Research Priorities for More Efficient Use of Critical Materials from a U.S. Corporate Perspective

Trans-Atlantic Workshop on Rare Earth Elements and Other Critical Materials for a Clean Energy Future

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GE Criticality Diagram

Impact on GE

Supply and Price Risk

Higher

Lower

Proportional to spend

Rare Earth Elements

area
Each element and each application will use a unique mix of options.
Research Approaches

Rare Earths

• Lighting
  • Recycling of fluorescent lamp phosphors
  • Development of phosphors with reduced RE content
• Permanent Magnets / Wind
  • Development of PM recycling approaches
  • Development of PMs with reduced RE content
  • System design solutions

Tellurium

• CdTe solar
  • Develop technology to reduce the CdTe layer thickness