



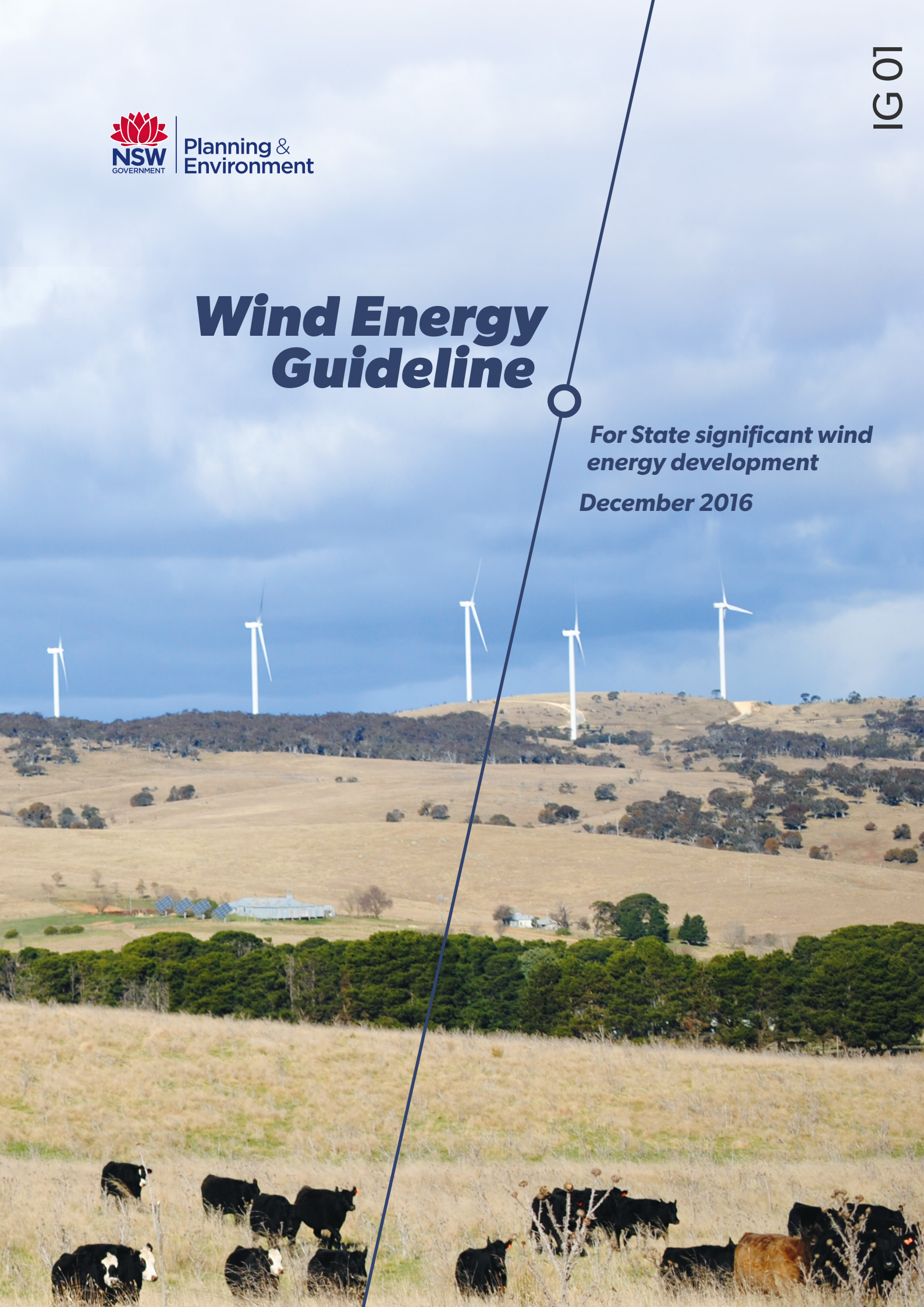
Planning &
Environment

IG 01

Wind Energy Guideline

***For State significant wind
energy development***

December 2016



December 2016

© Crown Copyright 2015 NSW Government

Images contained within this document are provided by the NSW Office of Environment and Heritage.

Disclaimer

While every reasonable effort has been made to ensure that this document is correct at the time of printing, the State of NSW, its agents and employees, disclaim any and all liability to any person in respect of anything or the consequences of anything done or omitted to be done in reliance or upon the whole or any part of this document.

Contents

1.	Introduction	2
1.1	Purpose of the Wind Energy Guideline	2
1.2	Objectives	2
1.3	Strategic context	3
1.4	Application of the Guideline	4
2.	Planning framework	4
2.1	Permissibility	4
2.2	Planning pathways	5
2.3	Other approvals	5
2.3.1	<i>Transmission lines</i>	5
2.3.2	<i>Other legislation</i>	6
3.	Assessment issues for wind energy development	7
4.	The assessment process	9
4.1	Scoping and pre-lodgement	10
4.2	SEARs and Preliminary Environmental Assessment	10
4.3	Preparation of an Environmental Impact Statement	11
4.3.1	<i>Describing the design of your project</i>	11
4.3.2	<i>Describing the likely impacts and mitigation and management options</i>	12
4.3.3	<i>Micro-siting and environmental envelopes</i>	12
4.3.4	<i>Refurbishment and decommissioning</i>	12
4.3.5	<i>Noise and health</i>	13
4.4	Assessment	13
4.5	Determination and conditions of consent	14
5.	Community and stakeholder consultation	15
5.1	Importance of consultation	15
5.2	When and whom to consult	16
5.2.1	<i>Shared benefits and negotiated agreements</i>	17
5.3	Example of a consultation model	18
6.	Post approval regulation	20
7.	Compliance	21
	Attachment A – Assessment pathways for wind energy projects	22
	Attachment B – Negotiated Agreements Advice Sheet for wind energy projects	23

1. Introduction

1.1 Purpose of the Wind Energy Guideline

The *Wind Energy Guideline* (the Guideline) provides the community, industry and regulators with guidance on the planning framework for the assessment of large-scale wind energy development proposals that are State significant development (SSD).

