

**Submission
No 45**

INQUIRY INTO RURAL WIND FARMS

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SUBMISSION TO GP STANDING COMMITTEE NO 5

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The author of this submission is Dr John Formby, B.Ec., Dip. Mgt., PhD.

My professional field is environmental and social impact assessment. I have analysed and made public comment on the Gullen Range Environmental Assessment and the Director-General of Planning's Report on it.

I request that the Committee allow me to make a verbal submission at its hearings.

Introduction

I do not live close to an existing or proposed wind 'farm' and I am not a 'climate change sceptic'. However, I live in a community greatly affected by wind farm development. My opposition to wind turbine development in rural residential areas such as the Sydney-Canberra 'corridor' is based on the inefficiency and high social, economic and environmental costs of wind farms, the abysmally poor standard of environmental and social impact assessment of these projects by developers and the NSW Department of Planning, and the failure of developers and governments to acknowledge and fairly compensate affected individuals and communities for the adverse impacts of wind farms.

If the minor and variable contribution to greenhouse gas reduction of which wind turbines are capable were to be impartially assessed and balanced against their inefficiency, high capital cost per kilowatt, fluctuating output, inability to significantly replace base load power and multiple adverse impacts, it would be clear that they should not be permitted in the more closely settled rural areas.

The push for wind farms is an outcome of political competition for the green vote and the promotion of a misguided public view of the benefits that wind turbines can bring. Wind farms have acquired an undeserved 'feel good' factor and provide an avenue for expiation of guilt about the environment. These sentiments bear minimal relation to reality. They have led not infrequently to such bizarre statements as 'their construction is needed to save the Great Barrier Reef'. Australian wind turbines can only provide an insignificant part of global energy production and have an insignificant impact global on greenhouse gas emissions. Their only justification is to show that Australia is participating in international programmes for reducing greenhouse gas emissions. But there are far less costly means of achieving this objective, including energy conservation measures and the more rapid introduction of gas-fired electricity. The simultaneous promotion of Australia's coal exports demonstrates that wind energy's principal purpose is political symbolism.

A realistic understanding of the benefits and costs of wind turbines would show that their ongoing imposition on rural communities without adequate assessment and compensation cannot be justified. The environmental assessment process for wind farms has become politicised. The necessary separation between an impartial review of the environmental and social impacts of developments and the subsequent political decision making no longer exists. The NSW government in this respect is behaving like a dictatorship, not a democracy where due process and social justice are respected.

The topic of the non-rational forces providing much of the momentum for wind farm development will not be further pursued here. But these forces should be recognised by the Inquiry as creating a

situation where rational planning has been overcome by a process with an institutionalised momentum of its own.

Relation of Submission to Terms of Reference

If the Committee's Terms of Reference reflect its view of the important issues related to rural wind farms then they have sadly failed to recognise a central focus of concern. Term of Reference 2 is 'Locating rural wind farms to optimise wind resource use and minimise residential and environmental impacts'. This submission will briefly address that issue. But paying more attention to locational decisions may reduce, but cannot solve, the social, economic and environmental impacts that occur from the moment an area becomes subject to proposals for wind farm development right through the planning, construction and operation of the projects. The reality is that wind farms are, and will continue to be, located in inappropriate sites with minimal consultation with those affected. Locational decisions will inevitably continue to be dominated by commercial considerations.

The NSW Premier has declared, without any consultation with the affected areas, a number of 'precincts' where wind farm development is favoured to take place, and is already taking place. These precincts are based on commercial suitability for wind farms. It is therefore important to consider not only where wind farms should be located, but what their adverse impacts are and how these should be ameliorated and compensated in areas where they are proposed to be, or have been, constructed. This is the main subject of this submission, which presumably falls under the term of reference 'Any other relevant matter'. *It is therefore submitted that it is essential that the Inquiry look in detail at the realities of the adverse social and environmental impacts of wind farms and the means of ameliorating these and providing social justice for those adversely affected.*

Even if wind turbine developments provided most of the benefits claimed for them, this would still not excuse the lack of due process and social justice which is occurring in their imposition on their surrounding non-participating neighbours and communities with only token amelioration or compensation.

A second topic which is omitted by the terms of reference is the extremely inadequate and politically influenced process of environmental assessment and review of wind farm projects. The Committee may consider that this is beyond the scope of its powers to examine. Unfortunately the failings of the NSW planning, environmental assessment and approval process lie behind the poor location and adverse impacts associated with wind farm approvals. Unless these procedures are radically revised, wind farm developers will continue to benefit by externalising many environmental and social costs. *It is therefore suggested that the Inquiry should examine the failings of the approval process for wind farms and means of improving this process.*

Locating rural wind farms

Term of reference 2 appears to be self-contradictory. Wind farms cannot be located both to optimise wind resource use and to minimise residential and environmental impacts. However, what can be done is to redress the current situation under which most wind farm location is based almost solely on proximity to the electricity grid, closeness to metropolitan areas and reasonably suitable wind patterns. On this basis wind farm 'precincts' have been declared without any apparent recognition that these are relatively closely populated rural residential areas with significant landscape value.

