

CRITICAL MINERALS:



POWERING AMERICA'S CLEAN ENERGY FUTURE

Critical minerals are the building blocks of our modern world – from smartphones and computers to military hardware and medical devices. And they are essential components in clean energy technologies, like solar panels, wind turbines and batteries for electric vehicles.

As the only advanced U.S. mining project capable of producing two federally-designated critical minerals – manganese and zinc, South32's Hermosa project can strengthen America's domestic supply chain and reduce our reliance on foreign sources of the resources we need to power the nation's clean energy transition.



DID YOU KNOW? The federal government keeps a list of the 50 most important minerals to national security. The U.S Geological Survey projects **zinc and manganese as among the most critical over the next decade**, according to a 2024 report.

DID YOU KNOW? The U.S. government named the Hermosa project as **the first critical minerals project** under its FAST-41 permitting program, a designation to help streamline reviews of **vital infrastructure projects**.

REDUCING AMERICA'S RELIANCE ON FOREIGN SOURCES OF CRITICAL MINERALS

The U.S. still lags behind foreign rivals in the critical mineral market, creating risk for our economy and our energy security. But with a recently announced **\$2.16 billion** investment in Southern Arizona, South32's Hermosa project could be a game-changer, putting American minerals and workers in the driver's seat of the clean energy race.

Learn more: South32Hermosa.com



25 54.938
Mn
Manganese

MANGANESE: *Why is it critical?*

Most notably used in electric vehicle batteries and steel production, manganese was one of only five minerals included in the 2022 Defense Production Act.



Increased manganese content in high-performance EV batteries can both **lower their cost and improve their performance.**



There has been **no manganese mining in the US since the 1970s**, and there is no manganese metal production in all of North America.



The Hermosa project could produce **battery-grade manganese to help supply domestic demand**, which is expected to increase 15x from 2020 to 2031.

30 65.38
Zn
Zinc

ZINC: *Why is it critical?*

Used in renewable energy battery storage, wind turbines and electric vehicles, zinc is also a key component in the process to **galvanize steel** needed for infrastructure projects **like roads and bridges.**



Zinc-based **grid-scale batteries** can help deploy **long duration renewable energy storage.**



Global zinc demand growth is expected to outpace production by 3 million tons to 2031.



The **US produces only 6% of the world's zinc**, which is set to decline in coming years, and is highly reliant on foreign sources – but the Hermosa project includes **one of the world's largest undeveloped zinc resources.**



Learn more: South32Hermosa.com