

- 6 MAY 2011

MAYBENUP

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5th May 2011

To the Shire President, Councillors and Shire CEO

SHIRE OF KOJONUP				
FILE:	DB.BDA.8			
CEO	EC or HC	NFA	MCS	MRCS
RGR	SFO	WM	CDPC	PB
NRSM	SHM	PLAN ✓		

Dear Stephen,

Last Thursday (28th April) I attended the meeting of the Kojonup Rotary Club where Mr Roger Bilney was the guest speaker. Roger talked of wind farm issues in general and provided each Rotarian with a copy of his talk, a list of the members of the Waubra Foundation and a document Haste Makes Waste.

With his permission, I enclose a copy of each of those papers for you (with some explanations added to the copy of Roger's talk in response to questions at the meeting)

Also enclosed are

1. Seven pages of Hansard, 28th March 2011, when the Senate Community Affairs References Committee held a hearing at Ballarat. The pages enclosed are of the evidence given by the Pyrenees Shire Council's Senior Town Planner, Mr Chris Hall.
2. Three pages from the Melbourne hearing where Mr Lane Crockett, General Manager Australia, Pacific Hydro Pty Ltd gave evidence. (Pacific Hydro appreciates the opportunity to present to the committee. Pacific Hydro is an Australian company, being 100 per cent owned by industry super funds which manage the investment of five million Australians. Our six operating wind farms, with a total generating capacity of 250 megawatts, meet the annual power needs for 136,000 homes and avoid up to 670,000 tonnes of greenhouse gas emissions each year. Our oldest wind farm at Codrington has been operating for over 10 years now.) From that you will see that monitoring and testing for noise levels cannot take place inside the homes although that seems to be where the problems arise.
3. Page 153 of the Dean Report (commissioned by Mr and Mrs Dean of Waubra..

After thinking a lot about this matter, I feel that using wind turbines to generate power is not really the issue at stake. Some of the issues, in my opinion, that you have to consider include whether very large wind turbines in relatively populated areas is the best way of providing power, whether the setback from wind turbines to homes is sufficient (and WA does not have a regulation setback distance at this stage) and whether the setback should be from the boundaries of neighbours rather than from existing homes (to allow neighbours to use their land as they wish).

It may be until further research into health issues, and into setback distances is done, the best decision for our community might be that the proposed project at Flat Rocks is put on hold.

Kind regards.

Yours sincerely,

fam

Copies sent to
each Councillor

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Address to Kojonup Rotary Club 28 April 2011 (Including explanations of some questions raised at that meeting).

By Roger Bilney

Rotarians ,

Many thanks for your fellowship tonight. The opportunity to provide you with information on the impact of Industrial Wind Turbines on neighbours to these facilities and the broader community is very important. This is a debate solely about what is a sufficient setback to residences and property lines to keep people safe, a question currently being investigated by a Senate inquiry due to report in June.

I will use this opportunity to explain why people right across Australia, including ourselves, are calling for a moratorium on the construction of IWT's close to peoples' homes until the research is done to know exactly how far the setback needs to be for people to live safely.

Tonight I will

- 1) Explain why wind farms are developing so quickly throughout rural Australia
- 2) Detail the first hand accounts of people suffering ill health from these industrial facilities
- 3) Use the experience of the Pyrenees Shire Council to show what they believe the planning guidelines should be in the future.

1. Why are wind farms expanding so quickly?

The Federal Government's Renewable Energy Target (RET) of 20% by 2020 and the subsidies that accompany that legislation has caused a literal stampede into the development of wind energy. Wind energy technology is the one most ready to fill this renewable target, not because it is the best for the long term but simply because it is ready to go. The development of Wave, Solar, Geo Thermal or Bio Mass technologies may in time prove more appropriate.

This rush into wind energy where turbines are causing ill health by being sited too close to homes has been allowed to happen because of weak planning guidelines and a document put out by the National Health and Medical Research Council (NHMRC) called "Wind Turbines and Health a rapid review of the evidence". You may recall that I wrote a letter to the residents of Kojonup through the Kojonup News in December last year informing them of my concerns, to which Moonies Hill Energy responded in an edition in early 2011 where they offered the above document as proof of there being no health issues. At the recent public hearings conducted by the Senate that document has been exposed by a group of Canadian Doctors as being pitiful, and by other witnesses as being a national disgrace. The NHMRC was very reluctant to heed the calls of the Senate to either put in a submission or appear as a witness to the hearings. I will read to you from Hansard what they are now on the public record as having said about the detail of the document and the way in which the wind industry has used it.

Professor Warwick Anderson AM, CEO of the NHMRC

(Page 86 of Hansard Perth public hearing) Reply to a question from Senator Fielding regarding the literature used to formulate the Rapid review.

Prof Anderson -- We have kept it under pretty continuous review since the original public statement. As I said in my opening statement, we are very aware that the high-quality scientific literature in this area is very thin. That is why we were at pains to point out that we believe that a precautionary approach should be taken to this, because, as you would understand, the absence of evidence does not mean that there might not be evidence in the future.

We regard this as a work in progress. We certainly do not believe that this question has been settled. That is why we are keeping it under constant review.

Senator Fielding (Page 88 of Hansard Perth public hearing) -- *It seems to me that precaution may not be taken because everyone is putting a very large weight on the NHMRC's rapid review statement and saying that there are no adverse health impacts from living near wind turbines and everyone is just approving them on that basis. That is of huge concern to me.*

Prof Anderson—*I know that the headline on that public statement says that, but the document does not say that. It did say that there was no published scientific evidence at that stage to positively link the two. That is a very different thing to saying that there are no ill effects and we do not say that there are no ill effects. We definitely do not say it that way. End of quote*

2. What are the impacts on communities living nearby ?

I will describe the economic and social impact of wind farms on the neighbours to these facilities by quoting from a letter written by Broomehill farmer Nick Collins to the Broomehill-Tambellup shire in which he describes phone conversations he has had with farmers who are around the Waubra Wind Farm, which I might add is a facility with smaller turbines than those proposed by Moonies Hill – explanation – most people who are aware of health problems associated with wind turbines are of the view that low frequency sound, coming from the blades, is the cause of the problem. Hence once the blade length and width is increased the problem is further exacerbated.