This Guideline identifies the key planning considerations relevant to wind energy development in NSW. It will assist stakeholders in the design and siting of SSD wind energy projects. It will also guide the assessment and evaluation, determination of wind energy development proposals, and, where approved, their construction and operation. The Guideline is not intended to be a comprehensive 'how to' manual for wind energy development, nor will all issues be relevant for every proposal. However, the NSW Government's intention is that this Guideline becomes the key reference document for decision-making on SSD wind energy development in NSW.

This Guideline delivers on the Government's commitment in the *NSW Renewable Energy Action Plan* (2013) to implement wind energy planning guidelines in NSW.

While the assessment process for SSD wind energy projects is generally the same as it is for other types of SSD projects, there are certain aspects that are unique for wind energy development and warrant special consideration. The Guideline provides the overarching planning framework for assessing SSD wind energy projects and is supported by additional Assessment Bulletins which the Department of Planning and Environment (the Department) issues periodically to provide technical guidance on key issues, such as noise and visual assessment.

Consultation with communities, proponents and other stakeholders is an integral part of the assessment process for SSD wind energy projects. This Guideline also provides guidance to the community, proponents and consent authorities in understanding the level of engagement expected from proponents of SSD wind energy projects.

1.2 Objectives

The objectives of this Guideline are to:

- provide clear and consistent guidance to the community, industry and regulators about how to measure and assess key environmental impacts of SSD wind energy development in NSW;
- facilitate better outcomes by requiring early identification of impacts to drive better siting and design;
- facilitate meaningful, respectful and effective community and stakeholder engagement across the development assessment process, from pre-lodgement to post-approval;
- encourage benefit-sharing between wind energy operators and the communities in which they operate, where appropriate; and
- provide greater accountability for the management of impacts over the life of a project by linking commitments to conditions and / or appropriate monitoring and adaptive management strategies.

1.3 Strategic context

The NSW Government supports the development of a sustainable wind energy industry in NSW. This State has valuable wind resources by international standards with many of the best areas located near existing electricity transmission infrastructure. Wind energy projects harness the state's abundant natural resources to generate clean energy, while at the same time supporting jobs and investment, particularly in regional areas.

In addition, the NSW Government is committed to supporting the Commonwealth Government achieve the national Renewable Energy Target which has been a key driver of wind energy development in NSW. The NSW Government through its climate change policy has an aspirational long term objective of achieving net zero emissions by 2050. It recognises the importance of reducing greenhouse gas emissions in energy generation, and the opportunities which the renewable energy industry offers for the State.

There is a significant opportunity for NSW to invest in wind energy, as one of the most commercially ready and cost-effective renewable energy technologies currently available for use on a large scale. This opportunity needs to be managed to ensure that the potential impacts of wind energy projects are accurately identified and any adverse outcomes are minimised.

This Guideline is part of a framework that will ensure that impacts are transparently identified and assessed so that informed decisions are made with the benefit of community input.

This wind energy framework will address delays in the assessment process and help NSW capture benefits from the wind industry. Importantly, the framework will ensure the balance between attracting investment and the interests of the community.

It will also assist stakeholders through the consistent implementation of best practice assessment techniques to ensure wind energy projects are appropriately designed and sited. This is in recognition that the introduction of a wind energy project into the landscape requires careful consideration and this includes the potential impacts of the wind energy project on surrounding communities. A single landscape may have multiple and overlapping environmental values such as heritage, biodiversity and visual amenity.

This Guideline supports the Department in undertaking a risk based approach to the assessment of impacts from wind energy projects, noting that there is a rigorous framework, including stringent noise criteria and a landscape visual assessment methodology, to ensure there is sufficient protection for the community. The Guideline also supports the consent authority in making a decision that balances the broad range of social, environmental and economic considerations applying to each project. The decision-maker is also required to consider the public interest and, in the *Taralga*¹ case for example, the Land and Environment Court was satisfied that the overall public benefits outweighed any private dis-benefits to the community or specific landowners in that case, referring to the significant public interest in general terms in the adoption of alternative, more environmentally friendly, energy generation sources.

¹ *Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd (2007) 161 LGERA 1.*

1.4 Application of the Guideline

A wind energy project or wind farm means any turbine, building, or other structure used in or in connection with the generation of electricity by wind force.

This Guideline applies to all applications for development consent for on-shore SSD wind energy development where the Secretary's Environmental Assessment Requirements (SEARs) were issued after the date of publication of this Guideline. The Guideline also applies to applications for modification to an existing wind farm approval submitted after the date of publication of this Guideline.

This Guideline replaces any previous draft planning guidelines for wind farms and will be reviewed from time to time as required.

2. Planning framework

The *Environmental Planning and Assessment Act 1979* (the EP&A Act) establishes several planning assessment and approval pathways for different kinds of development, including SSD wind energy development, which are outlined in more detail in Attachment A.

2.1 Permissibility

Permissibility of wind energy development is determined by the relevant environmental planning instruments, including State Environmental Planning Policies (SEPPs) and local environmental plans (LEPs). The EP&A Act and the *Environmental Planning and Assessment Regulation 2000* (EP&A Reg), along with these planning instruments, also establish the assessment and approval pathways and other development controls. Key reference points include:

- the zoning and land use provisions of the relevant LEP;
- Part 3 Division 4 of *State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP); and
- Part 4, and Schedule 1 clause 20, of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP).

