

Ark Hill wind turbines (8 x 80m Enercon E48 turbines) - One Year On
5 Mar 2013 – 4 April 2014

I live at Arniefoul which is 5km East of the Ark Hill wind turbines and 1.6km West of the proposed Govals wind turbines (6 x 87m turbines). The prevailing wind is from the West.

Ark Hill was commissioned on 5 March 2013 and at that time I started to have continuous headaches with some light-headedness and tinnitus. Further to this, I also started to suffer frequent sleep disturbance. When I awoke I could often hear the whooshing of the turbine blades. Assuming it was the audible sound that was disturbing me, I moved my bed further away from the window and slept with the window closed. This made no difference to my sleep deprivation – usually being woken at around 3am until 5am. With the window closed I rarely hear the turbine noise, but I can sometimes feel their rhythm and therefore deduce that it is an inaudible noise (Low Frequency Noise and Infrasound) that is causing the lack of sleep.

In June 2013 I had two dizzy spells when out walking on the hills surrounding Arniefoul. It was at this time I noticed a correlation between the turbines, the wind direction and the above symptoms. My tinnitus became constant and on some nights extremely loud.

My symptoms appear to be worse when there is a Southerly wind. The Ark Hill turbines rotate clockwise and therefore it is probably an emission during the down stroke that creates the harmful effects. This suggests it may have little to do with the supporting structure and therefore an ‘upwind’ or ‘downwind’ design of turbine will make little difference.

Surprisingly, the prevailing Westerly wind seems to cause slightly less symptoms than a Southerly wind. Turbine noise, however, is most audible when there is little prevailing wind at ground level and at treetop level, but sufficient wind at turbine blade area to turn the blades at a critical speed. In similar conditions to these, when there is an Easterly wind we can easily hear traffic on the A90, 5km to our East, even though there is the huge bund of the Sidlaw Hills between us.

A North or East wind causes slightly less symptoms again, although should the Govals wind turbines be erected, I expect to suffer greatly from those turbines during these wind directions.

January and February 2014 were particularly bad months with predominately Southerly and Westerly winds causing much sleep deprivation, loud tinnitus, lack of concentration and irritability.

On 9 February 2014, I started recording my blood pressure morning and evening. It fluctuates considerably with a recorded high of 185/105. On 28 March for instance, after several days of Easterly wind, it was at a more ‘acceptable’ 140/83. There appear to be correlations between wind, atmospheric and weather conditions.

Whilst my body may be building some form of resistance to the turbine noises (audible and inaudible) I also believe it is getting more sensitive in certain ways. I sometimes get my “turbine headache” out to at least 10km from the turbines. Also, I have recently noticed I need to clear my ears more frequently, similar to going up in an airplane or scuba diving.

From 6 – 12 March we stayed near Tarfside, Glen Esk (currently no turbines near there). All my symptoms reduced noticeably, with my blood pressure reaching a low of 136/81.

An obvious option is to sell my property and move (where to?). My work is in the local area and therefore this is not really a business option. Nor is it an emotional option since my family has enjoyed being at Arniefoul for nearly a century.

I have heard of landowners with turbines who now regret having turbines on their land, yet are unable to speak out due to 'non disclosure clauses' in their contracts with developers. Also, I suspect that there are many people living near wind turbines who suffer similar conditions to mine but who remain silent for fear of property devaluation, tenancy or employment concerns, and the like.

I am sure that should the Govals and Frawney (5 x 80m, same make as Ark Hill and West Knock Farm, Buchan) wind turbines be erected, with Forfar and Letham being on the down-wind side, there will be people with similar sensitivity as myself who will suffer. Children are thought to be more sensitive to turbine noises than adults.

People sometimes say that I look well considering the symptoms I describe. I am reluctant to take drugs/medication, with their own potential side effects, when I do not believe they are treating the root cause. I have always made considerable efforts to maintain a high level of fitness.

I understand that:

- Low frequency noise and Infrasound (such as emitted by wind turbines) are sound waves that are felt by the body rather than heard, probably by the utricle. Depending upon the amplitude or intensity, it produces feelings of extreme discomfort, a feeling that the body is vibrating. Depending upon the frequency and intensity, infrasound can keep you awake, or induce sleep. Therefore, it can cause sleep deprivation.
- Infrasound induces stress and causes the body to secrete the hormone Cortisol. This effect is a medically recognized danger of long-term infrasound exposure.
- Cortisol, plays a vital role in preparing our body for stressful "fight or flight" episodes. It increases blood pressure and blood sugar levels, and has an immunosuppressive action that provides needed alertness and energy during stressful experiences. However, during long term stress, or if Cortisol production is prolonged, its effects on the human body can become severe. A weakened or suppressed immune system will allow existing health problems to accelerate, and make it easier for new ones to be created.
- Exposure to infrasound during early sleep hours can be particularly harmful. This is when the body normally produces the lowest levels of Cortisol. This might explain my 3am awakening and subsequent wakefulness. Artificially stimulating Cortisol production during sleep means that the Cortisol is not used and remains in the body, potentially damaging essential body functions.
- A sound wave in air is a sequence of pressure changes. A sound wave in a liquid or solid is more like a vibration. This helps explain how Low Frequency Noise and Infrasound travel great distances and easily pass through solid walls, and can set up vibrations or resonances in rooms and body cavities.

There is well-documented and peer-reviewed evidence of the detrimental health effects that turbine emissions have on humans. It is unethical to expose people to something already suspected of being harmful.

Where is the 'Duty of Care'?

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