



## **What You Should Know about Wisconsin mining, critical minerals and the Defense Production Act**

Recently, the topic of mining has once again heated up in Wisconsin. A Canadian-based mining company called GreenLight Metals is pursuing exploration drilling in the “Reef Deposit,” an area of land northeast of Wausau in Marathon County. Discussions surrounding the Reef Deposit have included terms like “critical minerals” and “green mining,” so we thought it was worth spelling out some terms and definitions to keep the facts straight about Wisconsin mining and critical minerals. We also want to be clear– there are no known deposits of critical minerals in the Reef Deposit– GLM’s technical report defines it as a gold mine.

We are also sharing this information because recent governmental activity indicates there will be a strong focus on domestic mining in the near future – Biden’s activation of the Defense Production Act, sections of the recently passed Inflation Reduction Act, as well as the increasing focus on renewable energy, all indicate there will be an increased need for certain minerals with a focus on securing them through domestic mining.

### **What is the Defense Production Act?**

According to the [Congressional Research Service](#), the Defense Production Act (DPA) gives the President of the United States authority to influence domestic industry as a matter of national defense. The President’s authority “can be used across the federal government to shape the domestic industrial base so that, when called upon, it is capable of providing essential materials and goods needed for the national defense.”

The Defense Production Act originated as part of the War Powers Act during World War II, but Congress has formally redefined the term “national defense” over the years to not only include “U.S. military preparedness and capabilities,” but now also includes authority for the U.S. government “to enhance and support domestic preparedness, response, and recovery from natural hazards, terrorist attacks, and other national emergencies, including critical supply chain issues.”

### **Why Did President Biden invoke the Defense Production Act?**

As shared in [a May 27, 2022 Congressional Research Service brief](#), “On March 31, 2022, President Joseph R. Biden issued Presidential Determination No. 2022-11, invoking authorities under Section 303 of the Defense Production Act (DPA) and directing the Department of Defense (DOD) to strengthen the U.S. domestic industrial base for *large-capacity batteries* used in “the automotive, e-mobility, and stationary storage sectors.” As justification, the President cited the need to ensure “a robust, resilient, sustainable, and environmentally responsible

domestic industrial base” as a *critical component of clean energy manufacturing supply chains and a clean energy economy.*”

The report goes on to share that “Both the DOD and the Department of Energy (DOE) recently made recommendations related to the exercise of DPA authorities to *promote domestic mining of critical and strategic minerals*. In a 2022 report, the DOE set out strategies the federal government could follow, including use of the DPA, to develop domestic supply chains related to the production of magnets produced with certain critical minerals.”

### **What are strategic Minerals?**

Strategic minerals are minerals deemed to be essential for national defense applications and uses, and which are normally purchased from outside the United States. Because these minerals can be difficult to procure, their use is strictly monitored. Increased focus on strategic minerals has been growing in light of recent supply-chain problems around the world.

### **What are Critical Minerals?**

Critical minerals, although essential to national defense, differ from strategic minerals in that critical minerals “are less difficult to procure during wartime because they can either be produced in the U.S. or obtained in adequate quantities from reliable foreign sources,” [according to the Colorado Geological Survey](#). Recently, the issue of batteries and renewable energy supply chains have been tied into the critical minerals issue. The Colorado Geological Survey notes that “potential economic reserves of critical minerals may be relatively abundant, but the U.S. may rely heavily on foreign sources of raw ore simply because of economic, social, environmental, or political reasons.”

As of February, 2022, [the federal government’s list of critical minerals includes](#):

aluminum, antimony, arsenic, barite, beryllium, bismuth, cerium, cesium, chromium, cobalt, dysprosium, erbium, europium, fluor spar, gadolinium, gallium, germanium, graphite, hafnium, holmium, indium, iridium, lanthanum, lithium, lutetium, magnesium, manganese, neodymium, nickel, niobium, palladium, platinum, praseodymium, rhodium, rubidium, ruthenium, samarium, scandium, tantalum, tellurium, terbium, thulium, tin, titanium, tungsten, vanadium, ytterbium, yttrium, zinc, and zirconium.

### **What are Green Mining and Green Minerals?**

The new focus on clean energy technology (think electric vehicles/ solar energy/ wind power/ etc.) has created a demand for certain “critical minerals” mentioned above – this subset of critical minerals is often referred to as “green minerals/ green mining” due to their direct use in clean energy manufacturing. Cobalt, nickel, lithium, chromium, zinc, aluminum, and copper along with “rare earth elements” have all been referred to as green minerals.

These terms have no bearing on whether the mining to retrieve these minerals is environmentally friendly or clean, they merely refer to the fact that these minerals are used in manufacturing for the green industry.

**What are Rare Earth Elements?**

Rare earth metals are a group of 17 elements (lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium, scandium, yttrium) that are found in low concentrations in the earth. Rare earth elements are a part of many high-tech devices such as cellular telephones, computer hard drives, electric and hybrid vehicles, and flat-screen monitors and televisions. There are also various defense applications that utilize rare earth elements.

They are difficult and costly to mine and process without environmental impacts. [The American Geoscientists Institute notes](#) that China hosts most of the world's processing capacity, and in 2017 China accounted for 81% of the world's rare earth production, according to U.S. Geological Survey data.