19. WIND ENERGY GENERATION FACILITIES

1. CITATION

This plan shall be cited as "Shire Wide Development Control Plan 1 Part x Wind Energy Generation Facilities".

2. LAND TO WHICH PLAN APPLIES

This development control plan applies to all land in the Shire of Dungog.

3. PURPOSE OF THE PLAN

This plan specifies the requirements for Wind Energy Generation Facilities designed for the purpose of commercial electricity generation within the Shire of Dungog. (see 6. Definitions)

4. ASSOCIATED PLANNING INSTRUMENTS

This development control plan shall be read in conjunction with Dungog Shire Council Local Environmental Plan 2006 (DSC LEP 2006) and Shire Wide Development Control Plan 1.

Development of wind energy generating facilities will not be considered in designated Residential 2(a), Village 2(v), Rural Lifestyle 1(l) and Transition 9 (a) zones under the DSC LEP 2006.

5. ENVIRONMENTAL IMPACT ASSESSMENT & APPROVAL TO CONSTRUCT/OPERATE WIND ENERGY GENERATION FACILITIES

Local Environmental Plans and other environmental planning instruments prepared under the *Environmental Planning and Assessment (EP&A) Act* establish whether a particular project is permissible in a particular location and whether development consent is required for its operation. It is important to consult early with council to determine whether a wind farm is permissible in the proposed location.

EIA under Part 4 of the Environmental Planning and Assessment Act

Under Part 4 of the EP&A Act, wind farm proposals will usually require development consent. If development consent is required, a development application must be lodged with the "consent authority", usually the local council.

Supporting information should include the landowner's consent and an Environmental Impact Assessment (EIA) document, either a Statement of Environmental Effects (SEE) or an Environmental Impact Statement (EIS).

Proposals which are likely to significantly affect the environment may be *designated* under Schedule 3 of the EP&A Regulation 2000 or under an environmental planning instrument. Wind farm proposals which produce more than 30 megawatts of electrical power are *designated development*. (see Appendix 1 for the Environmental Planning and Assessment Regulation 2000) Other environmental planning instruments such as State Environmental Planning Policies (SEPPs) may also designate projects.

If a development is designated, an Environmental Impact Statement (EIS) must be prepared and lodged with a development application. A licence to operate the facility may also be required under the Protection of the Environment Operations Act 1997 (see Appendix 1). If the proposal is not designated, a Statement of Environmental Effects (SEE) must be submitted with the development application.

If a licence/approval listed in s. 91 (I) of the EP&A Act is required, the project is considered to be *integrated development*. The government authorities responsible for granting these approvals are referred to as *integrated approval bodies* and may include Department of Environment and Conservation, (DEC), Council, The NSW Heritage Office and Department of Primary Industries (DPI). Under integrated development provisions, a co-ordinated approach is taken by all approval authorities in the assessment and approval of the project.

Development consent from the local Catchment Management Authority (CMA) may also be required under the *Native Vegetation Conservation Act* if vegetation is being cleared.

EIA under Part 5 of the Environmental Planning and Assessment Act

In some circumstances, components of a proposal may require development consent and fall under Part 4 of the Act, while other components may not require consent and fall under Part 5. In these circumstances, the provisions of both Part 4 and Part 5 apply.

The provisions of Part 5 of the EP&A Act apply when proposals do not require development consent, are not prohibited under the provisions of the local environmental plan and require an approval under NSW legislation.

Part 5 would not normally apply to wind farms but may apply to transmission lines connecting the facility to the grid. Under Part 5, prior to a *determining authority* granting an approval to carry out the project, they must consider whether the proposal has the potential to significantly affect the environment. A Review of Environmental Factors (REF) must be carried out to determine the likely impacts of the development. If the determining authority considers significant impacts are likely, an EIS must be prepared and examined before an approval is granted. The guideline *Is an EIS required?* (Department of Planning, DoP) must be used to determine if an EIS is required.

State Significant Development
The Minister for Planning is the consent authority for State significant projects in NSW. Large wind farm development may require Ministerial approval. {see Appendix 1, State Environmental Planning Policy (Major Projects)}

Matters of National Environmental Significance
Proposals that are likely to affect matters of *National Environmental Significance* (NES) as listed under the *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) must be referred to the Department of Environment and Heritage (DEH) to determine if a Commonwealth approval is required. An action that needs Commonwealth approval is called a *controlled action.* An assessment report called a National Environmental Significance Assessment (NESA) must be prepared for all controlled actions.
The Commonwealth assessment process parallels the NSW EIA process and can be carried out along with the NSW process.