Where wind energy development is permitted with consent, the proponent can lawfully lodge a development application (DA) for determination by the relevant consent authority (for more details, see Attachment A). If the proponent is not the owner of the land to which the DA relates (or is not the only owner), the proponent must provide evidence that all the relevant landowners consent to the application. It should be noted that the consent of a landowner to lodge an application is for assessment purposes only and does not bind the landowner to the eventual outcome. In the case that the land is owned by the Crown, landowners consent and lease arrangements must be obtained from the Department of Primary Industries (Crown Lands).

Not all aspects of a wind energy proposal will need development consent. For example, in circumstances where a wind monitoring tower is used to investigate the feasibility of wind energy, the tower may be installed as 'exempt development' under clause 39(2) of the Infrastructure SEPP without planning approval, if it complies with specified requirements. Electricity transmission and distribution lines might also be assessed separately (see section 2.3.1).

2.2 Planning pathways

Once permissibility has been established, a proponent needs to determine the appropriate assessment pathway for its wind energy project. The development assessment process varies according to factors such as the 'capital investment value' (which is defined in the EP&A Reg) and electrical power output of the project (see Attachment A).

The majority of wind energy development in NSW will be SSD, which requires approval from the Minister for Planning under the EP&A Act. In practice, the independent Planning Assessment Commission determines applications under its delegation where:

- there have been 25 or more objections to the application; or
- the local council has objected; or
- there has been a disclosure of a reportable political donation or gift, made in connection with the application or a previous related application.

This is consistent with the process for other SSD projects. Under limited circumstances, senior officers of the Department may have the delegated authority to determine an application.

2.3 Other approvals

2.3.1 Transmission lines

A large-scale electricity generating project needs to connect to the electricity transmission or distribution grid to enable the distribution of the generated electricity. The transmission and distribution lines connecting a wind energy generating facility to the grid can be considered as a separate development from the generating facility given both the linear nature of transmission lines and the fact that they are usually owned and operated by an electricity transmission operator or distributor under the *Electricity Supply Act 1995*, or an 'authorised network operator' under the *Electricity Network Assets (Authorised Transactions) Act 2015*, rather than the wind energy generation operator.

The approval pathway for transmission and distribution lines under the EP&A Act is often different from the pathway for the wind energy project. The Infrastructure SEPP provides for a different environmental assessment and planning pathway for this kind of development under Part 5 of the EP&A Act. Nonetheless, the assessment of a proposed wind energy project itself may need to consider, to some extent, the environmental impacts of transmission lines or distribution lines assessed under Part 5 of the EP&A Act.

In these instances, a proponent should provide the Department with information in its Environmental Impact Statement (EIS) about the delivery of transmission lines, such as timing of decision-making and stakeholder roles, in order to give more certainty to the consideration of all aspects of the project and to assist in matching the timeline for assessment, approval and construction of the wind energy project with the timeline for assessment and construction of the transmission lines.

However, if the transmission and distribution lines are not being developed by or on behalf of an electricity supply authority, public authority or authorised network operator, and are sufficiently related to the wind energy generating facility, they should form part of the associated SSD wind energy project and are governed by Part 4 of the EP&A Act, and subsequently, this Guideline.

Proponents should consult with the relevant Network Operator and the Department early in the project planning process to clarify responsibilities and the applicable planning pathways for transmission and distribution infrastructure, and to discuss connection to the relevant electricity grid, if required.

2.3.2 Other legislation

An environment protection licence (EPL) under the *Protection of the Environment Operations Act 1997* (POEO Act) is required for wind energy projects which are SSD or designated development.

An EPL is issued by the Environment Protection Authority (EPA). The EPA provides advice to the Department when wind energy projects are being assessed. The requirements of an EPL regulate the construction and operation of a wind energy projects for issues which the POEO Act covers, including noise pollution. The requirements of an EPL must be consistent with the development consent for the project.

Some wind energy projects also have the potential to impact on ‘matters of national environmental significance’ under the Commonwealth’s *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and may require a separate approval under that legislation.

The Commonwealth and NSW Governments have signed a Bilateral Agreement under the EPBC Act relating to environmental assessment. The Bilateral Agreement accredits NSW to conduct a single environmental assessment process for SSD proposals that impact on certain matters of national environmental significance under the EPBC Act, by removing the need for separate assessment by the Commonwealth. However, the final decision on whether to approve the impacts on matters of national environmental significance is still made by the Commonwealth.

Proponents are encouraged to make a referral to the Commonwealth Department of the Environment and Energy early in the assessment process to understand if Commonwealth approval is required and to be assessed under the Bilateral Agreement.

3. Assessment issues for wind energy development

SSD wind energy projects will generally be assessed like any other SSD project.

There are, however, certain assessment issues that are unique or particularly relevant to wind energy development. The issues which are specifically relevant for wind energy development and will be considered in the environmental assessment of an application, include:

- **strategic context:** the consent authority will give consideration as to whether the project is consistent with the objectives of the NSW Government's climate change policy and how the project contributes to the Renewable Energy Target;
- **biodiversity:** including the extent to which impacts of the wind energy project on biodiversity values have been avoided, minimised or offset to an acceptable level, in accordance with the *NSW Biodiversity Offsets Policy for Major Projects* having regard to the advice of the NSW Office of Environment & Heritage for terrestrial biodiversity or the Department of Primary Industries (Fisheries) for aquatic biodiversity. A key biodiversity issue for wind energy development is bird and bat strike and whether suitable measures are proposed to manage potential bird and bat strike fatalities resulting from either direct collision or through barotrauma (rapid changes in air pressures associated with the movement of the blades);
- **visual impacts:** the height, scale and mechanical character of wind turbines creates an unavoidable level of visibility and contrast with the natural environments in which they are situated. This can alter the character of the landscape and people's enjoyment of the landscape. Multiple wind energy projects in close proximity may create cumulative impacts on a particular landscape. Assessment of these impacts is a complex endeavour. In recognition of these challenges the Department has prepared an Assessment Bulletin which is designed to bring greater transparency, consistency and objectivity in visual impact assessments for wind energy development.

