Submission
No 55

INQUIRY INTO RURAL WIND FARMS

Organisation: Clean Energy Council

Name: Ms Sarah Jones

Position: General Manager, Industry Development

Date received: 26/08/2009

Suite 201
18 Kavanagh Street
Southbank VIC 3006
Australia

T: + 61 3 9929 4100
F: + 61 3 9929 4101
E: info@cleanenergycouncil.org.au
www.cleanenergycouncil.org.au
ABN: 84 127 102 443

Clean Energy Council

21 August 2009

The Director
General Purpose Standing Committee No 5
Parliament House
Macquarie Street
SYDNEY NSW 2000

Via email gpscno5@parliament.nsw.gov.au

SUBMISSION TO NSW GENERAL PURPOSE STANDING COMMITTEE NO 5 INQUIRY INTO RURAL WIND FARMS

The Clean Energy Council (CEC) is the peak industry body representing the renewable energy and energy efficiency sectors in Australia. Its membership encompasses the majority of large wind farm developers and operators, manufacturers of turbines and components, and consultants and others supporting the expansion of the industry. The Council welcomes the opportunity to make a submission to this inquiry on behalf of the wind energy industry.

GENERAL COMMENTS

The Commonwealth Mandatory Renewable Energy Target (MRET) has supported the growth of the Australian wind energy industry over the past decade. The recent adoption of the legislation by the Commonwealth Government to increase that target to 20 per cent electricity to be generated from renewable sources by 2020 (The RET) will see a significant increase in development and deployment of renewable energy including wind energy.

It is recognized that wind energy is a proven technology that is easy to deploy early in the expanded target period. To date much of that development has occurred in South Australia and Western Australia with Victoria also being proactive providing a policy and legislative environment encouraging renewable energy development. The recent policy announcements by the NSW Government in relation to wind development precincts and the streamlining of planning process for projects over 30 Mw may provide the framework for further development proposals in NSW in the future.

To date NSW has only 187.36 Mw of wind energy installed and operating. It should be noted however that there is significant increased potential in the development and evaluation process in NSW, with 1257.5 Mw under development and 1479.1 Mw under evaluation.

State	Installed Capacity	No of projects
SA	740.10	10
WA	201.41	15
Vic	191.91	8
Tas	142.52	8
NSW	187.36	7
Qld	12.46	3
Territories	0.68	2
NT	-	-
ACT	-	-
Total:	**1,476.44**	**53**

Competition to attract investment from wind energy developers is going to be strong between the states, and it is important that the NSW Government provides a conducive policy environment to ensure that those projects in development and evaluation are actually constructed.

In relation to the terms of reference of this review, it is important to note that the Australian wind energy industry supports environmentally and socially responsible wind farm development and undertakes extensive studies and assessments of specific sites to ensure that this goal is achieved.

THE ROLE OF UTLITY-SCALE WIND GENERATION IN:

- **reducing greenhouse gas emissions generated by electricity production**
- **producing off peak and base load power**

The expanded renewable energy target seeks to deliver 45,000GMWh of renewable energy by 2020. This is approximately equivalent to 45Gtonne savings of CO2e pa (assuming that the average emissions from this displace electricity production plant at around 1Tonne / MWh.

A number of factors will improve the consistency and reliability of wind energy in the electricity mix, dispelling previous claims that it may create problems. It is recognized that the geographic diversity of wind farms will provide overall more consistent generation from the mix of wind farms.

In addition the new wind forecasting system will give the Australian Energy Market Operator (AEMO) more confidence in future generation and, in conjunction with the semi-dispatch rules, the ability to control the output from wind farms at times of over generation.

The wind energy industry maintains that wind energy is an integral part of the renewable energy mix geared to reduce greenhouse gas emissions from electricity productions. In addition, systems have been put in place to address issues of consistency and better manage the inputs of wind energy into the electricity grid.

LOCATING RURAL WIND FARMS TO OPTIMISE WIND RESOURCE USE AND MINIMISE RESIDENTIAL AND EVNIRONMENTAL IMPACTS

There are a number of factors which will influence a decision as to whether a wind farm is feasible on a specific site:

- a good potential wind resource
- potential for a reasonable size of generation facility
- capacity for a cost effective electrical connection to the grid
- suitable land ownership and usage
- ease of construction/accessibility of the site

To determine whether these criteria can be met, and whether there are any other potential environmental or social issues that will impact on the viability of a proposal, wind farm proponents undertake extensive and exhaustive assessments prior to submitting a development application.

