



Australian Government

**Department of the Environment and Heritage
Australian Greenhouse Office**

National Code for Wind Farms

A Discussion Paper

May 2006

MINISTER'S FOREWORD



There has been a rapid increase in the number of wind farms in Australia, driven primarily by the stimulus for investment provided by the Australian Government's Mandatory Renewable Energy Target (MRET). MRET will underpin more than \$3 billion in new investment in renewable energy. Some states have also established policy frameworks to actively encourage development of wind energy.

In 1996 there were only 20 wind turbines in Australia, with a total capacity of around 2.7 megawatts. Today there are 444 wind turbines, representing a 2120 per cent increase, with a total generating capacity of about 638 megawatts, and another 130 turbines are currently under construction. The potential for additional farms is great given the extent and quality of the wind resource, particularly in southern Australia.

The rapid growth of wind farms in Australia has generated significant community concern and debate. Much of this concern has centred around the perceived lack of consistency and transparency in the public consultation process, and a consequent failure to understand how the views of local communities are taken into account in the approvals process.

Wind power is an excellent source of renewable energy, but it is being given a bad name because the views of local communities are often ignored when large-scale wind farm proposals are being considered in their area. To help overcome this problem, it is vital that we make every effort to ensure majority community endorsement.

The Australian Government recognises the potential value of wind energy in our future energy supply. The wind energy industry has been working with governments and communities to establish a framework to develop this industry. However, the industry has expressed concerns about the need for greater consistency and transparency in the approval process. The industry has called for a national approach to this issue and wants to work with governments to develop a code of practice to facilitate informed decision making.

This discussion paper, which has been prepared to help stimulate discussion on the issue of the development of a National Code for Wind Farms, illustrates that there are multiple planning and regulatory arrangements operating across jurisdictions (see p.13), raising the legitimate question as to why there is no national standard.

On 30 November 2005, I wrote to all state and territory environment ministers proposing that a National Code for Wind Farms be developed. A key component of such a code should take into account the wishes of the local community, often most fairly expressed by the local council. A consistent national agreement would empower local communities and include them in the decision-making process to capture their local knowledge about the potential impacts on the landscape, property values and wildlife in their area.

There is a need to balance the competing challenges of dealing with long-term climate change impacts with the need to preserve our unique environment, while maintaining our competitive economy. This is no easy task.

If we are to capture the benefits of wind in a manner that gives investment confidence with wide community support, we must have nationally consistent approaches to the development and deployment of new low emission technologies, including wind energy.

A National Code for Wind Farms will provide the basis for consistency, certainty and community confidence.

A handwritten signature in black ink, appearing to read 'Ian Campbell', written in a cursive style.

Senator The Hon. Ian Campbell
Minister for the Environment and Heritage

THE ROLE OF WIND IN OUR ENERGY FUTURE

The Australian Government recognises that climate change is a serious problem that requires an effective global and national response.

Through its \$2 billion climate change strategy, the Australian Government has focused its measures in key strategic areas: emissions management, international engagement, impacts and adaptation, strategic policy support, and science and measurement, which together will deliver a lower greenhouse signature while maintaining Australia's strong and growing economy.

The Government believes that a comprehensive response to climate change must involve all major emitters, it must include technological breakthroughs to reduce the long-term costs to our economy. The Government's energy white paper, *Securing Australia's Energy Future*, released in 2004, states that should an effective global response be in prospect, the Government will consider least cost approaches to constraining emissions. This consideration would encompass the possible introduction of market-based measures (such as an emissions trading scheme) in the longer term.

It must not be forgotten that Australia contributes only 1.4 per cent of greenhouse gas emissions and that therefore domestic action in the absence of cuts by the world's major greenhouse gas emitters would be ineffective in combatting the problem.

Abundant resources and low-cost energy give Australians a high standard of living, allow us to supply a large amount of the world's energy needs, and ensure a competitive advantage for some of our energy intensive industries. In 2003, Australia's energy sector contributed 68 per cent of the national greenhouse gas emissions and as the Australian economy grows towards 2020, energy demand is likely to increase by 50 per cent. Similar growth in energy demand is expected throughout much of the world.

To keep Australia internationally competitive and ensure its energy security, while at the same time addressing the challenges of climate change, we must continue to develop low-cost energy resources, including zero or low emissions technologies, and continue to reduce impediments to the uptake of renewable energy.