The consent authority will give consideration to the acceptability of impacts on landscape values and the amenity of landholders and communities, and the adequacy of the measures which are proposed to avoid, reduce or otherwise manage these impacts, having regard to the Visual Assessment Bulletin;

- **noise impacts:** the rotation of wind turbines generates both aerodynamic and mechanical noise. When assessing the potential annoyance from a noise source, both the level and character of the noise need to be taken into consideration. To ensure an adequate assessment of potential noise impacts, the Department has developed a Noise Assessment Bulletin. This Bulletin identifies the noise assessment requirements for SSD wind farm projects and includes a noise limit of 35 dB(A) or the prevailing background noise plus 5 dB(A), whichever is the greater for each operational wind speed.

The consent authority will give consideration to whether the predicted noise levels comply with the noise criteria, having regard to the advice of the EPA and the adequacy of measures which are proposed to avoid, reduce or otherwise manage these impacts.

With regards to concerns over the potential health impacts of wind energy, the NSW Government's position is informed by the scientific findings of the National Health and Medical Research Council (NHMRC) and the advice of NSW Health. The NSW Government will continue to monitor contemporary scientific research outcomes to ensure its position reflects robust evidence on any health effects, including any advice released from the National Wind Farm Commissioner and the Independent Scientific Committee on Wind Turbines;

- **traffic and transport:** the consent authority will give consideration to the extent to which the local and classified road network can accommodate the type and volume of traffic generated by the wind energy project, including the adequacy of any proposed road upgrades and maintenance commitments, having regard to the advice of relevant road authorities;
- **hazards and risks:** whether hazards or risks associated with the wind energy project can be suitably managed, having regard to the advice of relevant government authorities, with particular hazards and risk including:
 - **aviation safety:** wind energy projects need to consider potential safety hazards for aircraft through intrusion of the wind turbines into the airspace; and potential effects on navigation instruments;
 - **bushfire hazard:** consider potential hazards and risks associated with bushfires and the adequacy of measures to manage this risk;
 - **health:** consider any health issues having regard to the latest advice of the NHMRC and consider potential hazards and risks associated with electric and magnetic fields and demonstrate the application of the principles of prudent avoidance;
 - **telecommunications:** the consent authority will give consideration to the risk of electromagnetic interference with telecommunication services in the area, and the adequacy of the measures proposed to ensure the level of service is maintained;
 - **blade throw:** consider blade throw risks;
- **decommissioning:** consideration will be given as to whether suitable arrangements for decommissioning and rehabilitation of the site are in place; and
- **cumulative impacts:** the consent authority will give consideration as to whether any other proposed, approved or operating wind energy projects in the vicinity are likely to increase the impacts of the wind energy project the subject of the DA, especially in regard to landscape, noise, biodiversity and traffic impacts.

Other issues, such as economic and social impacts, historic and Aboriginal cultural heritage, and water will continue to be dealt with through existing policies and practices which apply to all SSD proposals.

The Department has developed standard requirements (known as SEARs) which contain guidance on assessing the relevant potential impacts of wind energy projects. The standard SEARs may be supplemented by project-specific SEARs to incorporate additional assessment requirements, if required.

4. The assessment process

The flow chart in Figure 1 outlines the statutory assessment and approval process for SSD proposals. During the scoping, environmental assessment and determination process, key issues will need to be addressed in consultation with the community and other stakeholders. The SEARs for a wind energy project will provide detail on the assessment requirements for the proposal consistent with this Guideline.

The typical SSD assessment process is set out in Figure 1.

It is important to note that this is an iterative process, and the proponent may need to revisit aspects of a proposal, including the siting of turbines, as the understanding of relevant environmental issues (such as interaction with the landscape values and community concerns) are better understood. This may include amending projects in response to issues identified through community consultation.

Figure 1. Summary of the typical assessment and approval process for SSD



The Department's Planning Circular *PS 11-014 Assessment of State significant development and infrastructure (2011)* contains additional information on SSD processes.

4.1 Scoping and pre-lodgement

The people and groups affected by a proposed wind energy project will depend on the project context, including the different linkages and networks that connect people and groups. Respectful, inclusive and meaningful engagement with potentially affected people, groups, and other interested parties forms a critical part of all phases of the impact assessment process. It should be undertaken to make the public aware of the proposal, provide opportunities for early input and establish relationships.

It should be noted that early consultation with the community should not be limited to one aspect of a project. Consultation with a range of potentially affected stakeholders could be undertaken to identify the constraints and opportunities of the project area. Consultation could involve engagement on the values the wider community place on those attributes, in order to inform project siting and design. For example, consultation could be undertaken with local councils, heritage groups, farming groups, environmental groups and business chambers. This may include inviting stakeholders to rank or value attributes such as access to the site, surrounding land uses, landscape values, geology, hydrology, soils, biodiversity, and wind resource location. There are a range of methodologies for how this could be undertaken². Such consultation should occur before the project siting and design is finalised so that it informs the siting and design process.

Setting a broad design framework and seeking the views of affected landowners at the scoping stage will result in a more responsive wind energy development, and can minimise or avoid issues arising during the assessment process.

