

CRITICAL RAW MATERIALS FOR RENEWABLE ENERGIES

Raw materials are closely linked to clean technologies. They are irreplaceable in solar panels, wind turbines, electric vehicles, and energy-efficient lighting.

RENEWABLE ENERGIES



wind power



hydraulic energy



biomass energy



geothermal energy



solar energy



Photovoltaic use already accounts for 8% of silver demand



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Constructing solar panels and wind farms on a significant scale takes a large amounts of metal like Steel, Silicon and Copper

While not technically renewable, nuclear energy is considered sustainable by the most.



In fact, it's the safest type of energy (by far in terms of deaths per TWh generated).



Some high-ranking researchers are trying to make a sustainability plan for the year 2050 on this topic, renewable energies linked to critical raw materials

Source: EEA



Photovoltaic
1.5 million tonnes of glass, metals and silicon

Principal materials

Aluminium
Glass and silicon
Silver
Copper

Critical raw materials

Indium
Germanium



Wind energy
4,75 million tonnes of concrete, metals and composites

Principal materials

Steel and iron
Glass/carbon composites
Copper
Zinc

Critical raw materials

Dysprosium
NEODYMIUM



Energy storage and mobility
240,000 tonnes of lithium-ion batteries

Principal materials

Graphite
Aluminium
Copper
Nickel

Critical raw materials

Cobalt
Lithium