

## Increase Need for Rare Earth Metals

Renee Cho. Columbia Climate School. *"The Energy Transition Will Need More Rare Earth Elements. Can We Secure Them Sustainably?"* Apr 5, 2023. //HL

<https://news.climate.columbia.edu/2023/04/05/the-energy-transition-will-need-more-rare-earth-elements-can-we-secure-them-sustainably/#:~:text=The%20demand%20for%20rare%20earth,as%20much%20as%204%2C000%20percent.>

**The demand for rare earth elements is expected to grow 400-600 percent over the next few decades,** and the need for minerals such as lithium and graphite used in EV batteries could increase as

much as 4,000 percent. Most wind turbines use neodymium–iron–boron magnets, which contain the rare earth elements neodymium and praseodymium to strengthen them, and dysprosium and terbium to make them resistant to demagnetization. Global demand for neodymium is expected to grow 48 percent by 2050, exceeding the projected supply by 250 percent by 2030. The need for praseodymium could exceed supply by 175 percent. Terbium demand is also expected to exceed supply. And to meet the anticipated demand by 2035 for graphite, lithium, nickel, and cobalt, one analysis projected that 384 new mines would be needed.