

Glossary: Renewable energy sources

Statistics Explained

Renewable energy sources, also called **renewables**, are energy sources that replenish (or renew) themselves naturally. Typical examples are solar energy, wind and [biomass](#).

Renewable energy sources in energy statistics include the following:

- Non-combustible renewables
 - **Hydropower**: the electricity generated from the potential and kinetic energy of water in hydro-electric plants (the electricity generated in pumped storage plants is not included);
 - **Tide, wave, ocean energy**: mechanical energy derived from tidal movement, wave motion or ocean current and exploited for electricity generation
 - **Geothermal energy**: the energy available as heat from within the earth's crust, usually in the form of hot water or steam;
 - **Wind energy**: the kinetic energy of wind converted into electricity in wind turbines;
 - **Solar energy**: solar thermal energy (radiation exploited for solar heat) and solar photo-voltaic for electricity production.
 - **Ambient heat** (heat pumps): heat pumps that are driven by electricity or other supplementary energy, to extract (stored) energy from the air, the ground or the water and converts/transfers this into energy to be used elsewhere (e.g. to heat space via underfloor heating systems and/or water in domestic buildings). Heat pumps can be used by individual households as well as at larger scale in industry and in commercial and public services. Energy flows related to heat pumps used for cooling are excluded, only heat pumps used for heating (hot water) are included. For more details on methodology and related calculation principles, please see [Commission Decision 2013/114/EU \(notified under document C\(2013\) 1082\)](#).
- Combustible renewables
 - **Biofuels**: fuels from [biomass](#); includes solid biofuels, biogas and liquid biofuels
 - **Renewable municipal waste**

Further information

- [Energy statistics, European and national metadata](#) (ESMS metadata file)
- [Energy balances](#) (ESMS metadata file)
- [Supply, transformation and consumption - commodity balances](#) (ESMS metadata file)

Related concepts

- [Fossil fuels](#)
- [Biofuels](#)
- [Biomass](#)

Statistical data

- [Renewable energy statistics](#)