Department of the Senate PO Box 6100 Parliament House Canberra ACT 2600

9 February 2011

Dear Senators

The Social and Economic Impact of Rural Wind Farms

I write from England so some of my comments may not apply to Australia.

This is to the point.

Letters, Daily Telegraph, 4 September 2007

Sir, There is an old saying: "No one ever built a windmill if he could build a watermill."

The wind is an unreliable source of power. It seldom blows steadily and sometimes not at all.

The power generated by the wind varies with the cube of the wind speed. That means that if the wind speed drops from 40mph to 20mph, the power output does not drop by 50 per cent: it drops by 87.5 per cent. At 10mph, the wind produces only 1.56 per cent of the power generated by a 40mph wind.

The wind can never become a major source of power.

Norman Plastow, Hon Curator, Wimbledon Windmill Museum, London SW19.

The UK now has in excess of 3000 wind turbines (WT). During our bitterly cold December 2010, windless anticyclonic conditions (when demand for generated power was at its peak) led to zero or below 0.5% contribution to national requirements for almost the whole of the record-breaking cold temperature period. It was a repeat performance of the two previous particularly cold winters. I will add a note about the Anthropogenic Global Warming (AGW) theory as wind turbines are a symptom of the push to reduce Co2 levels.

Today's Daily Mail has an report headed "We still don't know when wind power will break even, admits energy minister"

http://www.dailymail.co.uk/sciencetech/article-1355010/Energy-minister-Charles-Hendry-We-dont-know-wind-power-break-even.html#ixzz1DT9w9HLk

This is unfortunate because the £2.2billion so far spent on it, and the many £billions more for the next quarter century or more, is being heavily subsidised by the UK electricity consumer. Ofgem, the energy regulator has warned that approaching 50% of UK households will be officially classed as in 'fuel poverty' within a few short years as a direct result of 'green' subsidies.

In truth there is no realistic prospect of grossly inefficient, intermittent and unpredictable wind power ever breaking even. Money is being poured into a bottomless pit with little or no return.

The electorate in Australia and countries around the world deserve some honesty in answering basic questions which speculative wind developers and politicians who support them have failed to provide.

1. Has a proper, independent, comprehensive, audit been conducted to establish accurately if the asserted reduction in Co2 level as a direct result of WT generation has ever been achieved, and

what is that reduction? If not, why not? Also do WTs add up on a cost/benefit basis? No normal (unsubsidised) commercial venture would proceed without such critical data.

Denmark and Germany are reported to have experienced increased Co2 emissions in spite of having much greater density of WTs than other European countries.

Any audit would need to take account not just of WT manufacturing and transport; concrete foundations; costly power line infrastructure often from remote locations; power drop because of distance; grid de-stabilisation when WTs cut in unexpectedly (most of Western Europe has already suffered a "potentially catastrophic" blackout in 2007 when German WTs kicked in); loss of tourism revenue because of landscape industrialisation; property blight; medical costs resulting from chronic sleep deprivation (the most regularly reported malady); other medical issues such as Wind Turbine Syndrome and Vibroacoustic Disease documented by researchers in the complete absence of formally funded epidemiological studies appropriate for burgeoning WT impact; destruction of birds and bats, many supposedly protected species; loss of amenity for countless people; peat bog destruction causing the release of huge amounts of stored Co2.

This list is incomplete but the biggest WT flaw is that any nation expecting them to supply a significant percentage of total demand, will need getting on for 100% conventional thermal power generation as back up otherwise electricity rationing or blackouts will be inevitable when wind conditions are unfavourable as they are most of the time.

Conventional power stations are designed to run optimally, not constantly shifting output to track intermittent wind. That leads to problems a) Co2 emissions <u>increase</u> b) plant can wear out prematurely c) power companies may choose not to invest in plant without generous subsidy.