Proponents must go through this iterative design process in order to identify the most appropriate locations for the final siting of specific turbines in a project, based on the quality of the wind resource and the results of their consultation. Proponents are required to articulate and describe this process and relevant learnings in the EIS.

Scoping these details upfront also enables the Department to prepare SEARs that are appropriately targeted but also provide sufficient flexibility to vary and refine the proposal through the assessment process.

4.2 SEARs and Preliminary Environmental Assessment

SEARs will specify the matters to be addressed by proponents in the EIS for the project.

A request for SEARs should be accompanied by a Preliminary Environmental Assessment (PEA) that:

- describes the proposed wind energy project and its location in context (for example, it should identify the preliminary turbine layout, nearby dwellings, key public viewpoints and other key landscape features) - proponents should demonstrate the suitability of their chosen location and the viability of wind resources in that area;
- describes:
 - steps taken to assist potentially affected people and groups in understanding the proposed development and what it could mean for them; and
 - the proposed overall approach to stakeholder consultation for the EIS development process;

2 McHarg, I, L., 1969, *Design with Nature*, The American Museum of Natural History Doubleday / Natural History Press, New York, USA.

- identifies the key issues for the particular project;
- includes the results of the early consultation, including in relation to landscape values, and assesses the preliminary turbine layout against the preliminary assessment tools contained in the Visual Assessment Bulletin, including negotiations with landholders;
- provides a high level assessment of the environmental impacts of the project (focusing on those key issues); and
- reports on the progress of community consultation (see section 5.2).

The Secretary of the Department is required to issue SEARs for all SSD applications including wind energy projects. The assessment and consultation requirements are mandated in the SEARs for each DA. The Secretary is also required to consult with relevant government agencies in preparing the SEARs.

SEARs for an SSD wind energy project will be based on standardised requirements which the Department has developed, but will be adapted to suit the particular project for which they are issued.

The proponent must address all SEARs issued for a project in the project's EIS.

4.3 Preparation of an Environmental Impact Statement

4.3.1 Describing the design of your project

As part of preparing an EIS, proponents must include a full description of their project, including:

- all development activities that may be undertaken as part of the project, including ancillary infrastructure which could include concrete batching plants, substations and access to construction materials, as well as access tracks and roads, and any transmission lines associated with the project (see section 2.3.1 above); and
- the timing of each key phase of the project.

Information regarding any ancillary developments that are not being proposed as part of the DA, but are necessary to support the project (such as transmission lines not covered by the DA), should also be provided.

By this stage in the design process, the project should be defined to an extent whereby a proponent is able to justify the location and placement of turbines including how they have balanced the relevant social, economic and environmental impacts.

The project description should include a narrative describing the design process for the project. This should focus on the iterative process for identifying the final siting of specific turbines, including the justification for decisions to move, remove, or locate turbines in a specific location. This will require the proponent to articulate learnings about matters such as landscape values and other environmental considerations identified through community consultation and studies undertaken in the scoping and pre-lodgement stage. The description should also reference the outcomes from the application of the preliminary assessment tools required by the Visual Assessment Bulletin undertaken through the development of the project.

4.3.2 Describing the likely impacts and mitigation and management options

The EIS for an SSD wind energy project should also include:

- an analysis of the likely impacts of the project;
- completed technical studies, including an accurate noise impact assessment for relevant dwellings undertaken consistent with the requirements of the Noise Assessment Bulletin;
- a visual assessment of the project in accordance with the Visual Assessment Bulletin, and, in particular, an analysis of the project against the performance objectives as well as photomontages showing the impacts at highly affected dwellings (subject to access considerations);
- details of community consultation undertaken, including any steps taken to check that the views and input of potentially affected people and groups have been faithfully and accurately captured and considered, and / or explain how their views and inputs have been taken into account;
- consultation with landowners with regards to impacts and mitigation, including negotiated agreements (subject to confidentiality considerations); and
- description of the measures that will be used to avoid, minimise, mitigate or otherwise manage impacts associated with the project – this should include an assessment of the effectiveness and reliability of the measures and any residual impacts and their acceptability after these measures are implemented.

4.3.3 Micro-siting and environmental envelopes

For technical reasons (for example, geotechnical or access issues arising from detailed terrain surveying, or the discovery of matters of biodiversity or historic and / or Aboriginal cultural heritage importance), there may be the need to relocate wind turbines on site during construction. This is known as ‘micro-siting’.

Proponents must consider whether micro-siting is required for the proposed wind energy project and address any proposal for variability in the siting of turbines in the EIS preparation.

Micro-siting may be permitted provided it does not materially increase environmental impacts. Micro-siting that results in revised wind turbine and ancillary infrastructure locations must be consistent with the conditions of the development consent.

The Department will consider granting consent which allows siting of turbines within a development ‘envelope’. If a proponent wishes to obtain consent in this format, it must assess the effect of this (including the proposed parameters of the envelope) based on the highest impact scenario in the EIS.

4.3.4 Refurbishment and decommissioning

Once installed, wind turbines typically have an expected operating life of around 20 to 25 years, at which point they are usually refurbished or decommissioned. Some turbines may be decommissioned or refurbished earlier.

Depending on their nature, the refurbishment of turbines may form part of a proposal for wind energy development and may be considered in the assessment and determination of that project. In some instances, the refurbishment or decommissioning of a wind turbine will not require a new DA or a modification of the existing consent, as the terms of the existing consent may authorise the refurbishment or decommissioning. The need for a modification or a new DA should be considered by the proponent in each instance by reference to what is proposed for the refurbishment or decommissioning.

The NSW Government's policy is that a wind energy project owner or operator, and not the 'host' landholder, should be responsible for decommissioning and rehabilitation at the end of life of a wind energy project or a particular turbine. Proponents must identify and address all relevant issues for decommissioning and rehabilitation in their project EIS, and include a commitment that the operator will be responsible for decommissioning and rehabilitation.

