Upper Hunter Landscape Guardians Inc

(Incorporated under the Associations Incorporation Act 1984)

280 Thompsons Creek Road, Scone NSW 2337

February 1, 2011

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

Dear Sir/Madam,

Ref: Inquiry into the Social and Economic Impact of Rural Wind Farms

The Upper Hunter Landscape Guardians (UHLG) is a residents group whose aim is to preserve the Upper Hunter's natural landscape and environment. Many of us live within a 3km range or less of the Kyoto Energy Park, Scone which was approved under Part 3A of the NSW Major Projects SEPP in January 2010. There are approximately 60 residences within the 3km range. The developer, Pamada Pty Ltd, noted 265 affected residents in their EA from a slightly wider area.

Whilst the Kyoto Energy Park has three components, Wind, Solar and Hydro, 92% of the original proposal was wind with a stated generating capacity of up to 126Mw. The revised approved consent has reduced the number of wind turbines due to air safety issues and resident submissions relating to flora and fauna in particular areas. The wind capacity of the project now represents 90%. It is the wind farm component that the residents are concerned with. The 34 turbines and towers are to have a total height of 150m, which we believe to be the highest in Australia to date and possibly the world. Associated red flashing aviation navigation lights are required on some turbines as the Scone Airport is within 3-6km of the wind farm and there are affects on flight paths. These industrial wind turbines will be half as high again as the hills and ridges on which they will be standing which imposes an extensive visual blight on the surrounding landscape and residences within close proximity. They are a potential hazard to aerial agricultural activities such as crop-dusting and a possible distraction to motorists on the New England Highway and other arterial roads.

The Upper Hunter has been earmarked by the NSW Government as one of 5 Renewable Energy Wind Precincts for the state. As part of this initiative an Advisory Committee with local representation was to have been established.

Approval of the Kyoto Energy Park and the decision to designate the Upper Hunter as a Renewable Energy Wind Precinct was made without anyone from the State Government visiting the area and meeting with the local community. The Advisory Committee has not been established.

There are currently several wind developers carrying out wind monitoring in the region with Epuron announcing last month their intent to put forward an application in early 2011 for the Liverpool Ranges Wind Farm, an extremely large wind farm (site approximately 1,000 sq km) in the Coolah/Cassilis area of the Upper Hunter. It involves hosting the turbines on land owned by multiple landholders. The area concerned does not have the density of small to medium rural residential/lifestyle blocks which is a feature of the land surrounding the Kyoto Energy Park in Scone.

We also made a submission to the NSW Legislative Council's Standing Committee No5 Inquiry into Rural Wind Farms and appeared before the Inquiry at Tamworth NSW in October 2009. In response to the Terms of Reference of you Inquiry our comments are detailed below.

Environmental Protection & Biodiversity Conservation – Federal and State: The current process for wind farm developers requires them to 'self assess' impact in relation to the Federal act for flora, fauna and National Heritage and lodge a 'referral' with the Federal Government if they believe there is an impact. The same has to be done at the State level, and it is mandatory, because the flora, fauna and heritage listings often differ. At both Federal and State levels the knocking down of a small area of endangered species of flora or killing a number of endangered species of birds and bats does not appear to receive other than cursory consideration if it appears small in the overall scheme of the development. Developers in some cases say they will replant. You cannot replace long-standing flora without consideration of the time to recover. Some of the flora has taken hundreds of years to reach its current stage. This attitude should be changed and (wind) developers and host landholders encouraged to resite their turbines to avoid this type of

destruction. The decision to charge $1,500 (NSW state government figure) for every eagle kill is a contradictory message from a government who claims they wish to protect the environment.

The overall process needs to be reviewed so there is one assessment to cover both federal and state which would create consistency and save time and money for the developer, the government and the communities that fight to protect their environment. An understanding of what is 'acceptable destruction to the environment' should be developed. We already have huge scaring on our landscape in the Upper Hunter due to mining. We should strive to protect what is left of the natural landscape of ancient hills and forests balancing further industrial development, including wind farms, against the preservation of the local environment and amenity for residents.

