

# **Rare Earth Metal Recovery from Electronics Market Forecasts to 2034 – Global Analysis By Metal Type (Neodymium, Dysprosium, Terbium, Europium, Yttrium, Lanthanum, Cerium, Other Metal Types), Source of Electronic Waste, Technology, Application, End User and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Rare Earth Metal Recovery from Electronics Market is accounted for \$7.40 billion in 2026 and is expected to reach \$22.60 billion by 2034 growing at a CAGR of 15% during the forecast period. Rare Earth Metal Recovery from Electronics involves extracting valuable rare earth elements such as neodymium, dysprosium, and lanthanum from electronic waste, including smartphones, batteries, and circuit boards. These metals are critical for manufacturing electronics, renewable energy technologies, and advanced industrial systems. Recovery processes include mechanical separation, hydrometallurgy, and pyrometallurgy. This approach reduces dependency on mining, lowers environmental impact, and supports resource security. Growing volumes of electronic waste and increasing demand for rare earth materials are driving the development of efficient and sustainable recovery technologies.

### **Market Dynamics:**

Driver:

Rising demand for critical rare earths

Rising demand for critical rare earths is accelerating adoption of recovery solutions, as industries increasingly rely on neodymium, dysprosium, and terbium for electronics,

EVs, and renewable energy systems. Expanding awareness of supply chain vulnerabilities fosters reliance on recycling. Corporate investment in rare earth recovery propels development of advanced extraction technologies. Strong marketing campaigns emphasize resource security, boosting visibility in industrial ecosystems. Collectively, demand for rare earths is propelling the market toward sustained growth.

#### Restraint:

##### Complex recycling and extraction processes

High technical complexity raises operational costs. Limited availability of efficient separation technologies hampers credibility. Negative perceptions around environmental impact of extraction degrades consumer trust. Smaller recyclers struggle to manage advanced processes, limiting accessibility. Consequently, complexity continues to constrain market penetration despite strong demand drivers.

#### Opportunity:

##### Government incentives for recycling initiatives

Subsidies and tax benefits accelerate deployment of advanced recycling facilities. Strategic collaborations between recyclers and public agencies propel commercialization. Expanding investment in circular economy fosters breakthroughs in resource efficiency. Rising institutional preference for sustainable sourcing accelerates uptake of recovery programs. Overall, government support is propelling new revenue streams and strengthening market competitiveness.

#### Threat:

##### Volatile commodity prices impacting profitability

Fluctuations in global rare earth markets constrain investment confidence. Ambiguity around long-term pricing hampers scalability of recycling projects. Negative publicity around price instability degrades credibility of premium offerings. Cultural resistance to recycled materials hampers uptake in conservative industries. Consequently, price volatility continues to limit scalability despite strong innovation drivers.

#### **Covid-19 Impact:**

The Covid-19 pandemic accelerated demand for resource security, fostering adoption of rare earth recovery across electronics and industrial sectors. Rising awareness of supply chain disruptions propelled reliance on recycling. Lockdowns constrained mining operations, boosting short-term demand for recovered metals. Supply chain disruptions slowed integration of advanced recycling systems. Recovery phases fostered renewed investment in sustainable resource innovation, accelerating adoption post-pandemic. Expanding circular economy initiatives accelerated visibility of rare earth recovery solutions. Overall, Covid-19 acted as both a short-term constraint and a long-term catalyst for recycling growth.

The neodymium segment is expected to be the largest during the forecast period

The neodymium segment is expected to account for the largest market share during the forecast period as rising demand for critical rare earths accelerates reliance on neodymium for magnets in electronics, EVs, and wind turbines. Growing industrial preference for high-performance magnets fosters consistent adoption. Strong recycling initiatives accelerate visibility of neodymium recovery. Expanding investment in clean energy fosters breakthroughs in demand. Strategic collaborations between recyclers and manufacturers propel commercialization.

The energy & power segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the energy & power segment is predicted to witness the highest growth rate due to rising demand for critical rare earths accelerating adoption in renewable energy systems. Growing prevalence of wind and solar projects fosters reliance on rare earth magnets. Expanding investment in clean energy accelerates innovation in recovery demand. Strategic partnerships between recyclers and energy providers propel commercialization. Growing awareness of sustainability benefits fosters reliance on recovered rare earths. Strong marketing campaigns accelerate visibility of energy-linked recovery solutions.

### **Region with largest share:**

During the forecast period, the Asia Pacific region is expected to hold the largest market share owing to rising demand for critical rare earths boosting adoption across China, Japan, South Korea, and India. Strong electronics and EV manufacturing infrastructure fosters visibility of recovery platforms. Established recycling companies accelerate commercialization of advanced solutions. Rising consumer preference for sustainable

sourcing fosters consistent demand. Strategic collaborations between governments and recyclers propel innovation. Expanding industrial ecosystems accelerate accessibility of recovered rare earths.

### **Region with highest CAGR:**

Over the forecast period, the Europe region is anticipated to exhibit the highest CAGR as rising demand for critical rare earths accelerates adoption across Germany, France, and the Nordic countries. Rapid implementation of circular economy policies fosters rising demand for recycling initiatives. Government incentives propel investment in advanced recovery technologies. Rising consumer preference for sustainable electronics accelerates willingness to pay for recycled materials. Expanding industrial ecosystems foster integration of rare earth recovery into manufacturing. Strong marketing campaigns accelerate awareness of sustainability benefits.

### **Key players in the market**

Some of the key players in Rare Earth Metal Recovery from Electronics Market include Umicore SA, Boliden AB, Dowa Holdings Co., Ltd., Glencore plc, Aurubis AG, Veolia Environnement S.A., Sims Limited, Materion Corporation, American Manganese Inc., Neo Performance Materials Inc., Recylex S.A., Tetronics International Ltd., Mint Innovation Ltd., EnviroLeach Technologies Inc. and Stena Metall AB.

### **Key Developments:**

In November 2025, Umicore announced a partnership with HS Hyosung Advanced Materials to industrialize silicon-anode materials for EV batteries. While not directly rare earth recovery, this collaboration reinforced Umicore's role in advanced materials and circular economy strategies, aligning with its broader recycling and recovery expertise.

In December 2024, Glencore signed a multi-year offtake agreement with Cyclic Materials, a Canadian advanced metals recycling company. Under this deal, Cyclic Materials supplies recycled copper extracted from electric motors to Glencore's recycling operations in Quebec. The partnership supports circular supply chains for rare earth elements and critical metals, reinforcing Glencore's role in sustainable electronics recycling.

### **Metal Types Covered:**

Neodymium

Dysprosium

Terbium

Europium

Yttrium

Lanthanum

Cerium

Other Metal Types

#### Electronic Waste Sources Covered:

Consumer Electronics Waste

IT & Telecommunications Equipment Waste

Automotive Electronics Waste

Industrial Electronics Waste

Renewable Energy Equipment Waste

Other Electronic Waste Sources

#### Technologies Covered:

Advanced Material Characterization

Digital Twin Technology

Blockchain for Traceability

## Other Technologies

### Applications Covered:

Magnets Production

Batteries

Catalysts

Phosphors & Lighting

Electronics Manufacturing

Renewable Energy Systems

Other Applications

### End Users Covered:

Electronics & Semiconductor

Automotive

Energy & Power

Aerospace & Defense

Industrial Manufacturing

Healthcare

Other End Users

### Regions Covered:

## North America

United States

Canada

Mexico

## Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

## Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

**What our report offers:**

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

**Free Customization Offerings:**

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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