## Welsh Assembly Government e-petition Say No to Tan 8 - Wind farms & High Voltage Power Lines Spoiling our Community

- 1. The e-petition on the Welsh Assembly Government website has the highest response of any e-petition since the site was launched, with 2565 signatures so far, the previous highest being 1893. Along with other petitions and action by the People of Mid Wales it shows the depth of feeling on this issue, which must not be ignored.
- 2. Planning policy Wales (PPW) 3.1.8 "When determining planning applications local planning authorities must take into account any relevant view on planning matters expressed by neighbouring occupiers, local residents and any other third parties. (Shropshire County Council were not consulted when Tan8 was drafted) While the substance of local views must be considered, the duty is to decide each case on its planning merits. The Courts have held that perceived fears of the public are a material planning consideration that should be taken into account in determining whether a proposed development would affect the amenity of an area and could amount to a good reason for a refusal of planning permission."
- 3. We are particularly concerned about the health issues (PPW 12.13.8 'Health considerations can be material considerations in determing applications for planning permission") surrounding wind-farms, high voltage transmission lines and sub-stations. Electromagnetic Fields (EMF) have been the focus of many worldwide studies, children upto the age of 15 living near high voltage power lines run an increased risk of having leukaemia. Draper report 2005 increase chances of childhood leukaemia by 69% within 200m of power lines and some effects up to 600m from power lines
- 4. A consequence of corona discharges, high voltage AC power lines may produce clouds of negative or positive ions that are readily blown downwind. An increase of charge density downwind of power lines is well established and can be measured at distances up to several kilometres. People may be exposed to these more highly charged pollutant particles and the effect of electrostatic charge on increasing respiratory tract deposition has been recognised for some time. There is strong evidence that the risk of cardiorespiratory disease is increased by inhalation of particles generated outdoors (Taken from Health Protection Agency Particle report of an independent Advisory Group on Non-ionising Radiation and its Ad Hoc Group on Corona Ions) See Pace document recommends a precautionary approach to emf.
- 5. Research work in Portugal, published in May 2007, shows there is a clear health risk to people living near wind turbines to a condition they have called Vibro-Acoustic Disease (VAD). This research suggests prolonged exposure to infrasound and low-frequency noise can result in damage to the brain, heart and lungs. We are very concerned about many of the other health and safety issues surrounding wind-farms, high voltage power lines and substations.
- 6. Much of the present policy controlling the construction of wind-farms is based upon studies and reports that are now outdated, many are 7 to 12 years old. With new technologies and new evidence emerging, there is a need to re-consider policy and planning guidelines especially with proposals for large wind farms and the cumulative effect they will have on the environment.
- 7. Tan8 has no mention of cumulative effects on flooding, Increased "run off" from the bases of the turbines, the huge drainage schemes employed around these concrete bases and the access roads, will in turn increase the risk of flooding of the Severn valley. The cumulative effects on visual amenity, acoustic effects such amplitude modulation (a phenomenon

making extremely loud booming noise as the wind speed varies across the rotor blades) which is more prominent as the turbines increases in size, largest now 606ft. Recently in Scotland the local authority of Achany wind farm, near Lairg has forced Scottish and Southern Electricity to shut down a Sutherland wind farm after the company breached planning controls by failing to deal with excessive noise from the development, to properties over 2Km away