Fire: Whilst the wind industry claim turbine fires are few and far between the reality is that we have already had 3 situations in South Australia since 2006, the most recent being Starfish Hill SA in October 2010. There have been many more overseas. Recently Acciona (Waubra Wind Farm) stated that they would just let a turbine fire burn out because fire fighters cannot get close enough to extinguish it and that sentiment has been echoed by the fire service. No wonder, when turbines spew hundreds of litres of oil from the nacelle, blades buckle and fly off (up to 500m away) and towers melt. The danger to fire fighters lives and the possibility of bush fire in some areas is huge. According to statements made by the Fire Department water bombing is not safe on turbines due to their height and the fact that the blades spin up to 300km/hr. Water is not affective on electrical fires. Fire retard units can be installed in nacelles but this is not happening for all turbines. Lightening strikes have also caused some turbine fires.

Industrial wind farms should not be allowed to be built in bush fire prone areas.

Air Traffic and Agricultural Activities: Whilst Air Service Australia, CASA and the Department of Defence are consulted when a wind farm application is lodged there are inconsistencies in relation to obstacle lighting for wind turbines. The CASA guideline that relates to this (AC 139-18) is not mandated and not specific regarding the types of lighting required. This has led, in some cases, to red flashing lights on more turbine nacelles than necessary, lights on the nacelle of turbines when they are not required (eg. in the case of at least one wind farm some have been turned off due to intrusion on nearby residents). In our opinion the lighting issues should be revised, including investigation regarding less intrusive types of lighting e.g. shielded ground lighting outlining the further most layout of the wind farm. From the experience we have had with the application for the wind farm component of the Kyoto Energy Park, Scone issues in relation to potential danger to aerial agricultural activities has been largely ignored, although belatedly (post development approval) operational issues around pressurisation close to turbines for low-level flying have emerged. In rural areas such as ours aerial agricultural activities are an important part of land management and a significant business enterprise. 150m high structures as proposed for this wind farm will cause unnecessary hazards to this business and its pilots.

Property Devaluation and Lifestyle Issues: Increasingly data is becoming available 'locally' within Australia in relation to property values and quoted below is an excerpt from Mr John Jess. Mr Jess is associated with CJA Lee Property Pty Ltd, Yarram, Victoria. Excerpt from press article: *In November 2008, John Jess, an experienced valuer in Gippsland, Victoria was quoted as stating "wind turbines are having a significant impact on values for both farmland and residential property. Having conducted valuations for a panel hearing on proposed wind farms, Mr Jess said farming properties appear to drop 10-15% near turbines. There is stronger evidence to suggest rural-residential values drop by 30-40%".* There are other valuers and real estate agents with evidence of diminished sales and feedback from potential customers who will not even look at a property once they know about wind farm development in the area. Very few of these valuers and agents will go public with their concerns as it obviously distracts from property sale potential in their areas.

People who have lived all their life on their land and those that have chosen to move from the congested cities for a cleaner and healthier lifestyle now have the potential threat of living in close proximity to industrial wind farms. Whilst many people think that the Hunter Valley is simply about coal mining this is far from the reality. It is a centre for the wine industry, the Upper Hunter is the main thoroughbred breeding area in the world outside of Kentucky in U.S.A (Scone is the Horse Capital of Australia), major agricultural activities compete for land with the coal mines, and tourism based on the horse and wine industries and national parks remains despite the inexorable spread of industrialisation up the Valley. Wind developers imply that wind farms will stop coal mines. They do not. New coal mine development around the Muswellbrook area (the next large town up the Valley from Singleton) is proceeding at an alarming pace both for new mines and new exploration areas. Land has already been stripped due to mining and now wind farms will blight high, heavily wooded hills and ridges destroying the balance of our environment. There should be ways to build turbines closer to mines and the Bayswater/Liddell power station hub on land already given over to power and mining activities.

Coal companies offer fair prices for affected properties and also purchase properties to create a buffer zone for protection for residents close to mines. In NSW a well established process with State Government involvement, if required, is available to residents in the mining area and buffer zones who wish to sell their properties.

