WIND ENERGY STATISTICS AND TARGETS

This growth has been driven by the EU’s binding target of 20% renewable energy by 2020.

- 2012: 106 GW of wind power installed
- 2020: 230 GW EWEA estimate
- 2050: 735 GW EWEA estimate

- Wind energy accounted for 15-17% of the EU’s electricity demand in 2010.
- Of the EU’s electricity demand in 2010 the wind energy sector was worth €32 billion to the EU economy in 2012.

- Wind energy avoided €22-27 billion per year of fuel costs a year by 2020.
- Wind energy will avoid €22-27 bn of fuel costs a year by 2020, increasing to €47-51 bn by 2030.

JOBS AND GREEN GROWTH

- Wind energy contributed €32 billion to the EU economy in 2010. Between 2007 and 2010 the wind energy sector increased its contribution to GDP by 33%.
- The EU wind energy sector was a net exporter of €5.7 billion worth of products and services in 2010.
- The EU accounted for 37.5% of the global wind energy market in 2012.

The power grid needs to be reinforced and better interconnected to improve security of supply – regardless of the source of energy – and in order to improve competition in the electricity market, which would bring down prices.

- For an efficient integration of wind and other renewables, intraday and balancing power markets are needed, with demand-side management.
- Reinforcing key parts of the grid will provide massive savings of €1.2 billion per year.

Europe’s electricity supply

- Grid operators can integrate large amounts of wind power.
- The government aims for 26% of electricity demand met by wind power in Denmark by 2025.
- The government aims for 50% of electricity demand met by wind power in Spain by 2025.

FINANCE

- In 2012, wind energy avoided €9.6 bn of fossil fuel costs. Wind energy will avoid €22-27 bn of fuel costs a year by 2020, increasing to €47-51 bn by 2030.
- Wind power can drive down wholesale electricity prices. This is already happening, according to credit agency Moody’s and financial analysts UBS.
- The EU’s oil and gas import bill in 2012 is estimated at €470 billion – 3.4% of the EU’s GDP. This bill has increased by €200 billion over the past three years.

“Variability and uncertainty are familiar aspects of all power systems.”

**PUBLIC OPINION**

Eurobarometer survey (2013)

70% wind energy

- 70% of EU citizens think renewable energy should be prioritised as an energy option for the next 30 years.

- The growing participation in the annual Global Wind Day (15 June) shows support for and interest in wind energy is increasing.
  
  www.globalwindday.org

- The Global Consumer Wind Study 2012 by Vestas and TNs Gallup shows that 86% of consumers surveyed want more renewable energy.

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

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**CLIMATE CHANGE**

*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. The RSPB supports a significant growth in offshore and onshore wind power generation in the UK.*

Royal Society for the Protection of Birds (RSPB)

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**HEALTH**

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

- There is no evidence "that the audible or sub-audible sounds (including infrasound) emitted by wind turbines have any direct adverse physiological effects", concluded a study, 'Wind Turbine Sound and Health Effects', conducted in 2009 by a panel of medical professionals from the US, Canada, Denmark, and UK.

- The most audible sound of wind turbines is a light swishing - 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 696g 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.

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**OFFSHORE**

- In 2012, Europe was the world’s leader in offshore wind energy with more than 90% of the world’s installed capacity.

- EWEA estimates that approximately a quarter of Europe’s wind energy could be produced offshore in 2020.

- In 2012 the average size of offshore wind turbines installed and grid connected reached up to 4.6 MW, a 11% increase on 2011.

- In 2011 the average size of offshore wind projects was 199 MW. In 2012 it was 271 MW - a 36% increase.

- Offshore wind farms can provide regeneration areas for fish and other sea creatures because of reduced trawling activities and because the foundations act as an artificial reef, encouraging the creation of new habitats.

- "At IKEA, we want to take a leading role in the transition to a low-carbon society by only using 100 percent renewable energy. By only using wind power in Sweden [...] we will not only be self-sufficient in electricity in Sweden, generating enough to supply all IKEA stores in other countries with wind power."