

Carrajung Crier

April 2008

Bird Kills by Wind Turbines

At a recent meeting of Carrajung residents the problems of bird kills by wind factories was discussed. The group supporting the turbines ridiculed the fact that wind turbines kill birds and micro bats.

Terry Vincent spoke about the regal Wedge Tailed eagles that ride the thermals around Carrajung in the Sisters Road/ Grand



ridge road area, as well as the flocks of black cockatoos, falcons and a host of other species .

Terry Vincent said that whilst enjoying a barbecue with some friends on Sunday two Wedge Tailed Eagles and their fledgling soured past the front of the house. "It was a wonderful display of aerobatics", Terry said.

It is an unfortunate fact that these protected creatures will be killed by the wind turbines.

Andrew Darby from 'The

Age' newspaper recently reported that Australia's largest wind farm in north-west Tasmania has become a "black hole" for already endangered wedge-tailed eagles.

The 62-tower Woolnorth farm has killed up to 18 of the island's endangered sub-species of the wedge-tail in its giant rotor blades.

Despite their acute vision, the eagles are failing to pick out turbine blades, which have tips that can rotate at 300 km/h, according to the chairman of Birds Tasmania, Eric Woehler. "Eagles evolved in a landscape without wind farms," Dr Woehler said. "They just don't see the blades. The researchers there are finding that they are dying not only in the downsweep but in the upsweep of the blades."

Woolnorth's owners say 11 of the birds have died, but Dr Woehler said Birds Tasmania believed up to 18 may have been fatally injured by the rotors, which are at their most dangerous in specific north-east wind conditions. "It's killing eagles that were resident and

drawing more in from the surrounding areas, so it will continue to be a black hole for these birds," Dr Woehler said.

There are an estimated 1500 Tasmanian wedge-tail eagles, which are a larger bird than their mainland cousin. The wind farm is operated by Roaring 40s, a partnership of Hydro Tasmania and China Light and Power. Roaring 40s public relations manager Josh Bradshaw said the company was continuing to work with the State Government and Birds Tasmania to investigate further measures



to "reduce the risk of avian collision".

Commenting on Andrew Darby's article, Terry Vincent said, "this situation is repeated at wind factory locations throughout the world, we need to protect

NO Wind Farms



For Carrajung

Inside this issue:

An Unfortunate Truth - 2
Wind farms do almost nothing to reduce green house gasses

Practical green house gas reduction 2

Fire—one of the dangers of wind factories 2

Human kills by wind factory. Causes of wind factory accidents 3

Construction of the wind factory 3

So you still want a wind factory? 4

What else is wrong with Wind Factories 4

our unique and valuable wildlife not destroy them, people just do not realise the destruction that wind turbines will cause".



The Unfortunate Truth -Wind factories produce an insignificant amount of electricity and do almost nothing to reduce green house

Wind power can never close a power station of any sort; the fallibility of the "wind supply" necessitates full capacity (plus contingency reserve) back up from a power station if there is not to be a power outage or risk thereof. The small amount of power derived from them is more expensive than any other method and even this is subsidised by the government. 'For electricity, evidence from the Department of Trade and Industry shows that UK wind farms deliver less than one quarter of their full capacity - just 24.1% in 2003. So, for every 100 turbines erected you get the electricity equivalent of just 25 of them. To add insult to injury, the power produced is not available on demand, is unreliable and is unpredictable'. The situation is little better with regard to reducing CO2 emissions.

Will wind farms save on CO2 emissions? It would require about 833 square kilometers (300 square miles or 192,000 acres) of wind turbines to equal one conventional 1,000 MW gas fired plant That's the area, of a mile-wide swath of land extending from Sydney to Mount Kosciusko via Cooma, plus another 50 k's. These wind farms would require around 16 million tons of steel reinforced concrete (a major source of CO2) plus

around 2,640,000, tons of steel just for the turbine towers. (Talk about environmental disasters) And at the end of their lifespan, who would pay for the removal of 2,640,000 tons of steel and 16 million tons of concrete plus thousands of kilometers of cable?

By clearing trees and plants for wind farm sites and access roads, sub stations etc. we have just eliminated the major cleanser of carbon dioxide from our atmosphere. So we clear out our life giving plants and trees to build wind farms, which will have disastrous effects on our landscapes, to save on CO2 emissions which the trees do far better, and the trees even throw in oxygen to boot. How stupid is that, especially when a modern gas fired plant could be built on an existing industrial site of around 15 acres with little impact on the surrounding environment.

The chairman of the energy policy committee in the Danish Parliament has described Denmark's reliance on wind as 'a terribly expensive disaster. They caused the cost of electricity to double in Denmark, but failed to reduce the level of CO2 emitted and they ruin the tourism potential of vast areas."

There are over 40 action groups in the



An abandon Wind Factory

UK, National Conferences Against the Construction of Wind farms. 100 German Professors signed a document protesting against wind power - none of these support the view that wind energy fosters a favorable opinion.

Germany has over 17, 500 wind turbines degrading the countryside, yet despite the proliferation of turbines "less than 1% of the electricity needed is produced, or only slightly more than one-thousandth of the total energy produced." Equally, "the contribution made by the use of wind energy to the avoidance of greenhouse gases is somewhere between one and two thousandths. Wind energy is therefore of no significance whatever. "

Wind farms are an expensive and inefficient way of generating sustainable energy. Critics said it would be cheaper and more environmentally efficient to insulate old houses or to renew existing power stations

Practical green house gas reduction—energy saving devices

If you are really committed to reducing green house gasses than the most effective methods are:

- Replace all of you incandescent light bulbs with the new low energy types. These are now

available in all shapes and sizes as a direct replacement for your globes, they are also available for downlights (not halogen types)

- Install a Solar hot water system, saves tons of green house

gasses.