Nic Collins—

I have contacted some people from Waubra in Victoria to get a better understanding of their situation and to get an idea of who they are. You may ask why Waubra? Well these people were easiest to contact in a limited space of time and they were willing to tell their story.

On the 12th of April 2011 I contacted Carl Stepnall. He is a third generation farmer with mainly sheep and some crop, he has three children and the nearest wind turbines to his house are between 900 and 1500 metres. The health effects from being in close proximity to the wind farm has caused Carl to move his family 45 km to Ballarat and now he travels back and forth every day to his farm.

He could not say why he was affected, saying it was a bit like sea sickness in that it affects some people worse than others. He also said the noise would vary depending on the conditions at the time but the noise was certainly worse on **calm days** when the wind was just enough to get the turbines going.

Since moving to Ballarat he and his wife are able to sleep at night instead of waking up "buzzing", but he has spent some nights on his farm since and has been unable to sleep. It is obvious that the whole experience has been very mentally draining.

I asked how the people whose farms the turbines were on, were coping. To which he replied "Don't worry, they complain to Acciona" (Acciona Energy the Spanish wind farm operators). He then went on to say his wife had recently been speaking to one farmer's wife who had a large number of turbines on their farm and that they were still living on the farm. However, they had installed double glazed windows, insulation and had brought 3 houses in Ballarat for each of their sons to live in.

The next person I contacted was Donald Thomas. His house is 3.5 km from the nearest turbine and he too has experienced adverse health effects since the wind farm started operation. Donald is your "run of the mill" traditional farmer who loves a chat. I spent an hour and a half chatting to him mainly about wind farms but also about the recent fly problem he had been dealing with and how he had been mowing phalaris in certain paddocks just to find the sheep in there.

Before the wind turbines started next to Donald's farm he was an avid supporter of the wind turbines. He campaigned for the turbines and told me how he and his father would go and watch the construction of the turbines on his friend's farms, looking in awe at the structures.

Donald's symptoms can be found on his submission to the Senate but he expressed most concern about how people's blood pressure was being affected. He said most of his neighbours had high blood pressure when the turbines were operating and they were all on medication as a result. The problem with this is that when the turbines aren't working his blood pressure drops too low due to the medication, which then causes light headedness.

Like Carl Stepnall, Donald was at a loss to explain how or why these health problems were occurring, but what he did know is that they were real, and he was pretty sure that he was "not a nutter".

I asked Donald how he found the noise of the turbines considering he lived 3.5 km from the nearest one. Again he found it hard to describe but to him he said it could sound like a jet plane 30,000 metres in the sky or like the sound of a train passing on a nearby track before a big rain, the only thing is that it doesn't seem to pass. Again he said that the intensity of the noise varies depending on the wind direction, climatic conditions, and whether the turbines are facing you and how many there are. He also said that "the night belonged to noise" and that it seemed worse when they were trying to sleep, and that the noise can sometimes be worse **the further you are away from them**.

I also asked Donald if he knew of any families who had wind turbines on their farms and how they found them. Donald started with the Clune family who had been negotiating with Acciona since the turbines started. They have 15 towers on their farm and have now moved away to a nearby town. He knew of another neighbour who has 2 turbines and who has moved to Ballarat...

I asked why we haven't heard of these people before and he said that it was his understanding that they have signed **confidentiality agreements with Acciona** and aren't allowed to speak to the media.

I asked Donald about how the local community has benefitted from the new industry. He described how the construction phase was good for the community, but realistically only the local concrete supplier and road construction company saw any benefits. After construction he said the local sporting groups receive some sponsorship and the shire receives some rate payments.

However, he also said that the Waubra pub is now closed for the first time, and his reason was the friction between pro and anti wind farm groups. The friction has meant that people simply do not want to socialise or drink in the pub together resulting in its closure.

I then asked how many kids have left the local school as a result of the wind farm and being forced off their farms, Donald wasn't sure but he seemed to think 9 or 10 kids, leaving the school with only 40 odd students. **End of quote**

The siting of turbines under the present planning guidelines is also causing problems for those wishing to use aerial spraying contractors which is best described by reading the evidence provided to the Senate by the Aerial Agricultural Association of Australia.

Mr Phillip Hurst CEO of The Aerial Agricultural Association of Australia

(Page 48 of Hansard public hearing in Canberra)

Mr Hurst—The plumes of disturbed air that may extend 15 times or more the height of the turbine blades behind the wind farm are also of concern, as it is the lack of research that quantifies this significant potential threat to aviation. These direct aviation safety issues characterise a commercially driven industrial power production sector that does not take its duty of care seriously and which is in desperate need of regulation...

Economic damage to the aerial application industry is perhaps not as obvious but is just as devastating. One industry, industrial energy production, seeks to impose costs and reduced operating areas on another industry, aerial application, with no consideration for compensation. The land and air space footprint of wind farms is far greater than the site where they are located, due to the operational requirements of aircraft, and may extend for kilometres around each turbine. This represents the removal of valuable land from agricultural production and the land removed may not be that of the wind farm hosting landholder; it may be their neighbour. When this impact is multiplied across Australia, the economic damage is very significant indeed.

*The answer is not to further penalise the victim by placing buffer zones around wind farms. The issue is to ensure they are not built in areas where their existence causes economic hardship on pre-existing sectors such as agriculture and aviation. **End of quote***

3. The local government experience.

The Pyrenees shire, which is located around Ballarat in Victoria has first hand experience in the problems associated with the planning and monitoring of wind turbines. They have had to decide on 6 separate proposed wind farms including Waubra (now operational). The other 5 are either proposed or under construction. Once again I will read from Hansard

Mr Chris Hall, Senior Town Planner, Pyrenees Shire Council

(Page 36 Hansard Ballarat public hearing)

Mr Hall – The Pyrenees shire believes that the current Victorian guidelines, the policy and planning guidelines for the development of wind energy facilities in Victoria – which were again recently revised this month – are not currently robust enough in a number of specific areas to protect the amenity impacts of adjoining non-stakeholder residents and fail to provide adequate direction on the assessment requirements in specific areas.

