

## House Standing Committee on Industry and Resources

### *Inquiry into the development of the non-fossil fuel energy industry in Australia: Case study into selected renewable energy sectors*

My wife and I currently reside in Sydney but own two rural properties in the Southern Tablelands. In 2004 we were informed that a Development Application (DA) for a wind farm had been lodged with Upper Lachlan Shire Council. This development became State Significant and the Minister's decision was challenged in the Land and Environment Court of NSW. Although significant concessions and changes in Planning Department policy were realised, the appeal was upheld but would proceed under a number of amendments.

During the period 2004 to today, we have waded and sifted through thousand of pages of information. As a consumer of electricity I can find no logical reason for wind energy to play anything except a very, very minor part in this or any country except where there is no other alternative. As an investor with a reasonable investment in the Australian bourse, I find that investment in wind energy is good business, particularly in Europe and the USA where the massive subsidies and REC's are a very good source of profits despite the lack of generating capacity.<sup>1</sup>

What follows is some of what I have uncovered in my research and experience. If you were to read only one document of all those referred to in this submission, I would urge you to read a news story 'Hard Wind'<sup>2</sup> by Stephen Moss of the Guardian New and Media regarding Norfolk, UK and what is happening there. The news story is attached to the end of this submission.

Wind energy is the most variable and intermittent of any renewable resource. Our homes, our industries, our businesses, in fact, our lives cannot continue if we were to become 'dependant' on wind energy. It would send our lives, industry, and economy backwards. The development of desalination plants in Australia has a common theme – they will all be run solely by 'renewable wind power'.<sup>3</sup>

Some researchers have stated that '*there are fundamental limitations to offsetting emissions from desalination or, more generally, any of our uses of energy.*'<sup>4</sup> The consumer will be left with higher water and electricity bills.<sup>5</sup>

<sup>1</sup> [http://www.ninapierpont.com/pdf/Global\\_warming.pdf](http://www.ninapierpont.com/pdf/Global_warming.pdf)

<sup>2</sup> <http://environment.guardian.co.uk/print/0,,329905827-121567,00.html>

<sup>3</sup>

<http://www.mediastatements.wa.gov.au/media/media.nsf/3c64c0ab7409c18f48256dbe0025d27c/87b75568cfceaa884825704a000ad655?OpenDocument>

<http://www.theage.com.au/news/national/wind-likely-to-be-best-option-for-power-needs/2007/06/20/1182019201476.html>

<sup>4</sup> [http://www.ceem.unsw.edu.au/content/userDocs/OzWaterpaperIMRP\\_000.pdf](http://www.ceem.unsw.edu.au/content/userDocs/OzWaterpaperIMRP_000.pdf)

<sup>5</sup> [http://www.news.com.au/story/0,23599,21936700-421,00.html?from=public\\_rss](http://www.news.com.au/story/0,23599,21936700-421,00.html?from=public_rss)

<http://www.theage.com.au/news/national/we-were-ambushed-landowners/2007/06/20/1182019201470.html>

[http://www.theage.com.au/news/national/bracks-49bn-water-plan/2007/06/19/1182019116320.html?s\\_cid=rss\\_age](http://www.theage.com.au/news/national/bracks-49bn-water-plan/2007/06/19/1182019116320.html?s_cid=rss_age)

The erection of thousands of wind turbines has yet to close any coal, gas, or nuclear plant in the US or Europe and I seriously doubt that they ever will. The wind industry continues to misleadingly point to closures of such plants and somehow attempts to create a link to their industry with the number of wind turbines 'producing' electricity and the closure. The reality is that all the plants have closed because they have passed their use by date.<sup>6</sup>