Whether these technologies are developed to improve energy production from renewable sources such as wind and solar, or to reduce greenhouse gas emissions from traditional fossil fuels such as coal, is irrelevant. The reality is that the world will need energy from both renewable and traditional sources for the foreseeable future.

Wind power, as a mature and relatively inexpensive form of renewable energy will play an important role in both securing our energy future and addressing climate change.

AUSTRALIAN GOVERNMENT SUPPORT FOR RENEWABLE ENERGY

As part of its \$2 billion climate change strategy, the Australian Government has provided more than \$500 million to support the broader renewable energy industry, and through it, the wind energy industry.

The Government has established a comprehensive framework for growth through the Mandatory Renewable Energy Target which has encouraged deployment of a broad range of renewable energy technologies, including wind.

It has established a range of programmes to advance the renewable energy industry through innovation, commercialisation and deployment. These include:

- the Renewable Energy Commercialisation Programme – to foster innovation and development of renewable energy technologies
- the Renewable Energy Equity Fund – to provide venture capital
- the Low Emissions Technology Abatement initiative – to support ongoing investment in the development, demonstration and deployment of smaller-scale low emissions technologies
- the Renewable Energy Development Initiative – to support strategically important renewable energy initiatives with strong commercial and emissions reduction potential
- the Low Emissions Technology Demonstration Fund – for large-scale demonstration of low emissions technologies with significant long-term abatement potential, including renewable energy
- the Renewable Remote Power Generation Programme – to encourage the use of renewable energy in remote areas of Australia
- the Renewable Energy Showcase programme – to demonstrate renewable energy technology innovation.

It has established other measures to identify and remove barriers to the more widespread use of renewable energy, including:

- the Advanced Electricity Storage Technologies programme – to increase the contribution of intermittent renewable energy sources to Australia's electricity supply system
- the Renewable Energy Industry Development programme – including studies to address community and environmental concerns about wind projects including: impacts of turbines on landscape values; standards and protocols for assessing risks to birds; and best practice guidelines for wind farm development
- A Wind Energy Forecasting Capability – to facilitate greater penetration of wind in energy markets.

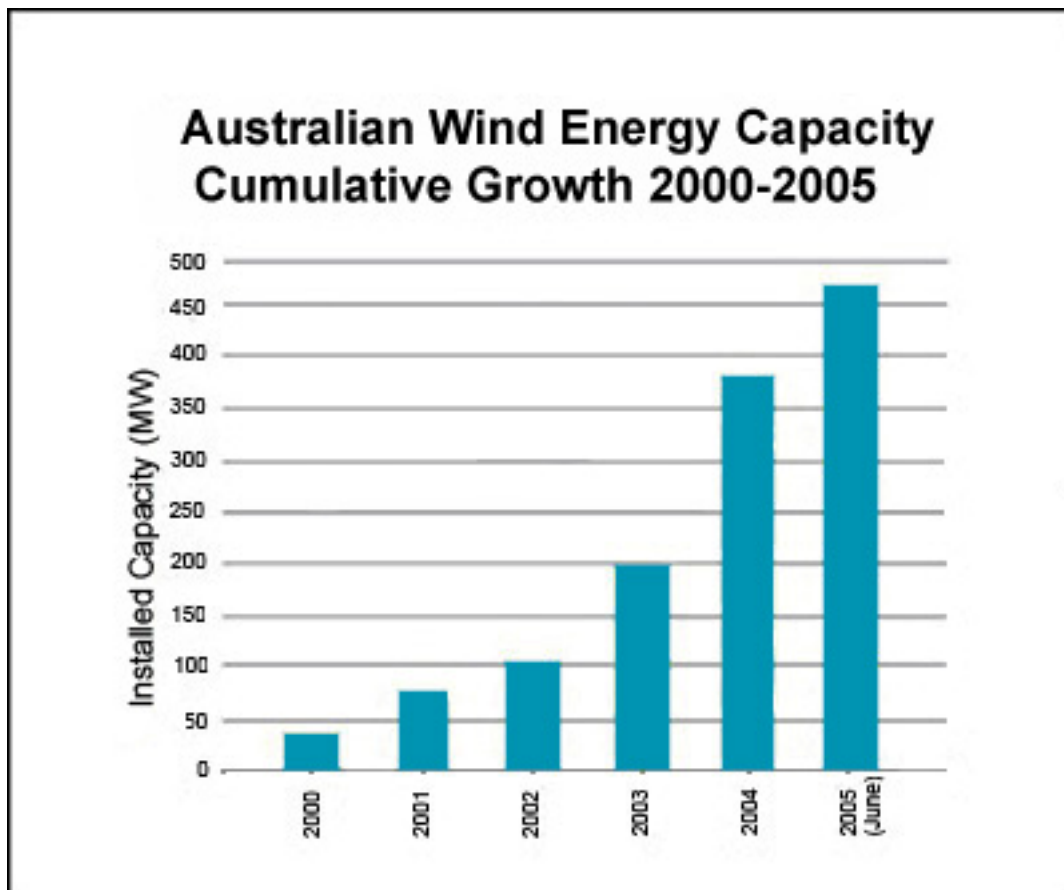
The Government's strong support for the wind energy industry reflects its view that wind power, at a level that is economically, socially and environmentally sustainable, will remain a valued component of Australia's renewable energy technology portfolio.

