

Project Approval

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

I, the Minister for Planning, approve the project referred to in Schedule 1, subject to the conditions in Schedule 2.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.



The Hon. Kristina Keneally MP
Minister for Planning

Sydney

11 August

2009

File No: S07/01228

SCHEDULE 1

Application No: 08_0077

Proponent: AGL Energy Pty Ltd

Approval Authority: Minister for Planning

Land: Lot 101, 102, 103, 104 and 105 in DP 716209, Part of Lot 1 in DP 70208, Part road reserve Main Road 177 (Appin Road), Campbelltown local government area

Project: Construction and operation of a gas-fired power station, associated infrastructure and access road, known as the Leafs Gully Power Project.

Major Project: The project was declared a Major Project under section 75B(1)(a) of the *Environmental Planning and Assessment Act 1979*, because it is development of a kind described in clause 24 of Schedule 1 of *State Environmental Planning Policy (Major Projects) 2005*.

KEY TO CONDITIONS

1. ADMINISTRATIVE CONDITIONS	4
Terms of Approval	4
Limits of Approval	4
Site Capacity and Demonstrated Environmental Performance	4
Statutory Requirements	5
2. SPECIFIC ENVIRONMENTAL CONDITIONS	5
Air Quality Impacts	5
Mine Subsidence Impacts	7
Noise Impacts	7
Soil and Water Quality Impacts	8
Waste Generation and Management	9
Hazards and Risk	9
Traffic and Transport Impacts	10
Flora and Fauna Impacts	11
Visual Amenity Impacts	12
Bush Fire Impacts	12
Heritage Impacts	12
3. ENVIRONMENTAL MONITORING AND AUDITING	12
Air Quality Monitoring	12
Noise Monitoring	14
Hazard Compliance	14
Auditing	15
4. COMPLIANCE MONITORING AND TRACKING	15
Compliance Tracking Program	15
5. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT	16
Complaints Procedure	16
Provision of Electronic Information	16
Community Participation Program	17
6. ENVIRONMENTAL MANAGEMENT	18
Environmental Representative	18
Construction Environmental Management Plan	18
Operation Environmental Management Plan	19
7. ENVIRONMENTAL REPORTING	21
Incident Reporting	21
Annual Performance Reporting	22

SCHEDULE 2

Act, the	<i>Environmental Planning and Assessment Act, 1979</i>
CASA	Civil Aviation Safety Authority.
Conditions of Approval	The Minister's conditions of approval for the project.
Construction	All pre-operation activities associated with the project other than survey, acquisitions, fencing, investigative drilling and excavation, building/road dilapidation surveys or other activities determined by the Environmental Representative to have minimal environmental impact such as minor access roads, adjustments to services/utilities, establishing temporary construction sites (in accordance with the requirements of this approval) or clearing (except where threatened species, populations or ecological communities would be affected).
Council	Campbelltown City Council
DECC	NSW Department of Environment and Climate Change
Department, the	Department of Planning
Director-General, the	Director-General of the Department of Planning (or delegate).
Director-General's Approval	A written approval from the Director-General (or delegate). Where the Director-General's approval is required under a condition, the Director-General will endeavour to provide a response within one month of receiving an approval request. The Director-General may ask for additional information if the approval request is considered incomplete. When further information is requested the time taken for the Proponent to respond in writing will be added to the one month period.
Dust	Any solid material that may become suspended in air or deposited.
EA	<i>Leafs Gully Power Project, Environmental Assessment.</i> Prepared by URS Australia Pty Ltd and dated November 2008.
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act, 1997</i>
Minister, the	Minister for Planning
Operation	When the power station commences contributing electricity to the grid but excluding commissioning activities.
Proponent	AGL Energy Pty Ltd
Publicly Available	Available for inspection by a member of the general public (for example available on an internet site or at a display centre).
Reasonable/feasible	Consideration of best practice taking into account the benefit of proposed measures and their technological and associated operational application in the NSW and Australian context. Feasible relates to engineering considerations and what is practical to build. Reasonable relates to the application of judgement in arriving at a decision, taking into account mitigation benefits, cost of mitigation versus benefits provided, community views and nature and extent of potential improvements.
RTA	NSW Roads and Traffic Authority
Site	Land to which Major Projects Application 08 0077 applies.
Shut-down period	The period during which a turbine is being taken out of service from normal operation to inactivity
Start-up period	The period during which a turbine is being brought up to normal operation following a period of inactivity
Submissions report	<i>Leafs Gully Power Project, Submissions Response Report,</i> prepared by URS Australia Pty Ltd and dated May 2009.

1. ADMINISTRATIVE CONDITIONS

Terms of Approval

- 1.1 The Proponent shall carry out the project generally in accordance with:
 - a) Major Projects Application 08_0077;
 - b) *AGL Leafs Gully Power Project, Environmental Assessment*, prepared by URS Australia Pty Ltd and dated November 2008;
 - c) *Submissions Response Report for AGL Leafs Gully Power Project Environmental Assessment*, prepared by URS Australia Pty Ltd and dated May 2009; and
 - d) the conditions of this approval.
- 1.2 In the event of an inconsistency between:
 - a) the conditions of this approval and any document listed from condition 1.1a) and 1.1c) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and
 - b) any document listed from condition 1.1a) and 1.1c) inclusive, the most recent document shall prevail to the extent of the inconsistency.
- 1.3 The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Department's assessment of:
 - a) any reports, plans or correspondence that are submitted in accordance with this approval; and
 - b) the implementation of any actions or measures contained in these reports, plans or correspondence where appropriate.

Limits of Approval

- 1.4 This project approval shall lapse five years after the date on which it is granted, unless the works the subject of this approval are physically commenced on or before that time.
- 1.5 The project shall comprise a two unit gas turbine power plant with a total nominal output of up to 360 megawatts operating in open cycle mode. The project shall only be fuelled by natural gas.
- 1.6 To avoid any doubt, this approval does not permit the project to be operated as an intermediate or baseload generating facility.

Site Capacity and Demonstrated Environmental Performance

- 1.7 Prior to the making of a new application under the *Environmental Planning and Assessment Act 1979* that would, if approved, increase the combined generating capacity of all facilities on the site above a nominal capacity of 360 megawatts, the Proponent shall demonstrate to the satisfaction of the Director-General that the project has been installed and able to be operated at a nominal capacity of up to 360 megawatts for at least 12 months in an environmentally acceptable manner.

