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"To protect and care for our natural environment for a sustainable future"

H McM Wright QC
Planning and Environment List
VCAT
55 King Street
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17th September 2013

CHERRY TREE WIND FARM PERMIT APPLICATION NO: P306963/12

VCAT Ref No: P2910/2012

BEAM Mitchell Environment Group would like to take this opportunity to reaffirm its support for the proposed Cherry Tree Wind Farm, to be located in the vicinity of the Trawool Valley in Mitchell Shire. BEAM previously wrote to the VCAT Tribunal in December 2012, detailing its reasons for supporting the grant of the permit, and this was followed by a supplementary submission by letter in January 2013.

BEAM has closely followed the progress of the VCAT hearing and welcomed the release of the Interim Findings on 4 April 2013. It was pleasing to note that the Tribunal found that the Permit Application was in accordance with the relevant planning considerations and noted that the Tribunal, in the absence of any such evidence to date, called for evidence from the parties of whether there is a causal link between sound pressure emissions from wind turbines and adverse health effects of a physiological nature.

Since the last hearing date, and during the hearing adjournment, a number of new studies and research papers relating to wind turbines and health have been released and BEAM has taken a keen interest in their findings.

Planning Assessment Commission of NSW findings on Bodangora Wind Farm

We are particularly encouraged by the very recent findings, dated 30th August 2013, of the Planning Assessment Commission of NSW relating to the Bodangora Wind Farm Project. The Commission members were faced with some of the very same issues that VCAT is currently considering – and indeed, put by some of the very same opponents using evidence that they submitted against the Cherry Tree project. In the case of Bodangora, the PAC handed down a finding that gave approval to the project, and the matter of wind turbines and possible health impacts appears to have been considered in depth and with care, and subsequently resolved. The PAC findings state that:

- The Commission has accepted the advice of NSW Health, noting that it is consistent with that of other health authorities, such as the Victorian Department of Health, and is satisfied that the proposal does not represent a health risk to the local community.

With noise levels, including low frequency noise levels, well within the applicable regulatory standards, and meeting the World Health Organisation's Guidelines for Community Noise (WHO 1999), the Commission is satisfied that the conditions

- will provide adequate protection against sleep disturbance

The Commission, via NSW Health, expresses support of the statement by the NHMRC that

- there are no direct pathological effects from wind farms and that any potential impacts on humans can be minimised by following existing planning guidelines.

The Commission's final determination states that:

The Commission is satisfied the wind turbines will not impact on human health.

When reading the Full Report, the Conditions and the Final Recommendations for Bodangora, it is clear that the Commission has carefully considered existing evidence relating to wind farms and potential health effects, and cites sources such as the EPA SA, the Victorian Department of Health, and the National Health and Medical Research Council as all being influential in its final decision.

Victorian Department of Health

In April 2013, after a review of literature, the Victorian Department of Health circulated its own findings regarding wind farm noise emissions and health in its publication 'Wind farms, sound and health: Technical Information.' It provides a useful understanding of the characteristics of sound and how sound may be measured and interpreted. Indeed, it demonstrates how high levels of noise may be damaging to our health, as well as how audible sounds can cause annoyance, but also relates this to non-acoustic factors, including individual noise sensitivity and attitude to the source. In section 7 of the document it confirms that

- any damaging effects are from noise at a level much higher than those near wind farms.

In Section 10 it discusses the alleged symptoms that have been attributed in individual and non-peered reviewed publications, and goes on to list some of those commonly described as 'wind turbine syndrome'. However, The Victorian Department of Health also states:

- These are common symptoms in the community generally and are not unique to those people living near wind farms.

Regarding infrasound, this Victorian Department of Health review finds that

- Infrasound can cause sleep disturbance but, like sounds in any other frequency range, it will only have this effect at an audible level.
- Infrasound from wind farms is at levels well below the hearing threshold
- Evidence does not support claims that inaudible sounds can have direct physiological effects.
- There are many sources of infrasound in the environment and it is even produced by the human body at much greater levels than infrasound from external sources such as wind farms.
- Humans have been exposed to high levels of infrasound throughout our evolution, with no apparent effects.

A conclusion of the Victorian Department of Health is thus:

There is no evidence that sound which is at inaudible levels can have a physiological effect on the human body. This is the case for sound at any frequency, including infrasound.

The reports, above, address the questions of audible sound as well as inaudible sound, below the threshold of human hearing. They also address the frequency of the sounds, down to the level of infrasound. In all cases, the evidence leads to the same conclusion: there is no causal link between sound pressure emissions from wind turbines and adverse health effects of a physiological nature.

Other reports of interest, in relation to this question concerning wind farms and possible health effects, were brought to the attention of the VCAT Tribunal during the hearing itself. The evidence in these reports supports and reinforces the above findings concerning health effects.