The wind industry has always quoted 'rated capacity' not 'actual generation'. The Crookwell 1 wind farm rarely turns and from observations made cannot be generating more than 15% of rated capacity. We can't determine the actual generation because our FOI requests have been denied as commercial and confidential. From an article in The Age, the Toora windfarm has also failed to meet its target and is now about 10% of capacity; the Wonthaggi windfarm for 57% of the time produced less than 10% of capacity. However there is even more damning information; for 16% of the time the windfarm drew more power from the grid than it produced. Germany's 16,000 turbines 'reliably' only output 8% of capacity so now they're building more conventional power plants. The use of wind power to reduce carbon emissions is highly questionable.<sup>7</sup>

Nowhere does the wind industry admit or as far as I can determine admit to or pay for electricity used from the grid to maintain their systems when not generating.<sup>8</sup>

*'Crucially important, wind technology, because of the inherently random variations of the wind, will not reduce meaningful levels of greenhouse gases such as carbon dioxide produced from fossil-fueled generation, which is its raison d'etre.'*<sup>9</sup>

There is an urgent need for openness and transparency in this area of energy generation. If wind cannot meet our needs why hide behind 'commercial in confidence'. It's no great secret. We know wind power cannot meet anyone's needs and, at best, can only provide a trickle of our electricity needs. Even the Stern Review appears to indicate that after 2020, wind powers' contribution will remain static or decline. This is logical because as populations and economies grow, the demand for energy increases proportionately. It is illogical to keep constructing plant which cannot supply base, intermediate or peak load. Wind turbines make expensive political symbols and eventually the false promises will catch up with us but more likely our children.

Enough has already been said and written about wind energy generation both here and internationally. Those of us opposed to the desecration of our landscape have already won the argument but we appear to have lost the war. The reason we have lost the war is because there's too much money involved. The latest is that the green house emissions, carbon trading, and the renewable energy industry tripled in size from 10 billion to over 30 billion in the last 12 months.<sup>10</sup>

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<sup>6</sup> <http://www.tsaugust.org/images/False%20Promise%20of%20Renewable%20Energy%20Rev%2004-08-21.pdf>  
<http://www.energytribune.com/articles.cfm?aid=509>

<sup>7</sup> [http://www.ninapierpont.com/pdf/NYSERDA\\_report.pdf](http://www.ninapierpont.com/pdf/NYSERDA_report.pdf)  
<http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2006/12/09/nwind09.xml>  
<http://environment.guardian.co.uk/climatechange/story/0,,2093815,00.html>  
[http://www.ninapierpont.com/pdf/Wolverton\\_&\\_Bliven\\_12-06.pdf](http://www.ninapierpont.com/pdf/Wolverton_&_Bliven_12-06.pdf)  
<http://www.aweo.org/Etherington.html>

<sup>8</sup> [http://www.ninapierpont.com/pdf/Energy\\_consumption.pdf](http://www.ninapierpont.com/pdf/Energy_consumption.pdf)

<sup>9</sup> [http://www.ninapierpont.com/pdf/Boone\\_12-22-06.pdf](http://www.ninapierpont.com/pdf/Boone_12-22-06.pdf)

<sup>10</sup> [http://www.ninapierpont.com/pdf/Watertown\\_Times\\_1-7-07.pdf](http://www.ninapierpont.com/pdf/Watertown_Times_1-7-07.pdf)  
<http://www.aweo.org/LowBenefit.pdf>

The primary purpose of wind turbines appears to be their symbolism. Political aspirants don't care about the viability of wind turbines; just their vote pulling power. The average urban electricity consumer only cares about whether the light comes on when they flick the switch. Our political leadership know or should know the reality of wind generation. I see more potential in geothermal and wave technology and at some time in the future nuclear fusion (not fission). We wholeheartedly support these programs because they have real potential.