For the purpose of this condition, 'environmentally acceptable manner' includes:

- a) the project has been operated in full conformance with the conditions of this approval and any Environment Protection Licence issued for the project under the *Protection of the Environment Operations Act 1997*;
- b) there has been no exceedance of any discharge limit specified under condition 2.8;
- c) there are no outstanding actions or recommendations from any Hazard Audit Report generated under condition 3.8;
- d) there are no outstanding actions or recommendations from any Environmental Audit Report generated under condition 3.9; and
- e) there has been no reportable environmental incident under condition 7.1.

In demonstrating operation of the project in an environmentally acceptable manner, the Proponent shall submit a report prepared and certified by an independent, qualified person or team, approved by the Director-General.

Statutory Requirements

1.8 The Proponent shall ensure that all licences, permits and approvals are obtained and maintained as required throughout the life of the project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals. The Proponent shall ensure that a copy of this approval and all relevant environmental approvals are available on the site at all times during the project.

2. SPECIFIC ENVIRONMENTAL CONDITIONS

Air Quality Impacts

Dust Generation

2.1 The Proponent shall construct the project in a manner that minimises dust emissions from the site, including wind-blown and traffic-generated dust. All activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, the Proponent shall identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.

Odour

2.2 The Proponent shall not permit any offensive odour, as defined under section 129 of the *Protection of the Environment Operations Act 1997*, to be emitted beyond the boundary of the site.

Manufacturer's Performance Guarantee

2.3 Prior to the installation of any fuel burning equipment associated with the project, the Proponent shall submit manufacturer's performance guarantees for that equipment to the DECC. The documentation shall demonstrate to the DECC's satisfaction that the equipment, when operating at design load will comply with the air discharge limits specified in this approval under condition 2.6.

Monitoring and Discharge Points

2.4 For the purposes of this approval, air monitoring/ air discharge points shall be identified as provided in Table 1 below.

Table 1 - Identification of Air Monitoring and Air Discharge Points

Monitoring / Discharge Point Identifier	Type of Monitoring Point	Type of Discharge Point	Description of Location
1	Turbine Stack 1	Discharge to Air	Stack serving Turbine 1
2	Turbine Stack 2	Discharge to Air	Stack serving Turbine 2

2.5 The Proponent shall ensure that the design and construction of the project includes sampling positions that comply with TM-1 as set out in *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (DECC, 2007), or another appropriate methodology agreed with the DECC.

Discharge Limits and Benchmarks

2.6 Emissions of oxides of nitrogen from each air discharge point associated with the project (defined under condition 2.4) shall:

- not exceed the **discharge limits** specified under condition 2.8 at any time;
- be managed with the aim of not exceeding the **discharge benchmark(s)** established under condition 2.9; and
- be subject to further reasonable and feasible mitigation measures established under condition 2.10, if the **discharge benchmark(s)** under condition 2.9 are exceeded.

- 2.7 Notwithstanding condition 2.6, the discharge limits under condition 2.8 and the discharge benchmarks established under condition 2.9 do not apply to a turbine during start-up or shut-down periods for that turbine. This condition does not relieve the Proponent from any obligation to comply with section 128(2) of the *Protection of the Environment Operations Act 1997*, which requires the application of such practical means as may be required to prevent or minimise air pollution.
- 2.8 The Proponent shall design, construct, operate and maintain the project to ensure that for each turbine stack discharge point, the concentration of each pollutant listed in Table 2 is not exceeded.

Table 2 – Maximum Allowable Discharge Concentration Limits (Air)

Emission Point	Pollutant	Units of measure	100 percentile concentration limit	Reference conditions
1	Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both as NO ₂ equivalent	milligrams per cubic metre	51	dry, 273 K, 101.3 kPa, and 15 % oxygen (O ₂)
2	Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both as NO ₂ equivalent	milligrams per cubic metre	51	dry, 273 K, 101.3 kPa, and 15 % oxygen (O ₂)

- 2.9 Within 12 months of the conclusion of commissioning, unless otherwise agreed by the Director-General, the Proponent shall prepare and submit to the Director-General and the DECC, a report establishing a proposed discharge benchmark for the pollutants referred to under condition 2.8 (with the same reference conditions and units of measure). The proposed discharge benchmark shall:
- be established as an annual average emission benchmark, reflecting the average performance of the project during normal operation and the proper and efficient operation of the turbines
 - be derived using NO_x emission data from the continuous emissions monitoring systems for the turbine stacks(s) required under condition 3.1;
 - be determined following the collection of a NO_x concentration dataset that is sufficient to represent the likely longer-term operating patterns of the project;
 - take into account the variation of NO_x concentrations at different generating loads;
 - recognise that generating load patterns may vary from year to year due to differences in electricity market demands and include an appropriate allowance for this variation; and
 - include provision for the probable increase in NO_x emissions with time due to reasonable wear and tear to plant and equipment.
- 2.10 The Director-General may, following consultation with the DECC, approve with such modifications as the Director-General considers appropriate, the proposed discharge benchmark presented in the report referred to under condition 2.9. Should the Director-General consider that modifications to the proposed discharge benchmark are required, the Director-General shall provide reasonable opportunity for the Proponent to consider and respond to such modifications (including provision of additional information), prior to approving the modified discharge benchmark. Once approved by the Director-General, the discharge benchmark shall apply to the project for the purpose of conditions 2.6 and 2.11.
- 2.11 Following approval of a discharge benchmark for the project in accordance with condition 2.10, the Proponent shall notify the Director-General of each exceedance of the benchmark within seven days. Unless otherwise agreed by the Director-General, the Proponent shall provide a report to the Director-General within three months of each exceedance of the benchmark that includes, but is not necessarily limited to:
- a review of all practicable measures to reduce NO_x emissions from the project with the aim of not exceeding the discharge benchmark;

- b) an evaluation of the marginal cost of incremental NO_x reductions for identified practicable NO_x reduction measures;
- c) proposed additional measures to be applied to the project or project operations that produce NO_x reductions consistent with the outcomes of a) and b) above;
- d) a timeframe for implementation of proposed additional measures.

The Director-General may require the Proponent to implement such additional reasonable and feasible NO_x reduction measures identified in reports submitted in accordance with this condition, within such period as the Director-General may require.

Mine Subsidence Impacts

2.12 The Proponent shall design the project to accommodate predicted subsidence of the site from ongoing underground longwall mining activities. Prior to the commencement of site preparation or construction activities, the Proponent shall submit detailed design plans for the power station to the Mine Subsidence Board for its approval.

Noise Impacts

Vibration Impacts

2.13 The Proponent shall ensure that the vibration resulting from construction and operation of the project does not exceed the preferred values vibration (for low probability of adverse comment) presented in *Assessing Vibration: A Technical Guideline (DECC, February 2006)*, at any affected residential dwelling.