Both proponents and host landowners should consider refurbishment, decommissioning and rehabilitation when negotiating landowner agreements. Further information about negotiated agreements can be found in the Negotiated Agreement Advice Sheet at Attachment B.

4.3.5 Noise and health

While the health impacts of any project are a relevant consideration in the assessment process, the level of assessment will be proportionate to the level of risk. The NSW Government's position on potential health impacts of wind energy projects continues to be informed by the scientific findings of the NHMRC.

In the most recent Statement "*Evidence on Wind Farms and Human Health*" (February 2015), the NHMRC concludes that there is currently no consistent evidence supporting a link between wind energy projects and adverse health outcomes in humans relating to infrasound. However, the NSW Government will continue to monitor contemporary scientific research outcomes to ensure its position reflects robust evidence on any health effects, including any advice released from the National Wind Farm Commissioner and the Independent Scientific Committee.

4.4 Assessment

As with all SSD proposals, the consent authority will undertake a comprehensive assessment of the specific impact of each proposed wind energy project on its merits, as required by Section 79C of the EP&A Act.

Matters that a consent authority will consider when determining a wind energy project DA include, for example:

- suitability of the site for the wind energy project;
- submissions made by the local community, stakeholders and government authorities;
- the likely environmental, social and economic impacts of the construction, operation and decommissioning of the wind energy project in the locality;

- the relevant provisions of any environmental planning instrument (for example, LEP, SEPP) which regulates the permissibility of types of development in certain areas or provides other legally binding development requirements;
- the public interest which includes consideration of the objects of the EP&A Act and, in particular, the principles of ecologically sustainable development;
- the strategic context and alignment with relevant Government policies; and
- the assessment issues outlined in section 3.

Consideration will be given to the public interest in increasing the supply of renewable energy. For example, in the Taralga court case³, the Land and Environment Court considered the broad public interest in the establishment of viable renewable energy sources.

As often occurs for other SSD projects, the Department and the consent authority will consider the following in the assessment and determination of wind energy projects:

- existing development in the vicinity of the wind energy project, including dwellings;
- approved development within the vicinity of the wind energy project, including dwellings, that are approved but yet to be constructed or are under construction;
- development within the vicinity of a wind energy project for which a development application has been lodged, including with councils, but a determination is yet to be made; and
- existing dwelling entitlements on land within the vicinity of the wind energy project.

4.5 Determination and conditions of consent

Following assessment of a wind energy development application, the consent authority will determine whether the project should be approved on its merits. This will include consideration of whether the project could be approved subject to conditions that will mitigate impacts to an acceptable level.

If consent is granted, it will be subject to a range of conditions for managing the impacts of the project. The conditions may require, for example:

- obligations to meet a performance outcome or objective;
- obligations to implement specific mitigation measures;
- obligations to monitor actual versus predicted impacts;
- obligations to monitor the effectiveness and outcomes of any mitigation strategies in accordance with agreed performance indicators and implement adaptive management strategies where required; and
- reporting and auditing requirements, including by requiring reporting of data.

Adaptive management frameworks can be implemented through conditions so as to require proponents to report to the Department, and publicly, against outcomes. If strategies are not meeting the required outcomes, adaptive management conditions can require proponents to propose new strategies to meet the outcomes.

³ *Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd (2007) 161 LGERA 1.*

The conditions may also require additional mitigation measures to be implemented, amendments to the project (such as deletion or re-siting of turbines), and / or as a last resort 'voluntary acquisition' for significantly affected landholders. Any voluntary acquisition process can only be initiated by the land owner and not the proponent.

Development consent conditions relating to acquisition requirements will only be imposed where all other reasonable and feasible mitigation measures have been considered, and the consent authority is satisfied that the economic, social and environmental benefits of the project outweigh its adverse impacts.

Alternatively, the consent authority may conclude that the benefits of the project do not outweigh its impacts, and the project will be refused.

5. Community and stakeholder consultation

5.1 Importance of consultation

Early, meaningful and innovative community consultation, demonstrating an ongoing commitment to providing clear information and ensuring opportunities for genuine input, is important to delivering good planning outcomes.

The Department routinely requires early consultation for a range of SSD projects. Earlier and better consultation has a range of benefits for communities and proponents, including:

- informing the community about the project and the strategic context;
- gathering valuable knowledge from the community; and
- establishing relationships between the proponent and the community.

It also enables communities to be engaged when there are real opportunities to influence projects and decisions, such as at the siting and design stage.

Proponents should undertake a comprehensive, detailed and genuine community consultation process throughout the assessment process, including at the siting and pre-lodgement stage. The process should ensure there is active engagement with communities potentially affected by a wind energy project as early as possible, so that they are sufficiently informed regarding possible impacts and given reasonable opportunities to provide their views on the proposal.

Consultation should be aimed at identifying and considering options for eliminating, reducing or otherwise managing impacts, not merely informing communities on the proposed layout. Proponents should seek, as far as practicable, to address landowner issues before lodging a DA for an SSD wind energy project. This should include agreements in relation to land access and appropriate responses to the concerns and impacts on other potentially affected landowners.

This Guideline outlines key stages for consultation and issues to be addressed including:

- assisting **landholders and communities** to understand wind energy development, the development assessment process, how a proposal may affect them, and appropriate stages at which community consultation should be undertaken; and
- assisting **proponents** to address community concerns regarding the design, development, construction, operation and decommissioning of wind energy facilities, in a transparent way.