We should rationalise the costs of wind generation and support those renewables which can meet or could meet our needs for a greater percentage of the time. We can derive more benefit from state of the art gas generation plants which operate 24/7 than from thousands of towering turbines littering the landscape but which operate on average about 20-25% or less and even then not during peak demand periods.<sup>11</sup>

The wind industry concentrates its efforts in the rural areas of any country. They stay away from the urban landscape because of the higher population, education standard and the financial resources which would oppose their projects. They target what has been called the NGA areas – the naïve, gullible and apathetic. The wind industry has been deceiving everybody but in particular rural residents. They embellish their sales spiel with all the positives but none of the negative effects of their developments. They speak of drought proofing income for farmers but ignore their neighbours and the depreciating value of their land, of how you can stand under a turbine and have a normal conversation but ignore the fact that 500 metres away you can be driven to distraction, they ignore raptors, bats and other birds killed by quoting some unsubstantiated comment that cars and buildings kill more birds than their turbines. You cannot drought proof 10 farms and ignore the hardship of the hundreds that surround a windfarm. You cannot drought proof 10 farms and ignore the depreciating value of those within the view shed. You cannot continue to find new ways of killing our fauna and then have the courts legalise it by imposing a paltry monetary penalty for each eagle kill. Farmers can be fined, even imprisoned for killing raptors. Yet the land and environment courts in several jurisdictions have done so. These developments are a licence to kill species which our environment cannot afford to lose.<sup>12</sup>

Professor G P van den Berg has studied the noise emissions from wind turbines in the Netherlands. I don't know what it is about Australians and our legal system, but no matter how much evidence is collected internationally; we have to go through the mill and prove everything from scratch. Professor van den Berg appeared via video link in the Land and Environment Court hearings regarding the Taralga windfarm development. In short, there was no evidence to suggest that the 'van den Berg effect' would occur at Taralga and the Court did not order any study. He is the foremost expert in noise generated by wind farms and his evidence was countered by a local noise expert with little if any direct experience or research in wind turbine noise.<sup>13</sup>

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<sup>11</sup> [http://www.ninapierpont.com/pdf/Economics\\_of\\_NYS\\_wind\\_energy.pdf](http://www.ninapierpont.com/pdf/Economics_of_NYS_wind_energy.pdf)  
[http://www.ninapierpont.com/pdf/Richard\\_Douglass\\_Wind\\_profits\\_in\\_NYS.pdf](http://www.ninapierpont.com/pdf/Richard_Douglass_Wind_profits_in_NYS.pdf)

<sup>12</sup> [http://www.13wham.com/news/state/story.aspx?content\\_id=e9997fc5-137d-470a-bdb8-d4144c886c2c](http://www.13wham.com/news/state/story.aspx?content_id=e9997fc5-137d-470a-bdb8-d4144c886c2c)  
<http://www.tamarpulpmill.info/wedgetail.htm>  
[http://www.news.com.au/mercury/story/0,22884,21021483-3462,00.html%3Ffrom=public\\_rss](http://www.news.com.au/mercury/story/0,22884,21021483-3462,00.html%3Ffrom=public_rss)  
Questioning the Faith of Wind Power [www.aweo.org/Roberson.html](http://www.aweo.org/Roberson.html)

<sup>13</sup> [www.ninapierpont.com/pdf/van\\_den\\_Berg\\_Do\\_wind\\_turbines\\_produce\\_significant\\_low\\_frequency\\_sound.pdf](http://www.ninapierpont.com/pdf/van_den_Berg_Do_wind_turbines_produce_significant_low_frequency_sound.pdf)  
<http://www.nowap.co.uk/docs/windnoise.pdf>  
[http://www.viewsofscotland.org/library/docs/Wind\\_turbines\\_at\\_night\\_Van\\_Den\\_Berg\\_Mar03.pdf](http://www.viewsofscotland.org/library/docs/Wind_turbines_at_night_Van_Den_Berg_Mar03.pdf)  
[www.ninapierpont.com/pdf/Miskelly\\_Why\\_the\\_Taralga\\_windfarm\\_environmental\\_impact\\_statement.pdf](http://www.ninapierpont.com/pdf/Miskelly_Why_the_Taralga_windfarm_environmental_impact_statement.pdf)

The developers extol the virtues of their turbines and the tourism potential for the development area but cannot point to a single successful tourism site. The kiosk at Toora, Victoria, is the most recent failure. They build peoples hopes for jobs and tourism income for themselves and their children and it all comes to naught. Hills covered in turbines '**does not**' create tourism in any region. It does the opposite. They have recently dropped the whole tourism issue.