Construction Noise

2.14 The Proponent shall only undertake construction activities associated with the project that would generate an audible noise at any residential premises during the following hours:

- a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive;
- b) 8:00 am to 1:00 pm on Saturdays; and
- c) at no time on Sundays or public holidays.

This condition does not apply in the event of a direction from police or other relevant authority for safety reasons.

2.15 The hours of construction activities specified under condition 2.14 of this approval may be varied with the prior written approval of the Director-General. Any request to alter the hours of construction specified under condition 2.14 shall be:

- a) considered on a case-by-case basis;
- b) accompanied by details of the nature and need for activities to be conducted during the varied construction hours; and
- c) accompanied by written evidence demonstrating consultation with the DECC in relation to the proposed variation in construction times (including the consideration of any comments made by the DECC).

Operation Noise

2.16 The Proponent shall design, construct, operate and maintain the project to ensure that the noise contributions from the project to the background acoustic environment do not exceed the maximum allowable noise contributions specified in Table 3, at those locations and during those periods indicated. The maximum allowable noise contributions apply under wind speeds up to 3 ms⁻¹ (measured at 10 metres above ground level), or under temperature inversion conditions of up to 3 °C/ 100 metres and wind speeds of up to 2 ms⁻¹ at 10 metres above the ground.

Table 3 – Maximum Allowable Noise Contribution

Noise Assessment Location	Day	Evening	Night	
	7:00am to 6:00pm Mondays to Saturdays 8:00am to 6:00pm Sundays and public holidays	6:00pm to 10:00pm on any day	10:00pm to 7:00am Mondays to Saturdays 10:00pm to 8:00am Sundays and public holidays	
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)
The closest, or potentially most affected noise sensitive receiver location(s)	35	35	35	45

2.17 For the purpose of assessment of noise contributions specified under condition 2.16 of this approval, noise from the project shall be:

- a) measured at the most affected point within the residential boundary or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary to determine compliance with the L_{Aeq}(15 minute) noise limits; and
- b) measured at one metre from the dwelling façade to determine compliance with the L_{A1}(1 minute) noise limits.

Notwithstanding, should direct measurement of noise from the project be impractical, the Proponent may employ an alternative noise assessment method deemed acceptable by the DECC (refer to Section 11 of the *New South Wales Industrial Noise Policy* (EPA, 2000)). Details of such an alternative noise assessment method accepted by the DECC shall be submitted to the Director-General prior to the implementation of the assessment method.

2.18 Unless otherwise agreed to by the Director-General, the modification factors presented in Section 4 of the *Industrial Noise Policy* in relation to low frequency noise, only apply if the difference between the A-weighted noise and the C-weighted noise is greater than or equal to 15 dB and the measured sound pressure level is greater than L_{eq} 65 dB(C).

Soil and Water Quality Impacts

2.19 Except as may be expressively provided by an Environment Protection Licence for the project, the Proponent shall comply with section 120 of the *Protection of the Environment Operations Act 1997* which prohibits the pollution of waters.

2.20 Soil and water management controls shall be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities, in accordance with Landcom's *Managing Urban Stormwater: Soils and Conservation*.

2.21 Prior to the commencement of construction of the project, the Proponent shall submit for the approval of the Director-General design and operational details for management of the water cycle of the project, including:

- a) a description of how all water and wastewater streams are managed on the premises;
- b) a description of all the likely constituents of the wastewater to be discharged to the evaporation pond(s) including biocides and antifoulants;
- c) a demonstration that the capacity of the evaporation pond(s) will be sufficient to manage blow down water and any other process or cleaning water to maintain freeboard capacity and to operate without discharge under a range of operational scenarios and climatic conditions as represented by local historical rainfall and evaporation data. This must include daily or monthly time-step modelling of pond behaviour under typical median, dry and wet years;
- d) details of how the evaporation pond(s) will be designed to permit any waste solids/sludge to be periodically collected, classified against the *Waste Classification Guidelines* (EPA, 2008), and appropriately disposed of (i.e. through being sized

sufficiently to allow periodic drying-out of the pond(s), pumping water between ponds, etc);

- e) details on stormwater management including the sediment pond design capacity and a management regime to ensure there is no discharge causing pollution of waters;
- f) recommendations, considering all of the above, for the ongoing management of the evaporation pond to ensure no discharge to waters or groundwater;
- g) a monitoring schedule to demonstrate that the adjacent Upper Canal is not being impacted by the operation of the pond(s); and
- h) details of the outcomes of consultation with the DECC on the above design and operational details, and how any issues raised by the DECC have been addressed.

2.22 The Proponent shall ensure process wastewater including wastewater generated from equipment washing, cleaning or maintenance or contaminated water from bunded areas is discharged to the evaporation pond(s), or collected and disposed on in accordance with conditions 2.24 to 2.27 of this approval. The evaporation pond(s) shall be designed and constructed to ensure no discharge occurs to either groundwater or surface waters.

2.23 The design capacity of the sedimentation pond shall be sufficient to handle an 85th percentile storm event.

Waste Generation and Management

2.24 All waste materials removed from the site shall only be directed to a waste management facility lawfully permitted to accept the materials.

2.25 The Proponent shall, to the extent that is reasonable and feasible, maximise the treatment, reuse and/ or recycling on the site of any waste oils, excavated soils, slurries, dusts and sludges associated with the project, to minimise the need for treatment or disposal of those materials outside the power station.

2.26 The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*, if such a licence is required in relation to that waste.

2.27 The Proponent shall ensure that all liquid and / or non-liquid waste generated and / or stored on the site is assessed and classified in accordance with *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (DEC, 2004), or any future guideline that may supersede that document.

Hazards and Risk

Bunding and Spill Management

2.28 The Proponent shall store and handle all dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with:

- a) all relevant Australian Standards;
- b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
- c) the EPA's Environment Protection Manual Technical Bulletin: *Bunding and Spill Management*.

In the event of an inconsistency between the requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.

Aviation Hazards

2.29 Prior to the commissioning of the project, the Proponent shall consult with the CASA, including seeking any necessary approval(s) from CASA, with respect to the management of the operation of the project to minimise potential aviation hazards. Consultation with CASA shall include, but not necessarily be limited to the resolution of the following:

- a) updates to and notations on flight plans, maps and other relevant documentation to identify the project as a potential aviation hazard;
- b) on-going consultation and notification requirements between the Proponent and CASA, particularly in relation to the hours, modes and durations of commissioning and operational phases of the project;
- c) the need and type of lighting to be provided to identify potential aviation hazards; and
- d) such other matters as the parties may consider relevant.

