Submission against the Thunderbolts wind farm proposal

By George Papadopoulos 19 May 2022.

Introduction

I wish to express my objection to the proposed Thunderbolts Wind Farm. I am concerned about the noise issues that local residents, farm animals and wildlife will be exposed to; long distance issues with noise; the effects of wind turbines on the local microclimate; and the visual impacts on the very scenic area of the Kentucky area.

Noise issues for local residents

The current noise guidelines consider wind turbine noise acceptable if does not exceed 35dBA. As I had discovered many years ago when performing noise monitoring at my former property at Yass NSW, the noise level was frequently below the threshold of the monitoring equipment (18dBA), and this included light wind condition when wind turbines would normally operate, particularly at night. Wind turbine noise is recognised as being amongst the most annoying sources of noise, particularly when amplitude modulation exists (Janssen et al., 2011; Nguyen et al., 2021). Even at the 3km distance amplitude modulation has been recorded from wind farms for 30% of the night-time environment. The current noise guidelines fail dismally at protecting rural residents against noise nuisance and against the potential for sleep disruption and the health impacts that accompany this.

Long distance issues with noise

Wind farm noise has been found to be audible to a significant number of residents up to 10km away from a wind farm (*Expert Review of the Evidence on Wind Farms and Human Health | NHMRC*, n.d.)

My personal experience at my former property at Yass NSW, suggests that noise issues can travel more than 30kms away. Several of my former neighbours reported hearing similar peculiar drone noises at the time, particular during times when the winds were still at ground level but the wind was still blowing to keep the wind turbines down the horizon going. I personally found this intrusion highly disturbing: I had bought a rural property to enjoy the peaceful soundscape that goes with rural areas – not to subject myself to noise that was on occasion more disturbing at night than highway traffic noise.

Welfare of farm animals and impacts on primary production

There is little research to support the compatibility of wind turbines with primary production (Olof Helldin et al., 2012) More recent research suggests that the presence of wind farms decreases biodiversity (Kumara et al., 2022) and in the case of reindeer, wind farm noise appears more disturbing than the presence of humans and construction noise during the construction of the wind farm (Skarin et al., 2018). More concerning is research suggesting that wind turbines appear to have profound effects on the levels of stress hormones in some animals (Agnew et al., 2016; Łopucki et al., 2017). If this were to be the case with grazing animals, then this is likely to decrease productivity and meat quality as animals under stress tend to have poorer protein content and higher fat content.

Effects on microclimate

Wind turbines have been found to cause significant warming effects on local temperatures as they mix are currents and direct warmer air towards ground level. This raises concerns about the vulnerability of the surrounding region to drought and extreme fire danger conditions. It also increases the risk of introducing more extreme temperature and humidity variation. At the global level large-scale wind installations would take about one hundred years of carbon emission abatement to offset these warming effects (Miller & Keith, 2018)

Visual effects on the Kentucky area.

The Kentucky/Bendemeer area is amongst the most scenic when driving between Armidale and Tamworth via the New England Highway. I feel that this proposal is nothing more than a wholesale defacement of this area.

Summary

I strongly object to the Thunderbolts Wind Farm proposal. I strongly believe that it will adversely affects the local and regional soundscape, risk harming the health of residents and animal life, alter the local microclimate and engender the local area to more climactic extremes and ruin the scenic hills of the area.

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