

9th of February 2011

Department of the Senate
PO Box 6100Parliament HouseCanberra ACT 2600Australia

Dear Sir/Madam,

RE: Senate Inquiry: Social and economic impact of rural wind farms in Australia

I write to you to express my support for rural wind farms in Australia and to provide some information on what I have learned in my time in the wind energy sector.

I studied at the University of South Australia and earned a degree in mechanical and manufacturing engineering and completed the course with honours in 2009. During the beginning of that year I was searching for work as an engineer and unfortunately was during the time of the global financial crisis. I was turned down by numerous companies, including the mining, automotive and manufacturing sectors, as their graduate programs were currently cancelled due the instability in the economy. I had no intention of entering the renewable energy sector but as it turns out my only job offer came through the industry in question. As the industry is still very young relative to other sectors, I realised this is truly where engineers are able to make their mark on a slowly ailing planet.

Health concerns and noise effects:

After being in the job for two years now I have had many dealings with potential wind farm property land owners as well as established wind farm land owners. After discussions with farmers whom live on wind farms, the consensus is that no adverse health effects have been experienced by either themselves or their families. Conducted studies have shown that no adverse health effects have been caused due to wind turbines, although it has been established that the nocebo effect can cause both negative physical and mental health problems on the human body based on fear or belief that turbines cause adverse health effects, which is generally promoted through negative media coverage and small minority anti wind farm groups spreading fear as is common with any new technologies. Infra sound tends to be the argument of choice stating that the low frequency noise/vibrations cause the negative effects, however everything that generally emits a sound will emit this infra sound and many studies have been performed showing it does not cause health effects.

The Victorian state government has now introduced a 2km buffer for turbines from houses which I am strongly against. As an engineer I believe all decisions should be based on scientific fact, however when referring to the 2km buffer it will be found that there is no evidence to back up any claims that a 2km buffer will have an effect on anything apart from reducing power production. Before building any wind farm, thorough noise investigations are performed both through the company developing and an external noise consultant. However turbines can on occasion be heard from over 2km away under specific circumstances which will result in noise annoyance. Every wind farm is unique and studies need to be conducted on every individual wind farm to ensure neighbours and land holders are not subject to excessive noise, however with a 2km buffer introduced this may not be the case and has a high chance of causing a larger amount of noise which would normally be not acceptable through our own stringent rules we apply ourselves.

This should be on the national agenda to provide specific rules that the entire country must abide by that is based on scientific fact and not just an arbitrary number as is the 2km buffer.

Economic Benefits:

Landowners that I have had dealings with have needed the additional cash flow which has been produced from the turbines in order to protect their income so they can keep producing food for the country and world. Such events including the Queensland floods and cyclones are perfect examples of where many farmers may lose their livelihoods as they cannot afford to start from scratch. Farmers which receive a source of income through wind farms are more stable and are more likely to be able to recover from natural disasters such as drought, floods and cyclones. AGL energy recently commissioned a study through SKM titled "The economic impact assessment of the Hallett Wind Farms", the study found that expenditure in the region during construction and development was approximately \$111 million. 90 jobs were created through direct employment, in full time equivalent positions, and an additional 3 jobs were spawned indirectly for every direct job created.

Communities receive benefits from companies through sponsorship and grants, not to mention accommodation and subsistence support throughout the life of the project.

Property Values:

Determining and isolating causes to market fluctuations in real estate is difficult to do in general and is a subject I am not fully familiar with and unable to discuss in extreme detail. However in many of the towns where wind farms have been established where I have been involved from the early developing stages I have failed to see any significant decline or increase in property values. It would be interesting to perform a comparison in fluctuations between houses near wind farms both before and after construction, and houses near coal fired power stations both before and after.

Others:

After discussions with many different farmers from different communities all around Australia, I have noticed that majority of people in the communities are not bothered by the wind farms, but the small minority that oppose the new concept of power production have a loud voice and make claims which are not based on true scientific fact. After meeting many people interested in the debate the most common questions I am asked are: Are turbines efficient? Do they break even in the amount of green house gases emitted in order to produce a turbine?

In answer to these questions turbines are efficient and are more efficient than coal fired power stations when compared with the mining costs involved in digging out the coal. A significant portion of power production through coal is heat and this escapes the system thus making coal fired stations from 30-40% efficient. Where as wind turbines are closer to the 50-60% mark and are not using a finite resource that needs to be mined. In stating this I am in no way against coal but believe Australia needs a true variety of power sources including coal, wind, solar and potentially geothermal.

We cannot let the fiction get in the way of scientific fact and have it stall human advancement into the future. Regardless whether climate change is happening or not, we should still embrace new technologies and promote them as a sign of achievements that humans have made in the race to develop clean and effective technology to meet Australia's power needs. This type of scrutiny is common with any new emerging

technology but it is important that the government bases its decisions on scientific fact and not the small minority against development of wind power.

Majority of communities are in support of wind farms, the small few that are not are generally due to the jealousy factor which my work and I myself have seen in general on wind farm sites. This is where one land holder has turbines and the one next door does not and is against the wind farm as he will have no economic benefit, this is human nature and occurs in everyday life. I once again must plead that we must consider the scientific fact and not fiction created by a small minority.

Kind Regards,
Peter Veljkovic
Wind Engineer
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