

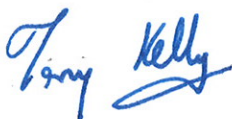
Project Approval

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 Tony Kelly MLC
Minister for Planning

Sydney

31 JAN 2010 2009

File No: S06/01144

SCHEDULE 1

Application No:	06_0055
Proponent:	Pamada Pty Limited
Approval Authority:	Minister for Planning
Land:	Land to which Major Project Application 06_0055 applies
Project:	<p>Construction and operation of a renewable energy generation facility and associated infrastructure with a maximum generation capacity of up to 113 megawatts at two sites (Middlebrook and Mountain Stations) in the Upper Hunter Shire local government area, including:</p> <ul style="list-style-type: none">• up to 34 (up to 3 megawatt) wind turbines;• 3-10 megawatt solar photovoltaic arrays;• one megawatt closed loop hydro plant;• electricity substation, switch yard and control room;• 33 kilovolt internal (underground) transmission cabling and overhead connection between the two sites;• internal access roads;• manager's residence, visitors and education centre and maintenance shed; and• temporary construction compound(s). <p>The project also includes two options for overhead transmission line connection to the existing electricity grid, of which only one option will be developed, comprising:</p> <ul style="list-style-type: none">• 66 kilovolt option to the existing Scone substation located in the Upper Hunter Shire local government area; or

- 132 kilovolt option to the existing substation at Muswellbrook located in the Upper Hunter Shire and Muswellbrook Shire local government areas.

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 Development) 2005*.

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SCHEDULE 2

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 or excavation, building/road dilapidation surveys or other activities determined by the Environmental Representative to have minimal environmental impact such as minor access roads, minor adjustments to services / utilities, establishing temporary construction sites, or minor clearing (except where threatened species, populations or ecological communities would be affected).
Council	Upper Hunter Shire and Muswellbrook Shire Councils, as relevant
DECC	The former Department of Environment and Climate Change now part of the Department of Environment, Climate Change and Water (DECCW)
Department, the	Department of Planning
Director-General, the	Director-General of the Department of Planning (or delegate).
Director-General's approval or the agreement or satisfaction of the Director-General	A written approval from the Director-General (or delegate).
Dust	Any solid material that may become suspended in air or deposited
Environmental Assessment	<i>Environmental Assessment Report Kyoto Energy Park at Mountain Station and Middlebrook Station, Scone</i> , prepared by Pamada Pty Limited and HDB Town Planning & Design and dated November 2008 (exhibited 18 June 2009 until 20 July 2009)
EPA	Environment Protection Authority as part of the Department of Environment, Climate Change and Water
Minister, the	Minister for Planning
Non-associated Receptor	Landowner that has not reached a financial or in kind agreement with the Proponent in relation to the project.
Operation	Any activity which results in the production of electricity for contribution to the electricity grid or the occupation or use of ancillary buildings (visitor and education centre, manager's residence and maintenance shed) for the purposes of the Energy park, but does not include commissioning.
Reasonable and 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 and cost of mitigation versus benefits provided, community views and nature and extent of potential improvements.
Registered Aboriginal Stakeholders	Aboriginal stakeholders identified as registered stakeholders in the Environmental Assessment
RFS	New South Wales Rural Fire Service
RTA	NSW Roads and Traffic Authority
Site	Land to which Major Projects Application 06_0055 applies.
Submissions Report	<i>Supplement to Environmental Assessment Responses to Public Submissions</i> , prepared by Pamada Pty Limited and dated August 2009

1. ADMINISTRATIVE CONDITIONS

Terms of Approval

- 1.1 The Proponent shall carry out the project generally in accordance with:
- Major Projects Application 06_0055;
 - Environmental Assessment Report Kyoto Energy Park at Mountain Station and Middlebrook Station, Scone*, prepared by Pamada Pty Limited and HDB Town Planning & Design and dated November 2008 (exhibited 18 June 2009 until 20 July 2009);
 - Supplement to Environmental Assessment Responses to Public Submissions*, prepared by Pamada Pty Limited and dated August 2009; and
 - the conditions of this approval.
- 1.2 In the event of an inconsistency between:
- the conditions of this approval and any document listed from condition 1.1a) and 1.1d) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency;; and
 - any document listed from condition 1.1a) and 1.1d) inclusive, and any other document listed from condition 1.1a) and 1.1d) 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:
- any reports, plans or correspondence that are submitted in accordance with this approval; and
 - the implementation of any actions or measures contained in these reports, plans or correspondence.

Limits of Approval

- 1.4 This approval shall lapse five years after the date on which it is granted unless works the subject to this approval have physically commenced on site.
- 1.5 The Proponent may elect to construct or operate the project in discrete work packages⁶ or stages. In this case, these conditions of approval may be complied with separately for each discrete work package or stage, as relevant.