Where the controlled action requires an EIS or SEE under the EP&A Act, the NESA could form part of that document. DEH should be consulted regarding

the contents of a NESA (Refer to NSW Planning Draft Wind Energy EIA Guidelines Appendix 4 for further information).

6. DEFINITIONS

Wind Energy Generation Facilities – This term shall apply to development of commercial wind power generation turbine/s, tower/s with a peak capacity of power output greater than 10kw, and excludes wind monitoring towers which are subject to a separate development approval, not under this Development Control Plan.

Viewshed – This term shall apply to all things within direct line of sight from a nominated place, this line of sight is to correspond with the highest point of any wind energy generation facility.

Tip Height – Measurement from the ground at the base of the tower to the uppermost extension of the blade

7. OBJECTIVES FOR WIND ENERGY FACILITIES:

- To provide the opportunity for the development of suitably sized and located wind energy generation facilities within Dungog Shire.

- To provide for development that will not impact significantly on non participating residences and key vantage points in relation to visual amenity, noise, blade glint or flicker and overshadowing.

- To ensure the development of wind energy facilities that minimise the negative impacts and maximise the positive benefits for the natural and human environment and the local economy.

- To achieve outcomes from wind energy generation development that reflect the objectives of the Dungog Shire Council Local Environment Plan 2006.

8. NEIGHBOUR NOTIFICATION

All applications for wind energy facilities covered by this plan will require the written notification of landowners within a 3 kilometre radius and advertising in the local newspaper for a minimum of 14 days. Where the proposal is identified as integrated development, advertising will be for a minimum of 28 days.

9. INFORMATION TO BE SUBMITTED WITH APPLICATION:

A Statement of Environmental Effects (SEE) (or Environmental Impact Statement if required under Schedule 3 of the Environmental Planning and Assessment Regulation). The SEE is to be completed in accordance with sec 79C of the Environmental Planning and Assessment Act 1979 and the current planning requirements and best practice guidelines relevant to wind energy generation facilities. The SEE is to consider all aspects of the development including, access roads, and the erection of power lines and associated infrastructure.

Developers are encouraged to submit information in suitable GIS format, in addition to required hard copy documents, if this aids understanding of the proposal.

Information to be provided with a proposal should include:

- A description of the current use of the site and surrounding locality.

- A map of 1:25000 scale showing the location of the proposed development, the route of power lines connecting the wind farm to the electricity grid and the proximity of the development to significant features, such as housing, urban areas, heritage items, aircraft facilities, National Parks and nature reserves etc.

- A plan or plans showing the positions of the proposed wind turbine/s, site boundaries, native vegetation, roads, internal access roads, existing and proposed buildings and structures (including control rooms and electrical substations), power lines and fences.

- Setbacks to housing should be indicated on a separate suitably scaled map to ensure clarity for interested stakeholders. Unused building entitlement on non participating properties should also be identified.

- A description of the proposed wind turbine/s, including all relevant details such as number, make, model number, dimensions, materials and colour.

- An acoustic report in accordance with the Planning NSW Draft NSW Wind Energy EIA Guidelines. Consideration should be given to EPA NSW Industrial Noise Policy and the South Australian EPA Wind Farms: Environmental Noise Guidelines (2003)

- Photomontages, computer-assisted photo simulations or other graphic representations of the appearance of the wind farms and transmission lines (where applicable). These are to be provided from all significant vantage points including local scenic lookouts, residences, tourist roads or facilities and other locations as necessary.

- Viewshed modelling via the use of a suitable Geographical Information System.

- A description of the existing landscape and an assessment of the potential visual impact. Particular regard should be given to visual impacts of the proposal in relation to existing residences and zoned potential residential areas, public roads, places of local or regional significance and key vantage points. Community consultation should be carried out to identify significant locations and to rate viewer sensitivity to the proposed development.

- An assessment of the likely effects of shadow flicker, blade glint, overshadowing or other potentially negative visual effects.