We have been pushing for a requirement to be included within the guidelines for the siting of wind towers to be at least two kilometres from non-stakeholder residents. However, we do acknowledge that this may need to be increased to even greater distances if very large capacity turbines are proposed, or if there are large clumps of turbines and the atmospheric and geographic impacts are such that they may warrant a greater setback. A number of studies that have been done, both federally and interstate previously, have recommended two kilometres as an arbitrary setback, and we believe that should be adopted in Victoria for the majority of turbines.

The Waubra wind farm is currently the largest operating wind farm in the state of Victoria. It is the only operating wind farm within the Pyrenees shire. We have 109 turbines within our shire boundary; the remaining 28 are within the city of Ballarat. We have received significant complaints regarding noise and health amenity impact issues since that wind farm first came into operation, or since the first turbines were commissioned, which I think was around July 2009. We have 32 complaints registered on our records. The vast majority of the audible noise complaints are from residents within 1.5 kilometres of turbines. There are a number less than 1,000 metres from turbines, which is really way too close.

If I was to put any consistency around the periods when the complaints seemed to emanate it would be generally of a night time, when you have more stable atmospheric conditions, with high windshear coefficients occurring with low wind speeds at ground level but enough wind up at turbine height to make the things work, so the sound can be heard in people's homes when they are trying to sleep.

We have received a number of complaints with respect to health effects, and we would strongly support an investigation by the federal government into health effects. If it is possible, we could adopt a standard that can properly assess sub audible noise across the full range of the noise spectrums. The current New Zealand standard does not provide for the assessment of sub audible noise outside of the dB(A) range. We believe that a full investigation by a senate inquiry in conjunction with the EPA and other relevant government authorities would be appropriate in that regard.

End of quote

Explanation—The Pyrenees Shire have acknowledged that atmospheric and geographic considerations should be understood, as these factors may require a further setback, greater than 2km. During the day the land mass most often heats up, resulting in hot air rising. During the night the reverse effect can occur with what is known as temperature inversion, which can be further influenced by cloudy weather.

Acousticians, independent of the wind industry, have stated that low frequency sound coming from the blades of wind turbines placed high on the ridges, can travel for great distances through the valleys, given the right climatic conditions. Furthermore, a common pattern is emerging that people who are living close to turbines are stating that on calm days and low wind speed days their health problems seem worst. Both Carl Stepnall and the Pyrenees Shire confirm this view in their statement. The question remains are the nights when there are stronger winds causing the low frequency sound waves to dissipate? Another factor that is now emerging is that homesteads close to turbines are less likely to be exposed to low frequency sound waves (going over the top) compared to homes in the valleys further away. Understandably independent research regarding all these issues is a high priority.

Rotarians thank you for your interest. The development of any wind turbine facility whether it be in Kojonup or Williams (where an even larger project is proposed) or anywhere else in Australia, must now be placed in a moratorium until the full ramifications for the local communities are understood. Australia has the time and space to develop this form of renewable energy in a safe and appropriate manner. There is simply no need to rush these industrial facilities into densely populated farm land.

Your Shire Councillors make decisions on behalf of all rate payers and therefore you have a right and a responsibility as Rotarians to express your opinions to your Shire Councillors. Please communicate this information to your councillors so as to protect the health and well being of the neighbouring farmers adjacent to the proposed wind farm.

Clearly the mistakes in the Eastern States should not be continued in the Kojonup Shire.

Thankyou.

There is a copy of this presentation for wives and partners, who are generally the custodians of family health.

I have also included in the hand out, a copy of the directors of the Waubra Foundation, who all serve in a voluntary capacity. The foundation, a national organisation, has a main focus of ensuring independent research is done into the adverse health effects of wind turbines on humans as quickly as possible. They range from the co-founder of Ferrier Hodgson **Tony Hodgson**, a previous Commonwealth Minister for health **Dr Michael Wooldridge** to the ex Chancellor of the Anglican Diocese of Melbourne and Judge of the Supreme Court of Victoria **The Hon Clive Tadgell**.

There are also 6 pages of a 64 page document "Haste makes Waste" put out by the group of Canadian Doctors spoken about earlier.



PO Box 1136
South Melbourne
Victoria
Australia 3205

DIRECTORS OF THE WAUBRA FOUNDATION

Peter R. Mitchell, AM BChE – Chairman
Dr. Sarah Laurie, BMBS (Flinders) – Medical Director
Mr. Tony Hodgson, AM
Ms. Kathy Russell, BCom, CA
The Hon. Clive Tadgell, AO
The Hon. Dr. Michael Wooldridge

Brief biographies:

Peter R. Mitchell, AM BChE

Peter Mitchell is currently a Patron of the Children First Foundation and a Governor of the Florey Neuroscience Institutes.

He has previously been National President of The Queens Trust for Young Australians (now the Foundation for Young Australians), President of the National Stroke Foundation and a board member of the World Wildlife Fund Australia.

During his business life he has been chairman of various companies listed on the Australian, New York and London stock exchanges.

Dr. Sarah Laurie, BMBS (Flinders)

FRACGP (awarded 1999, currently lapsed because of inability to keep up with CME requirements due of family & personal health issues)

FACCRM (awarded 2000, currently lapsed for above reasons)

Clinical Examiner with the RACGP 2000-2002

Member AMA state Council 2001-2002

Locums for Nganampa Health Council (Pitjantjatjara lands)

Pro bono consulting to Aboriginal Health Team, Pt. Pirie

Formation of Mid North Rape & Sexual Assault Service

GP representative, Mental Health Advisory Group

Tony Hodgson, AM

Jointly founded Ferrier Hodgson in 1976 with Ian Ferrier. The business grew to be the largest specialist Corporate Recovery & Insolvency business in Australia with overseas offices. Mr. Hodgson retired in 2000.