Transmission Line Connection to Electricity Grid

- 1.6 The Proponent notify the Director-General upon determining the preferred transmission line route option for the project from the two options identified in Schedule 1 of this approval.
- 1.7 The Proponent shall ensure the final route of the preferred transmission line option is determined in consultation with affected landowners with the aim of minimising impacts to private land and associated landuse as far as reasonable and feasible.
- 1.8 The Proponent shall ensure that the transmission line connection to the electricity grid is designed and constructed in consultation with and to meet the network and design requirements of the relevant network operator.
- 1.9 Should electricity transmission infrastructure associated with the project be transferred to the control of the local electricity network operator prior to the cessation of the operation of the project, the Proponent shall provide written evidence to the satisfaction of the Director-General, identifying how conditions of approval relating to the transmission line infrastructure would be complied with during the relevant phases of the project.

Decommissioning

- 1.10 Within 18 months of the cessation of operation of the project, the site shall be decommissioned and returned, as far as practicable, to its condition prior to the commencement of construction in consultation with the relevant landowner(s) and to the satisfaction of the Director-General. All generating facilities and associated infrastructure

(including but not necessarily limited to, the electricity substation, switch yard, control room, manager's residence, visitors and education centre, maintenance shed, internal access roads, site transmission cabling and overhead transmission line connection to the electricity grid - except where electricity transmission infrastructure are transferred to or are in the control of the local electricity network operator) shall be removed from the site unless otherwise agreed by the Director-General.

- 1.11 If any wind turbine is not used for the generation of electricity for a continuous period of 12 months, it shall be decommissioned by the Proponent, unless otherwise agreed by the Director-General. The Proponent shall keep independently-verified annual records of the use of wind turbines for electricity generation. Copies of these records shall be provided to the Director-General upon request. The relevant wind turbine and any associated infrastructure is to be dismantled and removed from the site by the Proponent within 18 months from the date that the wind turbine was last used to generate electricity.
- 1.12 Prior to the commencement of construction, the Proponent shall provide written evidence to the satisfaction of the Director-General that the lease agreements with the site landowners have adequate provisions to require that decommissioning occurs in accordance with this approval.

2. SPECIFIC ENVIRONMENTAL CONDITIONS

Noise Impacts

Construction Noise

- 2.1 The Proponent shall only undertake construction activities associated with the project that would generate an audible noise at any sensitive receptor during the following hours:
- 7:00 am to 6:00 pm, Mondays to Fridays, inclusive;
 - 8:00 am to 1:00 pm on Saturdays; and
 - 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, or emergency work to avoid the loss of lives, property and/or to prevent environmental harm.

- 2.2 The hours of construction activities specified under condition 2.8 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 2.8 shall be:
- considered on a case-by-case basis;
 - accompanied by details of the nature and need for activities to be conducted during the varied construction hours and any other information necessary to reasonably determine that activities undertaken during the varied construction hours will not adversely impact on the acoustic amenity of sensitive receptors in the vicinity of the site; and
 - affected receptors being informed of the timing and duration of work approved under this condition at least 48 hours before that work commences.

- 2.3 The Proponent shall implement all reasonable and feasible measures to minimise noise generation from the construction of the project consistent with the requirements of the *Interim Construction Noise Guideline* (DECC, July 2009) including noise generated by heavy vehicle haulage and other construction traffic associated with the project.

Vibration Impacts

- 2.4 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 sensitive receptor.

Acquisition Upon Request (Operational Noise from Wind Turbines)

- 2.5 Unless a noise agreement is in place between the Proponent and the landowner of the "Peakhill" property in relation to noise contributions from wind turbines accordance with the requirements of condition 2.8 at the commencement of operation of the wind turbine component of the project,, upon receiving a written request for acquisition from the landowner of the "Peakhill" property at any time from the commencement of operation of the wind turbine component of the project, the Proponent shall acquire the land in accordance with the procedures outlined in condition 2.6. The Proponent shall notify the landowner of the "Peakhill" property of their rights under condition 2.5 within three months of the date of this approval.
- 2.6 Within three months of receiving a written request from a landowner with acquisition rights under condition 2.5 of this approval, the Proponent shall make a binding written offer to the landowner based on:
- a) the market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project;
 - b) the reasonable costs associated with:
 - i) property relocation;
 - ii) obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is acquired; and
 - c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.

Upon receiving such a request, the Director-General shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.

Within 14 days of receiving the independent valuer's determination, the Proponent shall make a written offer to purchase the land at a price not less than the independent valuer's determination.

If the landowner refuses to accept this offer within six months of the date of the Proponent's offer, the Proponent's obligations to acquire the land shall cease, unless otherwise agreed by the Director-General.

The Proponent shall bear the costs of any valuation or survey assessment requested by the independent valuer or the Director-General and the costs of determination referred to above.

Note: The requirements of conditions 2.5 and 2.6 are based on predicted noise impacts at the "Peakhill" property identified in the Environmental Assessment. Nothing in this approval precludes the Proponent from seeking a modification to the requirements of conditions 2.5 and 2.6 prior to the commencement of operation of the wind turbine component of the project where the Proponent can demonstrate that the final wind turbine model and layout to be implemented on site would result in significant reductions to noise contributions at this property from that identified in the Environmental Assessment .