Pre-Construction Hazards Studies

2.30 Prior to the commencement of construction of the project, other than site preparation works, or as otherwise agreed by the Director-General, the Proponent shall prepare and submit for the approval of the Director-General, the following studies:

- a) a **Fire Safety Study** for the project, covering all aspects detailed in the Department's publication *Hazardous Industry Planning Advisory Paper No. 2 - Fire Safety Guidelines* and the New South Wales Government's *Best Practice Guidelines for Contaminated Water Retention and Treatment Systems*. The Study shall include a strict maintenance schedule for essential services and other safety measures. The Study shall be submitted for the approval of the Commissioner of the NSW Fire Brigades prior to submission to the Director-General;
- b) a **Hazard and Operability Study (HAZOP)** for the project, chaired by an independent, qualified person or team. The independent person or team shall be approved by the Director-General. The Study shall be carried out in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 8 - HAZOP Guidelines* and shall, in particular, address the early shut-down procedures and systems in the event of a gas leak and recommended measures for early shut-down in the event of an incident. The HAZOP report shall be accompanied by a program for the implementation of all recommendations made in the HAZOP report. If the Proponent intends to defer the implementation of a recommendation, justification must be included.
- c) a **Final Hazard Analysis** prepared in accordance with the Department's *Hazardous Industry Advisory Paper No.6 – Guidelines for Hazard Analysis*; and
- d) a **Construction Safety Study** for the project, prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 7 - Construction Safety Study Guidelines*. The commissioning portion of the Study may be submitted two months prior to commissioning the project.

Pre-Commissioning Hazards Studies

2.31 Prior to the commencement of commissioning of the project the Proponent shall prepare and submit for the approval of the Director-General the following studies:

- a) an **Emergency Plan** for the project. The Plan shall be prepared in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 1 - Industry Emergency Planning Guidelines*. The plan shall include detailed procedures for the safety of all people outside of the development who may be at risk from the project; and
- b) a **Safety Management System**, covering all operations at the project and any associated transport activities involving hazardous materials. The System shall clearly specify all safety-related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to safety procedures. The System shall be developed in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 9 - Safety Management*.

Traffic and Transport Impacts

2.32 Upon determining the haulage route(s) for major construction materials associated with the project, the Proponent shall commission an independent, qualified person or team to undertake a **Road Dilapidation Report**. The report shall assess the current condition of the roads and describe mechanisms to restore any damage that may result due to traffic and transport related to the construction and ongoing operation of the project. The Report shall

be submitted to the relevant roads authority for review prior to the commencement of haulage.

The cost of any restorative work described in the Report or recommended by the relevant roads authority after review of the Report, shall be funded by the Proponent. Such work shall be undertaken at a time as agreed upon between the Proponent and the relevant roads authority. In the event of a dispute between the parties with respect to the extent of restorative work that may be required under this condition, any party may refer the matter to the Director-General for resolution. The Director-General's determination of any such dispute shall be final and binding on the parties.

2.33 Prior to the commencement of construction of the proposed upgraded intersection between Appin Road and the private access road, the Proponent shall submit the following information to the RTA for its assessment:

- a) a swept path plan of the largest vehicle proposed to access the site turning left into the access road from Appin Road overlaid on a survey plan;
- b) a Road Safety Audit shall be undertaken by an independent and certified road safety auditor examining the road safety issues of an upgraded intersection.

2.34 The type "CHR" intersection treatment on Appin Road shall be designed and constructed in accordance with *Road Design Guide* (RTA, 1996). A similar treatment shall also be provided for the farm driveway opposite the site, on the eastern side of Appin Road.

2.35 The Proponent shall ensure that the road shoulder shall be sealed on the western side of Appin Road on approach to the private access road and shall be undertaken in accordance with *Road Design Guide* (RTA, 1996).

2.36 Subject to consultation with the RTA, if street lighting is considered to be required at the intersection of Appin Road and the private access road, street lighting will be provided and fully funded by the Proponent.

2.37 The Proponent shall submit detailed design plans and hydraulic calculations of any changes to the stormwater drainage system to the RTA for its approval prior to the commencement of any works along Appin Road.

2.38 The Proponent shall enter into a Works Authorisation Deed with the RTA to allow works to be undertaken on Appin Road. The Proponent shall liaise with the RTA regarding the information required to be submitted as part of the Works Authorisation Deed for the RTA's assessment and approval.

2.39 A Construction Certificate shall not be issued to the Proponent until the information required to be submitted to the RTA under condition 2.33 is provided to the satisfaction of the RTA and all roadworks on Appin Road are fully constructed and operational to the RTA's satisfaction.

2.40 No over-dimensional and/or over mass road transport convey is to be undertaken without the Proponent obtaining a special permit from the RTA.

Flora and Fauna Impacts

2.41 The Proponent shall ensure that the land identified as a conservation area in the documents listed in condition 1.1 are secured for conservation in perpetuity through a means agreed to by the DECC and the Director-General within 12 months of the commencement of construction.

2.42 The Proponent shall minimise the clearing of any endangered ecological communities or threatened flora species on the site to the extent practicable and only for the construction of

the power plant, associated infrastructure and the establishment of required asset protection zones to manage bush fire risk.

- 2.43 The Proponent shall ensure that the Plan of Management for the conservation area (incorporating the Pultenea Recovery Area) is prepared by an appropriately qualified bush regeneration contractor or ecological consultant in consultation with the DECC prior to undertaking any works.

Visual Amenity Impacts

- 2.44 The Proponent shall construct the earthen bund and complete landscaping of the bund as early in the construction program as practicable to provide screening of construction works as soon as possible within the construction schedule. The bund shall be vegetated with locally endemic native species prior to the commencement of operation of the project.
- 2.45 Prior to the commencement of operation of the project, the Proponent shall install habitat corridor plantings along the north, north-east and east of the site, as generally identified in Figure 13-2 of the document referred to under condition 1.1b) of this approval. In planning and installing the habitat corridor plantings, the Proponent shall maximise the visual screening effects of the corridor plantings and shall only utilise locally endemic native species.
- 2.46 The Proponent shall minimise the use of reflective building elements and maximise the use of building materials and treatments which visually complement the surrounding bushland.
- 2.47 The Proponent shall ensure that all external lighting associated with the project is mounted, screened, and directed in such a manner so as not to create a nuisance to the surrounding environment, properties and roadway. The lighting shall be the minimum level of illumination necessary and shall comply with *AS 4282(INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting*. This condition does not apply to any aviation hazard lighting that may be required by CASA under condition 2.29.