Not so for the wind industry. This situation should be rectified if wind farms are to be allowed to be built close to residences. An appropriate buffer zone for noise, including low-vibration noise should be mandated. Currently, where the conditions of consent for a wind farm stipulate that a property must be purchased, if the owner wishes, due to either unacceptable noise or visual amenity issues from the wind farm, that purchase may not happen prior to wind farm development. In some cases the wind farm is allowed to be built and then real noise measurements are taken. From the time of approval to the time of commissioning the wind farm (could be 5 years as that is usually the term that the consent is valid for) the developer may choose to install a lower capacity turbine that may meet the noise standard affecting a specific property. The property owners are left in limbo for many years, often suffering stress and depression, not knowing if they will be bought out or not. Not all affected property owners want to move and are left with a choice of having to live with the noise and visual blight or leaving a property they love, have worked and lived in for many years and planned to retire to before wind farms were even thought of. This situation should change to ensure that all property acquisition recommendations are legally agreed within 12 months of consent or if the developer decides to remove offending turbines or change models to reduce noise that those decisions are legally conveyed to affected property owners within 12 months of consent. This should go some way to reducing affected property owner anxiety and stress.

The number of wind farm applications refused in Australia would amount to less than 1% of all applications. In some states no wind farm has been refused. The only time for consultation is after the wind developer has lodged an application and then the greater majority of community concern is ignored by both the wind developer and the planning department. The statistics that wind developers use when claiming that the majority of the community is all for the wind farm is canvassed on a small number of people usually living 5km -20k away or further, with many living in the heart of the townships. Those people will not suffer the day to day noise, visual pollution and destruction of their environment caused by these industrial scale wind farms.

Noise and Health: In the last few years health issues in relation to the effects of low frequency noise and infrasound from turbines are being reported globally. It would appear that no baseline health studies had been carried out before turbines were introduced in the form of large scale industrial wind farms and hence many of the heath problems reported have been dismissed. It is acknowledged that the wind industry claims that more modern turbines and blades do not create infrasound or low frequency noise however, that is of little comfort to those people who are suffering from varying symptoms of stress, headache, nausea, sleep interference, high blood pressure etc. Further, various people with appropriate equipment have recorded low frequency noise at various residences close to wind farms. If the claim by the wind industry is true then there must be other factors such as bad placement of turbines in relation to topography or perhaps faulty turbines. The various so called ‘health studies’ carried out in Australia to date have been paper based, reviewing articles in the majority of cases which have been written overseas. It would appear that no person suffering symptoms in Australia has been interviewed by the authors of those ‘health studies’ thus rendering them null and void. It is time that the Australian Government took seriously health issues and funded independent, non-wind developer biased health studies before allowing any state planning department to approve another wind farm. Furthermore, should health affects claimed by various people currently living near wind turbines be acknowledged by independent studies as caused by wind turbines then those turbines should be decommissioned and removed.

The noise modelling used to date by wind developers prior to commissioning wind farms needs to be updated to ensure infrasound and low frequency noise is accounted for. Testing at all residences using equipment capable of measuring low frequency and infrasound within a 5km – 10km radius after wind farm commissioning needs to be performed during all seasons. As basic as it appears the introduction of a setback of at least 5km would resolve the issue of noise, health, visual amenity and property devaluation in the majority of cases.

Grid Connections: The cost of connecting industrial wind farms to the grid is significant and the longer the run the more power loss, requirements for larger kV cable and the higher the cost. Lack of planning for the electricity network and renewable energy sources to be connected to the grid has resulted in rural communities hosting industrial wind farms requiring expensive grid connections (e.g. the Kyoto Energy Park may require the upgrade or replacement of over 40km of transmission lines to effect the grid connection). Locating wind farms in industrialised areas around mines and power stations where there is appropriate infrastructure already in place would avoid issues within local rural communities in relation to noise, visual impact, property values and the inequity of one or more wind farm hosting landowners reaping all the monetary compensation at the expense of their affected neighbours. The more modern turbines are supposed to be able to operate effectively at lower wind speeds and therefore do not necessarily need to be placed on high hills and ridgelines. The amount of land around power stations and mines would also lend itself to mixed renewable technologies such as solar and in some cases hydro.