THE GROWTH OF THE WIND INDUSTRY IN AUSTRALIA

Wind energy is clean, free and renewable. The technology is proven, fast to build and cheap compared with other renewable energy technologies. Wind energy is well placed to grow and deliver greenhouse emission cuts on an increasingly cost competitive basis.

A typical wind turbine can meet the energy needs of up to 1000 homes. A typical 50 megawatt (MW) wind farm in Australia can reduce greenhouse gas emissions by between 65,000 and 115,000 tonnes a year.

Wind energy capacity in Australia has increased from 2.7MW in 1996, to 10MW in 2000 and to around 640MW in early 2006, with another 250MW under construction. This capacity represents approximately 1 per cent of all electricity produced in Australia each year.



Australian Wind Energy Capacity Cumulative Growth 2000-2005 sourced from Auswind Report *Tradewinds 2004-05 - A progress Report on the Australian Wind Energy Industry* - AusWind

With no additional incentives, installed capacity is expected to plateau between 1000MW and 1600MW.

At an installed capacity of 1200MW, wind generation is projected to account for 1.2 per cent of electricity production in 2015 and around 1 per cent in 2025.

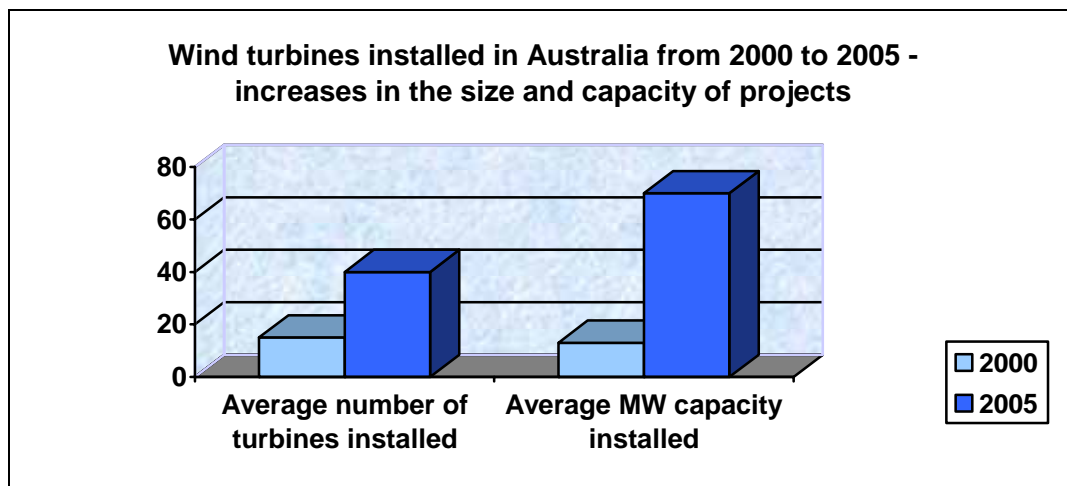
Projected share of wind in electricity generation mix

State	Estimated 2005 (%)	Projected 2015 (%)	Projected 2025 (%)
South Australia	9.2	12.0	9.7
Victoria	0.7	0.8	0.6
New South Wales	less than 0.1	less than 0.1	less than 0.1
Queensland	less than 0.1	less than 0.1	less than 0.1
Tasmania	2.0	2.9	2.3
Western Australia	3.9	3.1	2.5
National	1.0	1.2	1.0

Source of total generation figures: *ESAA Electricity Australia 2004* (2.2 per cent annual growth assumed)

As of February 2006 around 440 wind turbines were operating in Australia and nearly 130 turbines were under construction.