He has been Chairman, Melbourne Port Corporation; Deputy Chairman & Chair Audit Committee, Tabcorp Holdings Limited; Director & Chair Audit Committee, Coles Group Ltd.; Director & Chair Audit Committee, HSBC Bank in Australia.

Currently a member of the Advisory Council at JPMorgan & member of the Advisory Board at Pact Group Ltd.

Ms. Kathy Russell, BCom. CA

Kathy Russell is Vice President of the Australian Landscape Guardians and is currently employed by Barwon Health, the Geelong Hospital, as Business Manager Surgical Services. She holds membership with the Institute of Chartered Accountants.

For the past 3 years Kathy has focused her efforts on gaining recognition for individuals and communities suffering the health effects of living in close proximity to industrial wind turbines. The experience of becoming an integral part of these families and communities, both in their homes and via regular phone contact, both in Australia and abroad, is the motivation behind her continued effort in this area.

The Hon. Clive Tadgell, AO

The Hon. Clive Tadgell, AO was admitted to the Victorian Bar in 1960 and to the New South Wales Bar in 1963.

Appointed Queen's Counsel for Victoria in 1974 and for New South Wales in 1979, he served from 1980 to 1995 as a Judge of the Supreme Court of Victoria and from 1995 to 2001 as a Judge of the Victorian Court of Appeal.

He held the office of Chancellor of the Anglican Diocese of Melbourne from 1981 to 2007, has been a Fellow of Trinity College, University of Melbourne, since 1993 and was a Senior Visiting Scholar at Oriel College, University of Oxford in 2001-2.

The Hon. Dr. Michael Wooldridge

Hon. Dr. Michael Wooldridge, B.Sc. MBMS, MBA, (FAMA, HonFRACMA, HonAFPHM, HonLID, HonD.Sc)

Michael Wooldridge is a Professor in the Faculty of Medicine, Nursing and Health Sciences, Monash University and an Associate Professor in the Faculty of Medicine, University of Melbourne.

He chairs a number of public and private companies. He also chairs the Ministerial Advisory Committee on AIDS, Sexual Health and Hepatitis (MACASHH) and is Chair, Neurosciences Australia.

He was a member of the Australian Parliament from 1987 to 2001 and Commonwealth Minister for Health from 1996 to 2001.

Haste Makes Waste

An Analysis of the National Health and Medical Research Council "Wind Turbines and Health A Rapid Review of the Evidence July 2010"

**Prepared by
The Society for Wind Vigilance**

www.windvigilance.com

July 19, 2010

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Haste Makes Waste

**An Analysis of the National Health and Medical Research Council
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A Rapid Review of the Evidence
July 2010"**

Note any errors or omissions are unintentional

July 19, 2010

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NOTICE TO READER

The Society for Wind Vigilance is an international federation of physicians, engineers and other professionals promoting the development of authoritative wind turbine guidelines to protect the health and safety of communities. The mission of The Society for Wind Vigilance is to mitigate the risk of both physiological and psychological adverse health effects through the advancement of independent third party research and its application to the siting of industrial wind turbines.

The Society for Wind Vigilance uses authoritative references to support the assertions contained within this analysis. This analysis also contains statements and citations from individuals and or organizations associated with the wind energy industry.

Many of the citations used in this analysis are from references contained in National Health and Medical Research Council "Wind Turbines and Health A Rapid Review of the Evidence July 2010" (Rapid Review).

The Society for Wind Vigilance has contacted the National Health and Medical Research Council to obtain additional information related to the "Rapid Review". Additional information has been included in this analysis

The Society for Wind Vigilance has made every reasonable attempt to ensure the accuracy of this analysis. Any errors or omissions contained within this analysis are unintentional.

Haste Makes Waste

An Analysis of the National Health and Medical Research Council
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EXECUTIVE SUMMARY

In July 2010 the National Health and Medical Research Council (NHMRC) released its 11 page report entitled "Wind Turbines and Health A Rapid Review of the Evidence July 2010" (Rapid Review).

The Society for Wind Vigilance (SWV) has conducted an analysis of the "Rapid Review". Details of the analysis are included in Tables 1 to 6 of this document.

The "Rapid Review" is an incomplete literature review with no original research. The report is biased from the outset as it seeks to support a restricted and preconceived conclusion. The end result is a deficient public health document.

NHMRC asserts it "... only uses the best available evidence, in the form of peer-reviewed scientific literature, to formulate its recommendations." ¹ The contents of the "Rapid Review" reveal a different reality. The list of reference omissions is immense.

The "Rapid Review" places an inappropriate level of credence in wind energy industry produced and or sponsored material to support its assertions. To compound this bias the "Rapid Review" selectively cites references which favour the wind energy industry while inexplicitly omitting relevant citations which do not.

For example the "Rapid Review" repetitively cites a wind energy association sponsored literature review but neglects to disclose this reference states wind turbine noise, including low frequency noise, may cause annoyance, stress and sleep disturbance. Acknowledged symptoms include distraction, dizziness, eye strain, fatigue, feeling vibration, headache, insomnia, muscle spasm, nausea, nose bleeds, palpitations, pressure in the ears or head, skin burns, stress, tinnitus and tension. ²

In a Public Statement the NHMRC contradicts these acknowledgements by stating "While a range of effects such as annoyance, anxiety, hearing loss, and interference with sleep, speech and learning have been reported anecdotally, there is no published scientific evidence to support adverse effects of wind turbines on health." ³

The vetting and quality of material cited in the "Rapid Review" is at best suspect and at times ridiculous. The "Rapid Review" embraces the ranting opinions contained on "croakey the Crikey health blog" ⁴ while enigmatically challenging the World Health Organization authoritative position that annoyance is an adverse health effect – astounding.

Haste Makes Waste

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The "Rapid Review" is characterized by persistent allusions that people experience adverse health effects due to "attitude", "negative opinions" and "worry". These speculative theories are presented while ignoring authoritative knowledge on the subject of noise and health.

Ironically the NHMRC affirms the need for research recommending "...relevant authorities take a precautionary approach and continue to monitor research outcomes" ⁵ but makes no direct appeal for such an undertaking.

