

# Director-General's Requirements

## Section 75F of the *Environmental Planning and Assessment Act 1979*

<b>Project</b>	Construction and operation of an approximately 100 megawatt wind farm including up to 40 wind turbines and associated infrastructure.
<b>Site</b>	Approximately 20 kilometres south of Orange in the Blayney local government area.
<b>Proponent</b>	Flyers Creek Wind Farm Pty Ltd
<b>Date of Issue</b>	19 January 2009
<b>Date of Expiration</b>	19 April 2011
<b>General Requirements</b>	<p>The Environmental Assessment (EA) must include:</p> <ul style="list-style-type: none"> <li>• an <b>executive summary</b>;</li> <li>• a <b>detailed description</b> of the project including: <ul style="list-style-type: none"> <li>→ construction, operation and decommissioning details;</li> <li>→ the location and dimensions of all project components including the wind turbines (including map coordinates and AHD heights), any above ground transmission connection to the existing transmission network, electrical sub stations, underground cabling between turbines, on site control room and equipment storage, temporary concrete batching plant(s), construction compounds and access roads;</li> <li>→ a timeline identifying the proposed construction and operation of the project components, their envisaged lifespan and arrangements for decommissioning and staging; and</li> <li>→ if the transmission line does not form part of the project, an overview of the approvals process for the above ground transmission connection to the existing transmission network, including timing and responsibilities and how this process would fit in with the planning and development of the project.</li> </ul> </li> <li>• consideration of any <b>relevant statutory provisions</b> including the consistency of the project with the objects of the <i>Environmental Planning and Assessment Act 1979</i>;</li> <li>• an <b>assessment of the key issues</b> outlined below, during construction, operation and decommissioning (as relevant). If the transmission line does not form part of the project, sufficient information on the siting and likely impacts of the transmission line must still be presented to demonstrate that the cumulative impacts of the development as a whole is acceptable and justified;</li> <li>• a <b>draft Statement of Commitments</b> detailing measures for environmental mitigation, management and monitoring for the project. If the transmission line does not form part of the project, a detailed description of how issues which would have cumulative impacts (e.g. biodiversity offsets and visual) would be managed including timing and responsibilities;</li> <li>• a <b>conclusion justifying the project</b> taking into consideration the environmental, social and economic impacts of the project; the suitability of the site; and the public interest; and</li> <li>• <b>certification by the author</b> of the EA that the information contained in the Assessment is neither false nor misleading.</li> </ul>
<b>Key Assessment Requirements</b>	<p>The EA must include assessment of the following key issues:</p> <ul style="list-style-type: none"> <li>• <b>Strategic Justification</b> - the EA must: <ul style="list-style-type: none"> <li>→ include a strategic assessment of the need, scale, scope and location for the project in relation to predicted electricity demand, predicted transmission constraints and the strategic direction of the region and the State in relation to electricity supply, demand and electricity generation technologies;</li> <li>→ include a clear demonstration of quantified and substantiated greenhouse gas benefits, taking into consideration sources of electricity that could realistically be replaced and the extent of their replacement. Reference should be made to the <i>Wind Farm Greenhouse Gas Savings Tool</i> developed by the Department of Environment, Climate Change and Water (DECCW); and</li> </ul> </li> </ul>

- include an analysis of the suitability of the project with respect to potential land use conflicts with existing and future surrounding land uses (including rural residential development, land of significant scenic or visual value, land of high agricultural value, mineral reserves and conservation areas), taking into account local and strategic land use objectives; and
- describe alternatives considered (location and/ or design) and provide justification for the preferred project demonstrating its benefits on a local and strategic scale and how it achieves stated objectives.

- **Visual Impacts** - the EA must:

- provide a comprehensive assessment of the landscape character and values and any scenic or significant vistas of the area potentially affected by the project. This should describe community and stakeholder values of the local and regional visual amenity and quality, and perceptions of the project based on surveys and consultation;
- assess the impact of shadow “flicker”, blade “glint” and night lighting from the wind farm;
- identify the zone of visual influence (no less than 10 kilometres) and assess the visual impact of all project components on this landscape, including in the context of the visual influence of the existing Blayney Wind Farm;
- include photomontages of the project taken from potentially affected residences (including approved but not yet developed dwellings or subdivisions with residential rights), settlements and significant public view points, and provide a clear description of proposed visual amenity mitigation and management measures;
- provide an assessment of the feasibility, effectiveness and reliability of proposed mitigation measures and any residual impacts after these measures have been implemented.

- **Noise Impacts** - the EA must:

- include a comprehensive noise assessment of all phases and components of the project including turbine operation, construction and traffic noise. The assessment must identify noise sensitive locations (including approved but not yet developed dwellings or subdivisions with residential rights), baseline conditions based on monitoring results, the levels and character of noise (e.g. tonality, impulsiveness etc) generated by noise sources, noise criteria, modelling assumptions and worst case and representative noise impacts.
- in relation to wind turbine operation, the EA must determine noise impacts under operating meteorological conditions (i.e. wind speeds from cut in to rated power), which may include impacts under meteorological conditions that exacerbate impacts. The probability of such occurrences must be quantified;
- if any noise agreements with residents are proposed for areas where noise criteria cannot be met, provide sufficient information to enable a clear understanding of what has been agreed and what criteria have been used to frame any such agreements;
- clearly outline the noise mitigation, monitoring and management measures that would be applied to the project. This must include an assessment of the feasibility, effectiveness and reliability of proposed measures and any residual impacts after these measures have been incorporated;
- include contingency strategy that provides for additional noise attenuation should higher noise levels than those predicted result following commissioning and / or noise agreements with landowners not eventuate; and
- include an assessment of vibration impacts associated with the project.

