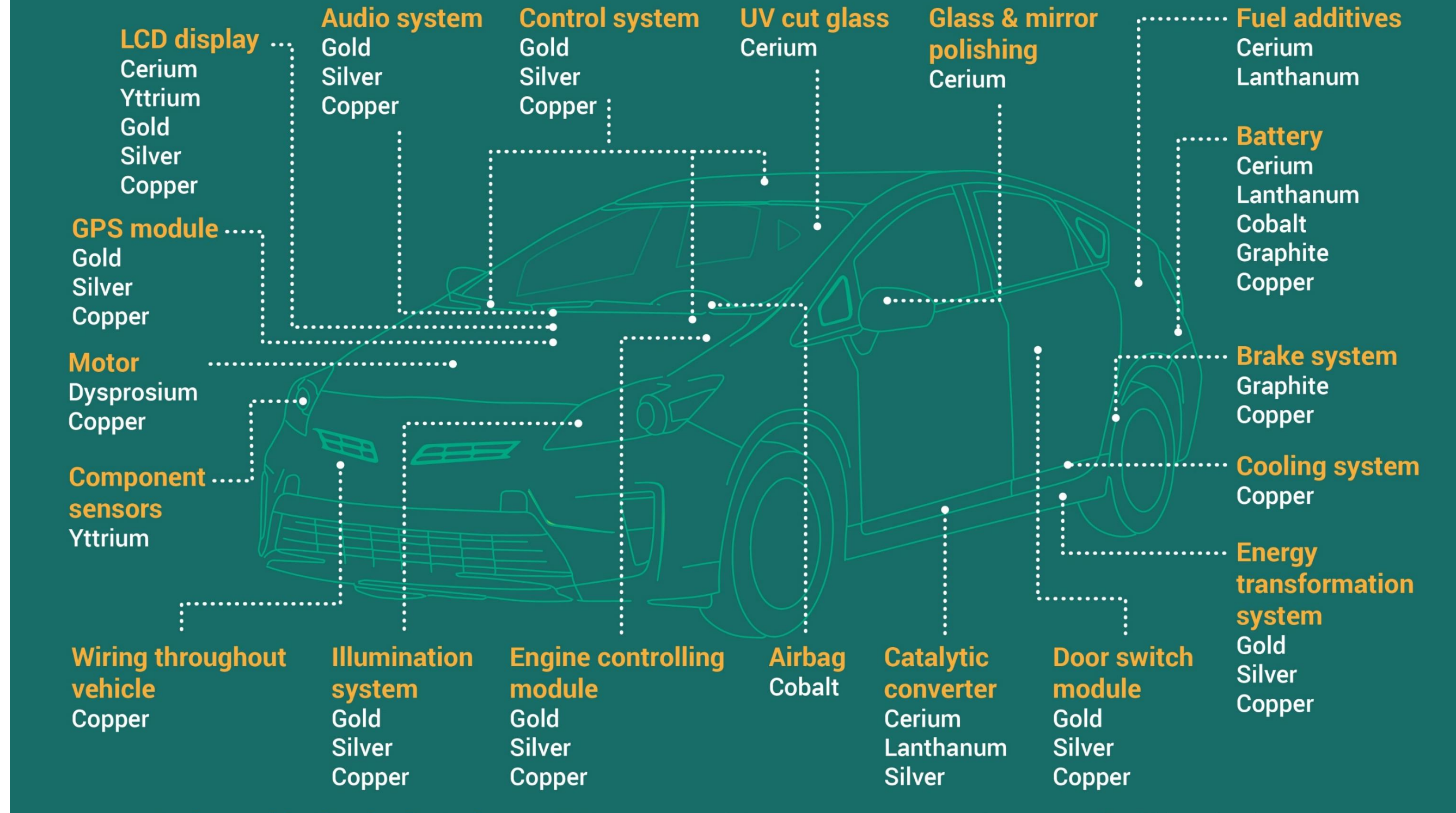
WASHINGTON, May 11, 2020 — A new [World Bank Group report](#) finds that the production of minerals, such as graphite, lithium and cobalt, could increase by nearly 500% by 2050, to meet the growing demand for clean energy technologies. It estimates that over 3 billion tons of minerals and metals will be needed to deploy wind, solar and geothermal power, as well as energy storage, required for achieving a below 2°C future.

The report “**Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition**” also finds that even though clean energy technologies will require more minerals, the carbon footprint of their production—from extraction to end use—will account for only 6% of the greenhouse gas emissions generated by fossil fuel technologies. The report underscores the important role that recycling and reuse of minerals will play in meeting increasing mineral demand. It also notes that even if we scale up recycling rates for minerals like copper and aluminum by 100%, recycling and reuse would still not be enough to meet the demand for renewable energy technologies and energy storage.