The Society for Wind Vigilance does concur with the "Rapid Review" on one point – the title of the report. The sub-standard quality of research confirms the review is rushed and hence the title "Rapid Review" is undeniably appropriate. The "Rapid Review" confirms the adage that haste makes waste.

Haste Makes Waste

An Analysis of the National Health and Medical Research Council
"Wind Turbines and Health
A Rapid Review of the Evidence
July 2010"

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PRINCIPLE FINDINGS

The Rapid Review is a biased document fraught with contradictions and misinformation:

Specifically the Rapid Review

- is not a study; it is an incomplete literature review.
- is biased with a limited scope.
- displays selective bias in the presentation of the referenced material.
- displays selective bias by omission of relevant references including recent research on issues related to noise and health.
- contains statements which contradict listed and cited references.
- contains misleading statements.
- contains statements without appropriate authoritative references.
- exhibits a deficient understanding of the authoritative research on noise and health.

Haste Makes Waste

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CONCLUSIONS

1. The "Rapid Review" is a literature review with no original research.
2. The Society for Wind Vigilance expresses both its surprise and disappointment with the quality of the "Rapid Review".
3. There are a number of errors of commission and omission.
4. The vetting and quality of material cited in the "Rapid Review" is at best suspect and at time ridiculous.
5. Crucial evidence gaps remain unaddressed.
6. The document is neither authoritative nor credible and does little to advance the understanding of the issue of industrial wind turbines and adverse health effects.
7. The NHMRC governing body ought to be concerned about the quality and bias of "Rapid Review".
8. The reality of global reports of adverse health effects has not been addressed. The victims deserve consideration not denial.
9. Independent third party studies must be undertaken to establish the incidence and prevalence of adverse health effects relating to wind turbines. Beyond that a deeper understanding of the potential mechanisms for the impacts must be elucidated in order to define the mechanisms by which the sleep disturbance, stress and psychological distress occur.

Haste Makes Waste

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COMMONWEALTH OF AUSTRALIA

Proof Committee Hansard

SENATE

COMMUNITY AFFAIRS REFERENCES COMMITTEE

Reference: Social and economic impact of rural wind farms

MONDAY, 28 MARCH 2011

BALLARAT

CONDITIONS OF DISTRIBUTION

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BY AUTHORITY OF THE SENATE

[PROOF COPY]

THIS TRANSCRIPT HAS BEEN PREPARED BY AN EXTERNAL PROVIDER

DEAM, Mr Sydney Cameron, Group Manager Planning and Economic Development, Glenelg Shire Council

CLARK, Mr David, Councillor, Mitchell Riding, Pyrenees Shire Council

CORNISH, Mr Stephen, Chief Executive Officer, Pyrenees Shire Council

GUEST, Mr Russell, Manager, Strategic Planning, Moyne Shire Council

HALL, Mr Chris, Senior Town Planner, Pyrenees Shire Council

KELSEY, Ms Sharon, Chief Executive Officer, Glenelg Shire Council

CHAIR—I welcome representatives of Moyne Shire Council, Glenelg Shire Council and Pyrenees Shire Council. I understand that each of you have been given information on parliamentary privilege and the protection of witnesses and evidence. If you need a refresher course, we have more on hand. As local government officers, you will not be asked to give opinions on matters of policy, although this does not preclude us asking you questions for explanations of policy or factual questions about when and how policies were formed.

We have submissions from the various organisations—169, 364 and 646 respectively. I would like to ask each of the organisations to make a brief statement if you want to, and then we will ask you some questions.

Mr Guest—I have had a long reflection on the opportunity of what to say at this hearing, and the shire is quite happy to have the opportunity because of the significance of the issue of wind farms. Moyne has about 40 per cent of the proposed wind energy facilities in Victoria. To date we have two very small ones built on the coast, one of which was the first in Victoria and one that started construction at Macarthur, which is about \$1 billion and 140 towers. There are about another 12. One of the attachments, a map, has a list of all of the farms, where they are, and who is proposing them, et cetera. There are a few more coming that are not yet public. One thing we did with this—and it is on some of the other maps we have as attachments—was we drew a two kilometre setback as best we could from the neighbouring houses. If you are interested in what a two kilometre setback does, it is instructive.

I would like to concentrate on the fact that there are three parts to a planning process: before you make the application, when you make the application, and afterwards. There are also two things that you need to do during that process: one is you have to have the expertise available; and the other is that you have to have the money to do it. In terms of costs, you would be aware that the state government has just put the responsibility for all wind farms back onto councils. The minister has made it plain that we could call it back in but that is a sham; I am not sure whether it makes a huge difference. Moyne shire has been left in the position to date where—except for four small wind farms that are under 30 megawatts, all the others have been state government proposed—we have never seen a fee for it. Even if that was significant, for a \$500 million wind farm which would appear to be about 60 to 80 towers, one per cent of that is \$5 million and 0.1 per cent is \$500,000; the maximum fee for a wind farm is \$16,000. We might get

received by Pacific Hydro. Notwithstanding that, council's complaints register does indicate that there have been five complaints against wind farms within our shire area. Four of those have been lodged by one family and relatives, and generally they relate to noise, low frequency noise and oil leaks. The additional complaint was in relation to noise from the wind turbines.

Council has supported the construction of wind farms in the shire and considers that they make an important contribution to the shire's economy and community through the rate revenue and community grants that are offered by the manufacturers. In addition, council also acknowledges that turbines can impact adversely on neighbouring residents, and is of the view that careful planning is needed to ensure these adverse impacts for future developments are absolutely minimised. Council also advises that it is not the responsible authority for the determination of major wind farm planning applications and, as such, does not necessarily hold the data relating to the impacts of wind farms. As I have indicated, this data is held by the state government's Department of Planning and Community Development. That is all we would like to say at the moment, thank you.

CHAIR—Thank you very much.

Mr Clark—If I could just make a couple of opening comments. We are a council that has been supportive of the developments, although we do have issues with certain parts of the guidelines around that. Very much our role in this as council is as a planning authority. We have one approved and built wind farm, Waubra, which you saw today. We have three approved, one in planning, and another two in prospective stage at this time. So we have a significant number of developments. Our submission will concentrate on that, and I will pass to Chris Hall to make some comments about some of the specific things that we see the planning system needs to address.

