My comments in respect of this paper are as follows. They are followed by my recent submission to the EPA on their Wind Farms Environmental Noise Guidelines (EPA 2009) Review 2020, which are...Attached together with the Liberal Party Flier (2014).

1. In respect of industrial wind turbines, this draft policy is hardly a “modernisation of South Australia’s planning system”. Your overtly generous allocation of 200m additional distance to a residence represents no change at all – it is only half the length of my driveway! Likewise the “direction” of the EPA represents no regard to the health and safety of development affected residents (see discussion below).

2. You admit that since 2015 “turbines are getting taller” up to 240m, but are intending to rely solely on the selective literature review of the 2015 National Health and Medical Research Council (NHMRC) on wind farms and impact on health which is now antiquated and also relies solely on the dBA weighted measurement scale which is a meaningless measurement since it does not account for the effects of ILFN exposure or infrasonic noise pollution on residents. The noise frequencies emitted by industrial scale wind turbines is nothing like the “noise levels in standard residential areas ... with noise from wind turbines similar to many other natural and human generated sources” (p.8).

It is most concerning that in quoting the NHMRC you glibly deny any adverse health effects by these industrial installations and that neither you nor the EPA make any mention of the NHMRC funded studies of several years duration currently underway by the Flinders University and the University of NSW. In this regard, I also refer to the important work of Professor Mariana Alves-pereira most recently to https://livestream.com/itmsstudio/events/8781285/videos/196181579 (12 September 2019) which has a couple minutes silence at start is 1hour and has a 1hour Q&A session afterwards. Her qualifications and references are at www.researchgate.net/profile/Mariana_Alves-pereira.

3. The “Cumulative impacts” of these developments which you partially acknowledge (“dust, noise, amenity” p. 9), are many and varied and ALL ARE DETRIMENTAL TO THE LANDSCAPE AND ITS LIFEFORMS such that no “buffers” can alleviate. A 240m tall turbine cannot be screened out by a few trees which also take years to grow and create fire risks, particularly as aircraft fire suppression is extremely problematic amid a ‘forest’ of 240m turbines! Also the decommissioning these installations typically much sooner than their proponents claim is also very problematic and ill thought through.

4. The Zoning issue (p. 9) is also problematic because as soon as a turbine installation is built it means a Rural Zone is instantly transformed into an Industrial Zone and is treated as such. The quiet dark ambience typical of a Rural Zone is changed forever.

5. The large-scale wind farms, solar photovoltaic arrays, solar thermal plants, grid-scale batteries, biofuels [which are totally inefficient and produce CO2!] facilities and pumped hydro systems (p. 9); “battery storage facilities, hydropower or pumped hydropower facilities; solar power facilities; wave power generators; and wind farms as envisaged types of development (also p. 9)”, do not represent any meaningful high-energy power generation sources - they are not significant baseload power sources - and this government is just tinkering at the edges at enormous retail power consumers'/taxpayers’ expense. In the driest state on the driest continent, at what level of efficiency or sustainability is hydropower? When will the madness end; when short-term policies by short-term governments die off?

6. “A number of interstate authorities have updated their renewable energy guides to reflect the latest information requirements, current planning policies, best practices and associated regulations that are applicable to the assessment of such developments (p. 9)” are not paragons of global best practice. Other countries such as Germany are phasing out RE at huge expense during and after its “Energewende” now generally acknowledged to have been a failure. Why should SA follow suit??

7. The ‘cartoon’ on p. 10 is insulting to rural residents, is unrealistic and totally misleading – a house is nowhere near the size of a third of the height of a 240m tall turbine!

8. No change in aircraft safety or environmental impacts in view of greatly increased turbine heights = thumbs down; what more can be said regarding the now well documented local devastation these installations cause?

N. Webster, Bsc.
“The core objective of the guidelines is to balance the advantages of developing wind energy projects in South Australia with protecting the amenity of the surrounding community from adverse noise impacts.” (p.3, Introduction Draft for Consultation...July 2019, emphasis added).

Firstly, as an unconsenting adjacent landholder to a currently approved industrial wind turbine factory installation in this State, I propose these installations should be called just that, which is what they are and not the offensive and misleading euphemism of “wind farms”.

