

Wind Power

for jobs and our climate



Some Technical Facts

- A wind turbine can produce enough energy to power up to a 1000 homes, saving several thousand tonnes of CO² emissions annually.
- Australia has the capacity for 10 times the current wind power generation.
- Wind power is the World's fastest growing source of electricity, increasing at around 30% per annum.
- Wind power is a proven, mature technology that has become a mainstream energy source in many parts of the World. It can be deployed immediately on a large scale.
- Wind turbines are 99% reliable compared with 97% reliability for coal plants.

Environmental Impact

- A typical new 50Megawatt wind farm avoids between 65,000–115,000 tonnes of CO² emissions – equivalent to leaving thousands of tonnes of coal in the ground each year.
- Over their 20 year lifetime, wind turbines will produce more than 50 times the energy used in their manufacture.
- The land footprint of wind farms is 1.3 m² per Gigawatt hour, compared with 3.6m² for coal power.

Noise

- It is possible to carry on a normal conversation at the base of a turbine running at maximum power, without raising your voice.
- The noise level at 350m is 35Db(A), the same as a quiet bedroom at night. By comparison, rural night-time noise is rated at 20-50Db(A).

Information sources used include the Global Wind Energy Council, Dr John Kaye, UNSW, Auswind, and ACNielsen 2006 Windpower survey.

For more information see

www.auswea.com.au

Jobs

- Provides 4 x the number of (clean and safe) jobs as coal.
- Between the mid 1980s and 2002, Denmark's wind power industry generated 16,000 new jobs.
- Over the same period the Australian coal industry lost 18,000 jobs.

Safe for Birds

- Birds generally have no difficulty with wind turbines. Extensive surveys over time here and overseas has concluded an average of 2 birds per turbine per year are lost. No endangered species have been.
- Many more are lost colliding with communications and transmission towers and tall building.
- A 2001 US study into bird deaths is instructive:
 - Vehicles – 60-80million
 - Buildings/windows—90-98million
 - Powerlines – up to 174 million
 - Towers – 40-50million
 - Wind turbines 10,000-40,000.

Visual Amenity

- Recent independent polls in Australia show 95% support for wind farms. Overseas surveys show consistently between 70% to 80% support.
- Surveys here and overseas show an overwhelming proportion of people consider wind farms aesthetically positive and a tourist attraction.
- Extensive community consultation is an accepted part of determining farm sites.

A Fair Go!

- The Federal Government has stalled \$13.3 billion development commitment in wind power to protect nuclear and coal options.
- Most opposition to Wind Power projects in Australia can be traced to proponents of the nuclear and coal industries in Australia, the UK and US.

"I would value your thoughts on my proposal to consider a wind power industry on the South Coast."

Ben van der Wijngaart
Greens Candidate for Kiama

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On the Farm

- Extensive experience has shown livestock are not at all affected by wind turbines.
- Loss of arable land is insignificant—farming can carry on as normal.
- Landowners are typically paid \$5000 per turbine installation.

Land Values

Extensive research in Australia, Europe and the US has shown land values have not been affected by wind farms

Myths Busted

- **Myth:** "Wind power cannot provide 'base power' and needs to rely on coal or nuclear power."
- **Truth:** Wind is 47% efficient in producing electricity, compared with 30-40% with coal. In Denmark 20% of power is generated by wind and they are aiming for 40%. Parts of Germany use wind to generate 70% of their power.
- **Myth:** "Wind turbines are fans that dry up the atmosphere and drive away rain"
- **Truth:** Wind turbines capture energy—they are not fans.
- **Myth:** "Wind power is unreliable and cannot be stored"
- **Truth:** No power can be effectively stored (from coal, nuclear or wind), and all technologies have periods of unavailability. Locating wind farms in different places and on a sufficient scale can overcome local wind fluctuations through computerised grid management.



"You can rely on the Greens for Consistency, Courage, Compassion and Foresight."