- Turn of all electronic systems that use stand-by power off at the power point.
- Do not leave external flood lights on all night.

Fire - one of the dangers from Wind Turbines

Fire is only one of the hazards that wind factories produce. In our region, a fire caused by the huge amount of oil stored in the turbine to lubricate gears will cause horrific damage.

Imagine if one of the proposed turbines caught fire due to over heating or a lightning strike which then set fire to the pine forest or a eucalypt area. There would be no stopping it until the Strzelecki ranges were burnt out, in a similar fashion to the 2007 fires in the Great Dividing Range. The land owners could require huge insurance policies to cover damage caused by the wind factories on their properties. Our families, houses, possessions and farms are in danger!



Human Kills by Wind Turbines

Over the past years there have been hundreds of accidents caused by wind factories many of them causing fatalities (Data source-2006 Cathess wind farm forum)

These include:

- **Blade failure.** When a blade fails parts of the blade are thrown up to 400meters from the turbine location.
- **Ice Throw.** Ice buildup on the blades that may happen on a frosty, snowy Carrajung day can be thrown from the blade to a distance 400-500 meters. The ice pieces can reach a size be 1.5 meters x 0.5 meters.
- **Environmental conditions** have caused failure of the turbines.
- **Structural Damage.** The tower actually collapse or breaks or the complete turbine can leave the tower. In some cases the turbine has ended up 750 meters from the tower.
- **Lightning Strike.** Causing fire and or destruction of the turbine.
- Other accidents have occurred through: **Electrical failure, component failure and poor maintenance**



*Danger -Wind
Factories Cause
Death!*

The construction of the wind factory will severely disrupt our peaceful community



Constructing the foundations for a turbine

The disturbance to our peaceful and quite community would be dramatic. A concrete manufacturing plant will be built on the site to produce the concrete for the tower footings. Trucks will be used to bring in the aggregate, sand and cement and then take away soil dug for the footing construction, bring in the construction plant and equipment, bring in the turbine components, etc.

There would be workmen on the site for many months during the construction stages using power tools and other equipment.

When once you could have a peaceful, quiet week, you would now have the intrusion of all this noise. No more afternoon naps!

Concrete manufacturing produces huge amounts of green house gases

NO Wind Farms



For Carrajung

Terry Vincent
c/o Post Office
Gormandale
Victoria 3844

Phone: 0427 505 288
E-mail: lebaland@dodo.com.au



A Turbine collapse

So you still want a wind factory on your land?

Apart from causing neighbors inconvenience, destroying land values, etc, etc, you should check the following:

- Does your annual remuneration rely on the wind factory generating a specific value of Megawatt hours over the 12 month period? Contracts are typically established on the assumption that the wind factories farms will be around 35% efficient, when an average is between 17% and 24% is the normal efficiency achieved. Annual remuneration may be reduced on a pro-rata basis.
- The council may rate the property as rural industrial, significantly increasing the annual rates.
- The land may be subject to land tax. A rural property engaged in farming is exempt from land tax. The property is now used for industrial purposes thus may not be exempt from land tax.
- You may be responsible for the removal of the turbines after their useful life has expired.
- You will need to allow access to your property for 24hours, 365 days per year, for service and maintenance.
- You may be responsible to insure against damage to other persons or properties that may be adversely affected by wind turbine accidents.
- You may be subject to legal action from neighbors for financial losses caused by the devaluation of their property values.

What else is wrong with wind factories?

To much to go through here!

Some of the problems (apart from the fact that they do cause death is:

- The noise factor. Mechanical noise is generated from a number of sources, gearbox, tooth mesh frequencies, cooling fan noise, etc.

Aerodynamic noise which includes:

1. Self noise due to the interaction of the turbulent action layer with the blade trailing edge.
2. Noise due to inflow turbulence (turbulence in the wind interacting with the blades)
3. Discrete Frequency noise due to the trailing edge thickness
4. Discrete frequency noise due to the lamination boundary layer instability (unstable flow close to surface of the blade).

5. Noise generated by the rotor tips

In some instances the noise produced by the wind factory can cause hearing loss. Stephen Garito from Toora now needs to wear a hearing aid as a result of the wind farm noise. Other people report tinnitus, a constant ring or noise in the ears since constant exposure to the wind farm. Other effects are insomnia, increases in head aches and migraines, the irritation of some long term afflictions.

- Sun light flicker and glint. When the sun is rising or setting and is behind the turbines **the turbines spinning "chops up" the light causing a flicking light** which is most irritating. Glint occurs when the sun light reflects of the moving blades, This can be overcome by covering the blades with a non reflective surface, this surface must be maintained to stop the occurrence of glitter

flective surface, this surface must be maintained to stop the occurrence of glitter

- The substation required to interface the wind farm to the grid produces audible noise.
- Electromagnetic interference is usually limited but in the case of low television signals, as is the case in Carrajung, it may cause interference
- There could be flashing lights on the top of the 80 meter towers for aircraft safety (Victorian Government).
- Visual pollution, imagine looking out of your window straight at an 80 meter tower where there was once a quite, picturesque, rural outlook. The radio towers on the corner of Sisters Road are 30meter high, the wind factory towers will be 2.5 times higher and solid!