I do not consider the EPA has been faithful to its core objective stated above in the drafting of these guidelines. The proposed unchanged audible noise limit for South Australia of 40 dB(A) is set far too high, with all other wind installations States being lower and the Office of the National Wind Farm Commissioner' Andrew Dyer recommending a 35 dB(A) limit (A Dyer, Annual Report to the Parliament of Australia 31 March 2019). The Commissioner (Ibid. p. 53, 2018) reports that “Health conditions cited in complaints include sleep disturbance, headaches, ear aches, ‘pounding’ in the ears, tinnitus, tachycardia, high blood pressure, sight impairment, diabetes, chest-tightening, nausea and general fatigue. The complaints generally state that such conditions are caused by audible noise and low frequency noise, including infrasound, along with vibration sensations attributable to the operation of nearby turbines”. These symptoms have been reported for many years by people living in the vicinity of industrial wind turbines the world over and are increasingly well documented; why should exposed communities continue to be doubted? The revised EPA guidelines are ‘a slap in the face’ for the many individuals and rural communities residing in the ‘firing line’ of these inefficient, expensive and problematic industrial developments.

Moreover, Australian and international studies such as by Steven Cooper “The results of an acoustic testing program - Cape Bridgewater Wind Farm”, The Acoustics Group December 15, 2014 (https://www.wind-watch.org/documents/results-of-an-acoustic-testing-program-cape-bridgewater-wind-farm/), and Professor Mariana Alves-Pereira, who has for over 30 years researched and widely explained vibroacoustic disease as attributable to infrasound generated by industrial noise pollution sources including the aviation industry and industrial wind turbines, recommends that the whole acoustic spectrum be taken into consideration. Professor Alves-Pereira in particular considers the weighted dBA scale to be meaningless (refer to lectures by M Alves-Pereira: “Professor Mariana Alves-Pereira Explains Vibroacoustic Disease”, 2019, https://www.youtube.com/watch?v=M83SReJ9Wrl; and “Infrasound and Low Frequency Noise” - Ljubljana, 2018, https://www.youtube.com/watch?v=ZXCZ3OykIrE) because it only measures audible and not inaudible sonic frequency pressure waves that have been positively linked with disease at the cellular level in humans and other biological organisms. Just as the light spectrum features damaging radiation waves, the acoustic spectrum does also and dBA Linear Scale is the appropriate measurement to adopt in order to protect human health. Professor Alves-Pereira personally puts 20kms as a safe distance from industrial infrasound sources (Ibid, 2019). As Steven Cooper rightly points out, the “periodic pattern in the infrasound (the wind turbine signature)”, “the pattern of the frequencies or modulation of those frequencies...are factors that should be considered in any future medical studies” (Ibid, 2014), in order to “quantify the agent of disease” (M Alves-Pereira refer particularly to “Video 4 Low Level Radiation and Health Conference”, 2018, https://www.youtube.com/watch?v=ou9_-YtxlKo).

The “EPA has undertaken a minor technical review of the guidelines” – this is insufficient, and excluding dBG frequency-weighting characteristics for infrasound measurements, does not reflect current extant global research. Likewise the highly selective paltry number of documents listed in the Bibliography “the EPA has taken into consideration” are nearly all antiquated and outdated.
Furthermore the EPA guidelines do not appear to speak to the SA Government's Planning & Design Code regarding industrial wind turbines also to be again subject to public input from October 2019 (https://www.saplanningportal.sa.gov.au/__data/assets/pdf_file/0009/572688/Discussion_Paper_on_Proposed_Changes_to_Renewable_Energy_Policy_in_the_Planning_and_Design_Code.pdf). The recommended setback distances of this latter document are wholly arbitrary: \textbf{WHERE IS THE EVIDENCE THAT ONLY 1 KM, 2 KM OR EVEN 5 KM ARE SAFE FOR BIOLOGICAL ORGANISMS INCLUDING HUMANS?} (A 2 km setback to turbines for non-participating homes and 5 km for townships being the Liberal Party's pre-election 'promise' that has now evaporated, the brochure “Windfarms Can Generate Angst”, SA Liberal Flyer, 2014, attached here.) Why should the burden of proof regarding health and safety and amenity be put on rural communities and not upon the proponents of these continuing destructive industrial developments?

The Victorian Bald Hills Wind Farm inquiry by the independent public health consultant in February 2019, James C. Smith and Associates, has found that “there is a nuisance caused by wind farm noise, in that, the noise is audible frequently within individual residences and this noise is adversely impacting on the personal comfort and well being of individuals”. The outcome of this inquiry is likely to set in motion a legal precedence of noise nuisance, and both the EPA in accordance with its \textit{Environment Protection Act 1993} (EP Act) [which] requires a duty of care...section 25, and the Department of Planning, Transport and Infrastructure would be prudent to heed the likelihood of Class Action in this regard also occurring in this State.

To quote the Liberal Party Flier (2014) which quotes the Canadian Court Judgement of 2011:

"... the debate should not be simplified to one about whether or not wind turbines can cause harm to humans. The evidence provided ... demonstrates that they can (cause harm to humans) if facilities are placed too close to residents."