The size of wind energy projects has also increased significantly. The average size of commercial projects has grown from 10-20 turbines and 10-15MW capacity in 2000, to 30-50 wind turbines and 50-90MW capacity in 2005.



Australia has excellent wind resources and Australian wind farms are producing capacity factors between 30-35 per cent (capacity factor is a measure of the energy output of a wind farm compared with how much it would produce if the wind were blowing at a speed high enough for maximum output all of the time). In Europe, typical capacity factors are much lower.

Assuming a 35 per cent capacity factor, a 70MW wind farm would produce around 215,000MWh each year – enough to power around 40,000 homes.

Location of Australian wind farms



Australia has around 40 completed wind energy projects totalling around 640MW of wind energy capacity, ranging from small single turbine installations of less than 25kW in remote communities, through to extensive wind farms consisting of more than 50 large (2MW) wind turbines. Four wind farms are currently under construction and will provide a further 254MW of wind energy capacity.

Australian wind installations (as at February 2006)				
Name	State	Turbine size	No. of turbines	Total capacity (MW)
<i>In Operation:</i>				
Blayney	NSW	660kW	15	9.90
Crookwell	NSW	600kW	8	4.80
Hampton (Hickery Hill)	NSW	660kW	2	1.32
Kooragang Island	NSW	600kW	1	0.60
Thursday Island	Qld	225kW	2	0.45
Windy Hill	Qld	600kW	20	12
Canunda (Lake Bonney Central)	SA	2MW	23	46
Cathedral Rocks	SA	2.0MW	33	66
Cooper Pedy	SA	150kW	1	0.15
Lake Bonney Stage 1	SA	1.75MW	46	80.5
Starfish Hill	SA	1.5MW	23	34.5
Wattle Point	SA	1.65MW	55	90.75
Flinders Islands	Tas.	55kW	1	0.055
Flinders Islands	Tas.	25kW	1	0.025
King Island Huxley Hill	Tas.	250kW	3	0.75
King Island Huxley Hill Expansion	Tas.	850kW	2	1.70
Woolnorth Stage 1	Tas.	1.75MW	6	10.5
Woolnorth Stage 2 (Bluff Point)	Tas.	1.75MW	31	54.25
Aurora (Brunswick)	Vic.	10kW	1	0.01
Breamlea	Vic.	60kW	1	0.06
Challicum Hills	Vic.	1.5MW	35	52.5
Codrington	Vic.	1.3MW	14	18.2
Toora	Vic.	1.75MW	12	21
Wonthaggi	Vic.	2.0MW	6	12
10 Mile Lagoon (Esperance)	WA	225kW	9	2.025
9 Mile Beach	WA	600kW	6	3.6
Albany	WA	1.8MW	12	21.6
Alinta / Walkaway	WA	1.65MW	54	90
Armadale	WA	30kW	1	0.03
Bremer Bay	WA	600kW	1	0.6
Cocos (Keeling) Islands	WA	20kW	4	0.08
Denham	WA	230kW	3	0.69
Exmouth Advanced	WA	20kW	3	0.06
Hopetoun	WA	600kW	1	0.6
Murdoch	WA	20kW	1	0.02
Rottnest Island	WA	600kW	1	0.6
Salmon Beach	WA	60kW	6	0.36
		Total	444	638
<i>Under Construction</i>				
Mount Millar (Yabmana)	SA	2.0MW	35	70
Woolnorth Stage 3 (Studland Bay)	TAS	3.0MW	25	75
Yambuk	VIC	1.65MW	20	30
Emu Downs Stage 1	WA	1.65MW	48	79
		Total	128	254

THE CHALLENGES

Environmental

The Australian Government supports wind energy and its contribution to a more sustainable future. When wind turbines occupy airspace used by bird or bat species there are obvious risks. The risks increase when species are threatened or present in large numbers. There is often a correlation between the preferred siting of wind farms on wind-prone ridges and the flight paths of certain bird species.