This Guideline and relevant Assessment Bulletins, including the Community Consultative Committee Guidelines for state significant projects (the CCC Guidelines), provide direction on effective and mutually-beneficial ways to deliver meaningful community consultation and impact management options for wind energy proposals. The CCC Guidelines are referenced in the standard SEARs for wind energy development.

5.2 When and whom to consult

Proponents should engage in consultation at all stages of wind energy project development, including siting and design, planning and EIS, construction, operation, decommissioning, and rehabilitation phases. The nature and extent of consultation that is appropriate will depend on the circumstances of the project and the stage of development which the wind energy project has reached. It is important that when identifying affected people and groups, that an inclusive approach is taken that recognises that different perspectives may exist within a community (for example differences in ages, gender, income, etc). The principles of ecologically sustainable development also require that the impacts of a project on future generations to be considered.

Overall, the level and types of engagement required will depend on the project context, including:

- the size of the locality likely to be affected;
- how diverse the potentially affected people and groups are;
- the range and types of issues involved; and
- the needs of particular audiences (for example, cultural appropriateness, capacity to participate).

Community and other stakeholders who should be consulted may include:

- the community, in relation to landscape values, as required by the Visual Assessment Bulletin;
- owners and occupiers of land proposed to host wind turbines or related infrastructure, owners and occupiers of land required for access during construction and/or maintenance, or landowners who have reached a financial or in-kind agreement in relation to the proposal (associated properties);
- landowners who have not reached a financial or in-kind agreement in relation to the proposal (non-associated properties);
- organisations representing local, regional, State, national and international interests regarding business, community, indigenous and environmental issues;
- relevant local council(s), including neighbouring councils where proposals are located in or affect more than one local government area; and
- stakeholders of other significant infrastructure near the proposed wind energy site.

The Department will consider the impacts of a proposal on all properties. In some instances, a private agreement may be negotiated and voluntarily entered in to between a proponent and a landowner to manage some or all impacts on that property.

The standard SEARs for SSD wind energy projects outline the **minimum** consultation requirements for SSD wind energy projects during the assessment process. However, there is significant value in proponents engaging in innovative ways with affected communities and other stakeholders in the initial stages of the project, including before SEARs are requested.

5.2.1 Shared benefits and negotiated agreements

The Department recognises that proponents and landholders should be free to discuss matters which are relevant to their circumstances. The Department considers that agreements with landholders and local communities provide opportunities for them to share in some benefits from the location of the wind energy project and for the proponent to enhance the community support for its project.

‘Benefit sharing’ aims to distribute benefits generated by a project between the proponent and the community through mutually agreed opportunities. Whilst this is not required under the NSW planning system there are a number of different mechanisms for creating and utilising benefit sharing opportunities, and priority should be given to initiatives that deliver public benefit, particularly in areas in the vicinity of the project. For example, it is not uncommon for proponents of SSD developments in a particular community to establish a community enhancement fund to sponsor particular community projects or community groups, such as the provision of grants or contributions to infrastructure.

Community enhancement funds are often set up and administered by developers for various types of industrial developments in rural locations. The preferred means of administering community enhancement funds is under a voluntary planning agreement with the relevant local council/s, and proponents for wind energy projects could consider similar initiatives in the context of their projects. Governance arrangements for the voluntary planning agreement could be administered under section 355 of the *Local Government Act 1993*.

Where impacts are more specific to identifiable landholders, it may be appropriate for proponents and landholders to negotiate agreements regarding the management of those impacts. Some specific wind energy impacts are described in section 3. It is up to proponents and landholders to agree what is appropriate to manage impacts (including at different stages of the project’s life) in their particular circumstances. Further information about negotiated agreements can be found in the Negotiated Agreement Advice Sheet at Attachment B.

The consent authority will carry out an assessment of all relevant issues for a wind energy project. A landholder arrangement may provide a useful way of managing one or more of these issues for the landholder’s property.

5.3 Example of a consultation model

The consultation process should address the key matters that will be considered in the assessment and determination of wind energy projects outlined in section 3 above. Table 1 provides some guidance for proponents to structure community and landholder consultation.

Table 1. Community and landholder consultation stages

Project Stage	Consultation
Scoping and pre-lodgement of request for SEARs	<p>Consult with potentially affected stakeholders to identify the constraints and opportunities of the project area. Consultation could involve engagement on the values the wider community place on those attributes, and should inform the siting and design process.</p> <p>Engage with the community in the identification of landscape values, as required by the <i>Wind Energy: Visual Assessment Bulletin</i>.</p> <p>Engage with landholders about the proposed project area, likely corridors for development, or preliminary turbine layouts, access routes and potential location of ancillary infrastructure (consider “associated properties” and “non-associated properties”). Listen to the community’s concerns and suggestions. Discuss noise, visual impact, proposed siting and alternatives.</p> <p>Discuss issues for landholder agreement if project is approved including siting and micro-siting, access, compensation, responsibility for decommissioning and rehabilitation.</p>
EIS preparation and assessment and evaluation of impacts	<p>Establish and operate a Community Consultative Committee (CCC).</p> <p>Identify and appropriately respond to community concerns in the EIS.</p> <p>Public exhibition will provide a formal opportunity for stakeholders to express their views on the proposed project.</p> <p>Further collaborate with the community regarding solutions and management options for any key issues raised.</p> <p>Seek to reach an agreed position with relevant landholders.</p> <p>Consider opportunities for benefit sharing.</p>

Project Stage	Consultation
Post-determination (if approved)	<p data-bbox="475 443 1214 510">Finalise remaining landholder agreements post-approval but prior to commencing work.</p> <p data-bbox="475 544 1307 611">Ongoing consultation with landholders and the community to manage issues regarding construction noise and disturbance.</p> <p data-bbox="475 645 1086 678">Implement appropriate opportunities for benefit sharing.</p> <p data-bbox="475 712 967 745">Community complaints line to be maintained.</p> <p data-bbox="475 779 815 813">Maintain operation of the CCC.</p> <p data-bbox="475 846 1402 880">Comply with any requirements to publish performance results via the project website.</p> <p data-bbox="475 913 1350 967">Responsibility for decommissioning and rehabilitation will have been determined through the landholder agreements and the conditions of consent.</p>

6. Post approval regulation

The regulation of SSD wind energy project construction, operation, decommissioning and rehabilitation is primarily coordinated by:

- the Department, to ensure compliance with development consent conditions; and
- the EPA, to ensure compliance with EPL conditions.

