



AGL

Broken Hill Solar Plant

ENVIRONMENTAL ASSESSMENT

Volume 3 – Appendix A to Appendix B
October 2012





Appendix A Minister's Declaration



Contact: Belinda Scott
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Doug Landfear
Manager Solar Development
AGL Energy Limited
Locked Bag 1837
St Leonards NSW 2065

Our ref.: 10_0202

dlandfea@agl.com.au

Dear Mr Landfear

Subject: Broken Hill Solar Photovoltaic Power Project (10_0202)

I refer to your correspondence dated 5 November 2010 seeking confirmation that the above proposal is a project to which Part 3A of the *Environmental Planning and Assessment Act 1979* (the Act) applies.

On 12 November 2010, the Director Infrastructure Projects as delegate for the Minister, formed the opinion under clause 6 of the *State Environmental Planning Policy (Major Development) 2005* (the Major Development SEPP) that the above proposal is development of a kind that is described in Clause 24 of Schedule 1 of the Major Development SEPP. Namely, it is development, for the purpose of a facility for the generation of electricity or heat or their co-generation (using any energy source, including gas, coal, bio-fuel, distillate and waste and hydro, wave, solar or wind power), being development that has a capital investment value of more than \$30 million. This decision is a non-discretionary declaration under the Major Development SEPP.

The project is therefore subject to determination by the Minister for Planning under Part 3A of the Act.

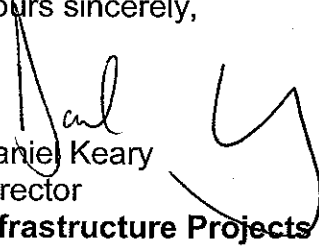
The project also meets the definition of a critical infrastructure project as declared by the Minister on the 11 November 2009 under section 75C of the Act. That is, it is a project for the purpose of a facility for the generation of electricity derived from renewable fuel sources (including solar energy), being development that is also the subject of an application lodged pursuant to section 75E or section 75M of the EP&A Act and proposes development with a capacity to generate at least 30 megawatts.

Section 75E of the Act requires you to lodge an application for your project with the Director-General. It is noted that you have lodged a completed application form and will be lodging a

revised preliminary environmental assessment shortly. The Department requires 10 hard copies and 7 CD¹ copies of the revised Preliminary Environmental Assessment.

The Major Project Application Number for this project is 10_0202. Please use this number in all correspondence with the Department. Your contact officer for this proposal, Belinda Scott, can be contacted on (02) 9228 6472 or via email at Belinda.Scott@planning.nsw.gov.au. Please mark all correspondence regarding the proposal to the attention of the contact officer.

Yours sincerely,


Daniel Keary
Director
Infrastructure Projects

17/11/10

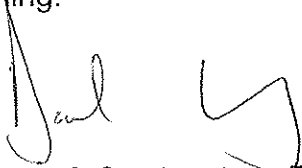
¹ Please note that an electronic version for the website must be provided and include file parts no greater than 5Mb each. File parts should be logically named and divided.

**Record of Minister's opinion for the purposes of Clause 6(1) of State
Environmental Planning Policy (Major Development) 2005**

As delegate of the Minister for Planning under delegation executed on 25 January 2010, I have formed the opinion that the development described in the Schedule below is development of a kind that is described in Schedule 1 of the *State Environmental Planning Policy (Major Development) 2005* – namely Clause 24 the development for the purpose of a facility for the generation of electricity or heat or their co-generation (using any energy source, including gas, coal, bio-fuel, distillate and waste and hydro, wave, solar or wind power), being development that has a capital investment value of more than \$30 million and is thus declared to be a project to which Part 3A of the *Environmental Planning and Assessment Act 1979* applies for the purpose of section 75B of that Act.

Schedule

A proposal for Broken Hill Solar Photovoltaic Power Project at Broken Hill, as generally described in a letter dated 5 November 2010 from AGL Energy Ltd to the Department of Planning.



