

Opponents of wind power are blowing a lot of hot air

Mark Diesendorf

Wind power is one of the fastest growing energy technologies in the world. But, wind turbines are best sited in prominent places such as on ridges, hill-tops and near the coast, where they can catch the wind. This has triggered opposition by a small minority of people who dislike the appearance of wind turbines in the landscape.

Every person is entitled to their own aesthetic judgement, but unfortunately some opponents of wind power are attempting to bolster their subjective opinions by disseminating exaggerated and in some cases entirely false notions about the environmental impacts and technical performance of wind power. For example, wind turbines are alleged to be noisy, a major killer of birds and a threat to biodiversity in general.

In reality, wind power is one of the most environmentally sound of all energy sources. During operation modern wind turbines emit essentially no chemical pollution and their only physical emission, noise, is inaudible beyond several hundred metres, except under very rare topographical conditions.

Of the thousands of existing wind farm sites around the world, there are very few (notably Altamont Pass in California and Tarifa, Spain) where bird kills have been a significant problem and only two (both in West Virginia, USA) where bat kills are a problem. Australian studies on the impacts of wind farms on birds show that there is an even lower level of impact than was predicted on the basis of northern hemisphere experience. This may be because Australia does not experience the same concentrations of migrating birds found in some parts of Europe and the USA. With modern wind turbines and careful siting, both bird and bat kills are rare.

In comparison, on a single foggy night (23 September 1982), about 3,000 birds were killed when they collided with the chimneys of a fossil-fuelled power station in Florida, USA.

To assess the biodiversity impacts of coal versus wind power, the global impacts, as well as the local, must be taken into account. Global climate change resulting from the human-induced greenhouse effect is predicted to wipe out many species of animals and plants. In Australia the biggest single source of greenhouse gas emissions is coal-fired power stations. By substituting for coal and other fossil-fuel power stations, wind power reduces carbon dioxide emissions and therefore saves global biodiversity.

To reduce *local* biodiversity impacts of wind farms, planning guidelines for the siting of wind developments are being put into place by Federal, State and Local Governments. Proposed wind developments have to receive planning approval under the Commonwealth's Environment Protection and Biodiversity Conservation Act and also under any local regulator. This addresses the protection of wetlands and other specific areas of environmental importance and sensitivity.

The Australian Wind Energy Association (www.auswea.com.au) has developed *Best Practice Guidelines for the Implementation of Wind Energy Projects in Australia*. The industry is

