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Sustainability News Headlines

Poor Access to Critical Minerals Threatens Clean Energy Transition

As the world transitions to alternative energy solutions such as wind turbines, solar panels and electric vehicles (EV), adequate supplies of critical minerals essential for these technologies must be met to avoid potential security hazards, according to the International Energy Agency (IEA). Depending on the speed at which governments transition energy sources, overall demand for critical minerals could rise up to six times by 2040.

The global energy watchdog in a new report, "The Role of Critical Minerals in Clean Energy Transitions," detailed the discrepancy between the world's climate goals and the availability of critical minerals. Cobalt, copper and nickel are some of the minerals that are necessary to produce alternative energy technologies. Executive Director Faith Birol said the discrepancy can be corrected, "governments must give clear signals about how they plan to turn their climate pledges into action. By acting now and acting together, they can significantly reduce the risks of price volatility and supply disruptions."

In major producing countries, physical disruptions and trade restrictions, well geopolitical circumstances, can result in complex and opaque supply chains. Disruptions in international supplies of critical materials often affect the domestic production manufacturing industry. For example, in January 2021, media reports pointed out that car manufacturers in China, Japan, the EU and the US would have to reduce the production of electric cars due to the lack of electronic chips. Therefore, in order to maintain energy security, governments will need to work on developing robust supply chains for the components required for green energy technologies.

to grow more than 40 times, in the IEA's base case scenario.

the expected supply

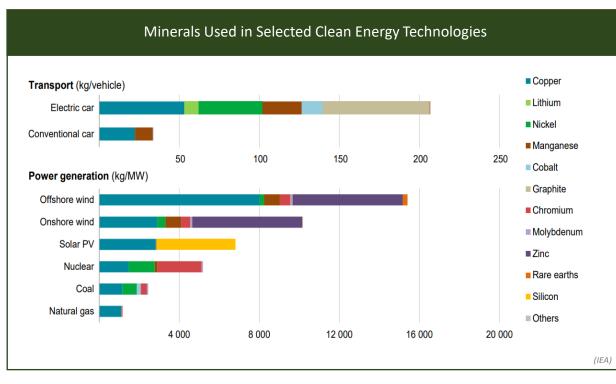
from existing mines and projects under construction is estimated to meet only half of projected lithium and cobalt requirements and 80% of copper needs.

the mineral demand for use in electric vehicles

and battery storage is set to jump at least 30 times.

(IEA)





Coronavirus Pandemic Slams the Brakes on Electric Car Revolution

the globe, just as many carmakers are gearing up to expand their fleets of electric vehicles.

An automotive chip shortage has led to production cuts around

The shortage is a result of pandemic-related constraints on supply chains and other factors. The chip shortage that is now delaying the production of some popular EVs, began as a result of a pandemic-driven spike in demand for chip-intensive personal computers and gaming consoles. This surge in demand in alternative uses, meant automakers, that also rely on the same chip-making companies for silicon wafers, find themselves relegated to the back of the supply chain queue. Experts are predicting that this shortage in chips could prolong

the world's sluggish transition to electric vehicles, if ways are not found to resolve the scarcity within the coming months. Thus, a major crisis in the production of EVs is looming, which could have negative impact on global efforts to reach net-zero emissions by mid-century.

Slow down in the production of EVs would delay the

decarbonisation of the emissions-intensive transportation sector, an effort most scientists believe is necessary to avoid the worst impacts of climate change. In the United States alone, for example, the transportation sector accounted for 29% of the roughly 6.6 billion metric tons of carbon dioxideequivalent emissions produced in 2019, according to US Environmental Protection Agency (EPA) data.

Among other stringent rules to curb emissions from internalcombustion engines, President Biden recently issued an executive order calling for half of new cars sold by 2030 to be EVs or plug-in hybrids. With chip shortage, experts are now doubtful if this ambitious goal set for the end of this decade, would be achieved.

million electric cars from global production will be cut

between 2021 and 2023 due to the semiconductor shortage.

(Forbes)

million rechargeable

electric cars will be lost because of battery cell

shortages.

(Forbes)

84.4 million global car sales are

expected in 2025, the highest since 2018.



