FACTSHEET

BATTERY-RELEVANT RESOURCE MANAGEMENT

Materials commonly found in advanced rechargeable batteries:

Potassium	Steel	Nickel
Graphite	Oxygen	Cobalt
Aluminium	Zinc	Copper
Manganese	Iron	Lithium
Carbon	Cadmium	Plastics
Antimony	Lead	Water
Sodium	Phosphate	...

Since 2006, battery recycling has been mandatory in the EU. The Battery Directive 2006/66/EC regulates the end-of-life treatment of waste batteries. Between 50 to 70% of a battery's weight - depending on the technology - must be recycled.

Why secondary raw materials?

+ The recovery of battery-relevant materials is often more energy efficient than the production of primary materials.
+ Today's advanced rechargeable batteries use up to 3 times less materials than previous generations.
+ Batteries contain materials that will be increasingly required in the future, as the electrification of society advances. Recycling is a sustainable mean to meet materials demand.
+ Investing today in the recovery of key materials is investing in stable raw materials supply in the future.
+ Given limited battery resources in Europe, recycling must be a viable part of a European sourcing culture.

INTRODUCTION

Advanced rechargeable batteries are at the heart of the EU's strategy for a climate-neutral future: they power low-emission electric vehicles, mobile communication devices and portable power tools, and contribute to a smooth functioning of a decarbonized, renewables-based energy generation infrastructure.

Undoubtably, batteries are a strategic imperative for the industrial and social revolution towards a more empowered, sustainable and circular society.

Ensuring materials availability – both through the responsible use of primary raw materials and recycling - is, hence, critical to meeting the steadily increasing demand for advanced rechargeable batteries.

RESOURCE EFFICIENCY IN THE BATTERY INDUSTRY

At RECHARGE we believe in the efficient use of our resources. By researching into advanced materials technologies, manufacturing rechargeable batteries with a superior lifetime performance, and optimizing the recovery of materials, the industry ensures a sustainable raw materials supply - today and in the future.

Advanced rechargeable batteries actively contribute to resource efficiency by:

The 3 Rs

Reducing materials usage thanks to continuous improvements in materials engineering, and battery technology advancements

Reusing the energy restoring nature of rechargeable battery chemistry up to 10 years, and more, depending on the battery technology

Recycling batteries and, thus, recovering important materials

RECYCLING

Ensuring that materials remain available for the production of new batteries or other products, is one of the most effective ways towards resource efficiency in our industry. Especially the recovery of high-impact materials brings a true improvement to the environmental and social profile of batteries.

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