

Ukraine's Critical Minerals

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Ukraine's Critical Minerals Latest News

Recently, the U.S. and Ukraine signed a strategic minerals deal granting preferential U.S. access to Ukrainian mineral projects and establishing a joint investment fund for Ukraine's reconstruction.

What are Critical Minerals and Rare Earths?

- **Rare Earth Elements (REEs)** are a group of **17 chemically similar metals** essential for making **permanent magnets** used in **electric vehicles (EVs), smartphones, missile systems, and wind turbines**.
- The **U.S. Geological Survey (USGS)** lists **50 minerals** as "**critical**", including **lithium, nickel, cobalt, and rare earths**, due to their vital role in **defence, aerospace, green energy, and electronics**.
- These minerals have **no commercially viable substitutes**, making their supply chain **strategically important**.

Ukraine's Mineral Wealth

- Ukraine has **22 of the 34 minerals** classified as **critical by the European Union (EU)**.
- Major critical minerals in Ukraine include:
 - **Rare earth elements** such as **lanthanum, cerium, neodymium, erbium, yttrium**, and **scandium**.
 - **Lithium, nickel, manganese, beryllium, gallium, zirconium, graphite, apatite, fluorite**, and **titanium**.
- **Graphite reserves** in Ukraine account for approximately **20% of global resources**, crucial for **EV batteries** and **nuclear reactors**.
- **Lithium reserves** are estimated at **500,000 metric tonnes**, one of the largest in Europe. Key lithium areas include the **central, eastern, and southeastern regions**.
- **Titanium** is concentrated in the **northwestern and central regions** and is used in the **aerospace and defence** sectors.
- **China dominates global rare earth production**, making Ukraine a **strategically attractive alternative supplier** for Western economies.

Source: TH

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