

## Senate Wind Farm Inquiry

I would like to comment on the following:

### a) **Any adverse health effects for people living in close proximity to wind farms**

Given the abundance of recent local, national and international research into the effects of wind farms, it is timely for the Australian Senate to consider recommending clear and concise guidelines for future development.

***Some specific research includes that of:***

- **Dr. Nina Pierpont** (2006 – 2010) has found that many people do suffer from sleep disturbance, fatigue, headaches, tinnitus, dizziness, nausea, tachycardia, internal pulsations, changes in mood and, particularly important to young children, an inability to concentrate when they are in close proximity to wind turbines.
- **Dr. Christopher Hanning** (Honorary Consultant in Sleep Disorders Medicine to University Hospitals of Leicester UK) (June 2009) “The only mitigation for wind turbine noise is to place sufficient distance between turbines and places of human habitation” (p.20) and that “Calculations can not measure annoyance and sleep disturbance, only humans can do so. It makes more sense to rely on recommendations from observations of the effects on real people at established wind farms.” (p21)
- **George Kamperman** (2008), a distinguished US noise engineer said, after looking into wind turbine noise impact problems in different countries, “it became clear the health impact on persons living within about 2 miles (3.2 kms) from wind farms all had similar complaints and health problems. I have never seen this type of phenomenon in over 50 years of consulting on industrial noise problems. The magnitude of the impact is far above anything I have seen before at such relatively low sound levels. (Hanning, p.16)

### b) **Concerns over the excessive noise and vibrations emitted by wind farms, which are in close proximity to people’s homes.**

I have stood in close proximity to several local wind turbines (Clements Gap and Hallett in South Australia) and noted the effects of the loud whooshing as the blades passed the turbine towers. I would find it intolerable to live close by and believe the overwhelming evidence of international and interstate research which shows negative effects on people living near turbines. It is not a noise that goes away. It is always there as the wind blows.

I have read research papers which prove there are extremely negative effects of the infrasound which is not necessarily audible to the human ear and which is not measured by the wind turbine proponents. Some research shows that our body parts resonate at a certain frequency and that infrasound can cause a change in this resonance resulting in impaired health, (often people suffer from constant motion sickness).

***It is essential that proper independent studies are done immediately***, to help determine safe setback distances of wind turbines from houses, schools and work places. There needs to be a temporary halt to further turbine approvals until accurate information is obtained from these independent studies.

### c) **The impact of rural wind farms on property values, employment opportunities and farm income.**

- I am concerned about devaluation of property value. If the wind farm gets built in the Collaby Hill area in South Australia, the actual turbines will be as close as 500 metres to some residences in Beetaloo Valley. It has been noted interstate and overseas research shows property values (near turbines) as dropping and in many cases people are unable to sell their property. This could result in the tying up of your only asset. This is a huge disadvantage. Some people are having to walk away with nothing because they are not willing to suffer the health issues any longer and are

unable to sell their property. How is that fair? We chose to live in this environment; building our own home over 11 years out of local stone from the paddocks; designing it with passive heating and cooling; installing solar panels so that we are feeding electricity back into the grid; and using rain water where possible. I feel that the building of a wind farm in the area will detract from our visual landscape and destroy the peace and quiet that we sought when purchasing here. No amount of money offered by wind farm developers could replace what we have.