In addition to this, proponents engage a range of stakeholders at early stages of feasibility to determine whether there are any further environmental, cultural or amenity impacts that need to be understood and managed as part of the development.

Stakeholders that are consulted include not only the local community, the landowners and the local council, but also State and Federal Governments, government agencies such as CASA, Network Service Providers, electricity retailers, indigenous groups and other specific interest groups.

To demonstrate how extensive the assessment process for a site is, below is listed the range of different assessments and plans which may be undertaken by a proponent:

- landscape and visual amenity

- noise
- shadow flicker
- flora and fauna
- socio-economic
- archaeological and cultural heritage
- transport impact
- environmental management plan
- fire hazard management plan
- electromagnetic interference
- aircraft safety
- emergency and incident management plan

The wind energy industry maintains that it undertakes rigorous processes to ensure that any wind farm development has minimal impact on local communities and the environment. It should be noted that wind farm development leaves a very small footprint environmentally, particularly in comparison with a range of other land uses in rural areas.

THE IMPACT OF RURAL WIND FARMS ON PROPERTY VALUES

To the CEC's knowledge there is no documented evidence in Australia that demonstrates that wind farms have an impact on property values (either positive of negative).

The State and Commonwealth Governments through the Environment, Protection and Heritage Council have commenced the process for developing Guidelines for Wind Farm Development. The discussion paper which preceded the development of the Guidelines, released in late 2008 acknowledged that there is currently no requirement for any other development proposal in Australia to undertake an assessment of impacts on property values.

It concluded that it would be an undesirable precedent to introduce this consideration to wind farm development. It was considered that the issue of appropriate siting of such facilities should be addressed through planning scheme zonings.

The wind energy industry contends that impact on property values is not a valid consideration with respect to whether a development proposal should proceed.

MECHANISMS FOR ENCOURAGING LOCAL OWNERSHIP AND CONTROL OF WIND TECHNOLOGY

There are a range of models being explored nationally by local communities interested in investing in renewable energy. A recent example of this is the Hepburn Community Wind Farm in Victoria which, when constructed, will be owned by the local community. It should be noted that this is, however a small scale development. Most of the deployment of wind energy in Australia will be on a much larger scale to ensure that it is economically viable. The financing arrangements for such developments, as with any large scale development, are complex.

There are however many ways in which local communities can become involved in wind development in their areas, and this is best explored by communities and local councils working proactively with developers in the early stages of assessment.

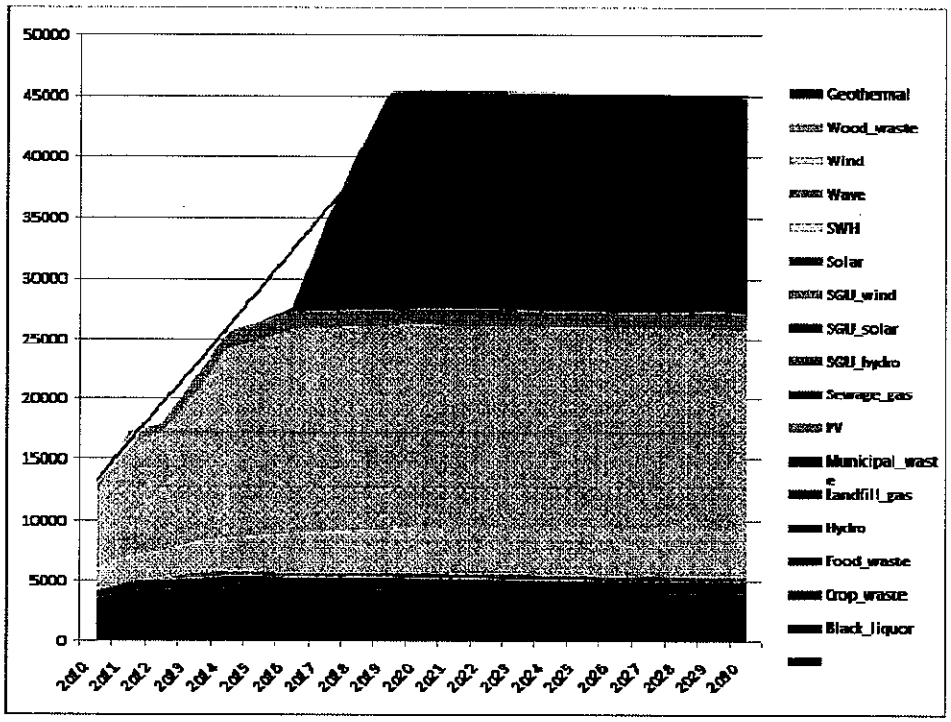
There is opportunity also to leverage off wind farm developments with tourism initiatives, business development and encouragement of other investment into the area. An example of this is Ararat in Victoria, where tourism operators utilize the local wind farm to conduct tours. In addition the local council has made a commitment, and set aside land to attract wind component suppliers and manufacturers to the region.

