

Re: Senate Inquiry into the Social and Economic Impact of Rural Wind Farms

I attended the Community Forum held at the University of Ballarat, Tuesday 28 March 2011, as part of the Senate Inquiry into the Social and Economic Impact of Rural Wind Farms.

I believe I can contribute some relevant information for consideration by the Senate Inquiry on matters raised during the Forum:

- The quality of environmental reporting was raised several times during the Forum. There are many ways information can be inaccurate or incomplete, resulting in planning decisions which negatively impact indigenous flora, fauna and ecosystems.

How information is gathered and reported by environmental consultants is a matter of concern, not just for wind farm developments but for all activities which require environmental studies (such as determining the presence/absence of native flora, fauna or vegetation communities which may be negatively impacted by development).

Some points which contribute to inaccurate or incomplete environmental reporting include:

- a) Too much reliance on desktop studies to determine the presence/absence of particular native species, rather than conducting thorough on-ground investigations.

(A desktop study is a review of database records of flora and fauna, such as the Flora Information System or the Atlas of Victorian Wildlife.)

Desktop studies only provide information on species and species locations for which records have been submitted to the relevant database. Database records are incomplete and can be out of date. For example, database records may indicate that a species has not been seen in a particular area because there are no recent records of that species; just because the most recent database record for a species in a certain locality was submitted in 1962 (for example) doesn't mean that species is no longer in the study area, it means it hasn't been officially recorded as present in the study area. Proper field investigations should be mandatory.

- b) Field investigations can be timed to minimise the likelihood of detecting a particular species. For example, a fauna survey looking for an endangered amphibian may deliberately be commissioned to occur outside the species' breeding (calling) season, thereby reducing the possibility of that species being detected during the survey. (Therefore the company or developer does not need to consider that species in their project budget or project works.)
- c) Inadequate field investigations. For example, conducting a bird survey by sitting in a vehicle on a roadside, using a pair of binoculars to observe birds at a given location for 30 minutes

in the middle of the day. Many bird species are more readily detectable during morning or dusk calling, and such a survey will not detect nocturnal species.

Time of day and local weather conditions can impact on which species are likely to be detected during a field survey, as is duration of the survey, survey methods used, and the season/s in which surveys are conducted.

- d) Assuming that habitat is unsuitable for a species rather than conducting proper field investigations. For example, failure to survey constructed habitat (such as irrigation channels) on the incorrect assumption that the habitat is not utilised by native fauna.
- e) Failure to source additional relevant information, such as contacting landholders to identify important habitat areas and gather species information. For example, failure to inspect private property with known broilga nest sites. A site visit allows nest sites to be mapped accurately by 'ground truthing', rather than relying on aerial photography to inform mapping.
- f) Actions may also deliberately omit or misrepresent information in order to secure a more favourable outcome for the developer. For example, omitting to include species records in a relevant database; documenting some habitat sites but not others on report maps.

While consultants may take shortcuts to keep projects to budget, or for other dubious reasons, loss of biodiversity is often one of the real outcomes of inappropriate decisions based on inaccurate information.

Poor research methods and reporting can create distrust, not just of the consultants but also the developers and government, and government processes. It is difficult for the community to have trust in the processes designed to inform that correct decisions are made, and which help to safeguard the environment, when the means by which those processes are followed is flawed.

It is extremely difficult to have correct information incorporated into the decision-making process if the original environmental report commissioned to address biodiversity issues and environmental impacts is lacking. Community sentiments and distrust of 'consultants' can mean that correct information or advice is rejected by individuals who are henceforth distrustful of anything but their own opinions.

No survey, no matter how thorough, can detect all species but minimal standards can be adopted to help overcome inadequate consultant reports.

Adopting a checklist to identify whether relevant procedures have been followed can help to identify and address inadequate reporting.

A checklist might include things such as:

- Review of relevant database records
 - Completion of on-ground studies using suitable methods
 - Consultation with local landholders and organisations
 - Site inspection by relevant authority/authorities
 - Independent review of consultant's report
- Also raised during the Community Forum was the issue of fauna relocation during site works. Having participated in fauna relocation for other projects I can inform the Senate Inquiry about some of the procedures involved.