Operational Noise Criteria – Wind Turbines

- 2.7 The Proponent shall design, operate and maintain the wind turbine component of the project to ensure that the equivalent noise level ($L_{Aeq(10\text{-minute})}$) from the turbine component does not exceed the following limits at any existing residential receptors located within approximately 3.2 kilometres of the nearest turbines as identified in the documents listed under condition 1.1 (with the exception of the Peakhill property identified in condition 2.5), at each of the undeveloped lots located within the residential subdivision identified as Clifton Hills Estate in

the documents listed under condition 1.1, and at any as yet undeveloped residential dwelling located within approximately 3.2 kilometres of the nearest turbines for which an approval has been obtained under the *Environmental Planning and Assessment Act 1979* at the date of this project approval:

- a) 35 dB(A); or
- b) the existing background noise level ($L_{A90(10\text{-minute})}$) correlated to the integer wind speed at the turbine hub height at the wind farm site by more than 5 dB(A),

whichever is the greater, for each integer wind speed (measured at 10m height) from cut-in to rated power of the wind turbine generator.

For the purpose of assessment of noise contributions specified under conditions 2.7:

- a) 5 dB(A) shall be applied to measured noise levels where tonality is present. The presence of tonality shall be determined using the methodology detailed in *Wind Turbine Generator Systems- Part 11: Acoustic Noise Measurement Techniques* IEC 61400-11:2002 or its latest edition; and
- b) noise from the project shall be measured at the most affected point within the residential boundary, or at the most affected point within 20 metres of the dwelling, where the dwelling is more than 20 metres from the boundary.

2.8 Notwithstanding conditions 2.7 of this approval, the noise limits specified under conditions 2.7 does not apply to any sensitive receptor where a noise agreement is in place between the Proponent and the respective landowner(s) in relation to noise impacts and/or noise limits. Where a noise agreement has been entered into, the noise agreements shall satisfy the requirements of *Guidelines for Community Noise* (WHO, 1999) and Section 2.3 of *Wind Farms: Environmental Noise Guidelines* (South Australian Environmental Protection Agency, 2003).

2.9 At least 6 months prior to the commencement of commissioning of the wind turbines, the Proponent shall prepare and submit a **Detailed Design Noise Report (Wind Turbines)** for the Director-General's approval. The Detailed Design Noise Report (Wind Turbines) shall predict noise levels at each of the receptor locations identified in condition 2.7 consistent with the procedures presented in *Wind Farms - Environmental Noise Guidelines* (South Australian Environmental Protection Agency, 2003) considering the final turbine model and layout of the project and worst case operating and meteorological factors to demonstrate that noise levels associated with the final design would be no greater than the noise levels predicted in the documents referred to under condition 1.1 at relevant receivers.

Operational Noise Criteria – Other Facilities

- 2.10 The Proponent shall design, construct, operate and maintain the solar photovoltaic arrays, closed loop hydro plant, electricity substation and switch yard to ensure that the noise contributions from these components to the background acoustic environment do not exceed the maximum allowable noise contributions specified in Table 1, at the following locations:
- a) nearest sensitive receiver to the industrial facilities, (including any as yet undeveloped residential dwelling for which an approval has been obtained under the *Environmental Planning and Assessment Act 1979* at the date of this project approval); and
 - b) undeveloped lots at Clifton Hills Estate.

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 2m/s at 10 metres above the ground.

Table 1 – Substation Noise Criteria

Day 7:00am to 6:00pm Mondays to Saturdays 8:00am to 6:00pm Sundays and public holidays	Evening 6:00pm to 10:00pm on any day	Night 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)
35	35	35	45

For the purpose of assessment of noise contributions specified under this condition, noise from these components 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;
- b) measured at 1 metre from the dwelling façade to determine compliance with the L_{A1} (1 minute) noise limits; and
- c) subject to the modification factors provided in Section 4 of the *New South Wales Industrial Noise Policy* (EPA, 2000), where applicable.

Notwithstanding, should direct measurement of noise from these components be impractical, the Proponent may employ an alternative noise assessment method deemed acceptable by the EPA (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 EPA shall be submitted to the Director-General prior to the implementation of the assessment method.

Unless otherwise agreed to by the Director-General, the modification factors presented in Section 4 of the *New South Wales Industrial Noise Policy* (EPA, 2000), in relation to low frequency noise, only apply if the difference between the A weighted 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).

- 2.11 The requirements of condition 2.10 do not apply if a negotiated agreement consistent with the requirements of Section 8.3 of the *New South Wales Industrial Noise Policy* (EPA, 2000), exists between the Proponent and the relevant sensitive receptor.

Operational Noise Design Standards – Overhead Transmission Line

- 2.12 The Proponent shall ensure that the overhead transmission line connection to the electricity grid is designed, constructed and operated to minimise the generation of corona and aeolian noise as far as reasonable and feasible, consistent with the design requirements of the relevant network operator.