- Details of methods to reduce the visual impact of the connection of the wind farm to the grid are to be provided; underground cabling is to be installed between turbines.

- Confirmation must be provided from the local power authority in relation to the suitability of the development for connection to the grid.

- An evaluation of the effect of electromagnetic radiation and or interference from the turbines, and from the deflection and reflection of transmitted electromagnetic signals. The evaluation should consider human health impacts and local television and radio reception. This may best be indicated on a separate map sheet.

- Access to the site must be assessed to determine the suitability of existing public and private roads. Estimations of traffic movements at all stages of the project are to be included. The tourism potential needs to be recognized and factors such as public rights of way, traffic and visitor parking should be identified.

- An indication of whether the proposed development will proceed in stages and, if so, the proposed timing of each stage.

- An Environmental Management Plan (EMP) including the principles of environmental management, environmental mitigation measures, standards to be achieved and monitoring timetable.

- An assessment of the contributions the project will make to the community in relation to; electricity generation, greenhouse gas avoidance, regional jobs, rental income and investments and any other benefits from the proposal.

- A statement outlining site selection in relation to the potential wind resource, including a consideration of the impact of local topography on that resource. A separate development application may be required for the installation of wind monitoring towers and equipment.

- A statement outlining potential effects on aircraft operation, including detail of consultation with the Civil Aviation Safety Authority (CASA) if located within fifteen kilometres of a certified or registered aerodrome. Note: In accordance with the Civil Aviation Safety Regulation 1998, any structure greater than 110 metres above ground level must be referred to CASA.

- A statement of heritage impact on indigenous and non-indigenous sites.

- A statement detailing bushfire hazard and mitigation measures.

- A detailed flora and fauna assessment relating to the installation of the facility and associated infrastructure (turbines, roads, powerlines etc) and an assessment of the potential ongoing impacts from the operation of the turbines on bird and bat populations located in or passing through the area. Consideration should be given to Auswinds publication: *Windfarms and Birds. Interim Standards for Risk Assessment* and the Department of Environment and heritage *Wind Farm collision risks for birds- Cumulative Risk for Threatened and Migratory Species, March 2006.*

- A statement detailing the projected life expectancy of turbines and plans for refurbishment or removal following this period. Any approval will be conditioned to ensure the removal of redundant turbines and associated infrastructure.

- Demonstrate compliance with current planning requirements and best practice guidelines relevant to wind energy generation facilities.

10. CONTROLS

The following controls and criteria are provided as guidelines to apply to all proposed wind energy generating facilities in the Dungog Shire Local Government Area.

Development must not impact significantly on non participating residences or potential residences on properties with unused building entitlements in relation to visual amenity, noise, blade glint or flicker and overshadowing.

Where a property that may retain an unused building entitlement (including dual occupancy, potential vacant holding and potential subdivision) is identified as being within an area that will be significantly affected by the proposed development, this property must be assessed to ensure that the opportunity to build is not removed.

The assessment should include, constraints mapping considering protected land, (slopes over 18 degrees) planning for bushfire guidelines and the Dungog Shire DCP1 Buffer Zones for each identified unused entitlement. Potential building sites outside the identified constraints should then be considered in the same manner as an existing residence.

Council may vary setback requirements or restrict development after considering site conditions and the potential for the development to impact on the local amenity. Setbacks may also be modified where written permission has been obtained from the neighbouring landowner. This modification must be recorded on the title of the subject land.

Wind energy generating facilities should comply with the following table and the objectives of Dungog Shire Council's Development Control Plan 1. Buffer Zones (see Note 1 to the table).

SETBACK FEATURE	**SETBACK REQUIREMENT**
Participating dwellings	At sufficient distance to ensure the health and safety of residents and visitors to the property.
Non participating dwellings and unused building entitlement on non participating properties.	In accordance with visual and noise assessment guidelines. There should be no significant impacts on non participating residences in relation to noise, blade glint or flicker and overshadowing. **See Note 1**
Public roads	1.5 x tip height
Cultural / environmental heritage areas and significant landforms when viewed from regional roads (Main Roads).	In accordance with visual and noise assessment guidelines..
Designated Residential 2(a), Village 2(v), Rural Lifestyle 1(l) and Transition 9 (a) under the DSC LEP 2006	In accordance with visual and noise assessment guidelines.

