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2nd December, 2013

Premier of South Australia.

Mr Jay Weatherill,

Leader of the Opposition,

Mr Stephen Marshall

Mr Mark Parnell, Greens MLC

Independent Senator for South Australia

Senator Nick Xenophon

CEO & Chair, Clean Energy Regulator

Ms Chloe Munro

Open Letter re Concerns Relating to the Conduct and Integrity of the SA EPA and its Acoustic Survey at Waterloo

Dear Premier, Leader of the Opposition, Mr Parnell, Senator Xenophon, and Ms Munro,

I have written to you all, given that this is a matter of considerable local, and national importance, regardless of politics and ideology. This issue goes to the heart of public confidence in the conduct of employees of statutory authorities, charged with protecting the health of the public, and regulating the Renewable Energy Legislation.

1. Serious Damage to Human Health by Wind Turbines is Both Predictable and Inevitable

The health of "the public" in the form of rural residents living near industrial wind developments is currently being seriously and irreparably damaged by wind turbine noise. In South Australia, this damage is being permitted by politicians, and public servants working for the SA Government, particularly those in the departments of Planning, Health, and the South Australian Environment Protection Authority (SA EPA).

First, the current SA EPA wind turbine noise guidelines do not protect health, and do not include criteria to protect the public from infrasound and low frequency noise, established in 1985 by Dr Neil Kelley's 3 year acoustic survey,¹ funded by the US Department of Energy, involving a number of branches of NASA and multiple US research institutions. Secondly, the existing inadequate guidelines are not transparently and continuously enforced. Thirdly, the reported health problems have not been directly investigated in any way by the South Australian Health Department, despite that Department being repeatedly advised of the problems, both directly by the residents, via repeated reports in the media, and by the Foundation. Finally, current planning regulations allow the placement of large wind turbines much too close to homes. Serious

long term damage to the sleep and health of an increasing number of nearby residents is occurring, and is both predictable and inevitable on the basis of current knowledge.

2. The Waterloo Wind Project is a Public Health and Planning Disaster

You are all aware that some residents living beside the Waterloo wind development have been reporting serious health problems, repetitive sleep disturbance and in some instances home abandonments, sometimes on medical advice from their treating doctors. I am sure you are also all aware that the results of an acoustic survey at Waterloo have just been released by the SA EPA.²

3. The EPA Noise Measurements May Have Been Falsified

The Waubra Foundation has grave concerns about the manner in which some aspects of this acoustic survey was conducted. *We are particularly concerned that the SA EPA staff have used irregular practices to collect the acoustic data which are different to the protocols specified in the SA EPA Wind Farm Noise Guidelines. We think this has been done in order to “find” that Waterloo wind development is compliant with the noise regulations when in fact it may not be.* A number of Australian and international acousticians who are independent of the wind industry and the SA EPA share our concerns.

4. Microphones Located Under Gum Trees

We are aware of at least two locations where the acoustic data was collected with microphones underneath large gum trees, *which is not in accordance with the SA EPA’s own noise guidelines.* This will deceptively inflate the background noise, giving the impression that the Waterloo district is a much noisier environment without wind turbines operating than it really is, and could therefore affect determinations of compliance with the noise pollution regulations. *We believe the wind turbine noise at Waterloo frequently exceeds levels of compliance at some homes, and that the SA EPA has been well aware of this.*

Australian and international acousticians, who are financially independent of the wind industry, advise us it is common practice for wind industry acoustic consultants to deliberately locate microphones in bushes so that background noise levels are artificially inflated. However until this recent survey conducted by the SA EPA, we were not aware of a noise pollution regulatory authority, charged with regulating noise pollution and protecting the health of the public, doing so.

5. EPA Liability

This is an issue of considerable importance. If EPA acoustic compliance data is invalid, the SA EPA may be responsible for a wind development operating and causing predictable sleep disturbance and harm to human health from noise pollution in excess of EPA guidelines. Furthermore, the wind developer may have been collecting Renewable Energy Certificates from the Clean Energy Regulator without valid evidence of compliance, and therefore in breach of mandatory legislative requirements with the Commonwealth Renewable Energy Act. It suggests a serious conflict of interest for the SA EPA in evaluating compliance at this wind development given (at the very least) their embarrassment should the development be found to be non compliant by thorough independent acoustic scrutiny.

6. Is the EPA Ignorant or Complicit?

The only other explanation for the choice of locating noise logger microphones under gum trees is ignorance of the guidelines. EPA noise experts helped write the guidelines, and have previously explained

that during acoustic testing in 2011 at the same location, they moved a monitor because it was “too close to trees & vegetation” to get an accurate reading of wind turbine noise.³ It is therefore clear that EPA staff know of the importance of this microphone siting.

It would appear that the EPA staff involved in this recent acoustic survey, are complicit in a deliberate attempt to corrupt the data and mislead the residents, the government and people of South Australia, and others including the Clean Energy Regulator. Given the global nature of the reported problems and the international interest in this particular acoustic survey, it is highly likely that others around the world will also rely on the conclusions of this work. If there has been deliberate dishonesty with one part of the survey, it also raises questions about the integrity and validity of all the other fieldwork as well, let alone the integrity of the guidelines themselves.