Visual Amenity

Landscaping Requirements

- 2.13 Within six months of the commissioning of the project, the Proponent shall prepare and submit a Visual Impact Verification Report for the Director-General's approval. Unless otherwise agreed to by the Director-General, the Visual Impact Verification Report shall confirm the visual impacts at each of the receptors and roadways identified in the Environmental Assessment as having the potential to be 'highly impacted', considering the final model and layout of generating components on site as well as site specific mitigating factors at the receptors and roadways (such as receptor orientation and intervening screening factors). The Visual Impact Verification Report shall identify all reasonable and feasible screening and landscape planting options available at each receptor and roadways at which potential impacts have been verified to be 'high' including demonstration that these measures have been determined in consultation with affected receptors and relevant road authorities. The Report shall also verify impacts at and consider reasonable and feasible available to the undeveloped lots at Clifton Hills Estate. The Report shall identify a strategy for the implementation of any mitigation measures identified to be required at the

undeveloped lots at Clifton Hills Estate (in consultation with the relevant landowner) as each lot is developed.

Within 18 months of the approval of the Visual Impact Verification Report by the Director-General (or as otherwise agreed to by the Director-General), the Proponent shall ensure that the measures identified in the Report are implemented at affected receptors and roadways as identified in the Report in consultation with relevant landowners and road authorities. Any required mitigation at the undeveloped lots at Clifton Hills Estate shall be implemented in accordance with the implementation strategy identified in the Report.

External Design

- 2.14 Wind turbine generators shall be painted matt off-white/grey. The blades shall be finished with a surface treatment that minimises any potential for glare or reflection. All photovoltaic arrays shall be sited and operated to minimise the potential for reflection impacts at non-associated receptors as far as reasonable and feasible.
- 2.15 No advertising, signs or logos shall be mounted on the turbines, except where required for safety purposes. A corporate logo may be placed on the turbines provided it is not distinguishable by the naked eye from any publicly accessible location or from any non-associated receptors.

Lighting

- 2.16 With the exception of aviation hazard lighting implemented in accordance with the requirements of this condition, no external lighting other than low intensity security night lighting is permitted on site unless otherwise agreed or directed by the Director-General. Prior to the commencement of construction, the Proponent shall consult with the Civil Aviation Safety Authority on the need for aviation hazard lighting and implement such lighting on site in a manner that minimises visual intrusion to surrounding non-associated receptors as far as reasonable and feasible (where this is not inconsistent with the requirements of the Civil Aviation Safety Authority). The potential for any intrusion from night lighting shall be considered as part of the Visual Impact Verification Report required to be prepared under condition 2.14.

Shadow-flicker

- 2.17 Shadow flicker arising from the operation of the project shall not exceed 30 hours/annum at any non-associated receptors.

Flora and Fauna Impacts

- 2.18 Prior to the commencement of construction of the project, the Proponent shall in consultation with the DECCW finalise (and following approval implement) a compensatory habitat package to the satisfaction of the Director-General to offset the native vegetation loss associated with the project (including from the overhead transmission line connection to the electricity grid) in perpetuity at a ratio of at least two hectares of offset for each hectare of vegetation removed, consistent with the principles of "maintain or improve". The amount of final native vegetation loss shall include vegetation cleared to meet bushfire asset protection requirements. The offset may comprise the identification of appropriate habitat areas at Middlebrook and/ or Mountain Station for conservation in perpetuity, the implementation of an equivalently offset strategy via the DECCW bio-banking scheme or an alternative strategy as determined in consultation with DECCW.
- 2.19 The Proponent shall design, construct and operate the transmission line connection to the electricity grid with consideration to reasonable and feasible mitigation measures that can be employed to minimise the risk of bird and bat strike into high voltage electricity wires.

Traffic and Transport Impacts

2.20 The Proponent shall undertake the following measures in consultation with and to the satisfaction of relevant road authorities:

- a) prior to the commencement of construction, upgrade the site access to Mountain Station to provide for safe vehicular access to and from the site during construction and operation;
- b) commission a qualified person to assess the condition of all public roads (including existing site access provisions to Middlebrook Station) proposed to be used for over-mass and over-dimensional transport, prior to the commencement of construction, and implement any upgrades required to enable the safe transport of the vehicles, prior to the commencement of any such over-mass or over-dimensional transport; and
- c) commission a qualified person to undertake a dilapidation survey of all public roads proposed to be used for heavy vehicle traffic associated with the construction of the project prior to the commencement of construction and operation. Should the pre-operational dilapidation survey report identify any damage to roads attributable to construction traffic associated with the project, the Proponent shall repair the roads consistent with the recommendations of the pre-operational dilapidation survey report, within such time as agreed to between the Proponent and relevant road authorities.

In the event of a dispute between the parties with respect to the extent of upgrade/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.

Hazards and Risk

Bushfire Risk

2.21 The Proponent shall ensure that all project components on site are designed, constructed and operated to minimise ignition risks, provide for asset protection consistent with relevant RFS design guidelines (*Planning for Bushfire Protection 2006 and Standards for Asset Protection Undated*) and provide for necessary emergency management including appropriate fire-fighting equipment and water supplies on site to respond to a bush fire.