Mineral content of Electric Vehicles vs. Conventional Cars



Alaska Minerals in Electric Vehicles



Copper is key to climate change solutions

COPPER IN ENERGY TRANSITION TECHNOLOGIES



Is Recycling the Answer?

“...even if we scale up recycling rates for minerals like copper and aluminum by 100%, recycling and reuse would still not be enough to meet the demand for renewable energy technologies and energy storage.”

Mineral Production to Soar as Demand for Clean Energy Increases

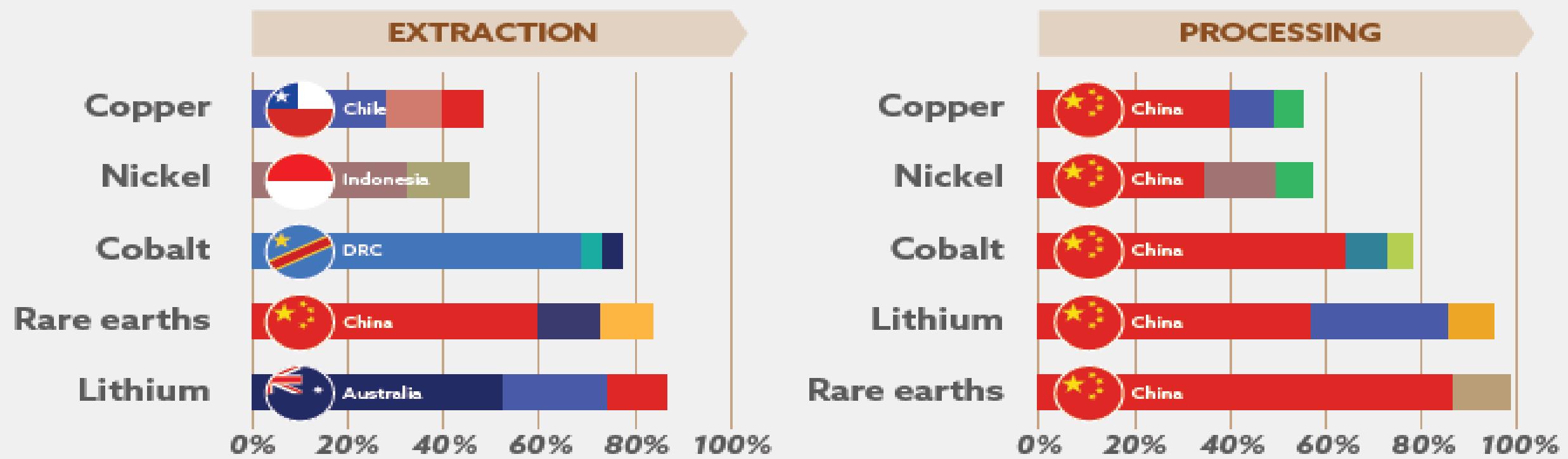
WASHINGTON, May 11, 2020 — A new [World Bank Group report](#) finds that the production of minerals, such as graphite, lithium and cobalt, could increase by nearly 500% by 2050, to meet the growing demand for clean energy technologies. It estimates that over 3 billion tons of minerals and metals will be needed to deploy wind, solar and geothermal power, as well as energy storage, required for achieving a below 2°C future.

The report “**Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition**” also finds that even though clean energy technologies will require more minerals, the carbon footprint of their production—from extraction to end use—will account for only 6% of the greenhouse gas emissions generated by fossil fuel technologies. The report underscores the important role that recycling and reuse of minerals will play in meeting increasing mineral demand. It also notes that even if we scale up recycling rates for minerals like copper and aluminum by 100%, recycling and reuse would still not be enough to meet the demand for renewable energy technologies and energy storage.