First, a species of national significance listed under the Environment Protection and Biodiversity Conservation Act, 1999 (EPBC Act) would not be relocated. If an EPBC listed species such as Striped Legless Lizard (*Delma impar*) occurred in a location where development of a wind farm or wind turbine would threaten their habitat, the threatening process (i.e. development of the wind tower/farm) would not be approved.

The same applies for a species of state significance listed under the Flora and Fauna Guarantee Act, 1988 (FFG Act). Any threat to a threatened species, or the habitat of a threatened species, is not permitted.

Fauna located in habitat which is to be removed during project works are relocated to the nearest suitable habitat. It is not a matter of someone relocating an animal and then telling them to "stay there", most species can readily adapt to a new territory so long as there is suitable habitat for their needs. Many fauna species have a home range or territory. For example, some species of reptile may have a home range limited to a distance of several metres.

Species which do not have a home range or territory can be relocated to suitable habitat. While the absence of territory boundaries means there is a possibility that they may travel back to the site from which they were removed, the risk of injury or death to that animal as a result of site works has been avoided through the process of relocation at the time when site works are occurring.

Personnel involved in the relocation of fauna are subject to appropriate permits and approvals, both by state government departments (e.g. Dept. Sustainability and Environment, Vic) and an Animal Ethics Committee (e.g. Dept. Primary Industries, Vic). Permits are issued to persons with relevant fauna knowledge, including training and experience to the satisfaction of the Animal Ethics Committee (AEC). A comprehensive Standard Operating Procedures manual outlining protocols relating to personnel training, occupational health and safety, wildlife capture methods, transportation, release, treatment of injured animals, etc, must be submitted to and approved by the AEC prior to approval to make an application for a permit to handle wildlife.

In relation to other particular matters to be considered by the Senate Inquiry:

- a) *Any adverse health effects for people living in close proximity to wind farms; and*
- b) *Concerns over the excessive noise and vibrations emitted by wind farms, which are in close proximity to people's homes:*

The development of wind energy infrastructure (wind farms) has caused much unrest and angst within communities. People living in areas with wind turbines claim health problems resulting from audible and subaudible noise generated by the turbines, disturbance by lighting, blade flicker and so on.

If turbines do emit noise, vibration, magnetic or electrical fields or anything which can negatively affect the human body, then appropriate measures should be taken, such as determining safe setback distances for locating turbines away from residential dwellings.

It must be determined, by credible research, whether wind turbines emit anything which can affect human health.

- e) *Any other relevant matters:*

There are many hazards in our daily lives and our society. It is appropriate to avoid some risks entirely but many risks are accepted for the perceived benefit to individuals or the wider community. It is sensible for our society to minimise risk. It is not always possible or appropriate to avoid risk altogether.

As a society we must find solutions to our problems. One urgent problem facing our communities and the world is anthropogenic climate change. Climate change is a known risk to our society and wind energy forms part of the necessary solution. We must find ways to develop wind and other renewable energies which manages risks appropriately (e.g. fire hazard), and which minimises impacts (such as to native flora & fauna). We must harness clean, renewable energy in ways which, if not completely acceptable, are at least tolerable for our communities.

Full community consensus on any issue is all but impossible to achieve. In a perfect society we could meet human needs without any inconvenience to anyone or anything. Current legislation attempts to minimise the non-beneficial or negative impacts and side-effects of developing infrastructure for the benefit of the broader community, while recognizing that some values (community, individual, natural or otherwise) will be compromised.

While some concerns raised by objectors are legitimate, there are a portion of objectors who would be anti-wind farm no matter what setback distances are adopted, or what community consultation processes are followed; no amount of research into health impacts, economic impacts, etc can be conducted which they would accept if it contradicted their opinions.

In a time when clean, renewable energy is urgently needed to help stabilize and reduce greenhouse emissions, many people are concerned that development of wind energy will be delayed.

It is critical that our nation halts the increase of greenhouse gases and reduces their output as soon as possible. Wind energy is one part of the solution for transitioning to clean, renewable energy and is necessary to allow our communities to move safely into the future.

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