We have other grounds for concern about the probity and conduct of some of the SA EPA staff, some dating back to 2010.

Information from SA community members about historical advice given by the senior noise expert with the EPA that “*there are no wind farm noise problems anywhere in the world*” and that “*there is no need for pre construction noise monitoring*” gives us further cause for grave concern about the motives and integrity of some members of the SA EPA. We know that pre construction noise monitoring is essential for comparing pre and post construction noise from the wind turbines. Without that pre construction background noise level, it is not possible to compare noise levels pre and post construction, and therefore determine compliance post construction.

This same senior noise expert has already been the subject of a previous related internal investigation, concerning his behaviour at a public meeting in Port Pirie in September, 2010, where he publicly verbally attacked an exhausted farmer from Mt Bryan, severely impacted for some years by the acoustic emissions from AGL’s Hallett 2 wind turbines. This farmer had just described how “someone from the EPA” had come up and measured the noise levels during the day “*when only a couple of turbines were barely turning*”.

It certainly appeared to many in the audience that the ensuing verbal attack was in response to that information being out in the public domain – the farmer only realizing after this disclosure during his speech that the person subsequently abusing him publicly in this public forum during question time was the same EPA employee who had attended his property on April 1st, 2010 and conducted the measurements. After a number of people made formal complaints to the SA EPA about the conduct of this senior noise expert employed by the EPA, including a local lawyer and myself, the SA EPA conducted an internal investigation, the results of which have never been made public. However following this, subsequent noise testing by the EPA at Hallett 2 found that the wind turbine noise indeed breached the SA EPA guidelines. AGL were then forced to address the noise problems, which according to this same farmer still continue today despite work done by AGL to address the tonality & excessive noise issues.

7. Hallett 2 “Non Compliance” and the Hallett 3 Court Case

You may remember that AGL withdrew from their Hallett 3 appeal just a few days before the court deadline to hand over the acoustic and operational data relating to these Hallett 2 wind turbines. This data would have enabled acoustic scrutiny of AGL’s claims of compliance, independently of both AGL and the SA EPA. Unfortunately that independent external acoustic scrutiny never eventuated, because the data was never handed over following AGL’s sudden withdrawal from the court case. We have ongoing

concerns about both the lack of compliance and the adverse health and sleep impacts of many neighbours adversely impacted by that Hallett 2 wind development.

This same EPA noise expert was also the subject of an affidavit, which was to be used in that AGL Hallett 3 appeal. One of the Waterloo residents stated in that affidavit that she heard the SA EPA noise expert say to his colleague that *“this house doesn’t comply with the EPA’s standards”* or words to that effect when he attended her house in November 2011 for the purposes of noise monitoring, after she had made multiple complaints to the SA EPA and the wind developer.

This same Waterloo home, *known to the EPA officer to be non compliant*, was one of those where the microphone was placed under a large gum tree for the recent SA EPA Acoustic survey. Previous background noise measurements at this location, collected with microphones out in the adjoining field rather than immediately under the gum tree by a number of different acoustic expert and academic researchers, *reveal much lower background noise measurements*. The resident challenged the EPA person installing the monitoring equipment about its location under the gum tree for this SA EPA acoustic survey, only to be told that the tree noise would be “subtracted out”.

8. Current Guidelines Are a Permit to Damage Neighbours

The issue of the inadequacy of the current SA EPA Wind Turbine Noise guidelines to protect the health and in particular the sleep of the neighbours out to at least 10km is a separate but related issue, which we covered recently in our Explicit Warning Notice, also attached to this letter.

The authors of the SA EPA wind farm noise guidelines and its subsequent amendments need to explain why they omitted the health protective parameters for limits of infrasound and low frequency noise exposure established by comprehensive field research by Dr Neil Kelley in the USA, in 1985, from those noise guidelines. Who was responsible for the subsequent amendments to the SA EPA guidelines, which made it easier to place wind turbines close to homes, and what involvement did the wind industry and its favourite acousticians have in these amendments? What empirical research had been conducted by the SA EPA, or any other research, which showed that there would not be a negative health impact from this change? Who decided to insert the misleading paragraph in the current guidelines that infrasound only occurs at a “well maintained wind farm” when it is abundantly clear the wind industry and its acousticians have known this is untrue for many years? ⁴

9. Why Did the EPA Refuse Help From the Best International Acousticians?

Finally, the decision by Dr Campbell Gemmell, the CEO of the SA EPA, **not** to accept the genuine offer of help with oversight of the “on off” testing for this acoustic survey, free of charge, from a panel of international acousticians led by the world renowned Director of Acoustic Standards of America, Dr Paul Schomer, and including acousticians who worked for the wind industry; has further eroded the trust of the community and the Waubra Foundation in the SA EPA.

