

WWS Generation

WWS electricity generation

Onshore/offshore wind
Rooftop/utility photovoltaics
Concentrated solar power
Geothermal electricity
Hydroelectricity
Tidal & wave electricity

WWS heat generation

Solar thermal/CSP steam
Geothermal heat

WWS Grid

Transmission/distribution

AC/HVAC/HVDC lines
Distribution lines
Grid management
Software
Demand response

Interconnecting

WWS generators on grid
Regions/countries

WWS Storage

Electricity storage

Batteries
CSP storage
Pumped hydro storage
Hydropower reservoirs
Flywheels
Compressed air
Gravitational storage
Grid hydrogen storage

District heat storage

Water tanks
Boreholes
Water pits
Aquifers

District cold storage

Water tanks
Ice
Aquifers

Building heat storage

Water tanks
Thermal mass

Non-grid hydrogen storage

Hydrogen storage tanks

WWS Equipment

Building & district air/water heating

Electric heat pumps

Building and district cooling

Electric heat pumps

Industrial heat

Arc/induction/resistance furnaces
Dielectric/electron beam heaters
Heat pumps/CSP steam

Hydrogen generation/compression

Electrolyzers/compressors

Transportation vehicles

Battery-electric
Hydrogen fuel cell

Some appliances/machines

Induction cooktops
Electric leaf blower/lawn mowers
Heat pump dryers

Some green H₂ industrial processes

Ammonia production
Steel production

Efficiency/reduced energy use

Insulate/weatherize buildings
LED lights/efficient appliances
Telecommute/public transit