APPENDIX A – OTHER ISSUES

Issue	Department's Consideration
Noise and Vibration and Health	The Department considers that the main noise risks associated with the project relate to its operational phase from the operation of the wind turbines and ancillary facilities (i.e. substation, hydro plant and solar farm). The Department's detailed assessment of the operational noise impacts of the project including potential low-frequency noise impacts from the wind turbines (raised in submissions as health impacts) is provided in Section 5.1. Given the distance of nearest sensitive receivers to the energy park site (one kilometre to nearest associated landowner and 1.3 kilometres to nearest non-associated landowner), the Department is satisfied that the project is unlikely to generate significant construction related noise at nearest sensitive receivers. The Proponent's construction noise assessment indicates that the relevant construction noise goals (35 dB(A)) would be comfortably achieved at all nearest non-associated landowners and would only be marginally higher (i.e. 36 dB(A)) at the nearest associated landowner, even considering cumulative construction works. Whilst a detailed assessment of potential construction noise impacts of the transmission line routes have not been undertaken, the Department is satisfied that these works are unlikely to result in unacceptable noise impacts at nearest receivers due to the progressive nature of the works which would mean that construction at a particular location would be limited to a short period only (likely a few days). The Department is satisfied that with the implementation of standard management measures (such as the use of less noisy plant and/or appropriate positioning of plant) the construction noise impacts of the project can be appropriately managed so as not result in significant impacts. The Department has recommended conditions of approval in this regard. The Department is further satisfied that the project would not result in unacceptable traffic noise impacts during construction or operation. The project is expected to generate very low volumes of traffic during operation (i.e. and consequently, traffic noise associated with the project is not expected to be perceptible from other traffic on the roads. The Proponent's assessment indicates that construction traffic noise generated by the project would not exceed relevant daytime traffic noise goals at Bunnan Road (60 dB(A) for a collector road), the main access point for construction traffic. Traffic noise generated by over-mass/ over-dimensional vehicles travelling on roads other than Bunnan Road is similarly not expected to be significant (due to the low volumes of traffic involved – up to 5 per day) and expected short duration of impacts (i.e. 2-4 weeks). The Department has included requirements on the management of noise generated by construction traffic in its recommended conditions of approval. Noise generated by the operation of overhead transmission lines mainly relate to corona noise (the faint buzzing or crackling noise heard along the lines under mild rain conditions or following a long dry spell from dust build up) and aeolian noise (harmonic hum produced from vibration due to wind across lines and insulators). Whilst noise may be generated intermittently during the operation of the line, the Department considers that this is unlikely to significantly impact on the amenity of surrounding receivers, noting that the noise generated would not in most cases be high enough to be audible above background noise. In this regard the Department notes that noticeable levels of corona noise are generally only associated with large transmission line infrastructure (>200 kilovolts), with the 66 and 132 kilovolt options associated with the current project not expected to result in any significant impacts that would be audible above background noise levels. Furthermore, as the project would mostly involve the replacement of existing transmission line infrastructure, the Department considers that the noise associated with the project is unlikely to be significantly different from that associated with existing lines. The Department understands that some design measures (such as vibration dampners across electrical insulators and adjustment to wire tension and low noise conductors) can be used to minimise the generation of transmission related noise and has incorporated conditions of approval requiring such measures to be considered during the detailed design of the transmission line infrastructure . The Department does not consider that the project would pose significant risk of vibration impacts during construction and operation as the proposal does not involve any significant vibration generating activities and due to the distance from nearest sensitive receivers.
Visual Amenity	Section 5.2
Flora and Fauna	Section 5.3
Land Use/Local Amenity	The Department notes that significant concerns have been raised that the wind turbine component of the project would adversely affect the rural amenity (peace and quiet) and lifestyle of the area through adverse noise (particularly low frequency and infra-sound impacts) and visual impacts. The Department has assessed the