The assessment must be undertaken consistent with the following guidelines (or as otherwise agreed with the DECCW):

- Wind Turbines - the South Australian Environment Protection Authority's *Wind Farms - Environmental Noise Guidelines*, 2003;
- Site Establishment and Construction - *Environmental Noise Control Manual* (NSW EPA, 2004);

- Traffic Noise – *Environmental Criteria for Road Traffic Noise* (NSW EPA, 1999); and
- Vibration – *Assessing Vibration: A Technical Guideline* (DECCW, 2006).

- **Flora and Fauna** - the EA must:

- include an assessment of all project components (including the transmission easement through Canobolas State Forest) on flora and fauna and their habitat consistent with the *Draft Guidelines for Threatened Species Assessment* (DEC, 2005), including details on the existing site conditions and quantity and likelihood of disturbance;
- The EA must specifically consider impacts to threatened species and communities listed under both State and Commonwealth legislation that have been recorded on the site and surrounding land, impacts to riparian and/ or instream habitat in the case of disturbance of waterways, and to biodiversity corridors. In addition, impact of the project on birds and bats from blade strikes, low air pressure zones at the blade tips, and alteration to movement patterns resulting from the turbines and transmission lines must be assessed, including demonstration of how the project has been sited to avoid and/ or minimise such impacts;
- details of how flora and fauna impacts would be managed during construction and operation including adaptive management and maintenance protocols; and
- measures to avoid, mitigate or offset impacts consistent with “improve or maintain” principles. Sufficient details must be provided to demonstrate the availability of viable and achievable options to offset the impacts of the project.

- **Water** – the EA must include an assessment of the potential impacts of the project on water supply, surface flows and groundwater, including:

- details of the site water demand for the life of the project, and the availability of supply to meet this demand;
- details of the impacts associated with construction on river crossings, adjacent water users, basic landholder rights and groundwater-dependent systems; and
- details of any proposed interception of groundwater during construction, including predicted dewatering volumes, drawdown zones, water quality standards and disposal methods.

- **Traffic and Transport** – the EA must assess the construction and operational traffic impacts of the project including:

- details of the nature of traffic generated, transport routes, traffic volumes and potential impacts on local and regional roads, bridges and intersections, including any proposed road upgrades and repairs; and
- details of site access roads including how these would connect to the existing road network and any operational maintenance or handover requirements.

- **Indigenous Heritage** - the EA must include an assessment of the potential impact of the project components on indigenous heritage values (archaeological and cultural). The EA must demonstrate effective consultation with indigenous stakeholders during the assessment and in developing mitigation options (including the final recommended measures) consistent with *Guidelines for Aboriginal Cultural Impact Assessment and Community Consultation* (DEC, July 2005).

- **Hazard/Risks**– the EA must include an assessment of the potential impacts on aviation safety considering nearby aerodromes and aircraft landing areas, defined air traffic routes and radar interference, bushfires, subsidence, communication systems and electric and magnetic fields.

- **General Environmental Risk Analysis** –notwithstanding the above key assessment requirements, the EA must include an environmental risk analysis to identify potential environmental impacts associated with the project, proposed

	mitigation measures and potentially significant residual environmental impacts after the application of proposed mitigation measures. Where additional key environmental impacts are identified through this environmental risk analysis, an appropriately detailed impact assessment of the additional key environmental impact(s) must be included in the EA.
<b>Consultation Requirements</b>	<p>The Proponent must undertake an appropriate and justified level of consultation with the following parties during the preparation of the EA:</p> <ul style="list-style-type: none"> <li>• Blayney Shire Council;</li> <li>• Cabonne Shire Council;</li> <li>• Orange City Council;</li> <li>• Department of Environment and Climate Change;</li> <li>• Department of Water and Energy;</li> <li>• Department of Primary Industries;</li> <li>• NSW Roads and Traffic Authority;</li> <li>• NSW Rural Fire Service;</li> <li>• Lachlan Catchment Management Authority;</li> <li>• Commonwealth Department of Defence;</li> <li>• Civil Aviation Safety Authority;</li> <li>• Airservices Australia;</li> <li>• Aerial Agricultural Society of Australia;</li> <li>• relevant utility providers; and</li> <li>• the local community and landowners.</li> </ul> <p>The EA must clearly describe the consultation process and indicate the issues raised by stakeholders during consultation and how these matters have been addressed.</p>
<b>Deemed refusal period</b>	60 days

## Relevant Guidelines - For Reference

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### General

Wind Energy Facilities draft Environmental Impact Assessment Guidelines (Planning NSW, June 2002)

Best Practice Guidelines for Implementation of Wind Energy Projects in Australia (Auswind, 2006)

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### Visual

Wind Farms and Landscape Values: National Assessment Framework (Australian Wind Energy Association and Australian Council of National Trust, June 2007)

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### Hazards

Civil Aviation Safety Authority's Advisory Circular AC 139-18(0) Obstacle Marking and Lighting of Wind Farms, July, 2007

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### Biodiversity

Cumulative Risk for Threatened and Migratory Species (Commonwealth Department of Environment and Heritage, March 2006)

Wind Farms and Birds: Interim Standards for Risk Assessment, (Auswind, July 2005)

Assessing the Impacts on Birds – Protocols and Data Set Standards (Australian Wind Energy Association)

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