- I am concerned that farmers with turbines on their land will become reliant on the wind farm income and decrease their actual farming practices. This could lead to less land being used for producing food for our country's population. South Australia's "food bowl" is being eaten up by land division and housing, thereby reducing food production or pushing it into unsuitable areas (i.e. soil type and rainfall). Also these farmers will have the finances to move to another area if it becomes unsuitable for them to stay due to ill health. Their neighbours do not have that option.
- d) **Interface between Commonwealth, State and Local planning laws as they pertain to wind farms**
- A recent update of the Development Plan for our Local Council brought it in line with State Government upgrades to the Development Act. I noted that subtle changes in wording would profoundly change to favour the wind farm industry. (e.g. the older plan suggested that wind farms are not to create noise – the new wording says they are not to create "excessive noise".)
  - My husband and I submitted information and addressed a local council meeting when it was looking for community consultation re up-grading of its Development Plan. One suggestion was that they include adjustments to the Renewable Energy section in regards to setbacks between wind turbines and homes. We were informed that this information would be noted and passed on to the relevant State Government body – but were advised that it would probably be necessary to change the State Development Act before this change could occur locally.
  - Community meetings have been called in several local towns where the positives and negatives of wind farms have been openly discussed. I was appalled to find that local government councillors had been warned by the Local Government Association not to attend such meetings as they need to be seen to be unbiased. Not all councillors are on the Development Assessment Panel. How can they make informed decisions if they cannot hear both sides of the discussion?
  - If there is a State / Nation-wide push for wind farms to provide renewable energy, then wind farm applications to local government authorities can be over ridden by the State by declaring it a "Major Project Status". This then ensures that the application is processed through the State Development Assessment Board instead of the local government Development Assessment Panel – thereby increasing time and travel for opponents to attend hearings in Adelaide.
  - When past hearings have been held locally and questions have been submitted through council to the wind farm developers by opponents, the developers are given a long time to submit answers with no time given for the opponents to reply.
  - It has been noted across Australia that often wind farm developers will put their applications into Council at a very busy time of the year, (e.g. over the Christmas / New Year break when many rural people are harvesting or away on holidays. Wind farm developers get many months to prepare their applications – opponents get 10 days to submit their comments, from the date the advertisement appears in the local paper.
  - The Moorabool Shire Council have responded to it's constituents by formulating a Wind Energy Facility Policy which takes into account health effects of wind farms and includes set back limits. It is only for smaller sized wind farms as all larger ones are processed through State departments.
  - The Federal Policy of 20% of all energy production to be from renewable energy sources might appear to be a wonderful forward thinking proposal but the short time frame does not favour research and development into other more efficient forms of renewable energy sources (which

may have less serious health effects on the population). This short time frame has been commented on by Origin Energy's General Manager in being a limiting factor. Wind farm development was the most readily available and the fastest way to meet these deadlines.

e) **Any other relevant matters**

**FIRE:** It is interesting to note that the Country Fire Service guidelines in South Australia recommend that no CFS volunteer to go within one kilometre of a turbine on fire or a fire near a turbine. Yet some turbines are located within 500 metres of homes. Aerial water bombing is not advised within close proximity to turbines / power lines. There have been three turbine related fires in South Australia alone. In high fire danger areas, with lots of remnant native vegetation (e.g. Southern Flinders Ranges), this risk would be too great.

**SPECIES HABITAT:** Wind turbines are obviously placed in areas where there is high wind and these areas are also habitat for eagles, kestrels, other bird species and bats. Often it is stated by wind farm companies that there is no evidence of bird and bat strike, but recently it has been found that other predators will move the dead bodies – thereby removing the evidence.

**DAMAGE TO THE ENVIRONMENT:** Huge amounts of land are used for road infrastructure associated with wind farm developments. These need to be kept clear for as long as the contract (e.g. 25 years) due to continuous maintenance on the turbines.

Overseas owners of wind farms often have no local contacts in case of emergencies. Who will dismantle these turbine towers at the end of their lives?

There is a huge need to increase areas designated as Rural Landscape Protection Zones, to protect biodiversity for future generations.

The **CARBON FOOTPRINT** of building the turbines in the first place and the amount of concrete and materials needed to erect them, does not make them cost efficient renewable energy sources.

## **Conclusion**

If wind farm developers continue to be encouraged unabated by current Federal and State policies through application processes and huge subsidies, I have grave concerns for the future ability of individual people's opinions and concerns to be heard.

It is interesting to note that :

- the House of Lords on 27<sup>th</sup> July, 2010 put down a bill to make provision for a minimum distance between wind turbines and residential premises according to the size of the wind turbine and for connected purposes;
- Denmark (which has had a long history of wind farms) has now put all new wind farms offshore and away from homes.

I congratulate the Senate following through on this inquiry and I look forward to your recommendations being made to the general public.

Thank you for the opportunity to submit my opinion.

Fran Birrell

### **References:**

*Hanning, Dr. Christopher. June 2009. Sleep disturbance and wind turbine noise*

*Moorabool Shire Council. 21<sup>st</sup> July, 2010 Moorabool Wind Energy Facility Policy. [www.moorabool.vic.gov.au](http://www.moorabool.vic.gov.au)*

*Pierpont, Dr. Nina. 2009 Wind Turbine Syndrome, A Report on a Natural Experiment. K Selected Books Santa Fe.*