There are areas of the State such as the Western Plains which are sparsely populated and have suitable wind patterns. If sufficient numbers of wind turbines were located in such an area, it would be economical to extend or upgrade the grid to serve them. Some such areas already are traversed by the grid. There will be greater transmission losses than a location nearer Sydney. But this would

be offset by the decrease in social and environmental costs that are externalities at present for the wind farm entrepreneurs.

There is an urgent need for a State-wide study seeking suitable large-scale wind farm locations in more sparsely populated areas which takes into account all costs, not just economic costs. These sites should be used instead of the current concentration on rural residential areas close to Sydney.

A further measure that would improve locational decisions would be to ensure that the environmental impact process for wind farms ensures that developers are required fully to identify all the adverse economic, social and environmental impacts of their proposals so that these are taken into account when locational decisions are made. At present this does not occur. The Gullen Range Wind Farm EA, for example, failed to carry out an adequate assessment impacts including visual impacts, noise, blade flicker, road works land values and numerous others and was allowed repeatedly to ignore the Director-General of planning's requirements. The need for radical improvements to the assessment process is referred to again below.

SOCIAL AND ECONOMIC IMPACTS

This submission does not attempt to examine all the numerous adverse social and economic impacts of wind turbine developments. It briefly discusses the inadequacy of existing social and economic impact assessment of wind farms and gives some examples of these impacts.

Some general points should be made about the social impacts of wind farms. Some adverse impacts, such as increased social conflict, may by themselves not be considered so important as to prevent the approval of a wind turbine development. But it is the sum of all adverse impacts that should be balanced against the benefits of such a development. This seemingly obvious point is repeatedly ignored not only in the proponents' environmental assessments, but in the Director General of Planning's reviews of these assessments. Instead, a fallacious argument by disaggregation is repeatedly used, that a specific adverse impact is outweighed by a generalised appeal to the supposed benefits of the wind farm and the importance of reducing greenhouse gas emissions. No attempt is made to sum the adverse impacts and compare these with the benefits. That this fallacious argument is used in the Director-General's Report as well as the EA illustrates the politicisation of the Department of Planning.

Social impact assessment, if carried out to a good professional standard, is a highly skilled and complex process concerning a very lengthy list of potential impacts requiring extensive community consultation. None of the environmental assessments of proposed wind farms in the Southern Tablelands has reached anything like an acceptable standard of community consultation or of assessment of social impacts. So projects are being approved largely in ignorance of the nature, extent and severity of such impacts. ***A far higher standard of environmental and social impact assessment of wind farm proposals should be required. This would require fundamental changes to the environmental impact assessment legislation.*** The existing process has become irredeemably politicised, and is producing misleading and inadequate environmental assessments that are little more than public relations exercises.

The author has made a submission to the State Development Committee's Planning Inquiry about the deficiencies of the existing legislation and suggested fundamental changes to it. This material will not be repeated here. But the Rural Wind farm Inquiry should also consider the deficiencies in the assessment process because they contribute greatly to poor locational decisions, inefficient allocation of resources and unnecessary environmental and social damage.

The physical, social and economic impacts of wind turbine developments are interrelated in complex ways which have not been sufficiently recognised in the assessments of these projects. Thus physical aspects such as noise, blade flicker, aircraft safety lighting, and landscape intrusion have a wide range of social impacts on lifestyle, community cohesion and mental health. These in turn lead to decisions to leave the area, or not to move into it, which in turn affect land values, employment and the regional economy. There is a danger that such a decline can become self-reinforcing, as declining employment forces more people to leave the area with consequent flow-on effects. The likely extent of such problems is unknown because no thorough study exists of the interactions and outcomes of all these factors in regions proposed for extensive wind farm development. *There is an urgent need for assessment of the likely cumulative impacts of large-scale multiple wind farm developments on regions subject to them. It is suggested that the Inquiry recommend that a comprehensive study of this kind is carried out.* Otherwise government is simply acting in ignorance of the cumulative regional impacts of these proposals, to the great detriment of affected communities.

Land values and the regional economy

No credible study of the impact of wind turbine developments on land values has been made in NSW. For the Gullen Range EA, the proponents were required to examine land value impacts including impacts on the subdivision potential of all adjacent land. Instead, the proponents referred to a highly inadequate review, little more than a listing, of land values over time around the 8 small turbines near Crookwell. The Director-General's Report (DGR) on the EA then provided argument from an unqualified and obviously partisan viewpoint that land values would not be affected. This is no basis for predicting the effect on land values of the 84 much larger turbines proposed for the 'Gullen Range', spread along a site of more than 30 kilometres, or of the cumulative impacts of multiple wind turbine developments in the region.

