

## **GENERAL STATEMENT BY JANE & JULIAN DAVIS**

### **Background**

My name is Jane Davis. I am a Nurse, Midwife and Health Visitor. I have a Masters Degree from Manchester Business School. I retired in July 2006. I live with my husband Julian Davis, who holds a BSc, 930 m from Deeping St Nicholas Wind farm, just south of Spalding in Lincolnshire. We are tenant farmers.

The windfarm at Deeping St Nicholas consists of eight 2MW REpower MM82 turbines. There are six other houses situated a similar distance away from the turbines. Ours is the only one downwind of the prevailing wind from the turbines and our nearest neighbours are a quarter to half a mile away, further away from the wind farm.

The wind farm was built in 2006 and became operational in early June that year — within three days we became aware of problems with the noise and hum emanating from the wind farm. Since then we have had constant issues with various loud noises and low frequency sounds that create a hum in the house all the time, not merely when the turbines are turning. We have kept a log throughout.

### **Our situation**

We did not object to the wind farm in the planning stage as we did not believe that there would be any issues for us, and we believed that wind power was a good way of meeting the energy gap. We read some negative reports on the internet but could not believe there would be any issues for us, as we were never specifically consulted, nor were any background noise readings taken at our house. With hindsight, it was a serious mistake to trust the developer to ensure that we would not be exposed to an increase in noise levels in the way we have.

It is important to understand that whilst the turbine noise may meet the guidance set out by ETSU-R-97 it does not mean that it will prevent the characteristic thump of wind turbine noise from being as much as 7 - 10dB(A) over the pre-existing quiet tranquility that these residents currently enjoy. This modulation will annoy and will prevent good sleep, as well as impairing the residential amenity, which has been so severe in our case as to warrant a reduction of Council Tax banding.

Our house which would previously have been worth about £180,000K is now likely to have a value of just the land £35K to £50K. It would not be marketable as a home for people to live in any longer. In July 2008, a Valuation Tribunal acknowledged this and

reduced our Council Tax Banding by one band, a fact that accepts that the erection of the wind farm has materially affected our ability to enjoy the amenity that was our home. The date of the decision was 17th July 2008, and the appropriate appeal numbers are: 2225475645/032C and 2525475651/032c

The judgement stated that: "It was apparent from the evidence submitted that the construction of the wind farm 930m away from the appeal dwellings had had a significant detrimental effect on the Appellants quiet enjoyment of their properties. The Tribunal therefore found that the nuisance caused by the wind farm was real and not imagined and it would have had some effect on the potential sale price of the appeal dwellings.." "In view of the forgoing, the appeals were allowed and the tribunal has decided to reduce the assessment of both appeal dwellings to Band A with effect from 21 st June 2006"

From our observations there are a number of factors which emphasise the turbine emissions

- Shelter, trees tend to filter out other sounds, emphasising the sound of the turbines.
- Reflective Surfaces – Buildings reflect the sound, increasing the annoyance and making the enveloping of the area even more complete.
- Insulation from other sounds (double glazing, wall insulation, ear plugs etc) leads to greater selection for lower frequency sound pressure waves as they have a much greater ability to penetrate and are practically impossible to protect against in a domestic situation.
- Wind direction: Most effects are worst when the wind is from a southerly direction, blowing through the wind farm toward our home. Whoomph and AM only occur with this wind direction. However, the other aspects of the noise are always present to some extent regardless of wind direction. Lower frequency emissions vary little in perceived amplitude irrespective of wind direction or turbine operation. But a difference in amplitude can be detected. Stable air conditions are associated with temperature inversion on summer evening, i.e., still air and quiet at ground level but strong wind at 100 metres above ground level.

We have noticed a significant impact on wildlife in the surrounding area. Nesting Swallows deserted their nests and eggs, within the first few days of the turbine's operation, only 2 or 3 pairs have since returned. No mole will venture nearer than 6 metres to a building. I attribute this to the fact that we have a low frequency sound

wave problem, some of which appear to be transmitted through our house into the surrounding ground.

Sound waves per se have long been associated with human and animal health deficits.

The following is a list of health deficits those who have stayed on the farm and work there for up to 12 hours a day are now suffering from:

John Davis – Heart attack within 1 week of turbines starting operations, tinnitus’ Hearing loss, vertigo, depression, ongoing bladder issues.

Eileen Davis 2 episodes of pneumonia requiring hospital admission, Kidney/bladder issues requiring removal of kidney, pseudo gout episodes x 2 in knee, .

Julian Davis – pneumonia that took 6 months to clear leaving “scarring” in lungs, Depression, atrial fibrillation .

John & Eileen Davis – ongoing sleep issues – Eileen says she sleeps better in hospital than at home. None of these 3 had any significant health issues or deficits prior to June 2006.

My daughter Emily and I have not slept at home since December 2006, a fact which although ensuring we have good sleep, causes us considerable distress, so much so that we only rarely visit our home.

There is not enough peer reviewed medical evidence across the world to say definitely that the range of symptoms described as “Wind Turbine Syndrome” definitely exists and an have an ICD code attached to it, and the above may be coincidental, but the research and evidence are mounting. Until such research from qualified medical experts is available I believe the precautionary principle should be applied, in determining a setback distance for homes from turbines of at least 2 kms.