2.22 Throughout the operational life of the project, the Proponent shall regularly consult with the local RFS to ensure its familiarity with the project, including the construction timetable and the final location of all infrastructure on the site. The Proponent shall comply with any reasonable request of the local RFS to reduce the risk of bushfire and to enable fast access in emergencies.

Aviation Obstacles and Hazards

2.23 Prior to the commencement of construction of the project, the Proponent shall consult with the RAAF Base Williamstown, the Civil Aviation safety Authority and AirServices Australia in relation to the management of aviation hazards associated with the project and provide written evidence to the Director-General that the following matters have been address to the satisfaction of these agencies (as relevant):

- a) updates to navigational aids including flight plans, maps and other relevant documentation to identify the wind turbines associated with the project as potential aviation hazards;
- b) updates to flight procedures for Scone Airport (where necessary);
- c) aviation hazard lighting requirements; and
- d) such other matters as the agencies may consider relevant.

Safety Management System

2.24 Prior to the commencement of commissioning, the Proponent shall prepare a report outlining a comprehensive Safety Management System, covering all on-site systems related to ensuring the safe operation of the project. The report shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring

adherence to the procedures. Records shall be kept at the site and shall be available for inspection by the Department upon request. The Safety Management System shall be developed in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management'*, and shall include:

- a) procedures and programs for the maintenance and testing of the safety related equipment to ensure its integrity over the life of the project; and
- b) an outline of a documented procedure for the management of change.

Bunding and Spill Management

- 2.25 The Proponent shall store and handle all dangerous goods (as defined by the Australian Dangerous Goods Code) and combustible liquids, strictly in accordance with:
- a) all relevant Australian Standards;
 - b) 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 requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.

Electromagnetic Interference

Television and Radio Interference

- 2.26 Prior to the commencement of commissioning of the project, the Proponent shall undertake an assessment of the existing quality of the television/radio transmission available at a representative sample of receptors located within 5 kilometres of any wind turbine.
- 2.27 In the event of a complaint regarding television/radio transmission during the operation of the project, from a receptor located within 5 kilometres of a wind turbine, the Proponent shall investigate the quality of transmission at the receptor compared to the pre-commissioning situation and where any transmission problems can be reasonably attributable to the project, rectify the problems within three months of the receipt of the complaint, through the implementation of such measures as:
- a) modification to or replacement of receiving antenna;
 - b) installation and maintenance of a parasitic antenna system;
 - c) provision of a land line between the affected receptor and an antenna located in an area of favourable reception; or
 - d) other feasible measures.

If interference cannot be overcome by the measures outlined in a) to d), the Proponent shall negotiate with the impacted landowner about installing and maintaining a satellite receiving antenna. The Proponent shall be responsible for all costs associated with the mitigation measures.

Radio Communication

- 2.28 The Proponent shall design and construct the project in consultation with registered communications licensees (including emergency services) to ensure that risks to these services are minimised as far as reasonable and feasible. In the event that any disruptions to radio communication service links (installed before construction of the project) arise as a result of the project, the Proponent shall undertake appropriate remedial measures in consultation with the relevant licensee to rectify any issue within three months of the problem being identified. Such measures may include:
- a) modification to or relocation of the existing antennae;
 - b) installation of a directional antennae; and/ or
 - c) installation of an amplifier to boost the signal strength.

Electromagnetic Fields

- 2.29 The Proponent shall ensure that the overhead transmission line connection to the electricity grid is designed, constructed and operated to achieve the electromagnetic field limits outlined by the National Health and Medical Research Council (1,000 milligauss - general 24 hour exposure) and the draft limits identified by the Australian Radiation Protection and Nuclear Safety Agency (100 micro Tesla at 50 Hz) at nearest sensitive receptors.

Heritage Impacts

- 2.30 The Proponent shall ensure that registered Aboriginal stakeholders are provided the opportunity to have input into any micro-siting of project components or refinements to the overhead transmission line route alignment during detailed design or construction in relation to potential impacts on indigenous heritage and cultural values. .
- 2.31 If during the course of construction the Proponent becomes aware of any previously unidentified Aboriginal object(s), all work likely to affect the object(s) shall cease immediately and the DECCW informed in accordance *National Parks and Wildlife Act 1974*. In addition, registered Aboriginal stakeholders shall be informed of the finds. Works shall not recommence until an appropriate strategy for managing the objects has been determined in consultation with DECCW and the registered Aboriginal stakeholders and written authorisation from DECCW is received by the Proponent.
- 2.32 If during the course of construction the Proponent becomes aware of any unexpected historical relic(s), all work likely to affect the relic(s) shall cease immediately and the Heritage Office notified in accordance with the *Heritage Act 1977*. Works shall not recommence until the Proponent receives written authorisation from the Heritage Office.

