

NATIONAL SECURITY, ENERGY INDEPENDENCE, AND NEVADA MINING – 3/12/2022

One of the biggest lessons we have had an opportunity to re-learn over the course of the recent national security failures of the Biden regime is that energy independence lies at the heart of national security. We have seen that mutual defense pacts such as NATO are close to meaningless when the member nations are dependent on their adversaries for their heating fuel, and how disruptions in global oil energy supply can devastate the domestic economy while leaving America helpless.

We know what needs to be done to address US hydrocarbon security: immediately implement a full-scale domestic development, production and refinement plan and return to net-exporter status. In addition, as we move, for various reasons, toward alternatives to a hydrocarbon-based economy, we must positively identify which resources will be critical to the maintenance of energy independence in that context.

Much of the new, renewable economy will depend on the mining and processing of elements buried in the ground. Nevada has a rich mining history. In fact, the development of silver mines in western Nevada led to statehood. During the world wars, Nevada minerals provided for the nation's defense. Later, Nevada became one of the largest gold producers in the world. Now, the state's mines may hold the key to critical US energy independence in the emerging sectors of renewable energy.

Rare Earth Elements

Rare earth elements are chemical elements found in the earth's crust and are vital to modern technology. Seventeen elements are considered rare earth elements ("REE's"). Although they aren't relatively rare, they are difficult to mine, because they do not generally accumulate into rich ores.

REE's have unique magnetic, luminescent, and electrochemical properties that contribute to the performance of advanced equipment by reducing weight, emissions, and energy consumption.

REE's are found in everything from electric vehicles, wind turbines, televisions, camera lenses, LED lights, battery electrodes, welding goggles, lasers, cancer treatment drugs, x-ray and MRI scanning systems, and even control rods for nuclear reactors.

From 1964 to the late 1990s the U.S. was the world's dominant rare earth producer, thanks to Mountain Pass Mine, located 15 miles west of Primm in California's Mojave Desert. After that, China rose to dominate this market. The U.S. imported 80 percent of its rare earth materials from China between 2016 and 2019, according to USGS.

China obtained enormous control over the global REE supply chain over the last decade. China now controls over 80 percent of the global supply chain of REE's. Additionally, Chinese companies acquired mining properties that produce the minerals across Africa and Latin America.

Chinese dominance is not just in the area of supply, but of processing. That country processes nearly 90 percent of the world's rare earth minerals. In fact, the US currently must send its REEs to China for processing, after which the end products are then shipped back to the US. China's dominance in large measure results from its capacity refine the minerals and manufacture them into a product bought by companies like Tesla and Apple.

Chinese dominance was further increased after the disastrous abandonment of Afghanistan by the Biden administration. Afghanistan is home to the largest proven concentration of REEs outside of China. Now China is mining those reserves with the permission of their partners, the Taliban.

Chinese REE dominance weakens US national security. If the Chinese were to decide to restrict supply, it could have a profound impact on US ability to manufacture and maintain essential products and equipment. Conversely, China's dominance allows it to blast upstart competitors out of operation by flooding the market and tanking the price.

Las Vegas-based firm MP Materials is the world's second-largest producer of REE's. MP Materials acquired the 2,200-acre Mountain Pass Mine in July 2017. Up until the 1990s, Mountain Pass made the U.S. a dominant producer of REE's. The mine now employs 300 workers and produced more than 38,000 metric tons of rare earth oxides in 2020, which MP Materials estimates to be about 15 percent of global rare earth element production. MP has plans to establish a complete rare earth supply chain at the mine. MP says the company could produce enough rare earth products to build 500,000 EVs by 2025.

MP Materials currently sends its rare earth concentrate to distribution partner, Shenghe, a Chinese company, which refines the separated rare earth oxides and manufactures it into magnets. If the supply at Mountain Pass did not need to be exported to China, it could go straight into manufacturing, greatly improving the security of US supply.

We need to bring the full supply chain for these critical resources here to the United States for national security. There is another benefit to this: When we mine our minerals here in the United States, we do it cleaner than anybody and safer than anybody, and we have the best labor standards globally.

Lithium

Lithium is crucially important to the new economy due to its role in battery production. The worldwide lithium battery market is expected to grow by a factor of 5 to 10 in the next decade. Like with REE's, the American lithium supply chain is weak, rendering our national security vulnerable as a result.

Lithium-ion batteries are found everywhere in modern technology products. Demand is and will likely continue to be dominated by electric vehicles (EVs), but lithium-ion batteries also are common in consumer electronics, defense applications, and in backup power applications. Located in the Northeast corner of Nevada, Thacker Pass is one of the largest known lithium deposits in the Western Hemisphere. Thacker Pass could help change US dependence on foreign Lithium. Lithium Americas, the company that operates Thacker Pass, has already secured water rights for its first stage of production, and will only consume 1% of the county's allocated water.

Policy Initiatives

We need massive and immediate federal investment in Nevada mining and processing capacity. This includes enacting legislation to provide tax incentives to support domestic manufacturing and deployment. We also must fund research, development, and demonstration. Further, we must block mining industry transactions that benefit Chinese companies. For example, we need to block deals like the 2016 deal in which a U.S. company sold a Congolese mine to a Chinese firm. The deal involved a firm connected to the president's son Hunter Biden. Finally, we should create a stockpile of select, high priority critical minerals. For the hydrocarbon-based economy, we have the strategic petroleum reserve, and we need an equivalent for strategic minerals.