Developers promise jobs to local people and industries that never eventuate. The developer, the company constructing the project and the final operator are not bound by any such agreement. The best that locals can hope for is grass mowing and toilet cleaning.

The wind industry paints a wonderful picture of majestic slow moving turbines on rolling hills, with or without sunset or a time lapse purple evening sky; computer enhanced of course, to create a work of art. The reality of living with 110 to 150 metre high towers and turbines is totally different. The evidence of the medical problems that proximity to turbines causes is accumulating but the industry, the politicians, and the courts are ignoring the evidence and the plight of the neighbours.<sup>14</sup>

Another disturbing aspect of wind farm development is the industry's denial of the potential for turbines to overheat and catch fire. There have been three fires in turbines in Australia so far. My research indicates that fire, superheating, explosion and short circuit accounted for 78% of all faults in wind turbines of which the highest proportion were located in Denmark. As the industry moves into the grassland areas of Australia such as the Southern Tablelands of NSW, the potential for catastrophic bush fires becomes very real. The industry denies that there is a need for automatic fire extinguisher systems in turbines due to the cost of these preventative systems. My advice is that should a fire originate in a turbine result in enormous losses of property and stock; there would be little opportunity to recover damages as most of these companies are low cap holding companies. It appears that the landholder, as landlord, would be left holding the bag so to speak. There are indications that hosting landholders are not adequately insured as the cost would be prohibitive.

Dr Nina Pierpont has studied the effects of wind turbines on her patients and has written a number of papers on the subject and has identified many common themes experienced by wind turbine neighbours. She has also determined setback distances for residences. Setbacks which are resisted by wind farm developers. My fear is that until a case is brought to bear against a development, the wind industry will be in denial of any health effects.<sup>15</sup>

The neighbours, with their peace and sleep destroyed, can't even realise the sale potential of their properties. The overseas experience is denied by developers in Australia. Somehow Australians view wind turbines differently to buyers overseas?<sup>16</sup>

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<sup>14</sup> [http://www.bdtonline.com/letters/local\\_story\\_162171303.html](http://www.bdtonline.com/letters/local_story_162171303.html)  
<http://www.wind-watch.org/news/2007/05/29/family-abandon-their-home-near-wind-turbines/>  
Our Wind Farm Story – Pam Foringer [http://xray.rutgers.edu/~matilsky/windmills/Windfarm\\_story.htm](http://xray.rutgers.edu/~matilsky/windmills/Windfarm_story.htm)

<sup>15</sup> [www.ninapierpont.com/pdf/Health\\_effects\\_of\\_wind\\_turbine\\_noise\\_3-2-06.pdf](http://www.ninapierpont.com/pdf/Health_effects_of_wind_turbine_noise_3-2-06.pdf)  
[www.ninapierpont.com/pdf/Wind\\_turbine\\_syndrome,\\_NYS\\_Energy\\_Committee\\_3-7-06.pdf](http://www.ninapierpont.com/pdf/Wind_turbine_syndrome,_NYS_Energy_Committee_3-7-06.pdf)  
[www.ninapierpont.com/pdf/Health,\\_hazard,\\_and\\_quality\\_of\\_life\\_3-2-05.pdf](http://www.ninapierpont.com/pdf/Health,_hazard,_and_quality_of_life_3-2-05.pdf)  
[www.ninapierpont.com/pdf/Carol\\_Thompson\\_12-1-06.pdf](http://www.ninapierpont.com/pdf/Carol_Thompson_12-1-06.pdf)  
[www.telegraph.co.uk/news/main.jhtml?xml=/news/2004/01/25/nwind25.xml](http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2004/01/25/nwind25.xml)

<sup>16</sup> [www.ninapierpont.com/pdf/Property\\_values.pdf](http://www.ninapierpont.com/pdf/Property_values.pdf)  
[www.thisisthelakedistrict.co.uk/misc/print.php?artid=447706](http://www.thisisthelakedistrict.co.uk/misc/print.php?artid=447706)

The wind industry denies that wind turbine developments devalue nearby properties. They quote vague, outdated and unsubstantiated and unverified surveys that state that there is no loss of value, but have yet to find a wind power executive living in the shadow of their creation. The fact that the developer/operator invariably purchases the worst affected properties and on sells them with caveat at the 'correct' price (because no-one else would) escapes them.

