

## WIND TURBINES



Wind turbines are systems that harness the kinetic energy of the wind for useful power. Wind flows over the rotor of a wind turbine, causing it to rotate on a shaft. The resulting shaft power can be used for mechanical work, like pumping water, or to turn a generator to produce electrical power. Wind turbines span a wide range of sizes, from small rooftop turbines generating less than 100 kilowatts up to large commercial wind turbines in the megawatt power range, many of which operate in large clusters called wind farms (like the one in the picture above).

Wind turbines are operated in two ways: Onshore, that means on land, and offshore, i.e. at sea



Wind power is generally becoming more popular in the world. The vast majority of the population see wind energy as a positive development and two-thirds state that they are in favour of the expansion of renewable energies, and specifically wind energy. In addition to reducing dependence on fossil fuels such as coal, oil and gas, other important reasons are the positive effect on the environment and climate protection. Job creation and long-term reductions in energy prices are also seen as the advantages of wind energy. Unlike conventional sources of energy, it is regarded as being more sustainable and economical.