

# Neutral energy



**Offshore wind parks / Desertec/Seatec:**  
Large-scale industrial projects in renewable energy



**Central generation**  
using conventional power plants.



**Storage power plants**  
adjust for fluctuations in supply from renewable / decentralized sources.



**Industrial cogeneration**  
plants supply industrial plants with process heat and electricity. Excess quantities of power are fed to the network.



**Smart Grids**  
are intelligent networks because they are based on innovative information- and communication technologies. This is already standard practice for high voltage transmission networks.

# End customer



**Renewable energy sources**  
supply power to the network in ever greater quantities



**Consumers**  
become "prosumers", obtain power from cogeneration plants, solar plants, etc.



**Electric vehicles**  
"refuel" power, but they can also store power and return it to the network.

Flow of current

Flow of data and current

Flow of data and current



**The extra-high voltage grid**  
transports the current over great distances



**Smart Grids**  
connect and control the flow of data and power



**Smart meters**  
are an intelligent and flexible way to deliver power

Flow of data and current

Flow of data and current



**Energy flow**  
is regulated in network control centers



**Network Control Centers**  
monitor the distribution network



**Recharge-infrastructure**  
for refueling electric vehicles.