

REPORT TO COUNCIL 19/5/04

Firstly I would like to thank Council for the opportunity to talk on wind farms and effects on health.

I have felt as Medical Officer of Health for the South Gippsland Region I should look into this issue. I must emphasize that I am still not fully conversant with all the evidence related to health issues.

I base my comments today firstly on information from two overseas studies (one in Sweden, a report to the Swedish Environmental Protection Agency 2003 and the second a small study by a doctor in the U.K. in 2003). As well I will mention some of my own observations based on my medical practice in the South Gippsland Region.

It appears that ill health effects are related to noise, shadow flicker, as well as the feeling of disempowerment associated with the loss of control over own's immediate surrounds.

I shall look at each of these in turn.

Firstly NOISE – the noise associated with wind turbines is a very complex subject. It is certainly not as widely studied as other noise from road traffic etc. It is thus difficult for general conclusions to be drawn. However it does appear that wind turbines can cause an annoying noise, this is mostly related to air flow around the blades. This has been described as a whooshing, swishing or even pulsating noise. There tends to be a background noise with an overriding pulsating beat at roughly one beat per second corresponding with the movement of the blades. As well there appears to be a low frequency noise which is often not heard but felt as a vibration in areas such as the chest. Even at low sound levels, this may disturb sleep. The study from Sweden concluded that although there was not conclusive evidence regarding wind turbine noise and physical health problems, there was certainly a degree of annoyance related to the noise. Of course, this is highly variable between individuals depending upon their own susceptibility and perception of wind turbines. For those affected, this can be a major health issue, as this type of annoyance can lead to stress, anxiety, insomnia and depression. All this is exacerbated if one already feels aggrieved by the process of development of the wind farms.

The study from the U.K. (although small numbers were involved) reported the majority of people to have suffered adverse effects such as headaches, dizziness, nausea, and tinnitus. The people involved also felt shadow flicker was a contributing factor. Shadow flicker results from the sun's shadow over the ground and can certainly occur at considerable distances. This not only affects people whilst outside, but also whilst inside the house. Shadow flicker (from other sources) has been known for a long time to be a trigger for epilepsy in susceptible people.

With regard to the Toora wind farm I have spoken to a number of people regarding these issues. I have to conclude that there is certainly a noise annoyance factor with people suffering from insomnia and stress. I have also talked and consulted with people facing the Dollar wind farm development. These people feel extremely anxious and concerned about the future. One couple faces significant financial loss. They feel completely powerless, they feel they have given no direct information by the Wind Farm Company. They are unable to consult, discuss or at least have their case heard at a level that may result in any action. This feeling of powerlessness is in itself a strong cause of stress and anxiety. This is a very real health issue and as mentioned before will compound any future noise annoyance from the wind turbines.

Unfortunately the wind turbine companies have been secretive in their dealings with landholders which has only resulted in lack of direct information and divided public opinion, which in turn compounds friction and stress between adjoining landholders and towns people alike.

In conclusion, I would urge Council to be aware that:

1. Wind turbines do lead to noise annoyance – whilst this is difficult to measure and quantify direct physical health problems, noise annoyance can certainly affect individuals causing insomnia, stress and anxiety.
2. The feeling of powerlessness, financial loss and division within the community is a major cause of stress and anxiety for those involved.

Although presently only small numbers of people may be directly affected, I believe it is an issue for public concern as it can really only be addressed and resolved at this level. This needs to be done now to avoid escalation of the problem if proposed projects are developed.

Thank You.

Dr Iser conducts survey on wind power station effects

Promontory district medical practitioner and South Gippsland Shire Medical Officer of Health Dr David Iser has conducted his own confidential survey on the health effects of living near a wind power station.

Dr Iser said he was prompted to undertake such a study because "it has been brought to my attention that there may be adverse health effects caused to people living in close proximity to wind power stations.

"A literature review of studies overseas has shown that while there are no proven significant adverse health effects of a physical nature, there certainly has been documented cases of annoyance resulting in reduced wellbeing," he said.

"To my knowledge there has been no other studies done on this subject in Australia, and with this in mind I prepared and distributed 25 questionnaires."

Dr Iser's survey was sent to households located within about two kilometres of Stanwell Corporation Limited's 12-turbine wind power station on Silcocks Hill at Toora.

The survey asked the people who received the survey to provide their name and address if they wished, as well as to give an indication of their age group.

They were also asked to state the distance between their property and the nearest wind turbine, how long they had been living at the property, and whether they felt their health had been "adversely affected since the erection of the turbines".

Those respondents who thought their health had been adversely affected were asked to state whether they had experienced an increase of a number of symptoms since the turbines were built.

The list of symptoms Dr Iser sought information about included headaches, palpitations, excessive tiredness, stress, anxiety, tinnitus or ring-

ing in the ears, hearing problems, sleep disturbances, migraines, depression or any other related condition.

Respondents were asked to state whether they had approached their doctor in regard to any of these symptoms and to briefly describe any tests they may have undergone and/or treatment they may have received.

The final question in the survey asked respondents if they believed that "your quality of life has in any way altered since living near the wind turbines" and if so, how.

SURVEY RESULTS

Dr Iser said 20 or 80 per cent of the 25 surveys were returned to him during the six weeks after they were circulated.

The results of the survey were collated and analysed, with Dr Iser dividing the information into three categories; no health problems, minor health problems and major health problems.

Dr Iser said 12 of the 20 respondents reported no health problems whatsoever.

A further five people reported mild health problems, including disturbed sleep, especially on quiet nights, anxiety, stress and concerns about property values.

Three people reported major health problems, including sleep disturbances, stress and dizziness, which required investigation, treatment and medication.

"Overall, 12 of the 20 respondents showed no health problems, while eight out of 20 showed mild to major problems mostly related to sleep disturbance and stress," Dr Iser said.

"I would be interested in hearing from other people who may not have received my survey who think their health has been either unaffected or adversely affected because of living near a wind power station."

RESULTS – LOCAL WIND FARM SURVEY

As a local General Practitioner and Medical Officer of Health for the district of South Gippsland, it has been brought to my attention that there maybe adverse health affects caused by people living in close proximity to wind farms. A literature review of studies overseas has shown that whilst there are no significant adverse health affects of a physical nature, there has certainly been documented cases of annoyance resulting in reduced well being. To my knowledge there has been no other studies done of this subject in Australia. It was with this in mind that I distributed 25 questionnaires asking about health problems to residents living within one and half to two kilometres of the Toora Wind Farm. Six weeks later I had received 19 replies and analysed the results. Of the results I divided the problems between no health problems, mild problems and major problems.

1. No Health Problems – Eleven people reported no health problems whatsoever.
2. Mild Problems – Five people reported mild problems. These included sleep disturbance especially on a quiet night, anxiety, stress and concerns about property values.
3. Major Problems – Three people reported major health problems including sleep disturbance, stress and dizziness. These required investigation and medications.

Thus overall, eleven of the nineteen respondents showed no health problems, and eight out of nineteen showed mild to major problems mostly related to sleep disturbance and stress.