Canadian Court Judgement, July 2011, Ontario.

N Webster, BSc.
29 August 2019.
Community opposition to industrial scale wind generators is increasing. At the same time, Labor is planning to approve more and more wind farms closer and closer to homes, villages and schools.

Neighbouring homeowners and primary producers want to be protected from encroaching wind farms.

Labor wants to remove third-party appeal rights.

The Liberal Party believes wind farms must not be approved on sites where they create negative economic and social effects.

We will protect residents by banning new wind turbines from being built closer than five kilometres from an existing home.

The Liberal Party stands for fairness. It's a principle the Government has long forgotten.

"We will protect residents by banning new wind turbines from being built closer than five kilometres from an existing home."

SENSIBLE AND BALANCED

A State Liberal Government will:

• Impose a moratorium on building new industrial wind turbines and associated infrastructure less than five kilometres from an existing dwelling without the owner's consent.

• Allow third-party appeal rights, which the current Labor Government wants to remove.

• Help develop national guidelines regarding separation distances and noise emissions.

• Support a South Australian university peer-reviewed study into the effects of industrial wind turbines on nearby residents and communities - if South Australia is to be Australia's leading wind generation State, we should be the national leader in academic research into the industry.

• Develop a State-wide zoning plan setting out where industrial wind turbines will be prohibited. This means no wind farms in inappropriate, sensitive, or visually and culturally iconic parts of the State like designated Ramsar sites and places on heritage registers.

• Adopt an approval process for wind farms which will consider associated infrastructure such as transmission lines and substations, rather than considering just the turbines and towers.

WIND FARMS CAN GENERATE ANGST

South Australians don't want to live too close to industrial scale wind generators.

We have more wind generation than any other State - in fact, we have one of the highest proportions in the world of wind power generation. More than half of Australia's installed wind power is in South Australia.

Wind-powered generation is seen as totally eco-friendly and green.

However, concern is building over its cost, health effects and aesthetics.
Cost

Wind-generated power is very expensive, but wind farms don’t reduce the need for conventional generating capacity because we still need to meet peak demand on hot or still days.

The Energy Retailers Association warns we’re footing the bill for both wind and back-up electricity generation. We still have to pay for all that infrastructure even if it isn’t used.

Then there is the cost to individual homeowners. Homes and properties are often devalued when nearby turbines are in line-of-sight. Experts assess the loss of value to be in excess of 30 per cent and sometimes up to half.

In Sickness and in Health

“The debate should not be simplified to one about whether wind turbines can cause harm to humans. The evidence provided... demonstrates that they can (cause harm to humans) if facilities are placed too close to residents.” – Court Judgement, Ontario, Canada, July 2011

Like car sickness, turbines don’t affect everyone, but no one doubts the validity of the sufferer’s condition.

Peer-reviewed studies show those living over a kilometre from industrial wind turbines suffered sleep disruption so severe it affected their daytime functioning and mental health.

The Clements and Waterloo wind farms can be heard three kilometres away. Many people report sleep disruption and nausea.

Fire!

Turbines reduce the effectiveness of aerial fire-fighting. Planes have to keep their distance from turbines.

In November last year the Southern Fleurieu CFS was called to a fire at the Starfish Hill Wind Farm near Cape Jervis. CFS officers could do little but watch the blaze from a kilometre away when Work Safe deemed it too dangerous to approach.

Done and Dusted

Primary producers who use crop-dusting or aerial applications are often restricted from spraying crops resulting in financial loss. The Aerial Agricultural Association of Australia (AAAA) says wind farms are a direct threat to aviation safety.

“They also pose an economic threat to the industry,” says the AAAA. “As a result of the overwhelming safety and economic impact of wind farms and supporting infrastructure on the sector, the AAAA opposes all wind farm developments in areas of agricultural production or elevated bushfire risk.”

It is Liberal Party policy that farm management practices and rights of neighbours and adjacent landowners must be protected. This includes protection against economic losses caused by restrictions on aerial fire-fighting, spraying, crop-dusting and mustering.

Taking the Fight to Labor

Wind generation facilities are ferociously opposed by many communities. The first real test was in 2002 over a proposed 20-turbine generator around Myponga and Sellicks Hill. A seven year-long campaign against the proposal – some generator towers were less than 750 metres from homes – led to the proposal being scrapped.

“...the debate should not be simplified to one about whether or not wind turbines can cause harm to humans. The evidence provided... demonstrates that they can (cause harm to humans) if facilities are placed too close to residents.”

Canadian Court Judgement, July 2011, Ontario.