Because wind farms need large areas they are also typically found in remote rural locations, which are also often the location of significant conservation areas. Environmental factors are a high priority concern for any development, particularly in non-urban areas.

Although Australia and the rest of the world are in the early stages of wind turbine development, a trend toward larger turbines is emerging. This may increase the impact on migrating fauna. However, the number of turbines per wind farm is likely to decrease.

Factors such as size, spacing, location on the landscape, and proximity to forested areas affect the impact turbines have on fauna. Significant effort has been made to identify and manage the issues through comprehensive studies, but although much progress has been made, the magnitude of the potential impact in terms of overall bird and bat population dynamics is not yet fully understood. As research leads to improved turbine design and wind farm location, the impact on bird and bat populations can be expected to decrease.

Social

The most controversial and widely debated aspects of any wind farm development are those which affect local residents. These include visual amenity, noise, and shadow flicker. The debate is often characterised by unrelated and entrenched views, with those who value the aesthetics of their local area at one end of the spectrum and those who value the working or economic aspects of the locality at the other.

Landscape values in particular are an issue where it is difficult to achieve consensus. The value that people place on landscape is subjective. While there are many areas which are universally recognised for their landscape values, local communities often highly value their own locality, irrespective of any wider recognition. In most instances landscape assessments do not tackle the issue of what the impacts mean and to whom. When dealing with quantifiable impacts such as noise or shading there is a clear need for better information in the community to inform debate.

Future technological development, such as these vertical axis turbines which are being deployed in Finland, may overcome some of these concerns.

Source:windside.com



PLANNING AND APPROVAL REGIMES

Environmental assessments are conducted to inform decision makers about the positive and negative effects of a project and associated mitigation measures. A number of environmental impacts associated with wind farms need to be identified early and avoided, mitigated or compensated. Effective environmental management over the life of the wind farm should ensure it operates sustainably. The effectiveness of the initial environmental impact assessment is critical to this process.

In special cases governments may facilitate major developments, which can include wind farm projects, by negotiating directly with the proponents, and overriding local authority planning powers by vesting ultimate control over the approval of such projects in ministers or agencies of the state government. Special procedures are then applied to the environmental assessments and permitting requirements for such projects.

All Australian states and territories have comprehensive legislative land use and environmental planning regimes, though these vary markedly from state to state. In some cases, the relationship with local government legislation is strong, and in some cases, environmental planning regimes are contained within local government.

While as noted above, planning approval processes and environmental impact assessments in Australia provide information for decision makers, that information is also important to local communities that are likely to be affected by proposed projects. Community consultation is a key requirement of all Australian approvals and assessment regimes.

Community consultation

The progress of projects from conception to fruition would be helped if local communities and interest groups were adequately consulted at the earliest stages of the project and kept informed as the project progressed. Failure to do so invariably results in anger, frustration and resentment. This adds to the difficulty of communication as the project progresses.

The level of community consultation on wind farm planning proposals differs across jurisdictions. It also varies within states depending on the scope of the proposal. This lack of consistency is largely in the following areas:

- Commitment to effective communication with local communities
- Considerations of local community benefit or detriment
- Opportunity for stakeholders to participate in and influence the planning, decision making and operations of a project.

Local communities potentially affected by wind farm proposals have identified a need for better processes to help regional and local planners, councils and industry ensure stakeholders have the opportunity to have their say about the issues of importance to them. There have been calls for a nationally consistent approach to community consultation to increase the confidence of the community and industry in decision making. The aim of such an approach should be to provide a clear, consistent, long-term framework within which planners, councils, industry and investors can plan and make decisions with confidence. Because the views of local communities are often ignored when large-scale wind farm proposals are being considered, wind power has a public perception problem. To overcome this, it is vital that every effort is made to ensure majority community endorsement.

CASE STUDY – MYPONGA WIND FARM, SOUTH AUSTRALIA

In South Australia, wind farm developments are assessed through one of three processes. These are known as the Private Development, Crown-Public Infrastructure Development and Major Development processes.

- The Private Development process involves applicants lodging proposals with local councils who assess the project against the development plan for that council.
- The Crown-Public Infrastructure Development process involves a project receiving the endorsement of a State agency, which lodges the development application with the Development Assessment Commission. Public rights in relation to appeals are more limited under this process.
- The Major Development process requires wind farm projects to undergo extensive environment impact assessments and the decision is made by the Minister with no rights of appeal by the applicant or third parties.