Director, Infrastructure Projects

Date: 12 NOVEMBER 2010



Appendix B Director-General's Requirements

Broken Hill Solar Power Plant

ENVIRONMENTAL ASSESSMENT

APPENDIX B – DIRECTOR-GENERAL'S REQUIREMENTS CHECKLIST

- Final
- September 2012



Broken Hill Solar Power Plant

ENVIRONMENTAL ASSESSMENT

APPENDIX B – DIRECTOR-GENERAL'S REQUIREMENTS CHECKLIST

- Final
- September 2012

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Contents

Appendix B Director-General's requirements checklist

A



Appendix B Director-General’s requirements checklist

Requirement	Location in this EA
General requirements	
An executive summary	Executive summary
A detailed description of the project for both the solar photovoltaic power plant and transmission line including:	
<ul style="list-style-type: none"> ■ A site plan at an adequate scale and dimensions, showing the exact location, orientation, site coverage, and including all access roads and entrances to public roads. 	Section 4
<ul style="list-style-type: none"> ■ Construction, operation and decommissioning details of all aspects of the project. 	
<ul style="list-style-type: none"> ■ The location and dimensions of all project components including the solar module array, underground and above ground cabling, electrical substation and transmission line linking the solar farm to the substation, fencing and landscaping around the solar farm, on-site office, operations and maintenance buildings, temporary construction infrastructure and compounds, and access roads/road upgrades (including access tracks). 	
<ul style="list-style-type: none"> ■ A timeline identifying the project’s proposed construction and operation components, their envisaged lifespan and arrangements for decommissioning and staging. 	
<ul style="list-style-type: none"> ■ Supporting maps/plans clearly identifying existing environmental features (e.g. watercourses, vegetation), infrastructure and land use (including nearby residences and approved residential developments or subdivisions) and the location/ siting of the project (including associated infrastructure) in the context of this existing environment. 	
<ul style="list-style-type: none"> ■ Resourcing requirements (including, but not limited to, water supply and gravel). 	
Consideration of any relevant statutory provisions including the consistency of the project with the objects of <i>the Environmental Planning and Assessment Act 1979</i> , <i>Western Lands Act 1901</i> , <i>Crowns Lands Act 1989</i> and any relevant development control plans.	Section 1
An assessment of the key issues outlined below, during construction, operation and decommissioning (as relevant). The Environmental Assessment must assess the worst case as well as representative impact for all key issues considering cumulative impacts, as applicable.	Whole document
A draft Statement of Commitments detailing measures for environmental mitigation, management and monitoring for the project.	Section 13
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.	Section 14
Certification by the author of the EA that the information contained in the Assessment is neither false nor misleading.	Certification page
Key assessment requirements	
Strategic justification	
The EA must:	
<ul style="list-style-type: none"> ■ 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, and its role within the Commonwealth’s Renewable Energy Target Scheme. 	Section 2



Requirement	Location in this EA
<ul style="list-style-type: none"> ■ 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. 	
<ul style="list-style-type: none"> ■ 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 (including exploration and extraction) within the proximity of the subject area), and conservation areas), taking into account local and strategic land use objectives including the potential loss of agricultural land. 	
<ul style="list-style-type: none"> ■ Describe the alternatives considered (location and/or design) for all project components, and provide justification for the preferred project demonstrating its benefits including community benefits (for example community enhancement programmes) on a local and strategic scale and how it achieves stated objectives. 	
<p>Visual impacts The EA must:</p>	
<ul style="list-style-type: none"> ■ Include a full assessment of the visual impacts associated with the solar farm including identification and documentation of all key viewing points and corridors particularly from any identified sensitive lands. This should also include the associated transmission line and a comprehensive assessment of the landscape character and values and any scenic or significant vistas of the area potentially affected by the project. 	Section 5
<ul style="list-style-type: none"> ■ Include photomontages of the project taken from potentially affected residences, settlements and significant public view points, and provide a clear description of proposed visual amenity mitigation and management measures for the solar farm. 	
<ul style="list-style-type: none"> ■ Provide an assessment of the feasibility, effectiveness and reliability of proposed mitigation measures and any residual impacts after these measures have been implemented. 	
<ul style="list-style-type: none"> ■ Provide an assessment of the potential for reflectivity from the panels and associated infrastructure, and any safety impacts for motorists, trains or aircraft. 	
<p>Noise impacts The EA must:</p>	
<ul style="list-style-type: none"> ■ Include a comprehensive noise assessment of all phases and components of the project including, but not limited to construction noise (focusing on high noise-generating activities and any works proposed outside of standard construction hours), traffic noise during construction and operation, and vibration generating activities (including blasting) during construction and/ or operation. The assessment must identify noise/vibration sensitive locations, baseline conditions based on monitoring results, the levels and character of noise (eg. tonality, impulsiveness etc.) generated by noise sources, noise/vibration criteria, modelling assumptions and worst case and representative noise/vibration impacts; 	Section 6
<ul style="list-style-type: none"> ■ Include monitoring to ensure that there is adequate background noise data that is representative for all sensitive receptors. 	
<ul style="list-style-type: none"> ■ Provide justification for the nominated average background noise level used in the assessment process, considering any significant difference between daytime and night time background noise levels if there are noise generating activities at night. 	
<ul style="list-style-type: none"> ■ 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. 	