Dust Generation

- 2.33 The Proponent shall construct and operate the project in a manner that minimises dust generation from the site, including wind-blown and traffic-generated dust as far as practicable. All project related activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should visible dust emissions attributable to the project occur during operation and construction, 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. Specific consideration shall be given to controlling dust generation along unsealed internal access roads to minimise potential impacts at the "Airdrie" property located adjacent to Middlebrook Station.

Water Quality Impacts

- 2.34 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.
- 2.35 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*.

Waste Generation and Management

- 2.36 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.
- 2.37 The Proponent shall maximise the reuse and/or recycling of waste materials generated on site, to minimise the need for treatment or disposal of those materials outside the site.

- 2.38 The Proponent shall ensure that all liquid and/or non-liquid waste generated on the site is assessed and classified in accordance with *Waste Classification Guidelines* (DECC, 2008), or any future guideline that may supersede that document and where removed from the site is only directed to a waste management facility lawfully permitted to accept the materials.

Crown Land

- 2.39 The Proponent shall consult with and comply with any reasonable requirement of the Department of Lands in relation to any impacts associated with the project on Crown land, Crown roads, Crown reserves and Crown Trigonometric stations located on site.

Community Contributions

- 2.40 Prior to the commencement of construction of the project, the Proponent shall establish a **Community Enhancement Program Fund** to be administered by Upper Hunter Council to fund community enhancement measures in the Upper Hunter local government area to offset any potential residual amenity impacts associated with the project within this local government area. Community enhancement measures may include (but are not necessarily limited to) improvements to community infrastructure and services, sustainability initiatives and opportunities for local economic and tourist development. The Proponent shall contribute the sum of \$86,700 per annum to the fund, from the commencement of operation of the project until the end of its operational life. The contribution shall be adjusted to take account of any increase in the Consumer Price Index over time, commencing at the June 2009 quarter. The terms for the administration of the funds shall be agreed between the Proponent and Upper Hunter Council and submitted for the Director-General's approval prior to the commencement of construction.
- 2.41 Prior to the commencement of construction of the project, the Proponent shall reach a binding agreement with registered Aboriginal stakeholders in relation to measures to offset potential residual impacts on Aboriginal cultural heritage values. This may include but not necessarily be limited to financial contribution and/ or measures for the enhancement and recognition of Aboriginal cultural heritage values as part of the project's visitor and education centre. Unless otherwise agreed to by the Director-General under the requirements of condition 2.41 offset measures may be funded as part of the Community Enhancement Program Fund required under condition 2.41.
- 2.42 Within 12 months of the commencement of operation of the project, the Proponent shall install a wind farm viewing site and associated interpretive signage at a location that is accessible to the public determined in consultation with Upper Hunter Shire Council and the local community. Unless otherwise agreed to by the Director-General under the requirements of condition 2.41, the viewing site may be funded as part of the Community Enhancement Program Fund required under condition 2.41. Responsibilities for maintenance of the viewing site shall be agreed to between the Proponent and Upper Hunter Shire Council.

3. ENVIRONMENTAL MONITORING AND AUDITING

Operational Noise Performance

- 3.1 Within 12 months of the commencement of operation of the project (or such other period as agreed to by the Director-General), the Proponent shall prepare a **Noise Compliance Report** for the approval of the Director-General which assesses the performance of the project against the operational noise criteria and/ or standards specified in conditions 2.7, 2.10 and 2.13.

The compliance assessment shall be undertaken consistent with the procedures presented in *Wind Farms - Environmental Noise Guidelines* (South Australian Environmental Protection Agency, 2003) for the wind turbines and the *New South Wales Industrial Noise Policy* (EPA, 2000) for industrial facilities and at period(s) commensurate with the worst case operational and meteorological factors relevant to the specific project component. Specifically, in relation to the wind turbines this includes monitoring at all relevant rated wind speeds where noise exceedances may occur and the range of stability class conditions expected at receptor

locations. The Noise Compliance Report shall specifically consider any modulation related noise generation from the wind turbines and any cumulative noise impacts from the operation of multiple project components.

The compliance assessment results shall be submitted to the Director-General within one month of the completion of the monitoring. The Director-General may request that additional noise compliance monitoring be undertaken and completed within a specified timeframe.

- 3.2 In the event that compliance monitoring indicates that noise from the wind turbines exceeds the noise limits specified under conditions 2.7, 2.10 and 2.13, the Proponent shall identify reasonable and feasible noise mitigation and management measures to achieve compliance with the noise limits in the Noise Compliance Report, including a timetable for their implementation. Remedial measures shall include, in the first instance, all reasonable and feasible measures to reduce noise from the project, including but not necessarily limited to sector management of wind turbines. Once all reasonable and feasible source controls are exhausted, remedial measures may include offering building acoustic treatments and/or noise screening to affected residents, but may only be used to address noise limit exceedances at the absolute discretion of the relevant landowner/resident. The Noise Compliance Report shall include details of at least preliminary discussions with affected landowners, where at-receiver measures are proposed. The Proponent shall implement all mitigation measures approved as part of the Noise Compliance Report in accordance with the implementation timetable identified in the Report. The requirements of this condition do not apply where a noise agreement exists between the Proponent and the relevant receptor in accordance with conditions 2.5, 2.8 or 2.12 and do not apply to the "Peakhill" property if it has been acquired in accordance with the requirements of conditions 2.5 and 2.6.

