

A conceptual image featuring a globe with a torn, vintage-style map overlay. The map shows continents like North America and Asia. A large, billowing plume of smoke or steam rises from the bottom of the globe, partially obscuring it. The background is a dark space filled with small white stars.

**Natural resources: Renewable**  
**- Not renewable**

# Natural resources are divided into:

- **Renewable** (water, wind, solar energy, geothermal energy, biomass, wood, ...)
- Not renewable** (petroleum, coal, natural gas, minerals, metals, ...)

The most important resources are **WATER** and **PETROLEUM**

**Primary energy sources are potential energy resources found directly in nature:** the sun, wind, rivers, mountain lakes, the heat of the Earth, coal, natural gas, oil, uranium, biomass, ....

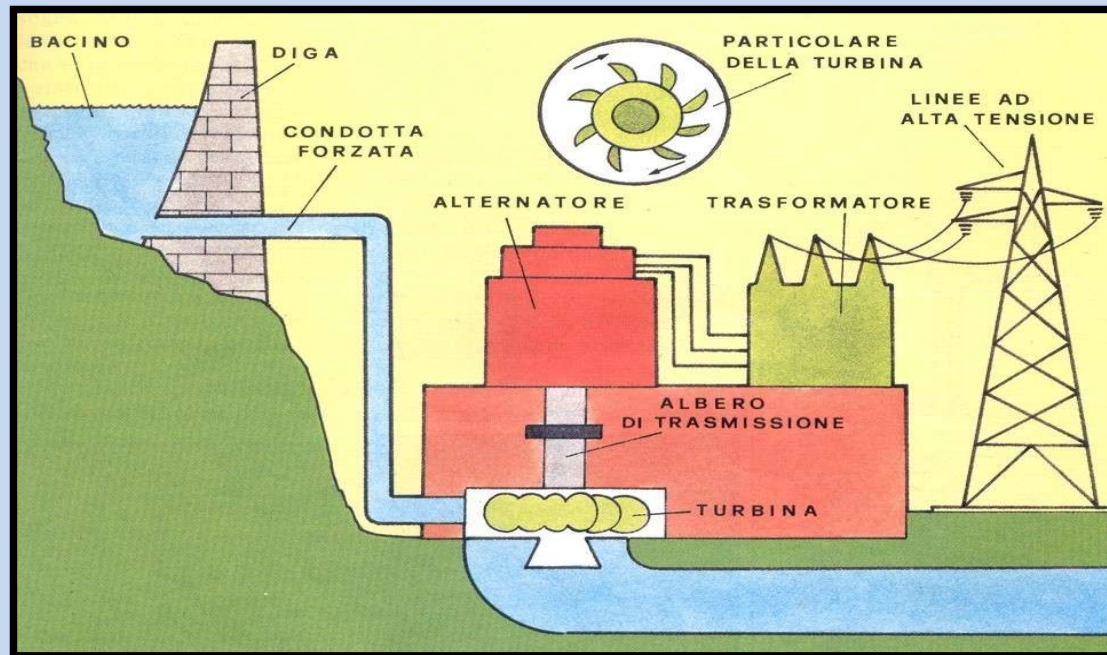
**Secondary energy sources are the result of the transformation made by people through technological innovations to satisfy their own needs.**



**Among the secondary energy resources there are:**

# 1. Hydroelectric energy

This energy exploits the transformation of gravitational energy possessed by masses of water (in altitude), in kinetic energy that generates electric energy.



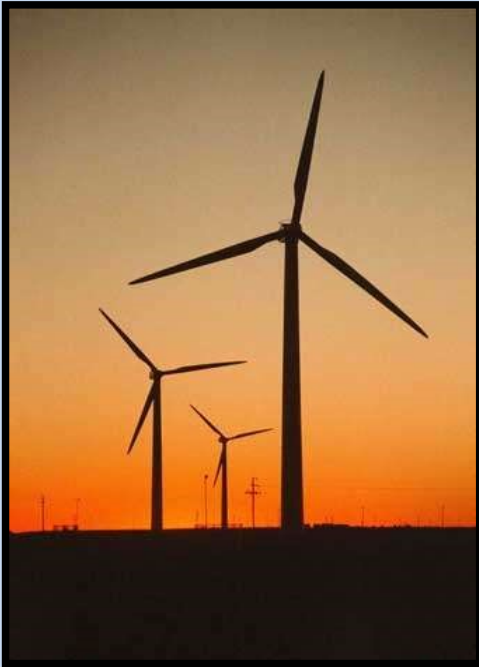
Electric central

## 2. SOLAR ENERGY

It allows exploiting sun's irradiation to hearth to produce thermal and electric energy.



Solar panels



Wind turbines

## 3. WIND ENERGY

It is the product of the conversion of the kinetic energy of the wind into other forms of energy, especially electricity through wind farms

## 4. BIOMASS

It includes all materials of organic origin, animal or vegetable, which have not undergone any process of fossilization, and used for the production of energy.



**Biomass plant of Avezzano**



# 5. GEOTHERMAL ENERGY

It is the form of energy obtained from the heat inside of the terrestrial sphere, volcanoes, geysers and hot springs of water.



**Geothermal power plant of Larderello**

**The Italian region with a greater production of renewable energy is Puglia, mostly to exploitation of the wind power.**





# ENERGY PRODUCTION RENEWABLE IN ITALY



In the 2010, Italy produced 22.2% of gross national requirement from renewable energy resources, positioning itself as the fifth scale producers of renewable electricity of the European Union.