The video 'The Voices of Tug Hill' clearly spells out the fears of residents and the tactics employed by developers. Developers appear to be operating from the same manual irrespective of country or continent. The same easement, noise, shadow flicker and other health effects and confidentiality or gag orders and agreements operate. The wording may change according to jurisdiction but the effect is the same.<sup>17</sup>

To the wind industry their dream is to see a turbine on every hill, every escarpment, with REC's and subsidies flowing into their bank accounts. They also fail to mention the web of endless kilometres of transmission lines that they build, but which must be maintained by the energy retailers but paid for by the consumers. They bemoan the delays to procure turbines because of world wide demand and beg for governments to build factories for them so they can make a 'meagre' profit. They lie and mislead and hide behind generalise statements about the efficiencies and benefits of their projects. Anything, so they can get what they want. The Taralga windfarm developer (I have documentation to support my assertions) can't make up his mind what quality resource he has. It varies with the audience. This same developer has also been the subject of two complaints because he was misrepresenting his company as being somehow involved or associated with the local electricity supplier and that he has some powers under the Electricity Supply Act 1995 (NSW) and the Lands Acquisition (Just Terms Compensation) Act 1991 (NSW) escaped him. The developer has deceived the landholders with the aim of obtaining the easement at the lowest possible price. He has had to redress his errors but no doubt he has managed to deceive landholders who may have been able to negotiate a better compensation for what is essentially a private development.

The wind industry is in denial regarding the levels of noise emission created by the operation of wind turbines. They still continue to buy out neighbouring properties out of the kindness of their hearts but any neighbour that refuses to move is driven to distraction. The wind industry has reached critical mass in Europe. They've desecrated most places and the people are fighting back. Now the developers are moving offshore. More expensive to develop, but cheaper in the political arena.<sup>18</sup>

What many fail to see is that wind energy, because of its fickle nature, is not the answer to any countries energy problems. The answer from the wind industry is that the wind is always blowing somewhere; build more turbines, but ignore the fact that this country is the size of Europe or the USA. The wind industry quotes how successful some European countries have been but ignores the fact that most are extremely small in area compared to the Australia states. They ignore the fact that most European countries have interconnected grids so that when the wind doesn't blow - about 70% of the time - they buy power from their neighbours to meet the failure of their industry to supply. Denmark, Germany, and Spain are prime examples. Denmark and Germany despite their 20% of all energy coming from wind cannot meet their emission targets and import hydro and nuclear energy

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<sup>17</sup> [www.barehillsoftware.com/voices%20of%20Tug%20Hill.mwv](http://www.barehillsoftware.com/voices%20of%20Tug%20Hill.mwv)  
[www.ninapierpont.com/pdf/Neighbor\\_wind\\_agreement\\_2.pdf](http://www.ninapierpont.com/pdf/Neighbor_wind_agreement_2.pdf)  
[www.ninapierpont.com/pdf/Noise\\_easements.pdf](http://www.ninapierpont.com/pdf/Noise_easements.pdf)  
[www.ninapierpont.com/pdf/Gag\\_clause.pdf](http://www.ninapierpont.com/pdf/Gag_clause.pdf)

<sup>18</sup> <http://www.localmedia.co.nz/northerncourier/stories/nc200607/page3-NEWS-Makara.htm>

from its neighbours. Spain boasts a massive wind generation industry, but is grateful for the French nuclear plants across the border.

