



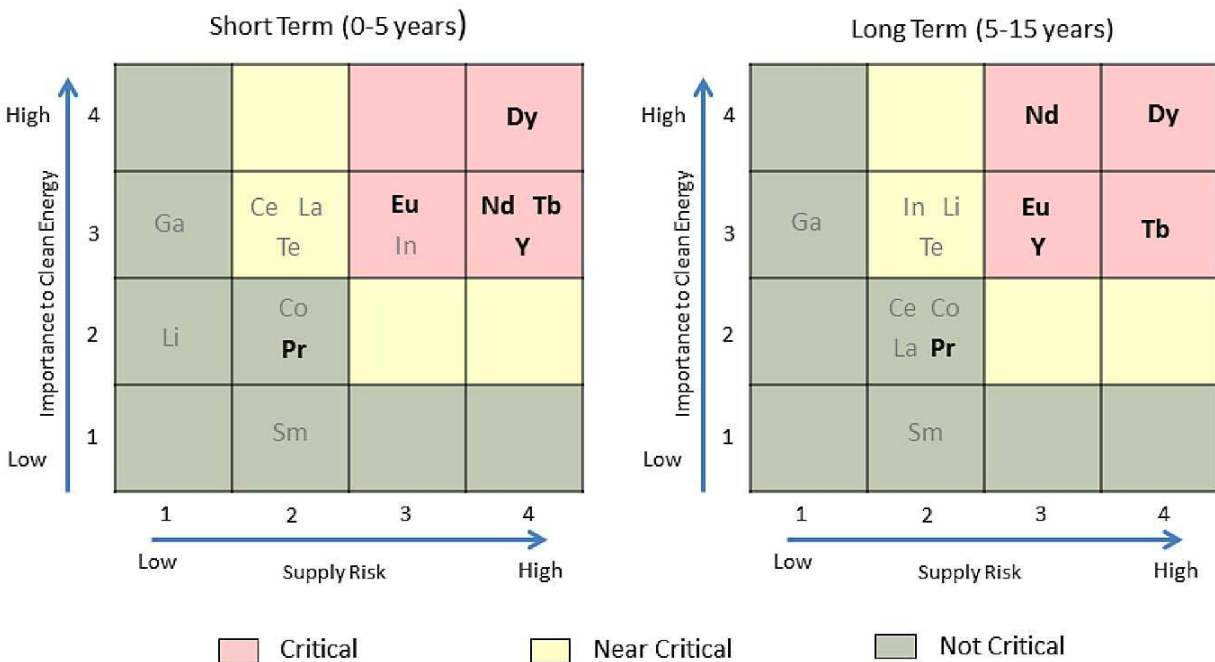
From...

Critical Rare Earth Elements [CREEs]

What are “Critical Rare Earths”?

According to Dr. Alex King, U.S. Department of Energy, Ames Lab Director, critical refers to “the stuff you need the most but can’t get enough of.” In 2011, the US Department of Energy completed a study entitled, [Critical Material Strategy](#). The study reviewed rare earths based on their role in clean energy as well as supply risk. They identified Neodymium (Nd), Europium (Eu), Terbium (Tb), Dysprosium (Dy) and Yttrium (Y) as critical rare earths (CREE) for both the short and long term. Rare Element includes Praseodymium (Pr) in this list because of its ability to be substituted for Neodymium in high-intensity permanent magnets.

Short and Long-term Criticality Matrices for Select Rare Elements



Based on the US Dept. of Energy [“Critical Materials Strategy”](#) report – 2011. Elements in bold are found at Bear Lodge Project.

These elements are “critical” because of scarcity. This, combined with anticipated growth in demand, makes these higher valued elements the ones we expect to experience price performance over the next decade.

What is encouraging to non-Chinese users is that Bear Lodge contains nearly 80% of its ore value in CREE, yet will also produce significant quantities of light rare earths, such as Cerium (Ce) and Lanthanum (La). In fact, the Bear Lodge Project may be the world’s best source of Europium, the highest valued of all CREE and a critical component in lasers for both medical and defense applications.

LINK: <https://www.rareelementresources.com/rare-earth-elements/critical-rare-earths#.Yg6mVejMJRY>

CT.org continues to highlight materials critical to the evolution of many forms of clean energy. The quick discussion of Critical Rare Earth Elements. CREEs, continues the discussion with the observation that access to critical materials is a continuing challenge.