Requirement	Location in this EA
The assessment must be undertaken consistent with the following guidelines:	
<ul style="list-style-type: none"> ■ Substation – <i>NSW Industrial Noise Policy</i> (EPA, 2000). 	
<ul style="list-style-type: none"> ■ Site Establishment and Construction – <i>Interim Construction Noise Guidelines</i> (DECC, 2009). 	
<ul style="list-style-type: none"> ■ Traffic Noise – <i>Environmental Criteria for Road Traffic Noise</i> (NSW EPA, 1999). 	
<ul style="list-style-type: none"> ■ Vibration – <i>Assessing Vibration: A Technical Guideline</i> (DECC, 2006). 	
Flora and fauna	
The EA must:	
<ul style="list-style-type: none"> ■ Include an assessment of the impacts of all project components on flora and fauna (both terrestrial and aquatic, as relevant) and their habitat consistent with the Draft <i>Guidelines for Threatened Species Assessment</i> (DEC 2005) and taking into account the <i>Western Catchment Action Plan</i> (Western CMA 2007) and the <i>Lower Murray-Darling Catchment Action Plan</i> (Lower Murray-Darling CMA 2008) including details on the existing site conditions and likelihood of disturbance (including quantifying the worst case extent of impact on the basis of vegetation type and total native vegetation disturbed). 	Section 7
<ul style="list-style-type: none"> ■ Specifically consider impacts on threatened species and communities listed under both State and Commonwealth legislation that have been recorded on the site and surrounding land, impacts on riparian and/ or instream habitat in the case of disturbance to waterways, and on biodiversity corridors. 	
<ul style="list-style-type: none"> ■ Include details of how flora and fauna impacts would be managed during construction and operation including adaptive management and maintenance protocols (including the mitigation and/or management of weeds). 	
<ul style="list-style-type: none"> ■ Include 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. 	
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 options to avoid or mitigate unavoidable impacts (including the final recommended measures) consistent with <i>Guidelines for Aboriginal Cultural Impact Assessment and Community Consultation</i> (DEC, July 2005).	Section 8
Traffic and transport	
The EA must assess the construction and operational traffic impacts of the project including:	
<ul style="list-style-type: none"> ■ Details of the nature of traffic generated, transport routes, traffic volumes, vehicle movements (both light and heavy vehicles), safety impacts, and potential impacts on local and regional roads (including impacts on the structural integrity of the road network), bridges and intersections, including any proposed road upgrades and repairs. 	Section 9
<ul style="list-style-type: none"> ■ Details of measures to mitigate and/or manage the potential impacts, including measures to control soil erosion and dust generated by traffic volumes. 	
<ul style="list-style-type: none"> ■ Details of site access roads including how these would connect to the existing road network and any operational maintenance or handover requirements. 	
Hazard/risks	
The EA must include an assessment of potential hazards and risks associated with electric and magnetic fields (EMFs) (with reference to Australian Radiation Protection and Nuclear Safety Agency standards) and bushfires. The EA should demonstrate the application of the Principles of Prudent Avoidance in relation to EMFs. The EA must also consider impacts to aircraft and detail measures to contain any hazardous substances to prevent the contamination of pasture.	Section 10



Requirement	Location in this EA
Water supply, water quality and waterways	
The EA must outline water requirements for the project and whether an adequate and secure water supply is available for the life of the project including the statutory (licensing)/water sharing plan context of the water supply sources, and assess potential environmental impacts associated with the identified sources, including impacts on groundwater. The EA must address any flooding impacts of changes to water courses including addressing soil erosion issues and the potential to create salinity risks.	Section 11
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.	Section 1.8
Consultation requirements	
The Proponent must undertake a consultation program as part of the environmental assessment process, including consultation with, but not necessarily limited to, the following parties:	Section 3
<ul style="list-style-type: none"> ■ Department of Primary Industries, Catchment and Lands Division (formerly Land and Property Management Authority); 	
<ul style="list-style-type: none"> ■ Lessee 	
<ul style="list-style-type: none"> ■ Broken Hill City Council 	
<ul style="list-style-type: none"> ■ Office of Environment and Heritage (formerly Department of Environment, Climate Change and Water) 	
<ul style="list-style-type: none"> ■ NSW Office of Water 	
<ul style="list-style-type: none"> ■ Industry and Investment NSW 	
<ul style="list-style-type: none"> ■ NSW Roads and Maritime Services (formerly Roads and Traffic Authority) 	
<ul style="list-style-type: none"> ■ Australian Rail Track Corporation Ltd 	
<ul style="list-style-type: none"> ■ NSW Rural Fire Service 	
<ul style="list-style-type: none"> ■ Western CMA 	
<ul style="list-style-type: none"> ■ Lower Murray-Darling CMA 	
<ul style="list-style-type: none"> ■ TransGrid 	
<ul style="list-style-type: none"> ■ Relevant minerals stakeholders (including exploration and mining title holders) 	
<ul style="list-style-type: none"> ■ The local community and landowners 	
The consultation process shall include measures for disseminating information to increase awareness of the project as well as methods for actively engaging stakeholders on issues that would be of interest/concern to them. The EA must:	
<ul style="list-style-type: none"> ■ Demonstrate effective consultation with stakeholders, and that the level of consultation with each stakeholder is commensurate with their degree of interest/concern or likely impact. 	
<ul style="list-style-type: none"> ■ Clearly describe the consultation process undertaken for each stakeholder/group including details of the dates of consultation and copies of any information disseminated as part of the consultation process (subject to confidentiality). 	
<ul style="list-style-type: none"> ■ Describe the issues raised during consultation and how and where these have been addressed in the EA. 	