*'Almost a fifth of the electricity produced annually in Denmark is generated by wind, yet only about 6% of the country's electricity demand is satisfied directly from this source. Possibly two-thirds of its wind power output cannot be used to satisfy domestic needs at the moment of generation, and has to be exported (often at reduced prices) to preserve the integrity of the grid. Savings in carbon emissions are minimal. Public opposition and reduced subsidies have halted the deployment of on-shore wind turbines for the time being, but political and commercial interests are pressing to integrate much larger amounts of wind power into radically altered domestic and international transmission systems.'*<sup>19</sup>

These countries have large turbine manufacturing industries employing thousands of their people. It's in their interest to keep promoting and exporting wind. Wherever large numbers of wind turbines have been installed has led to the requirement and the expense, to stabilise networks.<sup>20</sup> This expense has largely been ignored but the cost of maintaining these networks is borne by the retailers and finally, the consumer.

There appears to be no accountability whatsoever on developers and operators of wind projects to reveal the true generation potential of their projects. They hide behind commercial in confidence' wherever and whenever possible. We the consumers, the people who ultimately pay for the REC's and subsidies through higher electricity prices and tariffs need to know exactly how much electricity is being generated and what it is really costing us.

The greatest damage that can be attributed to the wind industry is community division. My research indicates that the same trail of community division occurs wherever the turbines have been erected. They target the naïve, the gullible, and the apathetic. The few hosting landholders and their supporters are pitted against what is usually a minority of opposers because very few have the means or inclination to research the issue in depth. The developers promise jobs, tourism, and income. The lines are usually drawn along long term families their relatives and business associates and the newcomers – the 'blow ins' who challenge the established order. Class structure doesn't stop at the rural urban fringe. There is a class structure in rural areas and they defend their status ferociously. By the time the true effects of the windfarm development are known; usually after it commences operation, it's too late.<sup>21</sup>

Long time friendships are torn apart and business dealings are severed. Some residents bury their heads in the sand and don't want to know because it will upset their businesses and result in conflict and economic harm to their families. Some become openly hostile. The structure and solidarity of the rural communities that country people are renowned for is being destroyed. It is this structure of solidarity and mateship through times of adversity which is being destroyed. Country people rely on each other in time of fire, storm, drought and all manner of adversity yet this issue has torn rifts through communities.

The Commissioner assisting the Judge of the Land and Environment Court described a hosting property as 'flogged'. It wasn't until the windfarm became an issue and it was pointed out to me,

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<sup>19</sup> <http://www.countryguardian.net/vmason.htm>

<sup>20</sup> <http://www.countryguardian.net/denmark.htm>

<sup>21</sup> <http://www.parliament.nsw.gov.au/prod/PARLMENT/hansArt.nsf/V3Key/LA20070619034>

and although not universal, a significant number of properties where turbines were to be hosted were 'flogged' - not a blade of grass to be seen during the drought, their stock and their fences were in a poorer condition when compared to other surrounding properties. The truth of the matter is that most properties have been divided with each generation to a point where the size of the properties is unsustainable for agricultural production within today's cost structures. The age and predisposition of many land owners is such that a change of land use is not possible, diversification is impossible, impractical or financially prohibitive.

Turbines have yet to be erected around Taralga yet we are counting the cost both economically, physically, and emotionally. Sleepless nights, chest pains, excessive alcohol consumption are some of the symptoms even though a sod has yet to be turned and hopefully never will.

Local government comes to see these developments as a cash cow just as Upper Lachlan Shire Council has proposed amending their DCP to require windfarm developers make a contribution of \$850 per installed megawatt (mW). With the latest amendments to the turbine capacity, Upper Lachlan Shire would have benefited by a total of  $62 \times \$850 = \$52,700$ . This amount is miniscule compared to the community 'donations' being paid overseas. Which local government authority would deny a DA with that large a carrot being dangled in front of it? Community consultation goes out the window.

We, our children, and our children's children will have to pay for the deception being perpetrated in the name of renewable energy and green house gas emissions.

Thank you

Colin and Elizabeth M Polley