Mr Hall—Thank you for the opportunity to present before this particular hearing. The Pyrenees shire believes that the current Victorian guidelines, the policy and planning guidelines for the development of wind energy facilities in Victoria—which were again recently revised this month—are not currently robust enough in a number of specific areas to protect the amenity impacts of adjoining non-stakeholder residents and fail to provide adequate direction on the assessment requirements in specific areas.

Council would like to see the following issues addressed through an amendment to these guidelines, and we have been actively working along with our fellow councillors at the table here and other councils in the region through the MAV wind farm working group to lobby the state government for action on these particular matters. We have been pushing for a requirement to be included within the guidelines for the siting of wind towers to be at least two kilometres from non-stakeholder residents. However, we do acknowledge that this may need to be increased to even greater distances if very large capacity turbines are proposed, or if there are large clumps of turbines and the atmospheric and geographic impacts are such that they may warrant a greater setback. A number of studies that have been done, both federally and interstate previously, have recommended two kilometres as an arbitrary setback, and we believe that that should be adopted in Victoria for the majority of turbines.

We have also suggested both through the MAV working group and at the Stockyard Hill wind farm panel hearing to which we submitted that there should be at least a minimum of a 400-

metre setback of turbines from any non-stakeholder property boundaries for the purpose of providing a safety buffer in the unlikely event of a blade shear, and to protect the adjoining landholder's property rights.

We have suggested that no aviation lighting be required on wind turbines unless in close proximity to an airport or specifically required by CASA. We have a situation with the Waubra wind farm where initially the panel, in assessing that application, recommended that no aviation lighting be included on those turbines, but, subsequent to the permit being issued, the minister at the time actually granted a secondary consent amendment to the permit, without any consultation with the adjoining ratepayers, to add 57 aviation lights for those turbines. This has had a major impact on the amenity of that surrounding area. The bright red lights, flashing on and off, can be seen for up to 30 to 40 kilometres away. It does have a big impact. We understand that there is an application before DPCD at present to have those lights removed. Those sorts of considerations need to be addressed, and we are strongly pushing for no aviation lighting to be required unless it is required by CASA.

We need projects to include details of all infrastructure such as electricity grid connections. At the moment, often we get piecemeal applications submitted both to council and the DPCD when the 30-megawatt demarcation existed. Often things like the electricity grid connection and native vegetation removal components would be missing and would be submitted at a later date for consideration. We suggest that the wind industry needs to get its act together and ensure that all of those elements of their project are in order and ready to be submitted for consideration as a complete package.

We have lobbied for the appointment of a department project manager from within DPCD to oversee the assessment of each wind energy facility project. Obviously given the recent decision this month to hand responsibility back to local government it is probably unlikely that that will occur within the short term, but we believe that given the capacity constraints within local government that should occur. It has also been recommended by both a number of regional councils and the Environment and Natural Resources Committee inquiry into the approvals process for rural energy projects in Victoria that came out in 2010 that a technical reference group be established and integrated into the assessment process for wind farm applications. That would be a committee comprised of technical experts with experience in areas such as flora, fauna and noise, where local government does not have the capacity or the resources internally, and we understand that DPCD does not, to properly assess these matters. They are the ones that are causing the significant impacts on the ratepayers, so we are suggesting a technical committee needs to be established within DPCD that local government can draw on to get the expertise we need to make proper decisions. We believe there is a need for greater policy guidance to assist with the assessment of cumulative impacts. That is currently lacking within the policy document, which we basically need to rely on to make decisions.

The Waubra wind farm is currently the largest operating wind farm in the state of Victoria. It is the only operating wind farm within the Pyrenees shire. We have 109 turbines within our shire boundary; the remaining 28 are within the city of Ballarat. We have received significant complaints regarding noise and health amenity impact issues since that wind farm first came into operation, or since the first turbines were commissioned, which I think was around July 2009. We have 32 complaints registered on our records. The vast majority of the audible noise complaints are from residents within 1.5 kilometres of turbines. There are a number less than

1,000 metres from turbines, which is really way too close. We are talking large clumps of turbines. I have actually visited some of these properties personally, and the audible noise impacts are quite noticeable, even on days where the background noise levels are fairly high.

If I was to put any consistency around the periods when the complaints seemed to emanate it would be generally of a night time, when you have more stable atmospheric conditions, with high windshear coefficients occurring with low wind speeds at ground level but enough wind up at turbine height to make the things work, so the sound can be heard in people's homes when they are trying to sleep. Naturally, background noise levels are lower anyway over those periods. There are reports of modulation noise and mechanical noise associated with the particular design of the turbines. We have not been made fully privy to any of the details relating to this particular project, even though we have been advised by the department that we are supposed to be responsible for enforcement at various times. I have put a few dot points together here on the issues where we feel the noise reports and the assessment has let down the community and caused a number of these complaints to occur.

There was a lack of independent review undertaken in the initial noise assessment provided by Marshall Day at the time of assessing the wind farm development. I do not believe that the panel requested that. When I looked at the report, there were a number of properties at 38 or 39 dB(A) based on the noise power output predictions that were provided. That is one or two dB(A) over the acceptable standard. There should have been an independent peer review done at that stage. We have had a lot of setbacks where, for instance, we had two or three property owners bought out who lived less than one kilometre from turbines. That just highlights the case we put earlier about the need for a minimum setback.

There has been a lack of detail within the New Zealand standard NZ6808:1998 which applied at the time on how to assess special audible characteristics. There is further detail within the now adopted 2010 version of that standard. We believe that that has led to a number of properties that probably do meet the criteria for the special or characteristic five dB(A) penalty not being applied. That is currently being investigated.