This refusal alone, to accept a donation of world class international acoustic expertise and assistance, gives the distinct impression that the South Australian EPA is an organization which is less concerned about protecting the health of the public, and more concerned about protecting themselves from the consequences of their own inaction and inadequate guidelines, and the commercial interests of noise polluters *at the direct expense of the health of the public.*

10. Where Is the Department of Health?

We note that the SA EPA were very quick to say of their recent acoustic survey that “this is not a health study” and they acknowledged what they called people’s “concerns”. They say they have referred the material to the SA Health Department.

We urge the SA Health Department to become directly involved as a matter of urgency, given that people are leaving their homes and in some instances being advised to leave by their treating health practitioners, including general practitioners and a cardiologist. ***Medical Practitioners are refusing to put this advice in writing, and are telling their patients they are refusing to speak out publicly because they do not want to be ridiculed.***

11. Judge Orders Turbine Shut down Overnight to Prevent Irreparable Harm to Health

Given the issuing of an interim injunction in November, 2013⁵ to stop wind turbines operating overnight by a judge in Falmouth, USA where the potential for “*irreparable harm to physical and psychological health*” from wind turbines was explicitly acknowledged, the active involvement of health bodies and medical practitioners, and health researchers in this issue in Australia is long overdue.

12. Necessary Actions

Premier, we therefore ask that you agree to do the following as a matter of urgency, in order to prevent fraudulent claiming of Renewable Energy Certificates by non compliant wind developments, and *further irreparable harm to human health* at existing and future South Australian Wind Developments:

1. Institute an immediate public inquiry external to the SA EPA to investigate breaches of Integrity, Respect and Accountability as defined within public service Codes of Conduct within the SA EPA. These breaches relate to staff conduct in this acoustic survey and other instances where rural residents have been adversely impacted by wind turbine noise, and EPA staff connections with the wind industry. We ask that this inquiry be held in public because of specific concerns about lack of transparency, major conflicts of interest, cover-ups and corruption.
2. Immediate amendment of the current SA EPA wind turbine noise guidelines to include the health protective parameters for infrasound and low frequency noise, stipulated by the 1985 Kelley research.
3. Immediately refer this matter to the Health department, for them to conduct an urgent and thorough health impact assessment of South Australian residents impacted adversely by wind turbine noise.
4. Urge the Federal Government to allocate the funding to implement the findings of the 2011 Senate Inquiry into rural wind farms, in particular with respect to the multidisciplinary research with concurrent acoustic and sleep monitoring in order to determine precisely which frequencies are repetitively waking people, and at what doses of sound energy, and what distances.
5. Require transparent full spectrum noise monitoring including infrasound and low frequency noise as well as those frequencies currently measured (dBA) at all wind developments where neighbours are reporting sleep and health problems, on an ongoing basis, and that the noise data, together with the wind mast and power output data from the wind developers is provided transparently to all stakeholders.

6. Ensure there is a proper system for both recording and immediately acting on complaints for residents so that the operators cannot get away with ignoring the phone calls of residents who ring them regularly, as has happened at Waterloo. Such a complaints system clearly needs to be independent of the operator, breaches need to be enforced and action taken to address the issues of those who are adversely impacted, whether there is a breach of the noise guidelines or not.
7. Ensure there is an expert acoustic peer review committee, composed of acousticians who have investigated the resident's complaints, and **who are clearly independent of both the wind industry and the SA EPA**, to assist with regular and timely review and implementation of the rapidly expanding acoustic knowledge base in this area, *where the priority is protection of public health rather than serving the interests of the noise polluters* at the expense of the neighbours.
8. Vulnerable family members of financial stakeholders should not have to bear the health consequences of exposure to excessive health damaging noise pollution, especially when they are young children. Turbine hosts and vulnerable members of their families such as children and elderly parents must not be excluded from the health protective parameters and noise pollution assessment.

We also specifically ask that *no* further wind developments or major projects are approved, by either local or State planning bodies, until the current major problems with wind turbine noise pollution regulation are fixed, *so that the predictable State sanctioned serious irreparable harm to human health does not continue*,

Yours sincerely,



Sarah Laurie, CEO

Attachment: Waubra Foundation Explicit Warning Notice 22nd November, 2013

References

1. Details contained in the Waubra Foundation's Explicit Warning Notice 22nd November, 2013 <http://waubrafoundation.org.au/2013/explicit-warning-notice/>
2. SA EPA survey http://www.epa.sa.gov.au/environmental_info/noise/wind_farms/waterloo_wind_farm_environmental_noise_study
3. Holmes, B & Lenchine V December 2011 <http://waubrafoundation.org.au/resources/holmes-lenchine-december-2011-waterloo-wind-farm-environmental-noise-monitoring-report/>
4. See Dr Neil Kelley's comments in the Australian article by Graham Lloyd on 24th July, 2013 <http://waubrafoundation.org.au/resources/lloydg-newer-wind-turbines-could-be-just-as-harmful-as-prototypes/>, and the graph depicting Dr Frits Van Den Berg's measurements of unweighted wind turbine noise (including infrasound and low frequency noise) in 2006 - <http://waubrafoundation.org.au/about/acoustic-pollution-assessment/>
5. Justice Muse's ruling for the interim injunction <http://waubrafoundation.org.au/resources/us-judge-rules-wind-turbine-neighbours-suffer-irreparable-harm/>