If development consent is granted for a SSD wind energy project, the conditions of consent will continue to apply to the project and the land on which it is located throughout its life. The responsibility for compliance with the conditions of consent under the EP&A Act falls to the person carrying out the development.

Development consent conditions will likely include matters such as:

- operational noise limits;
- a Noise Compliance Report to demonstrate compliance with the noise limits following commissioning;
- visual impact mitigation, such as screening at affected dwellings;
- road upgrades and maintenance requirements;
- a traffic management plan including designated transport routes for over-sized vehicles;
- implementation of a biodiversity offsets strategy;
- measures to prevent water pollution;
- an Aboriginal Heritage Management Plan to be prepared and implemented in consultation with the local Aboriginal community;
- obligations to manage risks associated with aviation, bushfire, and telecommunications, in consultation with the relevant authorities;
- adaptive management strategies;
- decommissioning and rehabilitation of the site;
- establish and operate a CCC for the project; and
- requirements for regular monitoring and reporting of the environmental performance of the project over time.

7. Compliance

The Department's regional compliance teams are responsible for monitoring compliance with the conditions of consent for approved wind energy projects, including following up suspected breaches reported by members of the public. The general email for reporting suspected breaches is compliance@planning.nsw.gov.au. Further details can be found on the Department's website at www.planning.nsw.gov.au.

The compliance team also undertakes periodic audits of approved or operating wind farms.

Proponents are also required to establish and operate a complaints handling system which is required through a condition of consent as part of the approval of a project.

The EPA is responsible for regulating the environmental impacts from the operation of wind turbines. The EPA's pollution hotline is 131 555.

Additionally, the National Wind Farm Commissioner holds an independent role and has been appointed by the Australian Government, reporting to the Minister for the Environment. The Commissioner's role is to receive and refer complaints from concerned community residents about wind farms, as well as promote best practices for industry and government to adopt in regard to the planning and operation of wind farms. Details for the National Wind Farm Commissioner can be found at www.nwfc.gov.au

Attachment A – Assessment pathways for wind energy projects

The table below provides a general overview of wind energy project categories and planning assessment pathways. Large-scale SSD wind energy developments to which this Guideline applies are shaded in blue.

Table 2. Overview of wind energy categories and planning assessment pathways

CIV and output criteria	Environmental Planning Instrument	Development category	Consent authority
CIV less than \$5M and output less than 30 MW	Infrastructure SEPP	Local Development	Local Council
CIV \$5-30M and output less than 30 MW	Infrastructure SEPP Schedule 4A, EP&A Act	Regional Development	Joint Regional Planning Panel
CIV less than \$5M and output 30 MW +	Infrastructure SEPP Schedule 3, EP&A Reg	Local Development and Designated Development	Local Council
CIV \$5-30M and output 30 MW +	Infrastructure SEPP Schedule 4A, EP&A Act Schedule 3, EP&A Reg	Regional Development and Designated Development	Joint Regional Planning Panel
CIV \$30M or more*	SRD SEPP	SSD	Planning Minister or delegate (Planning Assessment Commission or senior departmental officer)
CIV \$30M or more* and output 30 MW +	SRD SEPP Schedule 3, EP&A Reg	SSD (with some "designated development" legal consequences)	Planning Minister or delegate (Planning Assessment Commission or senior departmental officer)

* If proposed in an environmentally sensitive area of State significance, the CIV threshold is \$10M or more.

Attachment B – Negotiated Agreements Advice Sheet for wind energy projects

The planning system allows proponents and landowners to enter into negotiated agreements to manage exceedances of the relevant assessment criteria as well as decommissioning and removal of turbines at the cessation of operation. Agreements can:

- be specifically tailored to the individual circumstances of the landowner; and
- provide for the implementation of a broader suite of measures, such as financial compensation, acoustic treatments to buildings, landscaping and screening, and arrangements for decommissioning and rehabilitation of the site.

Proponents must ensure that landowners are properly informed of the implications of entering into such agreements, and have a good understanding of the nature and scale of the predicted impacts, through the provision of relevant noise and visual impact predictions.

To ensure these agreements are effective, it is also important to ensure that they comply with certain minimum standards. Negotiated agreements must:

- be enforceable in a court of law;
- remain in force for at least the duration of any predicted exceedance of the relevant assessment criteria;
- provide for the transfer of obligations to any new owner of the wind energy development if the wind energy development is subsequently sold;
- provide for the transfer of obligations to any new landowner if the subject property is subsequently sold;
- clearly identify the scope of any impacts which are the subject of the agreement;
- should not prevent a landholder from raising concerns about breaches of an approval other than those they have agreed to accept;
- provide for ongoing monitoring (if required); and
- provide for a means of resolving disputes.

Finally, the proponent should bear all reasonable costs, including the landowner's costs for independent advice, associated with either entering into the agreement or understanding the implications of the agreement.



*For more information about Wind Energy Guideline
visit planning.nsw.gov.au/Policy-and-Legislation/Renewable-Energy*