

Director-General's Requirements

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

Project	Construction and operation of a 300 megawatt (MW) combined cycle gas-fired power station and associated infrastructure (including road access, gas pipeline and transmission line) for base-load electricity generation.
Site	Hanging Rock Road, Sutton Forest
Proponent	Penrose Club Holdings Ltd
Date of Issue	5 th August, 2010
Date of Expiration	5 th August, 2011
General Requirements	<p>The Environmental Assessment (EA) must be prepared to a high technical and scientific standard including high quality maps and diagrams. The EA must include:</p> <ul style="list-style-type: none"> • an executive summary; • a description of the project including construction, operation, staging and decommissioning; • consideration of any relevant statutory provisions including the consistency of the project with the objects (Section 5) of the <i>Environmental Planning and Assessment Act 1979</i>; • an assessment of the environmental impacts of the project during construction and operation, with particular focus on the key assessment requirements specified below. Where relevant, the assessment must consider cumulative impacts associated with surrounding landuse and other landuse on site; • a draft Statement of Commitments detailing measures for environmental mitigation, management, offset and/ or monitoring for the project; • a conclusion justifying the project taking into consideration the environmental, social and economic impacts of the project; the suitability of the site; and the public interest; and • certification by the author of the EA that the information contained in the assessment is neither false nor misleading.
Key Assessment Requirements	<p>The EA must include assessment of the following key issues:</p> <ul style="list-style-type: none"> • Strategic Justification - the EA must: <ul style="list-style-type: none"> • provide 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 and demand and electricity generation technologies, and taking into account the project's role within the context of the Commonwealth's Renewable Energy Target Scheme; • analyse the suitability of the site with consideration to strategic landuse planning for the region (including the Department's <i>Sydney-Canberra Corridor Regional Strategy</i> and Wingecarribee Council's draft <i>Moss Vale Enterprise Corridor</i>) and potential conflicts with surrounding landuse (existing and planned-future), including impacts of the project (particularly heavy vehicle movements during the construction and operational phase) on the proposed pipeline which will run from Wingecarribee Reservoir to Goulburn (the Highlands Source Project). The EA must also clearly demonstrate how project elements (including plant, road access, gas pipeline and transmission line) have been located within the site to avoid and/ or minimise key environmental impacts as far as reasonable and feasible; • describe the objectives of the project, alternatives considered (including of project siting) and justification for the preferred project; and • demonstrate the benefits of the project at a strategic and local context. • Water Quantity and Quality Impacts – The EA must provide: <ul style="list-style-type: none"> • a site water balance clearly identifying and quantifying operational water use for the project including: annual water demand and sources of input; water reuse and recycling measures; waste water generation and disposal

requirements (including sewage); and stormwater management. The EA must include a flow diagram or similar showing interactions between various water and wastewater streams and maps showing indicative locations and design of water storage/capture structures on site;

- an assessment of the water needs of the project demonstrating the availability and security of water supply to meet the water requirements of the project over its lifetime, taking into account current and future water demand in the region and environmental factors. The EA must demonstrate the viability of the water sources for sustainable use over the life of the project and give consideration to reuse and recycling options (e.g. use of treated effluent, rainwater and on-site treatment). If ground/ surface water extraction or farm dams are proposed to meet the water requirements of the project, the EA must clearly identify existing water entitlements (including harvestable rights) for the site and any proposed new entitlements;
- if groundwater or surface water extraction is proposed to meet the water requirements of the project, an assessment of the impacts of such extraction on existing groundwater and surface water resources, existing user entitlements, and on groundwater-dependent and riparian ecology must be included with consideration to cumulative impacts from surrounding water extraction operations. Mitigation, contingency and monitoring requirements must be specified to manage impacts;
- an assessment of the water quality impacts of the project including of stormwater management and wastewater discharge (where proposed). The discharge of any pollutants to receiving waters (including changes to temperature) must be assessed against water quality objectives specified in the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000*, with consideration to potential ecological impacts. Potential water quality impacts on the Sydney drinking water catchment must be assessed against the heads of consideration specified in the *Drinking Water Catchments Regional Environmental Plan No. 1*. Mitigation, contingency and monitoring requirements must be specified to manage impacts; and
- if direct disturbance or crossing of waterways is proposed, an assessment of the impacts of that disturbance on stream hydrology and morphology must be included. The EA must clearly identify the condition of existing waterways and any rehabilitation and monitoring requirements following disturbance.

