

## The EU is sitting on about a third of the lithium it needs in the next ten years if it is going to reach its goals for using electric cars and wind and solar energy.

The EU Commission wants to start digging up the lithium within the bloc's borders to make electric car batteries.

The promised Critical Raw Materials Act, sent to the EU Parliament and Council on March 16th, includes fast-tracking domestic mining as part of the plan to free the bloc from reliance on China for the rare minerals needed to power modern technology and industry's 'green' future.

In the draft, the Commission acknowledges what everyone already knows: the EU does not have anywhere near enough of the raw materials and minerals it needs for industry and agriculture. Reliance on foreign sources is inevitable, particularly China, which has a monopoly on mining and processing these minerals to meet global demand. For example, according to the Commission, the **EU sources 97% of its magnesium from China**, and the heavy rare earth elements used in permanent magnets, such as those found in modern windmills, are exclusively refined in China. Though 63% of the world's cobalt—used in mobile phone batteries—is extracted in the Democratic Republic of Congo, 60% of the mineral is refined in China.

Another key mineral is lithium, essential for electric car batteries as well as wind and solar energy generation. Right now, China, Australia, and Chile are the main producers, with the EU getting about three-fourths of its **lithium supply from Chile.** 

At the same time, EU demand alone for this 'white gold' is expected to increase as much as seven-fold by 2050, and global demand 89-fold. Demand for other rare earth minerals is on a similar trajectory, fueled by global development and the transition away from oil and coal. In such a tight market, the EU will need to position itself carefully and strategically to ensure it can get what it needs and avoid the shocks in supply caused by overreliance on one source experienced during the pandemic and now the war in Ukraine. Most significantly, the act opens the EU to mining within its borders.

It stipulates minimum targets for domestic production of the list (included in the act) of critical and strategic raw materials: at least 10% of the EU's annual consumption needs to be extracted in the EU, at least 40% of it processed, and at least 15% recycled.

On the flipside—imports—not more than 65% of the annual consumption of each strategic raw material, can be sourced from a single third country, and the standard would apply to each stage of the process, from extraction to refining to final product.

To achieve the goal, the Commission is proposing streamlined permitting processes for mining, including a 'one-stop-shop' in each member state where companies can get their



projects approved in just 1-2 years. The proposal also suggests giving the projects the status of "being in the public interest," a designation that allows bypassing other norms, such as restrictions in conservation areas, and also facilitates expropriating private property. Rare earth metals and minerals often exist in small amounts side-by-side with more abundant raw materials, such as coal. The act calls for ensuring that byproducts of other mining processes are captured, as well as for sifting through old byproduct deposits for needed minerals. Since many of the rare earth minerals didn't have much commercial use until recently, they may have been discarded with the rest of the extra dirt.

The draft act also mandates establishing bloc-wide standards for recycling minerals, for example from smartphones and tablets, and requirements for making new products with recycled materials.

The Commission is in a curious position. While it's working to advance this Act, it also knows that neither the technology, nor the infrastructure, nor the trained workforce is in place for the raw materials and rare minerals industry it envisions. That will require public and private investment, job training, and **R&D**, all called for in the act.

Looking beyond the EU's borders by necessity, the Commission wants to build "strategic partnerships," both for trade and to invest in developing industries on foreign lands that the EU can then source from—similar to the agreement it recently signed with Morocco to build solar and green hydrogen energy plants.

Additionally, it includes creating a Critical Raw Materials Club, in other words, a minerals cartel with other countries to leverage its weight in the global markets.

Finally, it would establish bloc-wide monitoring mechanisms such as "stress tests" for large companies in the raw materials supply chain, checks on national stocks, and a European Critical Raw Materials Board composed of the Commission and representatives from member states.

While both conservatives and liberal politicians welcome the Act, if for different reasons, expanding domestic mining will eventually run into opposition.

For example, the EU is sitting on a substantial amount of lithium, Michael Schmidt, a research associate at the German Mineral Resources Agency told Politico—but it's only about a third of what it needs in the next ten years for the electric cars and wind and solar energy the Commission plans for. But one large deposit of the mineral is in a nature reserve on an important migratory route for birds, right on the coast of Brittany in northwestern France. Locals there are starting to express their opposition to mining.

Already, a lithium mine in Serbia was shut down last year due to local opposition, according to the trade magazine Direct Industry.



While the need for raw materials seems urgent, negotiations on the act with the EU Council and Parliament have not even started.

Source: the European conservative