There were also a number of potential inaccuracies in the background noise testing data that have been provided post compliance by the proponents' noise testing company, Marshall Day. Significantly, changes were made also to the turbine design and an increase in the hub height which was done post the permit being issued and was signed off by the minister under secondary consent. We have been provided no evidence that a new noise report was provided at that time. If it was, it certainly was not tested or checked internally, and there was no independent testing of that report done by anyone with any experience or the appropriate qualifications to do so. That just highlights what can happen under the current system, and it will continue to happen unless some changes are made. We have put forward a number of these recommendations to the state government for action.

I will touch briefly on the issuing of enforcements. The current position of the state government in its policy guidelines is that councils are responsible for enforcing and administering all planning permits regardless of the 30-megawatt demarcation or whether or not they were called in under the section 96 call-in powers under the Planning and Environment Act. We have had legal opinions—one from a QC and the other from a well-respected planning lawyer—to the contrary, that unequivocally back the council position that, in situations where

those applications are called in, the minister actually becomes the responsible authority for administering and enforcing the permit.

It is our strong view, backed by each of the councils here at the table, that we lack the technical skills and resources needed to take on this role. Pyrenees council is basically a single-planner council plus an administrative officer as well as some strategic back-up. We would need one or two staff nearly full time to be dealing with this, not to mention the legal burden we would have to take on. If we were to take on a major wind farm company at VCAT, if we wanted background noise testing done we would need to order the shutdown of turbines to get that data. To run a case at VCAT we would be looking at well over \$100,000. Just to get the noise reports done would be well over \$50,000, \$60,000, \$70,000 before we even entered VCAT action. We would be exposed legally if we were found to be wrong in any of our case arguments. It is really something that is way beyond the capacity of local government. You just need to look at the example of the coal fired power stations in the Latrobe Valley. They are not administered by the local council. They are dealt with by the state government, which has the technical resources and the abilities to deal with a significant development of that scale.

I will touch on amendment VC78 which the Baillieu government just introduced this month. Local government is now responsible for assessing all wind farm applications regardless of capacity. Again, that will create huge challenges for the local government sector, given our limited ability to find technically qualified staff to do the job. It was disappointing that this action was undertaken without any formal consultation with the sector. While it was released as a policy position pre the election, there was no actual formal discussion and engagement with local government on how this was going to work practically before it was announced and implemented in legislation.

With respect to post-commissioning noise compliance monitoring of developments, under the condition requirements of many permits, there has not been a requirement for testing data to be provided until 12 months after the commissioning of the last turbine. That is resulting in 20-plus month delays in the data being made available to the public and obviously in the department being able to investigate any breaches, such as in the Waubra situation. We had to wait over 14 months before we could find out some of the issues that have arisen there. I have not been privy to that data, but the verbal advice that was given to me by the officers who have looked at it is that properties are in non-compliance with the 98 standard, and they are being investigated at the moment as to the appropriate action to be taken to rectify the situation.

Senator BOYCE—Who has that information? You say you have not been provided with the information?

Mr Hall—I have been provided with the information verbally from a representative of the department. There is currently a need for DSE to review and formally adopt for use in Victoria the draft guidelines for the assessment on the potential impacts on broilgas. Any standard adopted we say should include an absolute minimum setback from identified nesting sites; that should be non-negotiable. There was a lot of debate and variation at a recent hearing I was involved in where the setback specified in the draft standard was actually significantly eroded. A DSE officer put forward evidence contrary to what was stated in the draft guideline and supported a setback of 750 metres when the guidelines talk about a three-kilometre setback. So I think there needs to

be further work around solidifying that document and formally adopting it for use so that industry and the community have a solid position on the matter.

I will sum up by saying that we strongly support the need to adopt a nationally consistent approach along a range of key issues. Noise would be one of them. Noise is not sufficiently covered in the national standard that has been released. It is put back on the state government to adopt appropriate standards, but it is our strong view that a nationally consistent standard should be adopted and that a panel of acoustic experts in the industry should be appointed to investigate all the standards currently in use within Australia with a view to adopting the standard that will provide the best amenity protection for all nearby residents. For example, the current South Australian EPA noise guidelines recommend a level of 35 dB(A) in all rural areas. Evidence presented at the recent New South Wales Legislative Council rural wind farm inquiry adopted and supported this standard as providing adequate protection for the amenity of nearby dwellings. That level is five dB(A) lower than the limit allowed for in the New Zealand standard. I am not saying that is necessarily the standard that should be adopted, but that is an example of one of the other standards currently in use which I think should be looked at.

CHAIR—I am a bit concerned that we are going to run out of time for questions. We are running on a really tight time frame. Could you wrap it up?

Mr Hall—Yes, I have just a couple of more lines. We have received a number of complaints with respect to health effects, and we would strongly support an investigation by the federal government into health effects. If it is possible, we could adopt a standard that can properly assess subaudible noise across the full range of the noise spectrums. The current New Zealand standard does not provide for the assessment of subaudible noise outside of the dB(A) range. We believe that a full investigation by a Senate inquiry in conjunction with the EPA and other relevant government authorities would be appropriate in that regard.

One other thing to look at would be financial contribution options for abutting landowners. At the moment in Victoria it is only the benefiting landowner who receives the financial contribution. We believe that that potentially should be extended to landowners within two kilometres of wind farms. I believe that has been done in other countries such as Canada. Do not quote me on that, but I have heard that that is the case. It has been looked at by DPCD in Victoria as well. That is just one option to put on the table that may alleviate some of the concerns of adjoining residents. I will leave it there.

Senator FIELDING—The local planning authority is in a very tricky spot. I served on a council for a year, and it is a very tricky thing but you have a lot of power. This is a very important committee. I know that the rest of Australia probably does not think so, but I can tell you that this is the chance to actually have a lot of these issues looked at and to have a reasonable approach to them. I understand that maybe one council benefits from a lot of the workforce, so it is a bit different in that one, but the other two that are left grappling with a lot of community concerns would be finding it difficult. I really appreciate your councils allowing you to put a submission in and to present here. Mr Hall, I really appreciated your comments in detail. They show that you have really thought this thing through, and I really appreciate it. It is very easy to state problems without coming up with some possible ways of addressing them. I really appreciate that. It takes a lot of courage, so thank you.



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MELBOURNE

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Senator MOORE—Thank you, Mr Crockett. The same question will be asked of them, yes.