- 8. Tan 8 had no mention of transport implications over 3000 abnormal loads proposed for mid Wales, to build probably the largest onshore wind farm in the world with the densest cluster of turbines, this would have a detrimental effect on the local economany. Tan8 does suggest community benefits should be gained from the development of wind turbines but actually only the minority gain and the majority of people will suffer from the associated infrastructure.
- 9. Tan8 has no mention of the cost of onshore wind, through the renewable obligation certificate it is entitled to 4.8p/kwh extra on top of the normal charge per unit for electricity. Current projections from the governments own figures for the whole renewable project suggest a cost to the bill payer in the region of £6.5bn a year by 2020. This obviously would increase fuel poverty and put businesses at a competitive disadvantage as well as providing inflationary pressures which would lead to job losses.
- 10. There are various claims on the efficiency of on-shore wind turbines and their effectiveness to generate when demand is most needed, even taking some of the higher claims of efficiency, the wind-turbines are not suitable for the flexible power demands of the national grid, as they will not generate in low or no wind conditions or high wind conditions. Back up supplies will need to be kept running to able to fill in for the intermittency of turbines. If a car manufacturer claimed a fuel efficiency of 50mpg but only actually did 30mpg then said manufacturer would be in trouble. Why can a turbine manufacturer claim installed capacity of 3Mw but only actually achieve 19% of this figure? (Using latest available data REF Renewable Energy Foundation) surely then the installed capacity is 570Mw.In Norway on occasion the turbine fleet has had a net loss on the grid as they consume electricity when idle. These factors would have profound implications for the CO2 that turbines are supposed to save. The whole project if it was to meet the installed capacity predicted by Tan8-800Mw in mid Wales would produce less than 0.4% of the UK national energy requirements.
- 11. CO2 emission claims for wind turbines, from manufacture to construction taking into account steel manufacture and shipping, concrete manufacture, conductor windings (the majority of magnets required for the generator are imported from China where they are vast pools of heavy metal laden liquid poisoning the earth left over from the manufacture of these magnets) gearbox and blade construction and access road construction, mean that over their life cycle they will be responsible for generating more CO2 than they can save. The upland peat will be disturbed, and damage to any kind of vegetation and soil will release carbon dioxide.
- 12. The damage to the beautiful landscape, wildlife, peat bogs and plant life, will lead to a downturn in Tourism which is one of main employment sectors within Mid-Wales. PPW 11.1.7 'In rural areas, tourism related development is an essential element in providing for a healthy, diverse, local and national economy' PPW 5.2.9 Trees woodlands and hedgerows are of great importance, both as wildlife habitats and in terms of their contribution to landscape character and beauty. They also play a role in tackling climate change by trapping carbon' A recent study published by DEFRA-the UK National Ecosystem Assessment (UK NEA) reveals that nature is worth billions of pounds to the UK economy the report strengthens arguments for protecting and enhancing the environment. The UK NEA has used new approaches to estimate the value of natural world by taking into account of the economic, health and social benefits we get from nature.

- 13. The lack of a single regulating body to set, monitor and enforce standards for the wind industry has resulted in confusion and division of responsibility between the various Welsh Assembly, Westminster Government and local government bodies and the National Grid.
- 14. Strategic environmental assessment (SEA) directive EU law 2004 was not implemented before the adoption of TAN8, why?
- 15. The recent publication by the Committee on Climate Change "The Renewable Energy Review" (May 2011) "It is also important to consider opportunities for reducing energy bills through energy efficiency improvement:
  - In the residential sector, we estimate that there is scope for a 14% reduction in heat consumption to 2020 through buildings fabric measures, boiler replacement and behavioral measures.
  - Our analysis also suggests that there is scope for a 14% reduction in electricity consumption through the purchase and use of more efficient appliances."
- 15.1 The two policies above if implemented have the potential to boost the economy provide long-term employment and provide energy savings, we would reap the benefits for many years.
- 16. There are also potentially huge energy efficiency savings to be made in manufacturing industry, business, commerce and public sector much of it employing the latest monitoring and control equipment together with improved insulation
- 17. We have environmental and energy issues. We should have a full and open debate about these issues considering all the facts Nationally we have already achieved 19% CO2 reduction (DECC 2009) and implementing the above measures would ensure we could still meet our CO2 reduction commitments whilst being able to take a more considered approach to renewable energy.

## How can destruction of our local environment be saving the planet?

John Day,

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(Acknowledgement to Gary Swaine for all his help)