Bush Fire Impacts

- 2.48 The Proponent shall investigate, as part of the detail design stage, to minimise the bush fire risk to the project by repositioning above-ground storage of flammable substances away from the perimeter of the site including the diesel storage tank and the gas receiving station.

Heritage Impacts

- 2.49 The Proponent shall undertake a program of archaeological subsurface testing specific to the development footprint to determine the nature, extent and significance of any Aboriginal objects that may exist within LGPAD1 in accordance with the draft *Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC, 2005)*. The method of excavation to be undertaken on the site as part of this program is required to be in accordance with the draft *Aboriginal and Cultural Heritage Standards and Guidelines Kit (DECC, 1997)*. In the event that Aboriginal objects are identified as part of the program, appropriate management strategies should be formulated to minimise any potential development impacts.

3. ENVIRONMENTAL MONITORING AND AUDITING

Air Quality Monitoring

- 3.1 The Proponent shall determine the pollutant concentrations and emission parameters specified in Table 4 below, at each of the turbine stack discharge points. Monitoring shall be undertaken during operation of the project, at the frequency indicated in the Table, unless otherwise agreed by the DECC.

Table 4 – Periodic Pollutant and Parameter Monitoring (Air)

Monitoring Point	Pollutant	Units of Measure	Frequency	Sampling Method
Stack serving turbine 1 and Stack serving turbine 2	Nitrogen dioxide (NO ₂) (or nitric oxide (NO) or both, as NO ₂ equivalent	Milligrams per normalised cubic metre	Continuous (during operation)	CEM-2

Air Quality Performance Verification

- 3.2 Within 90 days of the commencement of operation of the project, or as may be agreed by the Director-General, and during a period in which the project is operating under normal operating conditions, the Proponent shall undertake a program to confirm the air emission performance of the project. The program shall include, but not necessarily be limited to:
- point source emission sampling and analysis subject to the requirements listed under condition 3.1 to determine compliance with the stack discharge concentration limits identified in condition 2.6;
 - a comprehensive air quality impact assessment in accordance with the methods outlined in *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (DECC, 2005), using actual air emission data collected under condition 3.1 to determine performance against the ground-level concentrations limits for air pollutants predicted in the documents listed under condition 1.1 of this approval; and
 - details of any entries in the Complaints Register (condition 5.3 of this approval) relating to air quality impacts.

A report providing the results of the program shall be submitted to the Director-General and the DECC within 28 days of completion of the testing required under a).

Table 5 – Air Quality Verification Monitoring

Monitoring Point	Pollutant	Units of Measure	Sampling Method
Stack serving turbine 1 and Stack serving turbine 2	Carbon monoxide (CO)	mgm ⁻³	TM-32
	Dry gas density	kgm ⁻³	TM-23
	Fine particles (PM ₁₀)	mgm ⁻³	OM-5
	Moisture content	%	TM-22
	Molecular weight of stack gases	g.gmol ⁻¹	TM-23
	Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both (as NO ₂)	mgm ⁻³	TM-11
	Oxygen (O ₂)	%	TM-25
	Speciated organic compounds	mgm ⁻³	TM-34
	Sulfur dioxide (SO ₂)	mgm ⁻³	TM-4
	Temperature	°C	TM-2
	Velocity	ms ⁻¹	TM-2
	Volumetric flow rate	m ³ s ⁻¹	TM-2

- 3.3 In the event that the program undertaken to satisfy condition 3.2 of this approval indicates that the operation of the project, under design loads and normal operating conditions, will lead to:
- greater point source emissions than the stack discharge concentration limits identified in condition 2.6; or
 - greater ground-level concentrations of air pollutants than that predicted in the documents listed under condition 1.1 of this approval;

then the Proponent shall provide details of remedial measures to be implemented to reduce point source emissions or ground-level concentrations of air pollutants to no greater than that predicted in the documents listed under condition 1.1 of this approval and to meet the impact assessment criteria detailed in *Approved Methods and Guidance for the Sampling and Analysis of Air Pollutants in New South Wales* (EPA, 2001). Details of the remedial measures and a timetable for implementation shall be submitted to the Director-General for approval within such period as the Director-General may require, and be accompanied by evidence that the DECC is satisfied that the remedial measures are acceptable.

Noise Monitoring

- 3.4 Within 90 days of the commencement of operation of the project, or as may be agreed by the Director-General, and during a period in which the project is operating under design loads and normal operating conditions, the Proponent shall undertake a program to confirm the noise emission performance of the project. The program shall meet the requirements of the DECC, and shall include, but not necessarily be limited to:
- a) noise monitoring, consistent with the guidelines provided in the *New South Wales Industrial Noise Policy* (EPA, 2000), to assess compliance with condition 2.16 of this approval;
 - b) methodologies for noise monitoring;
 - c) location of noise monitoring;
 - d) frequency of noise monitoring;
 - e) identification of monitoring sites at which pre- and post-project noise levels can be ascertained; and
 - f) details of any entries in the Complaints Register (condition 5.3 of this approval) relating to noise impacts.

A report providing the results of the program shall be submitted to the Director-General and the DECC with 28 days of completion of the testing required under a).

- 3.5 In the event that the program undertaken to satisfy condition 3.4 of the approval indicates that the operation of the project, under design loads and normal operating conditions, will lead to greater noise impacts than permitted under condition 2.16 of this approval, then the Proponent shall provide details of remedial measures to be implemented to reduce noise impacts to levels required by that condition. Details of the remedial measures and a timetable for implementation shall be submitted to the Director-General for approval within such period as the Director-General may require, and be accompanied by evidence that the DECC is satisfied that the remedial measures are acceptable.

- 3.6 Ongoing noise monitoring shall be undertaken by the Proponent on an annual basis for the first two years of operation and the results submitted to the Director-General and the DECC. Noise from the project shall, if practical, be monitored via attended noise surveys at the closest or potentially most affected noise sensitive receiver location(s). The requirements for ongoing annual noise monitoring will be determined by the Director-General based on the results collected.

Hazard Compliance

- 3.7 Within 90 days of the completion of the requirements of conditions 2.30 and 2.31, or as may be agreed by the Director-General, the Proponent shall submit a report detailing compliance with those conditions. The report shall include, but not necessarily be limited to:
- a) dates of study, plan or system completion, and commencement of construction and commissioning;
 - b) actions taken or proposed to implement recommendations made in the studies, plans or systems; and
 - c) responses to each requirement that may be requested by the Director-General in respect to the implementation of any measures arising from recommendations of the studies or reports described by conditions 2.30 and 2.31.

