

Global Rare Earth Elements Market Guide

<https://marketpublishers.com/r/G9C2A4B183EEN.html>

Date: October 2012

Pages: 187

Price: US\$ 147.00 (Single User License)

ID: G9C2A4B183EEN

Abstracts

Rising demand for wind turbines, electronics, and electric vehicles is straining supplies of some rare earth elements. The world has become dependent on imports for rare earth minerals from China, a vast resource for rare earth elements.

Rare earth elements (REEs) are used in the integrated circuits found in most electronics and smartphones, radar technologies and missile guidance systems.

Though REE resources are distributed across the world with 36% located in China and 13% in the United States - their production is dominated by China which produces 97% of all REEs.

In an effort to control the global market for rare earth elements, China recently instituted production and export quotas to monopolize the market, and is practicing price control by limiting the supply available for export to other countries.

This report examines the Global Rare Earth Elements market, how skyrocketing demand will affect supplies, and alternatives to rare earths.

These elements are critical to civilian and military high technology applications. Although reserves are abundant, it is difficult to find them in sufficient concentrations where they can be profitably mined and processed. The process of extracting and processing rare earth elements into alloys and permanent magnets is labor and capital intensive.

As a result of China's production dominance, REEs continue to remain supply constrained commodity. The heavier elements, in particular, are geologically scarce and likely to remain in deficit for longer than the lighter elements, which account for a much larger proportion of Chinese production and for which new sources of supply outside of

China can be developed relatively easily.

The energy industry stands to be profoundly affected by the increasing demand, and reduced supply of rare earth minerals, as renewable energy technologies such as wind and solar, and electric cars, find a larger market demand.

Key Findings:

In 2012, prices soared as China imposed severe export quotas on these minerals, basically removing them from the global marketplace. China asserts that it imposed the limits on environmental grounds.

China did not place equal restrictions on domestic producers. The artificial export restraint resulted in triple-digit increases in worldwide prices of these minerals.

The intended result of China's policy is that manufacturers have incentive to base production in China. Technology-intensive companies are now incentivized to move their factories to China where these minerals are relatively cheap and accessible.

Key Findings:

Over the next decade, demand for rare earths is expected to be driven largely by a continued shift to energy efficient green products, increased use of mobile electronics, and electric vehicles.

Outside of China, the rest of the world continues to work toward securing rare earths production capacity but still experiences delays and high capital costs.

In United States, the rare earths sector is likely to remain very volatile in 2012.

Exploration of non-China-based REEs is growing. Companies such as Molycorp and Lynas are expected to commence their production in 2012 which could potentially have a significant effect on the overall REE market.

Scientists are working to develop alternative technologies that would replace components that use rare earth elements. This report contains case studies of

projects that are being funded by the DOE.

Contents

- What are Rare Earths?
- Discovery of Rare Earth Elements
- Deposit Types
- Properties of Rare Earth Elements
- Mineralogy
- Metallurgy
- Rare Earths Element and Their Uses
- Light Rare Earths Elements (LREE)
- Lanthanum
- Cerium
- Praseodymium
- Neodymium
- Samarium
- Europium
- Gadolinium
- Heavy Rare Earths Elements (HREE)
- Terbium
- Dysprosium
- Holmium
- Erbium
- Thulium
- Ytterbium
- Lutetium
- Yttrium
- Rare Earth Extraction Process
- Environmental Concerns
- Mining
- Processing
- Separation
- Rare Earth and Clean Energy Technologies
- Global Rare Earths Market
- Global Reserves
- Africa
- Australia
- Canada
- China
- Commonwealth of Independent States (CIS)

South America
South and East Asia
United States
Global Consumption Forecast
Cerium
Lanthanum
Neodymium
Other Rare Earths
Global Production Forecast
Production Forecast of Key Rare Earths
Demand by End Use
Rare Earth Magnets
Catalysts
Glass and Polishing
Metal Alloys
Phosphors
Other Applications
Geographic Segmentation
China Rare Earths Market
History of Rare Earths in China
China's Rare Earths Reserves
Production Trends
Production of Key Rare Earths
Consumption Trends
Key Application Areas
Magnets
Automotive and Industrial Catalysts
Polishing powders
Metal alloys
Phosphors
Others
China's Rare-Earth Development Plan
Policy Trends in China
Production Control
Export Quota
Export Tax Policies
Integration
Stockpiles
Resource Tax

Chinese Policy and Global Implications
Domestic Pricing
Domestic Competition
Other Rare Earths Markets
North America
United States
Europe
Australia
India
Japan
Rare Earth Pricing Trends
Historic Trends
Pricing Forecast
Investing in Rare Earths Projects
Sources of Funding
Overcoming Supply Challenges
Diversify Global Supply Chains
Recycling
Recycling Case Study: Honda and the Japan Metals & Chemicals Co
Product Redesign
Substitution
Nanotechnology Magnets
US Department of Energy (ARPA-E) Projects
Ames National Laboratory
Argonne National Laboratory
Baldor Electric Company
Brookhaven National Laboratory
Case Western Reserve University
Dartmouth College
Northeastern University
Pacific Northwest National Laboratory
QM Power Inc.
University of Alabama
University of Houston
University of Minnesota
Virginia Commonwealth University
Company Profiles
Competitive Landscape
Alkane Resources Ltd.

Arafura Resources Ltd.
Avalon Rare Metals
China Minmetals Rare Earth Co. Ltd.
China Rare Earth Holdings Limited
Commerce Resources Corp.
Frontier Rare Earths Limited
Great Western Minerals Group Ltd.
Greenland Minerals and Energy
Indian Rare Earths Limited
Inner Mongolia Baotou Steel Rare Earth Hi-Tech
Lynas Corporation Limited
Matamec Explorations Inc.
Molycorp Inc.
Neo Material Technologies Inc.
Quest Rare Minerals Ltd.
Rare Element Resources Ltd.
Stans Energy Corp.
Tasman Metals Ltd.
Recent News Coverage
Demand-Supply Balance Forecast
Appendix
Etymology
Glossary

I would like to order

Product name: Global Rare Earth Elements Market Guide

Product link: <https://marketpublishers.com/r/G9C2A4B183EEN.html>

Price: US\$ 147.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G9C2A4B183EEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970