Planning Guidelines (Local, State and Federal): Many local councils have developed their own wind farm guidelines (Development Control Plans) to help protect their communities, especially neighbours adjoining the development site, local environmental heritage and to provide guidance to wind developers. In all cases

those DCPs have included guidelines for setbacks for non-hosting properties. In the case of our own council, whilst they did agree to prepare such a DCP they have not progressed beyond a draft due to expected state and federal guidelines being published. They are of the opinion that it maybe a wasted exercise as in the past both the NSW State Government and wind developers have ignored local guidelines. This is often the case where a state government has total power over the approval process for developments of certain sizes. Regardless of any Federal or State guidelines that may be developed, local council DCPs should still be a consideration as their guidelines will be used for wind farms whose criteria is less than the current state government criteria for a Critical Infrastructure Project, e.g. in the case of NSW not falling under Part 3A of the Major Projects legislation.

In our opinion, because the wind industry is seen by the federal government as a critical factor to help meet the 2020 renewable energy targets for Australia there needs to be one set of guidelines at the Federal/State level that deals with all aspects of industrial wind farms including the negative aspects and include the specific issues of noise and setbacks to non-hosting residences. This has not been the case in the National Wind Farm Development Guidelines 2010 (Draft). That document has provided a number of methodology guidelines for most aspects of wind farms but has been remiss in the specific areas of noise and setbacks. The NSW government is yet to issue their set of guidelines which they had committed to for industrial scale wind farms in their response to the NSW Rural Wind Farm Inquiry. It is also unlikely that they will include specific noise and setback guidelines. It is worth noting that the various states of Australia do not all use the same noise standards. There should be a consistent Australian noise standard for industrial wind farms and that standard should ensure that non-hosting residents within a 10km radius of the wind farm are adequately protected. Local council DCPs should also be considered by wind developers and the State Government in the assessment process.

NSW Renewable Energy Wind Precincts: The previous Premier, Nathan Rees announced the formation of 5 Renewable Energy Wind Precincts for NSW. This was done without any public or local government consultation and with no real guidelines about how they would operate. The government called for applications for positions on the Precinct Advisory Committees which were to commence in November 2009. There were clear mandates that those people were to push for and help educate their communities regarding the benefits of renewable energy, specifically wind. There was no room for those members of the advisory committees to lobby government regarding the concerns of neighbours and community that may be affected by industrial wind farm developments. At the time of writing this letter the NSW Government has still not appointed the committees and will not provide information on when that may occur. They have appointed specific DECC personnel (one for each precinct) as contact points and those people have been extremely active in organising local forums completely biased towards the wind industry and not addressing any negative impacts or community concerns.

In our view the concept of Renewable Energy Wind Precincts should be put on hold pending full community consultation, including local Government involvement.

How 'green' are wind farms? Taking into account the amount of CO2 used for the concrete (300 cubic metres per tower, plus slabs for maintenance sheds and sub-stations), steel that is required to make the wind farm components, the manufacture and installation of new HV power lines and transformers together with emissions from the ocean freight for imported components, the volume of truck traffic for roads and cartage and the cost of erection it is questionable whether or not a wind farm could generate sufficient 'green power' in typically 15 years of operation to offset greenhouse gas emissions created during its construction.

The push by both the Federal and State Governments embracing wind farms as a major source to meet their renewable energy targets will not be enough to make any significant difference. Wind farms only operate at between 25-35% capacity. Locating them around Australia with associated infrastructure to connect to the grid would not produce sufficient power to begin to meet the demands of heavy industry and major cities. Due to the intermittency of wind power and until such time as a way has been found to store it, wind will never be a reliable source of power. It does have potential for use with mixed energy sources such as hydro as can be seen by developments in Tasmania, but it will always need to work alongside a base load power source for demand times and use by industry.

We thank you for the opportunity to make this submission.

Yours faithfully,

Judith Wheeler
Vice President