The US Dependency on Mineral Imports

The U.S. is home to an estimated **\$6.2 trillion** in minerals, but we had net imports of **\$90 billion** worth of minerals in 2021 alone.²

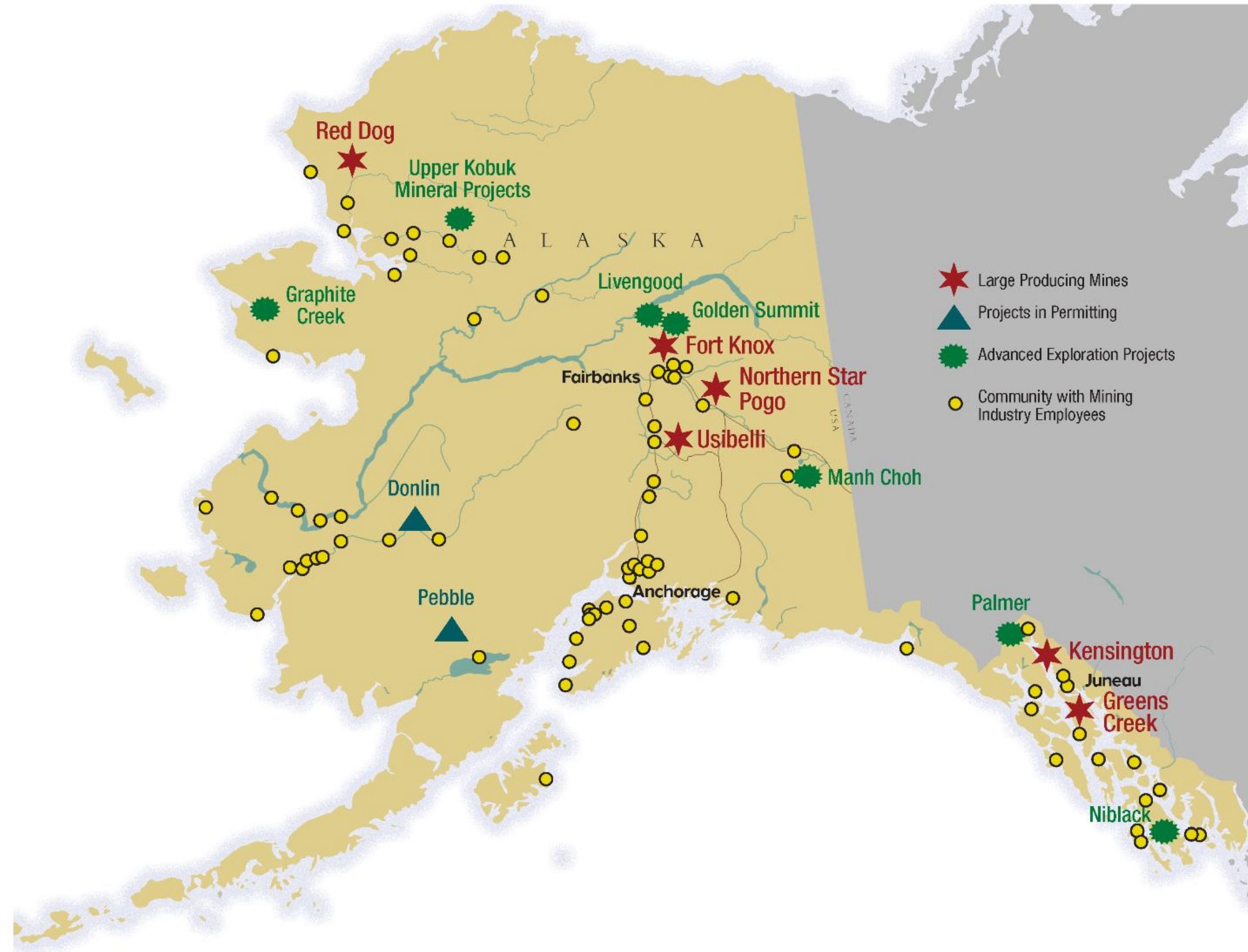
SHARE OF TOP THREE COUNTRIES EXTRACTING/PROCESSING CRITICAL MINERALS⁵



Source: IEA, *The Role of Critical Minerals in Clean Energy Transitions*

* Countries shown represent an indication of top market producers and consumers in each case.

Alaska Mining: Part of the Solution





Usibelli Coal Mine, Inc.

- Operating for over 80 years adjacent to Denali National Park
- 100 employees; all Alaskan
- Over 300 direct and indirect jobs with \$26m in annual wages
- 1.2M tons produced annually
- Fuels six Interior power plants
- Provides 50% of Interior Alaska's energy
- Affordable power to the military, university, homes, schools, businesses



Exploration

- \$170 million spent on exploration activity in 2021
- \$645 million spent on exploration and development
- \$8.1 billion total spent since 1982 developing Alaska mining projects
- Significant regional economic benefits



Placer Mining

- 150 placer mines in Alaska: over half of these are in Interior Alaska
- 32,000 oz produced annually
- Seasonal operations
- 75% Alaska hire rate
- Family Farm of the North!