Note 1: Due to the nature of wind energy generating facilities and the preference in this area to locate development on ridge lines and/or in areas with steep topography, the setback to adjoining properties is taken to be to the nearest dwelling or unused building entitlement on neighbouring properties rather than the property boundary. (Variation from DCP1 Buffer Zones)

11. CRITERIA FOR ASSESSING WIND ENERGY GENERATING FACILITIES

Council will consider the following criteria when assessing wind energy generating facilities.

- The information provided in accordance with and as outlined in this Development Control Plan
- The compliance of the development with Ecological Sustainable Development Principles as set out in the Draft NSW Wind Energy EIA Guidelines
- The compliance of the development with current planning requirements and best practice guidelines relevant to wind energy generation facilities.
- The potential impact of the development on the local environment.
- The potential for the development to provide additional electrical generating capacity.
- The potential benefits the development will have on; the local economy, education and tourism and the reduction in greenhouse gas emissions

APPENDIX 1

Is the proposed development designated, requiring the preparation of an Environmental Impact Statement (EIS) rather than a Statement of Environmental Effects (SEE)?

THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 AND ENVIRONMENTAL PLANNING AND ASSESSMENT REGULATION 2000
SCHEDULE 3 – Designated development
(Clause 4)
Part 1 - What is designated development?

18 Electricity generating stations

(1) Electricity generating stations, including associated water storage, ash or waste management facilities, that supply or are capable of supplying:
  (a) electrical power where:
    (i) the associated water storage facilities inundate land identified as wilderness under the *Wilderness Act 1987* , or
    (ii) the temperature of the water released from the generating station into a natural waterbody is more than 2 degrees centigrade from the ambient temperature of the receiving water, or
  (b) more than 1 megawatt of hydroelectric power requiring a new dam, weir or inter-valley transfer of water, or
  (c) more than 30 megawatts of electrical power from other energy sources (including coal, gas, wind, bio-material or solar powered generators, hydroelectric stations on existing dams or co-generation).

(2) This clause does not apply to power generation facilities used exclusively for stand-by power purposes for less than 4 hours per week averaged over any continuous 3-month period.

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Does the development require a licence from the Environmental Protection Authority (EPA)?

PROTECTION OF THE ENVIRONMENT OPERATIONS ACT 1997
SCHEDULE Schedule 1 - Schedule of EPA-licensed activities
(Section 5)
Part 1 - Activities premises-based
The activities referred to in this Part are activities that are premises-based (ie the occupier of the premises at which the activity is carried on must be the holder of a licence authorising the activity to be carried on at those premises).
An activity referred to in this Part is not a premises-based activity if the activity is carried on by mobile plant.

Electricity Generating Works
Electricity generating works (including associated water storage, ash and waste management facilities) that:
(1) supply or are capable of supplying more than 30 megawatts of electrical power from energy sources (including coal, gas, bio-material or hydro-electric stations), but not including from solar powered generators, or
(2) are within the metropolitan area of Sydney, Newcastle and Wollongong (being the area bounded by and including the local government areas of Newcastle, Maitland, Singleton, Hawkesbury, Blue Mountains, Wollondilly, Wollongong, Shellharbour and Kiama) and incorporate electricity generating plant (other than

emergency standby plant that operates for less than 200 hours per year) and are based on or use:

(a) gas turbines, which burn or are capable of burning, in the aggregate, fuel at a rate of more than 20 megawatts on a net thermal energy basis, or

(b) internal combustion piston engines, which burn or are capable of burning, in the aggregate, fuel at a rate of more than 3 megawatts on a net thermal energy basis.

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Is the development a major project under 3A of the EP&A Act requiring Ministerial approval?

STATE ENVIRONMENTAL PLANNING POLICY (MAJOR PROJECTS) 2005 SCHEDULE 1

SCHEDULE 1 – Part 3A projects—classes of development (Clause 6)
Group 8 - Transport, energy and water infrastructure

24 Electricity generation

Development for the purpose of an electricity generation facility that:

(a) has a capital investment value of more than $30 million for gas or coal-fired generation, or co-generation, or bioenergy, bio-fuels, waste gas, bio-digestion

or waste to energy generation, or hydro or wave power generation, or solar power generation, or wind generation, or

(c) is located in an environmentally sensitive area of State significance.