Bird and Bat Monitoring

- 3.3 Prior to the commencement of construction, the Proponent shall prepare and submit for the approval of the Director-General a **Bird and Bat Adaptive Management Program**, which takes account of bird/ bat monitoring methods identified in the current editions of *AusWEA Best Practice Guidelines for the Implementation of Wind Energy Projects in Australia* and *Wind Farm and Birds: Interim Standards for Risk Assessment*. The Program shall be prepared and implemented by a suitably qualified expert, approved by the Director-General. The Program shall incorporate Monitoring, and a Decision Matrix that clearly sets out how the Proponent will respond to the outcomes of monitoring. It shall:
- a) incorporate an ongoing role for the suitably qualified expert;
 - b) set out monitoring requirements in order to assess the impact of the project on bird and bat populations, including details on survey locations, parameters to be measured, frequency of surveys and analyses and reporting. The monitoring program shall be capable of detecting any changes to the population of birds and/ or bats that can reasonably be attributed to the operation of the project, that is, data may be required to be collected prior to the commencement of construction;
 - c) incorporate a decision making framework that sets out specific actions and when they may be required to be implemented to reduce any impacts on bird and bat populations that have been identified as a result of the monitoring;
 - d) identify 'at risk' bird and bat groups and include monthly mortality assessments and periodic local population census' and bird utilisation surveys;
 - e) identify potential mitigation measures and implementation strategies in order to reduce impacts on birds and bats such as minimising the availability of raptor perches, swift carcass removal, pest control including rabbits, use of deterrents, and sector management including switching off turbines that are predicted to or have had an unacceptable impact on bird/ bat mortality at certain times; and
 - f) identify matters to be addressed in periodic reports in relation to the outcomes of monitoring, the application of the decision making framework, the mitigation measures identified, progress with the implementation of such measures, and their success.

The Reports referred to under part f) shall be submitted to the Director-General on an annual basis for the first five years of operation and every two years thereafter from the commencement of operation (unless otherwise agreed to by the Director-General), and shall be prepared within two months of the end of the reporting period. The Director-General may, at the request of the Proponent, vary the reporting requirement or period by notice in writing to the Proponent. The Proponent may request the Director-General to consider a variation to the reporting requirements at anytime.

The Proponent is required to implement reasonable and feasible mitigation measures as identified under part e) where the need for further action is identified through the Bird and Bat Adaptive Management Program, or as otherwise agreed with the Director-General.

4. COMPLIANCE TRACKING PROGRAM

4.1 Prior to the commencement of construction, the Proponent shall develop and implement a **Compliance Tracking Program** for the project, to track compliance with the requirements of this approval during the construction and operation of the project and shall include, but not necessarily limited to:

- a) provisions for periodic review of the compliance status of the project against the requirements of this approval, Statement of Commitments and relevant environmental approvals, licences or permits required and obtained in relation to the project;
- b) provisions for periodic reporting of compliance status against the requirements of this approval and Statement of Commitments to the Director-General including at least one month prior to the commencement of construction and operation of the project;
- c) a program for independent environmental auditing in accordance with *AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing*;
- d) procedures for rectifying any non-compliance identified during periodic reviews of compliance or environmental auditing;
- e) mechanisms for recording environmental incidents and actions taken in response to those incidents; and
- f) provisions for reporting environmental incidents to the Director-General during construction and operation.

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.

Provision of Electronic Information

5.2 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) the 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 (including any associated environmental assessment documentation submitted as part of a modification request);
- d) a copy of each relevant environmental approval, licence or permit required and obtained in relation to the project;
- e) a copy of each plan, report, or required monitoring program under this approval; details of the outcomes of compliance reviews and audits of the project.

Complaints Procedure

5.3 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 24 hour 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 e-mail address shall be advertised in a newspaper circulating in the locality on at least one occasion prior to the commencement of construction and at six-monthly intervals for two years following commencement of operation of the project. These details shall also be provided on the Proponent's internet site. 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.

- 5.4 The Proponent shall record details of all complaints received through the means listed under condition 5.3 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) the nature of the complaint;
 - d) any action(s) taken by the Proponent in relation to the complaint, including timeframes for implementing the action and timeframe for getting back to the complainant with an interim or final response regarding actions taken or proposed to be taken to address the issues raised; and
 - e) 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.