The proposal for the Myponga/Sellicks Hill wind farm was originally lodged in South Australia as a Crown Development Application for Public Infrastructure, after the former South Australian Department of Industry and Trade sponsored the project. The original proposal was for a 70-turbine wind farm.

After the proposal was lodged, the SA Minister for Transport and Urban Planning directed that a smaller 20-turbine application be processed as a Major Development under South Australian Planning Guidelines. Under this process a Public Environment Report was prepared and public submissions received regarding the development. Further changes were made to the proposal in response to the submissions.

Formal planning approval was granted for the Myponga/Sellick's Hill wind farm in late 2003.

Although there has been vigorous community debate and the proponent has significantly changed the number and location of wind turbines in response to community pressure, the Myponga/Sellick's Hill wind farm has not been subject to local council planning approval processes.

Variation in key elements of environmental assessment across states

Determination	Wind farm proposals determined by state Minister	Public review period	Assessment of Environmental Impact Statement (EIS)
NEW SOUTH WALES			
Minister has call in powers.	When capital investment value is more than \$30 million or is located in an environmentally sensitive area of state significance.	Public review of an EIS under Part 5 is mandatory, although determining authority may withhold any part of the statement if it is deemed to be contrary to public interest. For 'designated development' under Part 4 of the Act public exhibition of EIS is mandatory, although procedures are at the discretion of the Director-General, after consultation with the proponent.	Director-General prepares the Assessment Report for the Minister. Assessment must take into consideration the EIS, representations made in response to public exhibition, any submissions of the proponent and any other matter the Director-General considers relevant. In making a decision, the Minister must review the decision of the proponent to carry out the activity having regard to the assessment of the activity.
QUEENSLAND			
Minister may call in an application.	Minister may call in an application 'only if the development involves a state interest'.		A regulation, a planning scheme, or a temporary local planning instrument may require impact or code assessment, or both impact and code assessment for assessable development.
SOUTH AUSTRALIA			
The Minister can refer a development or project of major environmental, social or economic importance to the Major Developments Panel.		At least six weeks for an EIS. Minister is not empowered to make any exceptions from this requirement. The EIS is also required to be referred to the Environmental Protection Authority, and to any other prescribed body or authority as the Minister sees fit.	
VICTORIA			
Minister has call in powers.	When wind energy proposals are 30MW or greater.	A period of two months is required for an EIS, although the Minister may alter this period.	The Minister for Planning advises the decision maker on the project and any conditions that should be attached.

Determination	Wind farm proposals determined by state Minister	Public review period	Assessment of Environmental Impact Statement (EIS)
TASMANIA			
<p>The Minister may recommend to the governor that an order be made that a project of state significance should be referred to the Resource Planning and Development Commission for assessment.</p>		<p>An opportunity for public consultation must be provided for environmentally relevant activities before the assessment is complete. The assessing authority may choose not to disclose information where there is a legitimate commercial, national security or environmental reason for confidentiality. The precise nature of public consultation procedures is entirely discretionary. For major projects under integrated assessment, a period of not less than 28 days is required. The report must also be referred to the local council where the project is located and to all government agencies that have an interest in the project.</p>	
WESTERN AUSTRALIA			
<p>The Minister may refer a proposal if it appears that there is public concern about the likely effect of it on the environment if implemented.</p>		<p>The period of public review is at the discretion of the Environmental Protection Authority (EPA) who may direct referral to specified bodies such as government agencies and environmental organisations. The EPA is also able to exclude confidential information from the report it has required.</p>	<p>The EPA prepares an assessment report and makes recommendations as it thinks fit. On submission of the assessment report, the Environment Minister and the authority responsible for approving the proposal will consult about implementation of the proposal. If agreement cannot be reached between Ministers the matter will go to the Governor, or otherwise, to an appeals committee.</p>

A period of public review is usually stipulated to allow for public decisions to be sent to the decision maker. However, sometimes whether there is a review remains within the discretion of the decision maker. There is also considerable variation in the period of time allowed for public review in each jurisdiction.

CASE STUDY - NEW SOUTH WALES

Environmental planning is based on the *Environmental Planning and Assessment Act 1979* regulations and environmental planning instruments. Three types of environmental planning instrument govern what type of development may be carried out on a parcel of land:

- (i) State Environmental Planning Policies;
- (ii) Regional Environmental Plans; and
- (iii) Local Environmental Plans.

