

The German Electricity Grid

Electricity consumption

Electricity generation

Transmission grid 220 or 380 kV

Interconnectors to neighbouring countries

Large conventional power stations (nuclear, coal, gas)

Large hydro and pumped-storage power plants

Large renewable energy installations (e.g. onshore offshore wind farms)

Transformer station

Distribution grid - high voltage 60 to 110 kV

Energy-intensive industries

Medium-sized conventional power plants (coal, gas)

Medium-sized hydro and pumped-storage power plants

Medium-sized renewable energy installations (e.g. onshore wind, large photovoltaic installations)

Large town/city

Transformer station

Distribution grid - medium voltage 6 to 30 kV

Trading enterprises

Smaller conventional power stations (gas)

Smaller hydro and pumped-storage power plants

Smaller renewable energy installations (e.g. ground-mounted PV, large rooftop installations, biomass, onshore wind)

Industrial enterprises

Small town

Transformer station

Distribution grid - low voltage 230 or 400 V

Business

Small distributed power stations (e.g. block-type thermal power stations)

Households

Small renewable energy installations (e.g. solar cells on individual houses, onshore wind)