Environment Protection Authority of South Australia

The Environment Protection Authority of South Australia's study 'Infrasound levels near wind farms and in other environments', was published by the EPA SA in January 2013. The study compares infrasound in a range of typical environments in South Australia, with a particular focus on comparing wind farm environments to urban and rural environments away from wind farms. The study finds that

- Infrasound levels at houses adjacent to wind farms are no higher than those at houses located a considerable distance from wind farms.
- Organised shutdowns of the wind farms indicate that there did not appear to be any noticeable contribution from the wind farm to the G-weighted infrasound level at the houses where measured.
- The infrasound levels at rural locations both near to and away from wind farms were no higher than levels measured at urban locations, and that even the peaks were significantly lower than the threshold of perception.

Some reports provide insightful evidence as to why we may be hearing about alleged, but unproven health impacts.

The Nocebo Hypothesis

Another publication referred to towards the end of the VCAT hearing was the Chapman study of 14th March 2013, currently in review, Spatio-temporal differences in the history of health and noise complaints about Australian wind farms: evidence for the psychogenic, "communicated disease" hypothesis.

- Of all 51 Australian wind farms, 64.7% of them have never been the subject of any health or noise complaint.
- There are 32,677 people living within 5km of the 49 wind farms for which the report obtained residential estimates
- Nationally, between 1993 – 2012, only 131 individuals have complained ; that is a rate of only 0.4%, or 1 in 250

- 68% of the complaints are by people living near just five wind farms, each of which have been heavily targeted by wind farm opponent groups
- The majority of the complaints (82%) emerge after the inception of the Waubra Foundation

Chapman's paper goes on to discuss how the large majority of health and noise complaints only commenced after 2009, coincident with a time when anti wind farm groups began to add 'health' concerns to their wider opposition. Before 2009 health or noise complaints were rare despite 65% of Australia's wind farms having been in operation for many years prior.

It has been found that anti wind farm groups such as the Waubra Foundation and the Landscape Guardians are coming into communities where wind farms are proposed - as they have done in the case of the Cherry Tree Ranges Wind Farm - and are spreading negative and often emotive information, creating an anticipation of adverse health effects within those communities.

The paper 'Can Expectations Produce Symptoms From Infrasound Associated With Wind Turbines?', Fiona Crichton et al, University of Auckland, 11th March 2013, suggests how such psychological expectations could explain the link between wind turbine exposure and health complaints. Those participants that were presented with information that was designed to invoke high expectations that exposure to infrasound causes specified symptoms, indeed reported significant increases in the number and intensity of symptoms during exposure to both infrasound, as well as to sham infrasound.

Consideration of Future Evidence

In its interim findings, the VCAT Tribunal proposed a 6 month adjournment to the hearing to enable findings from an imminent EPA South Australia study at Waterloo Wind Farm to be concluded, suggesting it was probable that the study will address the relevant questions. However, with the results not yet to hand, it should also be noted that the EPA SA themselves advise

- that the conclusions may not be valid for other wind farms, and may only be valid for the Waterloo Wind Farm under the specific conditions (e.g. weather, wind farm operating conditions etc.) under which the study is undertaken. It also may not necessarily be valid for all residences potentially affected by noise emission from the Waterloo Wind Farm.

This suggests that the results of the report, if intended to be applied to the Cherry Tree case, will have very limited usefulness.

The VCAT Tribunal also advised NHMRC of its interest in any revision or update of its position in relation to the health impacts of wind farms, as a result of a proposed systematic comprehensive review of evidence. BEAM understands that the proposed update is well behind the previously envisaged schedule. BEAM notes that the NSW PAC and NSW Health, when passing approval for the Bodangora Wind Farm, mentioned this future NHMRC review and stated that

- it is supportive of this process and will update its policy should this review bring any new evidence to light.

Conclusion

BEAM Mitchell Environment Group, as stated at the commencement of this letter, confirms that it remains supportive of the Cherry Tree Wind Farm Proposal, and is satisfied that any concerns have been adequately addressed during the Tribunal or as part of the Conditions of Permit already determined. BEAM continues to be of the opinion that the benefits to our community far exceed any potential for negative impact.

We believe there are merits to determining an outcome as soon as possible – indeed the Tribunal has itself stated that it will, if not in receipt of the EPA SA report after 6 months

- determine the matter as best it can on the basis of the evidence now before it

It seems unlikely that any further information will substantially change the determination.

Members of the community who have been involved in this lengthy process – whether they have been in opposition or in support of the application – all have invested extensive time, money and emotional energy into the matter. To further prolong the decision would not be of benefit to our community at large, and would impede the need to move on.

Likewise, we feel that the proponent, Infigen Energy, has been put through a series of costly challenges in order to seek approval for this permit; challenges unlikely to be equalled by permit applicants in industries other than wind power. At BEAM's very heart is an ethic that recognises a need to support the increased availability of renewables into the existing energy mix, yet we are seeing that this may come at such a great cost to the companies actually operating in the wind farm sector, that their viability may itself be threatened.

Thus BEAM looks forward to the Final Determination by the Tribunal, and very much appreciates the opportunity to provide this further input into the VCAT process.

Yours Truly

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Sarah Durrant MBE
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