Auditing

- 3.8 Twelve months after the commencement of operation of the project, or within such period otherwise agreed by the Director-General, the Proponent shall commission an independent, qualified person or team to undertake a Hazard Audit of the project. The independent person or team shall be approved by the Director-General prior to the commencement of the Audit. A **Hazard Audit Report** shall be submitted for the approval of the Director-General no later than one month after the completion of the Audit. Further Hazard Audits shall be undertaken every three years, or as otherwise agreed or required by the Director-General. Hazard Audits shall be carried out in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 5 - Hazard Audit Guidelines*. The hazard audit report shall be accompanied by a program for the implementation of all recommendations made in the hazard audit report. If the Proponent intends to defer the implementation of a recommendation, justification must be included.
- 3.9 Twelve months after the commencement of operation of the project, and every three years thereafter, or as otherwise agreed or required by the Director-General, the Proponent shall commission an independent, qualified person or team to undertake an Environmental Audit of the project. The independent person or team shall be approved by the Director-General prior to the commencement of the Audit. An **Environmental Audit Report** shall be submitted for the approval of the Director-General within one month of the completion of the Audit. The Audit shall:
- be carried out in accordance with *ISO 19011:2002 - Guidelines for Quality and/ or Environmental Management Systems Auditing*;
 - assess compliance with the requirements of this approval, and other licences and approvals that apply to the project;
 - assess the environmental performance of the project against the predictions made and conclusions drawn in the documents referred to under condition 1.1 of this approval; and
 - review the effectiveness of the environmental management of the project, including any environmental impact mitigation works.

The Director-General may require the Proponent to undertake works to address the findings or recommendations presented in the Report. Any such works shall be completed within such time as the Director-General may require. The Environmental Audit Report shall be made available for public inspection on request.

If the preparation and submission of a Hazard Audit Report and an Environmental Audit Report are required at the same time, the requirements of condition 3.8 and 3.9 of this approval may be satisfied with a single report prepared by a single independent person or team approved by the Director-General.

4. COMPLIANCE MONITORING AND TRACKING

Compliance Tracking Program

- 4.1 The Proponent shall develop and implement a **Construction Compliance Tracking Program** for the project to track compliance with the requirements of this approval and shall include, but not necessarily limited to:
- provisions for periodic review of the compliance status of the project against the requirements of this approval and the Statement of Commitments (as referred to in the documents listed under condition 1.1 of this approval);
 - provisions for the notification of the Director-General prior to the commencement of construction and prior to the commencement of operation of the project;
 - provisions for periodic reporting of compliance status to the Director-General;
 - a program for independent environmental auditing in accordance with *ISO 19011:2003 - Guidelines for Quality and/ or Environmental Management Systems Auditing*;
 - mechanisms for recording incidents and actions taken in response to those incidents;

- f) provisions for reporting environmental incidents to the Director-General during construction; and
- g) procedures for rectifying any non-compliance identified during environmental auditing or review of compliance.

The Compliance Tracking Program shall be submitted to the Director-General for approval prior to the commencement of construction of the project.

- 4.2 Nothing in this approval restricts the Proponent from utilising any existing compliance tracking programs administered by the Proponent to satisfy the requirements of condition 4.1. In doing so, the Proponent must demonstrate to the Director-General how these systems address the requirements and/or have been amended to comply with the requirements of the condition.

5. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

- 5.1 Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request.

Complaints Procedure

- 5.2 Prior to the commencement of construction of the project, the Proponent shall ensure that the following are available for community complaints for the life of the project (including construction and operation):
- a) a telephone number on which complaints about construction and operational activities at the site may be registered;
 - b) a postal address to which written complaints may be sent; and
 - c) an email address to which electronic complaints may be transmitted.

The telephone number, the postal address and the email address shall be displayed on a sign near the entrance to the site, in a position that is clearly visible to the public, and which clearly indicates the purposes of the sign.

- 5.3 The Proponent shall record details of all complaints received through the means listed under condition 5.2 of this approval in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to:
- a) the date and time, where relevant, of the complaint;
 - b) the means by which the complaint was made (telephone, mail or email);
 - c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect;
 - d) the nature of the complaint;
 - e) any action(s) taken by the Proponent in relation to the complaint, including any follow-up contact with the complainant; and
 - f) if no action was taken by the Proponent in relation to the complaint, the reason(s) why no action was taken.

The Complaints Register shall be made available for inspection by the Director-General upon request.

Provision of Electronic Information

- 5.4 Prior to the commencement of construction of the project, the Proponent shall establish a dedicated website or maintain dedicated pages within its existing website for the provision of electronic information associated with the project subject to confidentiality. The Proponent shall publish and maintain up-to-date information on this website or dedicated pages including, but not necessarily limited to:
- a) information on the statutory context and current implementation status of the project;
 - b) the documents referred to under condition 1.1 of this approval;
 - c) a copy of this approval and any future modification to this approval;

- d) a copy of each relevant environmental approval, licence or permit required and obtained in relation to the project;
- e) all plans, monitoring programs and strategies required under this project approval, or details of where hard copies of those documents may be inspected; and
- f) details of the outcomes of compliance reviews and audits of the project.

Community Participation Program

5.5 Prior to the commencement of construction of the project, or within such period otherwise agreed by the Director-General, the Proponent shall establish a Community Reference Panel to be consulted during the preparation of the Community Participation Program referred to under condition 5.6 of this approval. The Panel shall be formed to provide input into the Community Participation Program and to provide suggestions and advice to the Proponent on how to tailor its community consultation activities to meet the needs and interests of the local community. In establishing the Community Reference Panel, the Proponent shall:

- a) place an advertisement in a newspaper circulating in the local government area and covering readers surrounding the site. The advertisement shall invite interested members of the community to be nominated to form part of the Community Reference Panel. A period of no less than 14 days shall be allowed from the date of the advertisement to the close of nominations. The advertisement shall clearly indicate the purpose of the Panel and the role/ responsibilities of the Panel members;
- b) select suitable nominees to act on the Panel, having regard to the purpose of the Panel and the requirement to represent the broader interests of the local community, particularly:
 - i) landowners and occupiers in the vicinity of the site, with particular reference to the landowners within a five-kilometre radius of the site boundary;
 - ii) relevant socio-economic and ethnic groups contributing to the community; and
 - iii) relevant environment, business and community interest groups.
- c) provide details of those nominees selected for the approval of the Director-General, indicating how the requirements of b) have been satisfied;

The Community Reference Panel shall be chaired by an independent person approved by the Director-General.