Local councils are also able to include Development Control Plans which specify requirements or fixed standards in relation to carrying out development.

A wind farm is determined to be a State Significant Development under State Environmental Planning Policy (Major Projects) 2005 where it involves a wind generation facility that has a capital investment value of more than \$30 million or is located in an environmentally sensitive area of state significance. The draft EIA Guidelines for Wind Farms and *The NSW Wind Energy Handbook* are two key documents available for wind farm developments in New South Wales.

The government agencies consider proposals for wind farms and issue recommendations for strict performance requirements on their design and operation, such as determining the layout of turbines with respect to nearby residences by specifying acceptable noise levels and the upgrading and maintenance of public roads. They are based on comparatively strict performance standards that consider the amenity of affected parties.

Larger wind farm proposals require an environmental assessment to be prepared. Smaller windfarms that have a capital works value of less than \$30 million require a lower level of assessment to be prepared. These assessments are prepared according to the Draft NSW Wind Energy EIA Guidelines which require a thorough assessment of impacts on amenity and mitigating actions.

In New South Wales, five local councils are drafting Development Control Plans specifically to control wind farm development in their jurisdiction (Oberon, Dungog, Upper Lachlan, Goulburn Mulwaree and Lithgow).

Until recently, the same process applied for approving a house extension as it did for approving a wind farm project, unless the Minister exercised his 'call-in' powers to determine the project at the state level.

New measures introduced in 2005 ensure that the community's right to be informed and to have an input into the assessment of major wind farm projects is maintained and enhanced through publicly available reports. These include the project or concept plan application to carry out a project; Director General's requirements for environmental assessment; proponent's Environmental Assessment; proponent's response to issues raised in public submissions; Director General's assessment report and recommendations; Minister's determination and any conditions; and appeals.

Additional opportunities for community involvement have been provided through consultation on concept plans; requirement for proponents to consider submissions and, if appropriate, amend the project in response to issue raised; panels providing an independent mechanism for the community to raise issues and have them considered; and additional requirements on making various reports public and available on the internet.

CASE STUDY - VICTORIA

Environmental impact assessment in Victoria is undertaken under the *Environment Effects Act 1978*, the *Environment Protection Act 1970* and the *Planning and Environment Act 1987*. These Acts outline the regulatory and strategic planning processes undertaken by state and local government. Most wind facilities in Victoria are dealt with in accordance with the *Planning and Environment Act 1987*.

The Victorian Minister for Planning is the responsible authority for wind energy proposals that are 30MW or greater. For wind energy proposals that are 30MW or less, the local council is the responsible authority.

In certain cases, the Minister for Planning may direct a council to refer an application for development consent for his/her approval. This may be done if it appears to the Minister that the application raises a major issue of policy and that the determination of the application may have a substantial effect on achieving development or planning objectives. In such cases, the Minister becomes the responsible authority. Similarly, in the event that a proposal requires a number of permits that are 30MW or greater when combined, it is anticipated that the Minister would exercise his/her call in powers in coordinate decision making.

The Minister for Planning has used these call in powers on many occasions due to the complexity of major wind farm proposals, the lack of experience of councils in assessing such proposals, and the policy implications of approving proposals that may have major social, environmental and economic impacts.

If there are objections to proposals, the Minister for Planning must refer the objections and any submissions received to an independent planning panel appointed by the Minister. The panel makes recommendations on the proposal to the Minister, although the Minister is under no legal obligation to adopt its recommendations.

The state permit process does not provide an opportunity for members of the public to appeal to a Tribunal for review as is the case in theory for proposals requiring council approval.

Changes were made to the Victorian planning system in 2002 to specifically address issues associated with wind energy development. The current system is still claimed to have problems relating to the assessment and approval processes for wind farms. It is claimed that the current system has disempowered local community input and has set the stage for bitter conflicts over the location and siting of wind energy.

World Wind Energy Association principles for wind farm environmental assessment

In 2004, the World Wind Energy Association adopted the following series of principles for wind farm development, which could underpin the proposed National Code.