When our problems started we informed our local environmental health department’ who came out and seemed astonished at the loud noise level recordings that they made. Then they realised that noise from wind farms is measured and assessed in a different way from any other noise. Our Council has found it impossible to measure compliance with the planning condition as set, mainly because they do not have the resources and expertise available to the windfarm industry. DEFRA has recognised this, and the production of a methodology that Councils can adopt to ensure that they can set appropriate noise planning conditions that are both measurable and enforceable is currently underway.

We found that the Local Government Ombudsman could not help us because they erroneously believed that planning conditions set by the Planning Inspectors were

outside their jurisdiction however they did find that ETSU-R-97 to be 'vague and open to interpretation' and as regards taking background noise measurements, the Council has no authority to request a wind farm shut down to take background noise measurements. In our case no background measurements were ever taken, and to date none have been as the Windfarm Operators refuse to shut down the wind farm to allow such measurements to be made.

### **ETSU-R-97**

The government's preferred guidance for assessing the noise from wind turbines known as ETSU-R-97, uses an LA90 10 minutes descriptor. This ignores all but the quietest 10% of noise in each 10 minute measurement period so has the effect of removing any noise peaks. Thus it is easy to see why the use of the ETSU -R-97 guidance is not in fact effective to either protect or guarantee residential amenity if a residence is exposed to noise from turbines. The guidance is quite clear; it says in the body of the text that it exists to ensure that windfarms can be operated, not to protect, residential amenities in the locality of turbines.

I understand that non-audibility is something which is very difficult to achieve, but in setting planning conditions, but it is clear nowadays from looking at local plans and other Government guidance that the desired result is to avoid, wherever possible, significant changes to the noise environment, and to preserve residential amenity. Except in the case of wind farm developments.

Windfarms tend to be located in rural areas, where background noise levels tend to be low it follows that significant increases in noise levels will be more noticeable at affected residences. It also follows that from the use of ETSU-R-97 that the use of the LA90, 10 minutes descriptor will tend to "take out" the worst effects from any reading. So a sudden noise event, lasting only a few seconds or minutes but being audible and tending, say to wake up the receptor (as we must now describe ourselves) will be "smoothed out" in the overall reading, even if it tends to pull the average somewhat upwards. Noise from a wind farm is a series of sounds which envelop the listener, often making sleep impossible, and (when awake) make concentration very difficult. It is pervasive without being loud. It is effective enough to interrupt sleep, conversation, television and normal indoor and outdoor activities around the house.

It is important for the reader to understand that whilst we can happily sleep within 400 yards or so of the M5, it is impossible to sleep at home.

It is now nearly 3 years since we have had any real communication with the wind farm developers or operators. Seemingly, once they are erected no one is interested in trying to remedy any of the issues that a wind farm can create.

Aerodynamic modulation (AM) is not fully understood. It exists, but there is no clear understanding as to what causes it. Wind Turbines create sound pressure waves some of which can be heard, but many of which can be felt in the body.

The presence of AM means that for instance when putting ear defenders on to work on a car with a defective alarm, the defenders blocked out the car alarm sound, but the turbine “noise” could be clearly heard and felt even with the defenders in place. Within our home the fabric of the house insulates against audible sounds but you can still sense the rhythm of the turbines. This is particularly noticeable when trying to relax or sleep. Currently 38 operational wind farms in the UK have noise complaints being made about them of some type. AM affects the ability of nearby residents to rest or enjoy the peace that is the amenity of their home.

AM is not well covered by ETSU-R-97, perhaps not surprisingly because it is still not properly understood, and the guidance itself has never been revised since then. Our modulation can be as much as 10 to 15 dB(A) during episodes.

I believe that there is a need to assess and potentially apply a correction to ETSU-R-97 if this measurement is to be effective in protecting the peace and quiet of the amenity that is people’s homes. Much other planning policy is directed towards that end

Many times during the summer of 2006 when we were at home, the noise of the turbines meant we were woken by loud “WHOOSHING” noises. This noise interrupts sleep; it stopped us sleeping for more than 4 hours a night. The noise is not confined to when we are directly downwind; it is worse when we are directly downwind.

As a result of our difficulties we were forced initially to find an alternative place to sleep. After spending many nights “sofa-surfing” we reached the conclusion in December 2006 that we had to do this in order to be able to work and live safely — with a normal amount of sleep.

In May 2007 we finally took the very difficult decision to abandon our home as a place to live and we now live, in exile, in our “sleeping house” which is a rented property 5 miles away in Spalding itself.

## **Conclusions**

In summary my experience and evidence demonstrates that:

1. The current state of scientific knowledge pertaining to the effect of wind turbines on the environment, with specific regard to protecting the quiet enjoyment of people's properties is not sufficient for any developer at this time (April 2009) to be able to confirm, absolutely, that no neighbour of a windfarm will have their lives devastated and suffer in the same way as we have.
2. That the ability of the human body to detect the specific and unpleasant characteristic noises emitted by wind turbines is not just related to sounds that are audible but also to sounds that are felt by the body, and these can cause unpleasant and detrimental health effects along with sleep deprivation.
3. That rural sites with predominantly low background noise will notice the characteristic modulating sound that is wind turbine noise, as although the planning condition pertaining to ETSU-R-97 will be met, the modulation over background noise, particularly at night and during amenity hours will be sufficient to cause noticeable and intrusive noise pollution at all the identified nearby "receptors" whether they be financially advantaged, or disadvantaged by the proposed application.

Jane Davis, MA. (copyright) April 16<sup>th</sup> 2009.

