A new wind farm in Australia can supply electricity at a cost of $80 (€64) per MWh, compared with $114 (€92) from a new station powered by natural gas when the cost of carbon emissions is included. In 2011 avoided fossil fuel costs from wind power production was $78,3 bn in 2012. That is estimated to grow to €279.5 billion by 2020 and to €1020 billion by 2050.

Throughout the world, such as Mexico, Brazil, New Zealand, South Africa, and parts of China and the US, wind power is already directly competitive with conventional resources in many markets around the world, such as Mexico, Brazil, New Zealand, South Africa, and parts of China and the US. Wind power can drive down wholesale electricity prices. This is already happening, according to credit agency Moody’s and financial analysts UBS.

Significantly, this is already happening, according to credit agency Moody’s and financial analysts UBS. The macro-economic effects of the development of wind power sector as well as the renewable energy sector as a whole is increasingly a factor in political decision making about our future energy choices.
Climate change poses the single greatest long-term threat to birds and other wildlife. Wind power is the most advanced renewable technology, available at a large scale, over this time period.

**WIND ENERGY & NATURE**

- Birdlife, WWF, Greenpeace, Friends of the Earth and others support wind energy. Birdlife recently stated that climate change was the single largest threat to birds and wind renewables were a clear solution to climate change.
- The potential environmental effects of a wind farm are assessed before construction is allowed to start.

"At IKEA, we want to take a leading role in the transition to a low-carbon society by only using 100 percent renewable energy."

Steve Howard, Chief Sustainability Officer, IKEA Group, June 2012

"At Google, we strive to ensure that our company is 100% powered by renewable energy such as wind and solar. We believe that by feeding the web with renewable energies we create a better future for all."

Google green

**GLOBAL WIND DAY 15 JUNE**

- The growing participation in the annual Global Wind Day (15 June) shows support for and interest in wind energy is increasing.
- The most audible sound of wind turbines is a tight whistling - and usually the wind itself is louder.
- Wind energy emits no particles, unlike fossil fuels, which severely affect human health.
- For every kWh of wind energy used, approximately 69g/kg of CO₂ will be avoided.
- Wind energy produces no greenhouse gas emissions during its operation. A turbine will produce up to 80 times more energy than is used to build, install, operate, maintain and decommission it.

**PUBLIC OPINION**

Support for wind energy

- 89% in NL
- 78% in wind
- 71% in USA

**CLIMATE CHANGE**

- 90% CO₂ avoided
- 510 MWh avoided

**OFFSHORE**

- offshore wind power avoided
- offshore wind power is projected to avoid

**GLOBAL CUMULATIVE OFFSHORE INSTALLED CAPACITY**

- offshore wind energy capacity
- offshore wind energy capacity 2012

**HEALTH**

- Noise levels from turbines meet World Health Organization (WHO) recommendations for residential areas.

**MARKET FORECAST 2013 - 2017**

- 5,415 MWe 80 GWe GWECA estimate
- 0.2 Mt CO₂ 200 Mt CO₂

**Operation & maintenance costs**

- 10% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**Capacity (MW)**

- The ability to generate electricity is measured in watts. To describe the capacity of wind turbine or other power plants, the terms kilowatt (kW = 1,000 watts), megawatt (MW = 1 million watts), and gigawatt (GW = 1 billion watts) are most commonly used.

**Electricity production (MWh)**

- Electricity production and consumption are measured in kilowatt (1,000 watts) hours per hour (kWh). One 50 watt light bulb left on for 20 hours consumes one kilowatt-hour of electricity.

**Capacity factor**

- A modern wind turbine is available to produce electricity 80-98% of the time, but it generates different outputs depending on the wind speed. During one year, it will typically generate about 24% of the theoretical maximum output (41% offshore), which is the capacity factor (conventional power stations: 50-80%). More comparable with other sources of electricity is the overall efficiency, the relationship between the energy input (the wind) and the energy output (the electricity). The efficiency of a wind turbine has a theoretical limit of 59% (compared to coal with about 35% and gas with about 50%).