Nor does the inconclusive finding based on eight turbines accord with actual experience in the Upper Lachlan Shire in which the Gullen Range wind farm will be situated. The Shire has almost 300 proposed, approved or existing wind turbines, with more expected. One prominent real estate agent in the area has stated that not only are land values adversely affected near proposed or existing wind farms, but the greatest problem is the difficulty of selling these properties at all. *As well as for each wind farm, the likely cumulative impact on the Shire's land values of all wind farm proposals needs to be examined by competent valuers.*

Nor does the view that land values are not affected accord with the decision of the Land and Environment Court in the Taralga case, where five landholdings were nominated as eligible for acquisition at non-wind farm influenced market values.

The Shire is not, as the DGR repeatedly and erroneously asserts, just an 'agricultural area'. Particularly over the last fifteen years subdivision and the movement of people from cities in search of a 'tree change' has turned much of the Shire into quite closely populated rural residential areas. The areas most popular with immigrants from urban areas, those that have high landscape values, tend also to be close to those favoured by wind farm developers along the escarpments.

The positive effects of immigration to the Shire are obvious to anyone who has lived in it for some years, not least by the greatly increased level of activity in the main street of Crookwell. It is well recognised locally how many rural properties have been purchased by new residents. Some are wealthy, many are employed elsewhere and create employment in running and maintaining their properties, in the building industry, and in local service industries. This contrasts with the meagre

employment that will be provided by wind farms; the 84 turbine Gullen Range wind farm claims it will provide just 15 permanent jobs in the area..

The Upper Lachlan Shire Council recognises the need to attract new residents and the importance to them of a quiet and attractive rural environment. Its publication 'The Rural Living Handbook 2009' says '...getting away from it all is an Australian dream...it means finding a healthy environment to raise children, a place to retire away from the stress of the city. Others want to commune with nature or find a weekend escape'. Because of its proximity to Sydney and high landscape values, the Shire is more dependent for its economic growth than most on this type of immigration.

The more wind turbines are built in the Shire, the less likely tree-changers are to see it as a desirable location. Those seeking a quieter non-urban lifestyle simply do not want to live near wind turbines. Many existing residents will seek to move away, if they can sell their properties. Others who choose to remain will be faced with a degraded lifestyle.

Social justice

In this situation there is no social justice for those who live close to wind turbines without 'hosting' them. They can either attempt to sell, or suffer the visual and noise impacts of turbines without compensation. Even the night sky is obscured by the bright warning lights on the towers. From the Crookwell-Gunning road the pulsating lights on the Cullerin Range wind farm have a distracting and mesmeric effect from many kilometres away, and these are just the first of many.

The minimalist response of wind farm developers towards the visual and noise impacts of wind turbines is to offer screening by vegetation and additional sound insulation for some of the worst affected homes. They assert that the impacts on landholders when they are outdoors will be much less significant because they will be preoccupied by whatever task they are undertaking, and turbine noise will be masked by farm noise and vehicle movement. These convenient assertions do not reflect reality. Indoors the building itself provides some reduction of noise and the occupant has to look outside to see the turbines. Working or resting outdoors, there is no avoiding the full panorama, noise or shadow flicker of the turbines. One of the most enjoyable pre-turbine benefits of farming is that many tasks do not involve much noise and are conducted in a peaceful and visually attractive environment. This is just one example of the often ludicrous attempts made by wind turbine developers, and accepted by government, to deny the social and environmental impacts of their proposals.

The more rapid the spread of wind farms in NSW, the more urgent it is that the lack of social justice for nearby non-host property owners should be rectified.

The Inquiry should recommend that a requirement be placed on wind farm proponents that all non-host properties within three kilometres of the nearest wind turbine and purchased before the wind farm was approved are to be given the option of purchase by the proponent at pre-wind farm values assessed by an independent valuer.

There remains the issue of those who do not wish to move because of their attachment to the land, the local community, or for family, employment and many other reasons. They should also be compensated for their loss of amenity and property value. ***A Wind Farm Compensation Commission should be established to hear claims for compensation to be paid by the wind farm developers for loss of amenity for properties within three kilometres of the nearest turbine.***

It is considered that three kilometres is a minimum distance for such compensation. It should be remembered that these structures are as high as Sydney Harbour Bridge at the blade tip, and

dominate the landscape even more because they are usually built at higher elevations than surrounding residences.

As well as providing compensation for affected landholders, these provisions if adopted would be a substantial step towards ensuring that a basic principle of economic rationality is implemented: that wind farm developers pay the social and environmental costs of their proposals. Wind farms will be heavily subsidised by the mandatory renewable energy target, and should not be further subsidised by avoiding the social and environmental costs that they impose on nearby residents and communities.

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