Community Information Plan

- 5.5 Prior to the commencement of construction, the Proponent shall prepare a **Community Information Plan** which outlines measures for disseminating information on the development status of the project and methods for actively engaging with surrounding landowners and members of the community regarding issues that would be of interest/concern to them during the construction and operation of the project. This may include distribution of community newsletters, stakeholder meetings and opportunities for site visits. The Plan shall include but not be limited to:
- a) procedures to inform the local community of planned construction activities including construction traffic routes, potential traffic disruptions, high noise generating activities and works outside of normal construction hours;
 - b) procedures to inform and consult with landowners regarding landscaping measures at their properties in accordance with 2.14 of this approval;
 - c) procedures to inform and consult with landowners regarding noise monitoring undertaken at their properties;
 - d) procedures to inform and consult with landowners regarding the outcomes of compliance reviews and audits of the project;
 - e) provision for the establishment and running of a Community Consultative Committee or equivalent community engagement mechanism in consultation with relevant Councils during the construction phase and at least the first two years of the operation of the project or as otherwise agreed to by the Director-General. unless otherwise agreed to by the Director-General, the Community Consultative Committee (or equivalent) shall comprise of representatives from the Proponent, relevant Councils and community members and shall meet periodically at a frequency agreed to by the members; and
 - f) measures outlined in conditions 5.1 to 5.4.

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. ENVIRONMENTAL MANAGEMENT

Environmental Representative

- 6.1 Prior to the commencement of any construction or operational 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, construction and operation personnel. The Proponent shall engage the Environmental Representative(s) during any construction activities, and throughout the life of the project, 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, the Statement of Commitments,, 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** in accordance with the *Guideline for the Preparation of Environmental Management Plans* (DUAP, 2004) or its latest revision. The Plan shall be prepared in consultation with Council and include but not be 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) a description of the statutory obligations that the Proponent is required to fulfil prior to and during construction including all relevant approvals, licences and permits required and applicable key legislation and policies;
 - c) a description of the roles and responsibilities for all relevant employees involved in the construction of the project including relevant training and induction provisions for ensuring that all employees, contractors and sub-contractors are aware of their environmental and compliance obligations under these conditions of approval;
 - d) an environmental risk analysis to identify the key environmental performance issues associated with the construction phase and details of how environmental performance would be monitored and managed to meet acceptable outcomes including what actions will be taken to address identified potential adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the Plan:
 - i) measures to monitor and manage dust emissions (including dust generated by traffic on unsealed public roads and unsealed internal access tracks);
 - ii) measures to monitor and manage noise emissions;
 - iii) measures to monitor and manage traffic impacts in consultation with relevant road authorities (Council and RTA, as relevant) including identification of over-mass/ over-dimensional and heavy vehicle traffic routes, traffic volumes along the routes, potential traffic disruptions considering road safety and level of service, and specific measures for minimising traffic impacts including management of cumulative traffic from the project and Clifford Quarries at the "Airdrie" property;
 - iv) measures to monitor and manage flora and fauna impacts including minimising the extent of native vegetation impacted, rehabilitation and revegetation of

- areas disturbed during the construction of the project and measures for weed management;
- v) measures to monitor and manage Aboriginal heritage impacts in consultation with registered stakeholders including measures for dealing with unidentified objects and/or human remains;
- vi) measures to monitor and manage European heritage impacts;
- vii) measures to monitor and minimise erosion and sediment control, particularly during any construction works at or near drainage lines;
- viii) emergency management measures including measures to control bushfires; and
- e) procedures for the periodic review and update of the Construction Environmental Management Plan as necessary.

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.

Operation Environmental Management Plan

6.3 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) a description of key operational and maintenance activities associated with the project;
- b) 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;
- c) a description of the roles and responsibilities for all relevant employees involved in the construction of the project including relevant training and induction provisions for ensuring that all employees, contractors and sub-contractors are aware of their environmental and compliance obligations under these conditions of approval;
- d) overall environmental policies and principles to be applied to the operation of the project;
- e) an environmental risk analysis to identify the key environmental performance issues associated with the construction phase and details of how environmental performance would be monitored and managed to meet acceptable outcomes including what actions will be taken to address identified potential adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the Plan:
 - (i) measures to monitor and manage noise emissions including: measures to be undertaken to rectify annoying characteristics resulting from the operation of the project such as, but not limited to, infrasound or adverse mechanical noise from component failure; measures for regular performance monitoring of noise generated by the project (in addition to measured identified in conditions 3.1 and 3.2); and measures to proactively respond to and deal with noise complaints;
 - (ii) measures to monitor and manage visual impacts in accordance with the requirements of this approval, including any measures required to minimise visual intrusion from project components other than wind turbines (e.g. overhead transmission lines) and maintenance requirements for landscaping measures implemented in relation to the project;
 - (iii) measures to monitor and manage flora and fauna impacts including adaptive bird and bat management in accordance with the requirements of this approval, the management and maintenance of offsets and minimisation of impacts to National Park estate;
 - (iv) measures to monitor and manage electro-magnetic interference impacts;

- (v) measures to monitor and manage dust emissions (including dust generated by traffic on unsealed internal access tracks);
 - (vi) measures to monitor and manage operational traffic impacts including management of cumulative traffic from the project and Clifford Quarries at the "Airdrie" property;
 - (vii) emergency management measures including measures to control bushfires;
- f) procedures for the periodic review and update of the Operation Environmental Management Plan as necessary.

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 as otherwise agreed by the Director-General. Operation shall not commence until written approval has been received from the Director-General.