5.6 Prior to the commencement of construction of the project, or within such period otherwise agreed by the Director-General, the Proponent shall prepare and implement a Community Participation Program, on an on-going basis through the construction and for at least three years of operation of the project, in consultation with the Community Participation Panel established under condition 5.5 of this approval. The Program shall include, but not necessarily be limited to:

- a) the general types of information about the environmental management and impacts of the development that the community would receive;
- b) the means by which the information referred to under a) would be provided to the community (for example, presented at regular meetings, published in regular newsletters etc);
- c) a mechanism through which the community can provide feedback to the Proponent in relation to the environmental management and impacts of the development;
- d) a system and procedures to address community complaints.

The Program shall be submitted for the approval of the Director-General, prior to the commencement of construction of the development. In submitting the Program, the Proponent shall specifically highlight where input from the Community Reference Panel has been included in the Program, and where input has been excluded, with justification for the exclusion.

6. ENVIRONMENTAL MANAGEMENT

Environmental Representative

6.1 Prior to the commencement of any site preparation and/or construction activities, or as otherwise agreed by the Director-General, the Proponent shall nominate for the approval of the Director-General a suitably qualified and experienced Environmental Representative(s) independent of the design and construction personnel. The Proponent shall engage the Environmental Representative(s) during all construction activities, or as otherwise agreed by the Director-General. The Environmental Representative(s) shall be the Proponent's principal point of advice in relation to the environmental performance of the project and shall have responsibility for:

- a) overseeing the implementation of all environmental management plans and monitoring programs required under this approval, and advise the Proponent upon the achievement of these plans/programs;
- b) considering and advising the Proponent on its compliance obligations against all matters specified in the conditions of this approval and the Statement of Commitments as referred to under condition 1.1 of this approval, permits and licences; and
- c) having the authority and independence to recommend to the Proponent reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts, and, failing the effectiveness of such steps, to recommend to the Proponent that relevant activities are to be ceased as soon as reasonably practicable if there is a significant risk that an adverse impact on the environment will be likely to occur.

Construction Environmental Management Plan

6.2 The Proponent shall prepare and implement a **Construction Environmental Management Plan** to outline environmental management practices and procedures to be followed during construction of the project. The Plan shall be consistent with *Guideline for the Preparation of Environmental Management Plans* (DIPNR 2004) and shall include, but not necessarily be limited to:

- a) a description of all activities to be undertaken on the site during construction including an indication of stages of construction, where relevant;
- b) statutory and other obligations that the Proponent is required to fulfil during construction including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
- c) a description of the methods and results of the subsurface testing program, developed in consultation with the local Aboriginal community and the DECC, to consider the development impacts of the project on Aboriginal cultural heritage;
- d) details of how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the Plan:
 - i) measures to monitor and minimise soil erosion and the discharge of sediment and other pollutants to lands and/ or waters during construction activities;
 - ii) measures to monitor and control noise emissions during construction works;
 - iii) measures to monitor and control air emissions during construction to ensure that air emissions are both minimised and in compliance with the requirements of this approval and the Environment Protection Licence for the site;
 - iv) measures to minimise the impact of construction on local flora and fauna, consistent with the mitigation measures described in the documents listed under condition 1.1;
 - v) measures to be followed in the event that an Aboriginal or non-Aboriginal relic is uncovered during construction works;
- e) a description of the roles and responsibilities for key personnel involved in the construction of the project;
- f) the additional studies listed under condition 6.3 of this approval; and
- g) complaints handling procedures during construction.

The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of any construction works associated with the project, or within such period otherwise agreed by the Director-General. Construction works shall not commence until written approval has been received from the Director-General.

- 6.3 As part of the Construction Environmental Management Plan for the project, required under condition 6.2 of this approval, the Proponent shall prepare and implement the following:
- a) a **Traffic Management Protocol** to outline management of traffic conflicts that may be generated during construction of the project. The Plan shall address the reasonable requirements of Campbelltown City Council and the RTA and shall include, but not necessarily be limited to:
 - i) details of traffic routes for heavy vehicles, including any necessary route or timing restriction for oversized loads;
 - ii) detailed consideration of measures to be employed to ensure traffic volume, acoustic and amenity impacts along the heavy vehicle routes are minimised;
 - iii) detailed consideration of alternative routes (where necessary); and
 - iv) demonstration that all statutory responsibilities with regard to road traffic impacts have been complied with.
 - b) a **Noise Management Protocol** to detail measures to mitigate and manage noise during construction works consistent with *Interim Construction Noise Guideline* (DECC, 2009). The Protocol shall include, but not necessarily be limited to:
 - i) procedures to ensure that all reasonable noise mitigation measures are applied during construction works;
 - ii) construction noise objectives for each relevant receiver commensurate with the noise limits and noise goals specified in the documents listed in condition 1.1;
 - iii) identification of the associated noise sources and activities that will be carried out during construction;
 - iv) assessment of construction noise impacts against the noise limits and noise limits and goals at all relevant receivers;
 - v) details of overall management methods and procedures that will be implemented to control noise from during construction;
 - vi) a pro-active and reactive strategy for dealing with complaints, with particular regard to verbal and written responses;
 - vii) noise monitoring, reporting and response procedures;
 - viii) internal compliance audits of all plant and equipment;
 - ix) construction timetabling to minimise noise impacts; and
 - x) procedures for notifying residents of construction activities
 - c) a **Soil and Water Management Plan** to detail measures to mitigate and manage soil erosion and sediment pollution during construction works. The Plan shall include, but not necessarily be limited to:
 - i) details on how soil erosion and sediment pollution will be managed following the guidelines and recommendations in Volume 1 of *Managing Urban Stormwater: Soils and Construction* (the Blue Book) during the construction phase;
 - ii) plan drawings showing the locations for sediment and erosion control measures in accordance with condition 6.3(c)(i) above for the construction site during all construction stages;
 - iii) details on the installation, monitoring and maintenance requirements for each of the recommended measures for erosion and sediment control;
 - iv) detailed drawings of any engineering structures such as sediment and evaporation ponds, including design standards and management regimes.

Operation Environmental Management Plan

- 6.4 The Proponent shall prepare and implement an **Operation Environmental Management Plan** to detail an environmental management framework, practices and procedures to be followed during operation of the project. The Plan shall be consistent with *Guideline for the Preparation of Environmental Management Plans* (DIPNR 2004) and shall include, but not necessarily be limited to:

- a) identification of all statutory and other obligations that the Proponent is required to fulfil in relation to operation of the project, including all approvals, licences, approvals and consultations;
- b) a description of the roles and responsibilities for all relevant employees involved in the operation of the project;
- c) overall environmental policies and principles to be applied to the operation of the project;
- d) standards and performance measures to be applied to the project, and a means by which environmental performance can be periodically reviewed and improved, where appropriate;
- e) management policies to ensure that environmental performance goals are met and to comply with the conditions of this approval;
- f) the additional studies listed under condition 6.5 of this approval; and
- g) the environmental monitoring requirements outlined under conditions 3.1 to 3.9 of this approval, inclusive.