- 2. Offshore WT 'fleets' are seen by some as a way around the bitter opposition to onshore WT installations. Records show they are just as inefficient as onshore WTs. Added to that is greatly increased cost; even bigger subsidies funded by the consumer; acute maintenance difficulties when sea conditions are adverse; damage to the marine environment with potential harm to marine mammals; costly transmission cabling with attendant seabed disturbance.
- 3. Carbon Trading said to become the biggest commodity in history.

The drive for WTs by developers, supported by politicians, has every appearance of a gold rush. In my experience they don't give a cuss where they put them so long as they are up and generating subsidy money. Generating electricity comes a poor second – as does the environment and the harm done to those who are obliged to live near the intrusive, noisy, unhealthy monstrosities.

In a very real sense developers are stealing quality of life and hard earned property value ... but the victims have never been properly consulted on their interests. Most people with direct experience of the wind sharks are not NIMBYs because they don't think anyone should have the pointless eco virility symbols in their back yard.

A barrister at a Public Inquiry I attended last year said, off the record, that developers slap in ten planning applications anywhere they can (however unsuitable), as cheaply as possible, and if they get one of them, the subsidy gravy flows more than enough for the effort.

- 4. Not wasting energy comes before generating more. There is worldwide scope for reducing space heating/cooling; promoting LED lighting instead of the lamentable 'low energy fluorescents' with built in end-of-life mercury health hazard; ensuring no domestic appliances are less than A energy rated; rethinking the scramble for expensive electric cars which will add greatly to the generating burden; even the likes of designing kettles that switch off <u>immediately</u> they boil would make a significant difference.
- 5. A limited justification for WTs for remote locations, far from grid connection. Small communities can benefit from one or more WTs of appropriate scale ... so long as the wind

conditions are suitable. Small island settlements off the north coast of Scotland, which are inherently windy, are a case in point. But they had better retain diesel generators or experience forced hibernation every so often.

Climate Change (CC)

The asserted principle justification for WTs is to combat CC. CC activists claim "the science is settled". This is dishonest. Theories relating to AGW/global warming/CC are just that - theories. Talk of the precautionary principle and extreme weather events such as Australia has been experiencing don't alter the fact that scientists are far from agreement on climate issue. It is deeply regrettable that things have become so polarised that rational debate seems impossible. There needs to be full discussion about what we know – and what we don't know (i.e. the role of atmospheric water droplets in a possible self regulating feedback).

The science has become politicised. There are strong funding considerations, Reputations and egos are at stake. Name calling (sceptic, warmist, denier) are unhelpfully bandied about. The subject is too important for playground games.

Australian, Joanne Nova, makes the case http://joannenova.com.au

The IPCC has a lot to answer for, please see http://www.ilovemycarbondioxide.com/50_pages/pdf/08_UN_IPCC_Science_scrunitised.pdf

The activities of humankind must impact on the planet – the important question is to what extent? Is the planet warming - or has it been cooling since 1998? Terrestrial and satellite reading seem not to agree. To what extent is solar activity responsible for change? One thing is for sure, natural, cyclical change has been occurring since the beginning and will continue to the end.

It is regrettable that important subjects seem not to be on the scientific or media radar. Here are two of them.

This introduction to the Interglacial Warm Period we are presently experiencing should be taken seriously by decision makers. We are told the world has never warmed up so quickly before – but the last retreat of the glaciers saw a jump of some 7 degrees C in 50 years or less. The reverse should not be ruled out. www.geocraft.com/WVFossils/ice_ages.html

Experts tell us that atmospheric Co2 concentrations have been between 10 and 20 times higher than current levels without catastrophe. There are scientists who are extremely concerned that any halting, still worse reduction in Co2 will cause millions to starve because of its vital role in crop yields. Please view this compelling 2-minute video which provides proof http://www.youtube.com/watch?v=P2qVNK6zFgE&feature=player_embedded

then see **Outline of a Greening Effect Benefit and Risk Assessment** at http://www.bydesign.com/fossilfuels/greening_benefits/risk.html

Sincerely

Brian Gallagher