CHAIR—I propose that we move on, because we will run out of time. We have a lot of issues. I wanted to clarify something with Acciona. I think it was the Waubra issue that came up yesterday where people were saying that, when you were doing monitoring, you were not doing it at night, when it is quieter. Could you quickly address that issue?

Mr Wickham—That is incorrect. The monitors are put in place. We go through a very stringent process of complying with the standards. The pre-construction monitoring was done. At 23 locations, we placed the monitors for a period of time to get a representative sample of data at different wind speeds and so forth. And then, post construction, the monitors were put in place in the exact location as they were pre construction. The monitoring, again, is done 24 hours a day, in two-week blocks, to obtain enough data. Periods of rain and periods of malfunction could cause the data not to be recorded.

Senator BOYCE—That is noise level data?

Mr Wickham—Yes.

CHAIR—Is that done in people's houses at night?

Mr Wickham—No. It is done in the same locations as it was prior to construction.

CHAIR—So the point there then is: when people are complaining around noise, do you go into the houses and monitor at night?

Mr Wickham—No. We monitor in exactly the same locations at night—24 hours a day—as they were located pre construction.

CHAIR—We will move on to complaints then, because this is shifting into the issues around complaints. You will be aware that it came up a lot yesterday. What do you do when someone complains about noise at night?

Mr Wickham—We go and locate a monitor outside their property so that we can then use—

Senator BOYCE—When you say 'outside their property'—

Mr Wickham—Adjacent to their house, in the same location as it would be for a representative house, because, as you are obviously aware, we did not record background data at every house. We recorded it at 23 locations pre construction. The best way to measure apples with the best possible apples—it is not exact—is to actually measure in an adjacent location at the property where the complaint has occurred, outside the property, and then use a representative property, which is the same distance from the turbines, or has similar conditions, and compare those situations.

CHAIR—So when somebody complains you do not actually go into their specific house to monitor the noise levels?

Mr Wickham—No.

Senator MOORE—Why not?

Mr Wickham—Because the best way to compare is against the pre-construction noise levels, and where we have that is at locations outside the houses. Every house is different—different insulation, different properties, double brick, weatherboard.

Senator ADAMS—Every person is different too.

Mr Wickham—That is correct.

Senator MOORE—This may apply to other companies as well, but I want to ask Mr Wickham: if a person is actually making a claim that in their bedroom they are so discomforted and made unwell that they have to leave their house—and that claim has been made, as you well know—what is the scientific reason not to actually monitor what is happening in their bedroom? You are talking about the contrast in going from a model spot but—

Mr Wickham—If we are able to achieve the standards that we must outside the house, there will not be any issue inside. That is simply the fact.

Senator MOORE—But from a perception point of view, if it were my bedroom or my kitchen—but the issue is sleeping at night and it comes up consistently—I would feel more confident if the measurements were taken where I was making the complaint than if it was outside. That is just a personal perception. Is there any reason that you would not do that? Does it screw up the measurements in some way?

Mr Crockett—Could I possibly help out there?

Senator MOORE—Certainly, Mr Crockett; help me out.

Mr Crockett—The noise standards require that you record more than 10 metres away from a house. As soon as you go inside the house, you are effectively breaking the noise standards, so you are not able to use the data. When they record the noise, the noise specialists go through and sift out the rubbish—if it has rained right on the microphone and those sorts of things. If you put a microphone inside the house, suddenly you are in a zone where they do not know what to do—because someone has come and turned the radio on. How do you deal with that? It is a very prescribed process. If you move away from that process then immediately you are in an area where you cannot defend what you are doing.

CHAIR—It came up a lot yesterday—and you will be aware because many of you were there or you had representatives there—that ‘people haven’t come and monitored where I sleep in my house’. Has anybody ever explained to the community the issue that you just raised around the noise standards? Do you see why I am asking it?

Mr Crockett—Yes, sure.

CHAIR—No-one understood that yesterday, as far as I am aware.

Turbines are towering structures that impose themselves visually and acoustically on their neighbours. The reality is that wind turbines are neither quiet nor unobtrusive. Rather they impose on the once-natural landscape in what many describe as an untidy mess, littering the landscape, detracting from visual amenity and affecting tourism where that is based on the natural beauty of the countryside.

Many communities report disturbed sleep leading to increased anxiety and a plethora of medical complaints that include headaches, dizziness and vertigo, decreased digestive function and emotional anger. These symptoms should come as no surprise as they are reported world-wide and affected individuals now number in the thousands.

For some the 'noise' effect of turbines is increased due to the visual effects; that is, "If I can see them, I can hear them". This effect is the interaction of multiple stimuli creating a physiological and / or emotional response that is greater than the individual 'original' visual or acoustical stimuli.

Turbines produce a range of disturbing frequencies out of place in the natural soundscape extending from the audible range down into infra-sound. Residents frequently report that developers have claimed that the gentle sounds of the turbines will be absorbed or masked by the natural sounds of the environment. The wind in the trees, the sound of a stream. Residents report this as entirely untrue and an insult to their intelligence. Research undertaken by the author and many others has proved these claims of natural sound masking to be without foundation. In the words of the residents: "We have been lied to".

* Further research has shown that the acoustic energy from wind turbines is capable of resonating houses, effectively turning them into three-dimensional loud speakers in which the affected residents are now expected to live. The phenomenon of natural resonance combines to produce a cocktail of annoying sounds which not only disturb the peace and tranquility once-enjoyed by the residents, but also stimulate a number of disturbing physiological effects which manifest in the physical symptoms described above.

In the opinion of the author, backed up by residents' surveys and scientific measurements and analysis of the noise of turbine farms, these new generating technologies are proving to be a significant detractor for those living within 10 kilometres of them. More research is urgently needed to determine the extent of the nuisance effects and what setbacks are required to minimise the negative effects on resident communities. The long term medical implications are considerable and need to be researched before any further applications for wind farms are consented. Failure to do this, in the opinion of the author, will significantly effect the utilisation of this technology and will produce long-term consequences that will be to the detriment of the whole of society.