- Environmental assessments should be applied at the project level;
- Environmental assessments should take account of higher-level national and/or regional policies and strategic assessments, including assessments already completed for potential wind farm sites;
- An initial screening should be conducted to determine if a project is likely to have significant effects on the environment by virtue of its nature, size or location;
- Environmental assessments should be conducted for all wind power projects that have the potential for significant impacts on the environment;
- Environmental assessments should be based on good science and factual information. They should be relevant to the scale and nature of the project in question and factor in existing information;
- Developers should apply appropriate procedures or codes of practice regarding stakeholder participation and environmental protection. Stakeholders should be given opportunities to participate in decision-making processes. Their roles, and rights to access information, should be documented in language relevant to their needs;
- There should be transparency of process and coordination between the different sectors involved – government, developer and community interests. Developers should consult with local and national resource agencies, defence, telecommunications and coastal management authorities at the earliest opportunity to assist in determining the environmental issues to be addressed and the studies required, and to clarify the timelines that apply. Regulatory authorities should have specified and reasonable timelines for their assessment and approval processes;
- Post-construction auditing should be a requirement to measure performance against objectives, targets and proposed indicators of success detailed in the project EIA;
- A key element for public acceptance can be the negotiation of an agreement between the proponent and the local community on the nature and scope of the collaboration required to conduct the EIA.

TOWARDS A NATIONAL CODE FOR WIND FARMS

The Australian Government has played an active role in facilitating the sensitive development of Australia's wind power potential, which has already laid some of the groundwork for a better nationwide approach by the wind industry.

It has helped the Australian wind industry to adopt world's best practice for the development of wind farms in this country. A National Code for Wind Farms would be based on much of this earlier work, such as the *Best Practice Guidelines for Implementation of Wind Energy Projects* released in 2002. These guidelines drew on similar publications developed in Britain and Europe and involved broad consultation in Australia.

Other relevant, more recently funded work includes *Stage One of the Wind Energy and Landscape Values Project*, carried out collaboratively by the Australian Council of National Trusts and the Australian Wind Energy Association, and *Wind Farms and Birds: Interim Standards for Risk Assessment*. Reports on both of these projects were released in 2005, and funding for Stage 2 of the Landscape Values project is currently being considered.

Consideration is also being given to helping the Australian Wind Energy Association develop an accreditation system for wind farm developers. This scheme would provide a voluntary, independently audited management system to encourage continuous improvement of the industry's social and environmental practices. Such a scheme would provide strong linkages between the industry and the National Code.

The current Best Practice Guidelines cover the very broad range of issues that need to be considered by wind farm developers throughout the planning, approval, construction, operation and decommissioning phases of the wind farm.

Consultation with and engagement of the community is seen as a particularly critical issue. A consistent National Code would include local communities in the decision-making process and capture their local knowledge about the potential impacts on the landscape, property values and wildlife in their area.

Environmental and heritage considerations, such as the existence of areas of cultural significance to local Indigenous peoples, could also be addressed within a National Code. The spectacular beauty of parts of Australia's coastline needs to be preserved unspoiled for future generations to enjoy. Our unique flora and fauna also needs to be carefully protected, especially the critically endangered bird species, which must be given the best possible chance for survival. The National Code will ensure that a consistent approach is taken on all of these issues.

Wind power, at a level that is economically, socially and environmentally sustainable, and in locations that are best suited, will remain a valued component of Australia's energy mix. It is an excellent source of renewable energy, but it is being given a bad name because the views of local communities are often ignored when large-scale wind farm proposals are being considered in their area. The Australian Government will continue to provide tools and leadership in trying to ensure that the needs of all parties are considered as this important industry continues to grow.

There are a number of possible options for the implementation of a National Code and the final model will clearly depend on the degree of involvement and cooperation between the various stakeholders. Implementation options which will need to be considered include a voluntary approach involving a high degree of self-regulation or a mandatory system that would require State/Territory or Australian Government legislation.

Telecommunications proposals provide one example of a possible model. High-impact facilities (big towers or free-standing mobile phone tower structures) must follow relevant local planning and state guidelines. Local councils can veto a project as it must go through a development application.

For small antennas (ones that are about five metres by one metre) and are attached to an existing structure, the carriers must consult with the local community but there is no legal requirement for them to go through the local council.

A decision on the best method for implementing the National Code would be made following thorough consultation involving all stakeholders.

FEEDBACK

If you would like to provide comment on this discussion paper, please email renewable@deh.gov.au.

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