The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of operation of the project, or within such period otherwise agreed by the Director-General. Operation shall not commence until written approval has been received from the Director-General.

6.5 As part of the Operation Environmental Management Plan for the project, required under condition 6.4 of this approval, the Proponent shall prepare and implement the following Management Plans:

- a) an **Air Quality Management Plan** to outline measures to manage impacts from the project on local and regional air quality. The Plan shall include, but not necessarily be limited to:
 - i) identification of all major sources of particulate and gaseous air pollutants that may be emitted from the project, being both point-source and diffuse emissions, including identification of the major components and quantities of these emissions;
 - ii) monitoring for gaseous and particulate emissions from the project;
 - iii) procedures for the minimisation of gaseous and particulate emissions from the project;
 - iv) pro-active and reactive management and response mechanisms for particulates and gaseous emissions, with specific reference to measures to be implemented and actions to be taken to minimise and prevent potential elevated air quality impacts on surrounding land uses as a consequence of meteorological conditions, upsets within the project, or the mode of operation of the project at any time;
 - v) specific procedures for the management of generating efficiency and the minimisation of greenhouse gas emissions per unit of electricity generated;
 - vi) procedures aimed at maximising the efficiency of the start-up and shut-down cycles for the project;
 - vii) provision for regular review of air quality monitoring data, with comparison of monitoring data with that assumed and predicted in the documents listed under condition 1.1 of this approval, including verification of air quality modelling and predictions, as may be relevant;
 - viii) Plans for regular maintenance of process equipment to minimise the potential for leaks and fugitive emissions; and
 - ix) a contingency plan should an incident, process upset or other initiating factor lead to elevated air quality impacts, whether above normal operating conditions or environmental performance goals/ limits.
- b) a **Water Management Plan** to outline measures that will be employed to manage water on the site, to minimise soil erosion and the discharge of sediments and other pollutants to lands and/ or waters throughout the life of the project. The Plan shall be based on best environmental practice and shall address the following requirements and include, but not necessarily be limited to:

- i) consideration of all reasonable and feasible options to avoid discharge to ground and/or ambient waters including methods to minimise the volume of contaminated water and effluent generated, recycling and reusing water and effluent;
 - ii) identification of clean and dirty water areas on site maps for different stages of the project;
 - iii) identification of criteria for nomination of areas as clean or dirty;
 - iv) details of water management measures to be implemented for clean and dirty waters;
 - v) calculations for a water balance for all waters generated on the site including potential volumes of groundwater, stormwater and process water for treatment on-site or off-site, proposed discharges, recycling or reuse;
 - vi) details of the remedial actions to be taken by the Proponent and site operators in response to an exceedance of concentration limits or other performance criteria for the on-site or ambient water management controls;
 - vii) characterisation of wastewater qualities and quantities for reuse on-site shall be characterised and irrigation management practices specified;
 - viii) specification of wastewater reuse areas shall be specified on site maps for different stages of the project; and
 - ix) specific details shall be provided in relation to the times, locations, volumes and qualities of the water to be irrigated, including how the quality of water to be used for irrigation will be assessed.
- c) a **Noise Management Plan** to detail measures to mitigate and manage noise during operation of the project. The Plan shall include, but not necessarily be limited to:
- i) procedures to ensure that all reasonable and feasible noise mitigation measures are applied during operation of the project;
 - ii) procedures to generate suitable documentation for annual environmental auditing, that demonstrates that the noise limits and noise goals specified under this approval, or best practice noise control operations, are being met;
 - iii) identification of all relevant receivers and the applicable criteria at those receivers commensurate with the noise limits and noise goals specified under this approval;
 - iv) identification of activities that will be carried out in relation to the project and the associated noise sources;
 - v) procedures for periodic consideration of noise impacts at the relevant receivers against the noise limits and noise goals specified under this approval;
 - vi) details of all management methods and procedures that will be implemented to control individual and overall noise emissions from the site during operation;
 - vii) project of reactive and pro-active strategies for dealing promptly with any noise complaints, including documentation of a fast response, the completed action on a complaint and feedback from the complainant; and
 - viii) noise monitoring and reporting procedures.

7. ENVIRONMENTAL REPORTING

Incident Reporting

- 7.1 The Proponent shall notify the Director-General of any incident with actual or potential significant off-site impacts on people or the biophysical environment within 12 hours of becoming aware of the incident. The Proponent shall provide full written details of the incident to the Director-General within seven days of the date on which the incident occurred.
- 7.2 The Proponent shall meet the requirements of the Director-General to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition 7.1 of this approval, within such period as the Director-General may require.

Annual Performance Reporting

7.3 The Proponent shall, throughout the life of the project, prepare and submit for the approval of the Director-General, an **Annual Environmental Management Report (AEMR)**. The AEMR shall review the performance of the project against the Operation Environmental Management Plan (refer to condition 6.4 of this approval), the conditions of this approval and other licences and approvals relating to the project. The AEMR shall include, but not necessarily be limited to:

- a) details of compliance with the conditions of this approval;
- b) a copy of the Complaints Register (refer to condition 5.3 of this approval) for the preceding twelve-month period (exclusive of personal details), and details of how these complaints were address and resolved;
- c) identification of any circumstances in which the environmental impacts and performance of the project during the year have not been generally consistent with the environmental impacts and performance predicted in the documents listed under condition 1.1 of this approval, with details of additional mitigation measures applied to the project to address recurrence of these circumstances ;
- d) results of all environmental monitoring required under this approval and other approvals, including interpretations and discussion by a suitably qualified person; and
- e) a list of all occasions in the preceding twelve-month period when environmental performance goals for the project have not been achieved, indicating the reason for failure to meet the goals and the action taken to prevent recurrence of that type of incident.

The Proponent shall submit a copy of the AEMR to the Director-General every year, with the first AEMR to be submitted no later than twelve months after the commencement of operation of the project. The Director-General may require the Proponent to address certain matters in relation to the environmental performance of the project in response to review of the Annual Environmental Report. Any action required to be undertaken shall be completed within such period as the Director-General may require. The Proponent shall make copies of each AEMR available for public inspection on request.