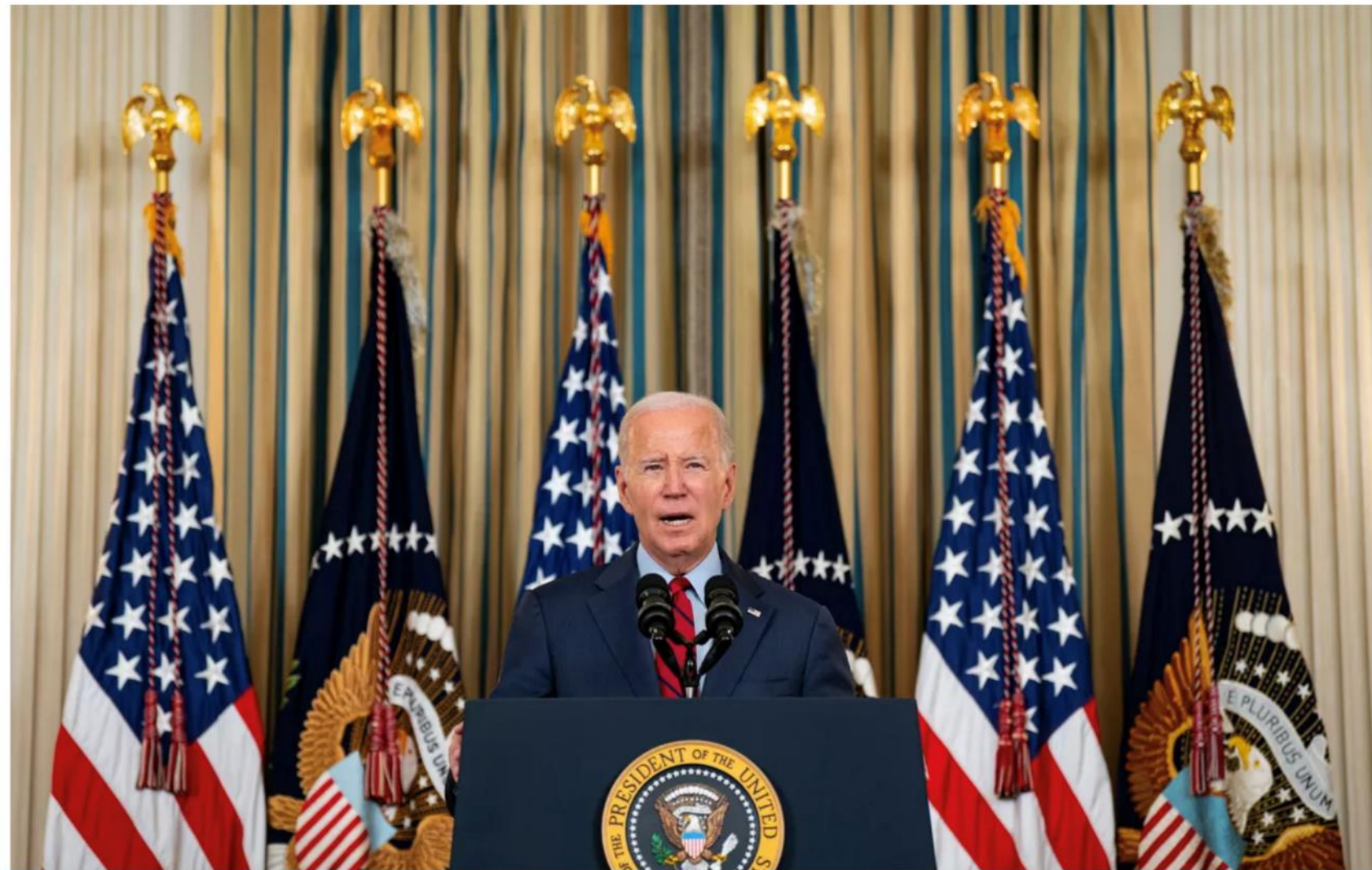
Support sector: vendors and contractors

- \$1 Billion spent on goods and services with 450 Alaska businesses
- Many, many Alliance members: construction, transportation, technical services, warehousing, utilities – mines need it all!

Administration: goals to grow domestic mineral production... BUT

Biden cracks down on drilling and mining

Sept. 7, 2023 | Updated Thu., Sept. 7, 2023 at 7:24 p.m.



- Critical minerals – who defines and decides?
- Interagency working group to overhaul mining laws and regulations
- New definition of Waters of the United States; post *Sackett* decision
- Mining recently removed as covered sector under FAST-41 permitting
- Clean Water Act 404c vetoes
- BLM Public Lands Rule on “Conservation and Landscape Health”
- Mineral withdrawals, vacated leases, remanded RODs, more