THE POTENTIAL ROLE OF ENERGY GENERATED BY RURAL WIND FARMS IN RELATION TO THE AUSTRALIAN GOVERNMENT'S PROPOSED RENEWABLE ENERGY TARGET

As previously mentioned, if the expanded 20 per cent renewable energy target (RET) is put in place by the Commonwealth Government, a significant increase in wind farm development will occur. This development will occur in the States which have the most proactive policy environment, and have streamlined their planning processes to minimize cost and time

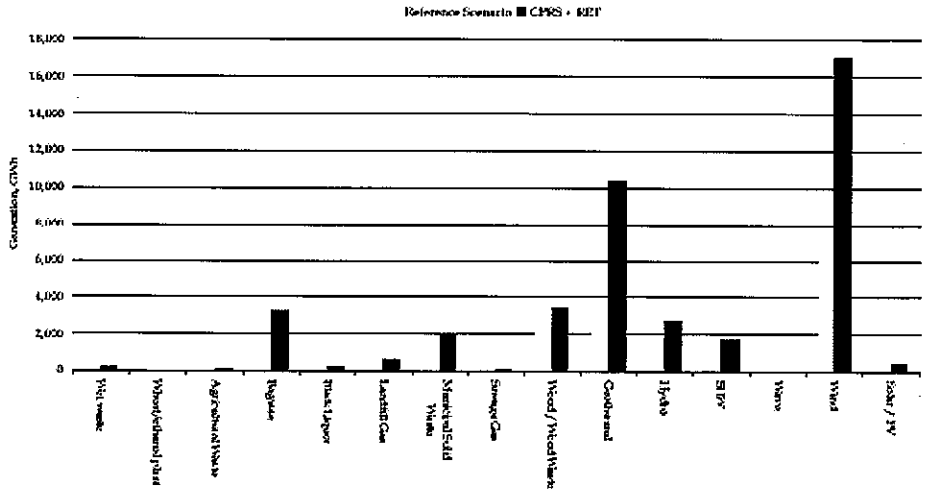
delays to developers. To date NSW has not enjoyed the same level of investment in wind energy development as other States. There is opportunity to create a more positive policy environment to attract that investment in the future.

The below graph produced by Intelligent Energy Systems (IES) in 2008 for the Clean Energy Council depicts the potential mix of technologies that could make up the renewable energy target. As is demonstrated, wind energy is positioned to perform a key role in securing the 45,000 GWh by 2020.



The findings of this research are further supported by the MMA report *Benefits and Costs of the Expanded National Renewable Energy Target, January 2009,* prepared for the Commonwealth Department of Climate Change which predicts that over 16,000 GWh of wind energy will contribute to the 45,000 GWh target by 2020.

Exec Figure 2: Renewable energy technology mix (excluding pre-1997 generation), 2020



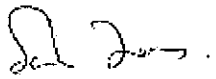
ANY OTHER RELEVANT MATTER

The Environment, Protection and Heritage Council has committed to the development of National Guidelines for Wind Farm Development. All State Governments have signed up to this process. These guidelines are currently under development, and expected to be available in draft form prior to the end of the year for consultation.

The scope of the guidelines will address environmental and amenity considerations with respect to wind farm development. One of the key purposes of the development of the guidelines was to ensure consistency from state to state as far as practicable. It is considered that the scope of the Committee's review will be addressed in these guidelines.
In closing, the CEC and its wind energy industry members support the responsible development of wind farms in Australia.

The CEC and its members would be happy to discuss this issue further with you as your review progresses. In the interim if you require any further information please do not hesitate to contact me on :

Yours sincerely,



Sarah Jones
General Manager, Industry Development