- **Flora and Fauna** - the EA must include a flora and fauna impact assessment in accordance with the *Guidelines for Threatened Species Assessment* (DEC, July 2005). The EA must specifically consider impacts to:

- any threatened species and communities listed under both State and Commonwealth legislation recorded on the site or in the surrounding area;
- riparian, instream ecology and groundwater dependent communities affected by direct disturbance or by water extraction operations associated with the project;
- native vegetation and habitat values on site including wetlands;
- the Bargo to Morton National Park regional biodiversity corridor; and
- existing environmental enhancement works and conservation agreements on site.

The EA must demonstrate how the project (including plant, road access, gas pipeline and transmission line) has been designed and sited to avoid impacts to biodiversity values as far as possible and where unavoidable how impacts would be minimised, mitigated and offset consistent with maintain or improve principles.

- **Air Quality** – the EA must include an operational air quality impact assessment demonstrating no adverse impact on human health or the environment. The assessment must be prepared in accordance with the *Approved Methods for Modelling and Assessment of Air Pollutants in NSW* (DEC, 2005) identifying cumulative emissions at a local and regional level. The EA must consider air quality impacts from each mode of operation including start-up, shut-down, full and partial load operations, and if relevant, black start capacity, taking into account worst-case meteorological conditions. Should the project be located under aviation paths, the EA must consider plume rise impacts on aviation

safety. The EA must clearly outline mitigation measures to be applied and the extent to which these measures are likely to be effective in achieving the relevant environmental outcomes. A cost-benefit analysis on different mitigation measures/technologies that have been investigated should also be included.

- **Greenhouse Gases** – the EA must include a comprehensive greenhouse gas assessment, incorporating a quantitative model showing the tonnages of each greenhouse gas produced (directly and indirectly from the project) per year. These figures must be expressed as a percentage of the total national greenhouse gases produced per year over the life of the project. If a greenhouse gas offset is proposed, full details of this offset(s) must be included in the EA.
- **Noise Impacts** – the EA must include a noise impact assessment in accordance with *NSW Industrial Noise Policy* (EPA, 2000). EA must consider noise impacts from each mode of operation, taking into account worst-case meteorological conditions and potential low-frequency noise impacts. Noise impacts associated with an increase in traffic due to the project needs to be determined in accordance with the *Environmental Criteria for Road Traffic Noise* (EPA, 1999). The EA must also include an assessment of the construction noise impacts of the project, against the criteria provided in the *Interim Construction Noise Guidelines* (DECCW 2009). The EA must clearly outline the noise mitigation, monitoring and management measures the Proponent intends to apply to the project.
- **Hazards and Risk Impacts** – the EA must include a screening of potential hazards on site (including new gas supply infrastructure and bush fire risk) to determine the potential for off site impacts and any requirement for a Preliminary Hazard Analysis (PHA). Should potential off-site impacts be identified, a PHA must be prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 3, Hazardous Industry Planning Advisory Paper No. 6* and *Multi-level Risk Assessment*. Risk impacts associated with the transport of dangerous goods and hazardous materials must be documented with reference to the Department's draft *Route Selection* guideline.
- **Indigenous Heritage** - the EA must assess the indigenous heritage values of the site (archaeological and cultural) in accordance with *Guidelines for Aboriginal Cultural Impact Assessment and Community Consultation* (DEC, July 2005) and identify measures to avoid, minimise, manage and/ or offset impacts.
- **Visual Amenity Impacts** – the EA must include an assessment of the visual impact of the project from key viewing points within the local area and from nearby residential areas. This should include a photographic assessment which clearly demonstrates the potential visual amenity impacts of the project. The EA must clearly describe the visual amenity mitigation and management measures that the Proponent intends to apply to the project. Photomontages demonstrating the effect of mitigation measures must be included as part of this assessment.
- **Traffic Impacts** – The EA must include a construction and operational traffic assessment considering impacts to the local and regional road network and identifying any site access or road upgrade requirements (including to cater for over-sized transport of plant components).
- **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 (construction and operation), 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

	<p>assessment of these additional key environmental impacts must be included in the EA.</p>
<p>Consultation Requirements</p>	<p>You 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"> • NSW Department of Environment, Climate Change and Water; • NSW Office of Water; • Industry and Investment NSW • Wingecarribee Shire Council; • Goulburn-Mulwaree Council; • Sydney Catchment Authority • Hawkesbury Nepean Catchment Management Authority; • Civil Aviation Safety Authority; • Rural Fire Service; and • the local community and land owners. <p>The EA must clearly indicate issues raised by stakeholders during consultation, and how those matters have been addressed in the EA.</p>