	environmental and amenity impacts of the wind turbine component of the project including noise and visual impacts as well as potential aviation safety and electro-magnetic interference impacts and is satisfied that the environmental and amenity impacts of the wind turbines can by in large be managed and mitigated so as to not pose unacceptable constraints on existing and future development in the area. Specifically with respect to noise, the Department has considered the potential for low frequency and infra-sound generation from the wind turbines and is satisfied that subject to appropriate design, the turbines would pose a low risk of low frequency noise impacts at nearest sensitive receivers (refer Section 5.1). The Department has imposed specific conditions of approval in relation to a single receiver (Peakhill) where noise impacts were not considered to be acceptable and in relation to the Clifton Hills Estate to protect the amenity of future residential development in the area (refer Section 5.1). With respect to visual intrusion, the Department considers that whilst the turbines have the potential to pose a strong visual presence in the area, the visual *impact* of the project would in most cases depend on the receiver's perception of the structures, which is highly subjective. The Department is satisfied that appropriate screen planting with consideration to landowner requirements would be effective at minimising and managing visual impacts to acceptable levels at most receivers (refer Section 5.2). Whilst the Department accepts that some residual visual amenity impacts may remain at specific receivers even after the implementation of all reasonable and feasible mitigation measures, the Department does not consider that this residual impact would be sufficient to outweigh the overall strategic benefits of the project such as to warrant project refusal. A number of submissions raised specific concerns that the noise (in particular low frequency and infra-sound) and shadow flicker impacts of the wind turbines would significantly impact on livestock and therefore adversely affect rural economies such as horse studs. As discussed above, the Department's assessment has indicated that the proposal is unlikely to pose a significant risk of low frequency or infra-sound such as to pose a constraint on surrounding development including livestock operations. In this regard, the Department notes that wind farms have been successfully integrated with farming landuse in the past with livestock grazing occurring up to the base of turbine towers in many locations. Specifically with respect to potential shadow flicker impacts on horse stud operations, given that the potential for impacts is largely limited by distance to turbines (i.e. within approximately 500 metres), the Department is satisfied that the proposal would pose negligible risks of shadow flicker impacts to these operations noting that the Proponent has identified that there are no horse stud operations within one kilometre of nearest turbines. On this basis, the Department is satisfied that the wind turbines would not pose a significant development constraint on surrounding farming livestock operations or related economies. With consideration of the above factors, the Department is satisfied that the wind turbines would not be incompatible with the existing character or landuse of the area. In this regard, the Department notes that the energy park would not be located on landscapes considered to be of outstanding or iconic scenic or social value and has been modified to minimise impacts to areas identified to be of local scenic value. The Department also notes that none of the project components are identified to be a prohibited landuse under relevant environmental planning instruments. The Department notes that a number of submissions have raised concerns that project would not entail any benefits to the local community (apart from direct financial benefits to the landowner of Middlebrook and Mountain stations) to offset potential adverse local impacts. The Department notes that the proposal would involve a number of direct local benefits including employment generation and potential tourist opportunities (with the turbines likely to become a local attraction that would attract visitors to the area which would benefit local economies and potentially complement other existing tourism ventures). The Department also notes that the Proponent has specifically proposed the "Moobi Foundation Charter" as a means of providing annual contribution community contributions (approximately $60-65,000 per annum) to fund local community enhancement initiatives, to offset residual local amenity impacts that many still remain even after the implementation of all reasonable and feasible mitigation measures. The Department supports the Proponent's commitments in relation to community contributions, considering that this would provide tangible benefits to the local community to offset potential residual impacts such as visual intrusion. Notwithstanding, to ensure that the quantum of contributions are consistent with that imposed for other recently approved wind farm related development (i.e. approximately $850 per megawatt of electricity generated by wind turbines), the Department has recommended conditions of approval increasing the required rate of contributions to approximately $86,700 per annum (reflecting the total megawatt capacity of the wind turbine component of the project, which is likely to be the source of any residual amenity impacts). As part of the community contribution funds, the Department has required the Proponent to establish a wind turbine viewing platform at a publicly accessible location in the Upper Hunter local government area. This would entail local benefits by providing a means for visitors to the

	LGA to stop within the Scone area and view the proposal (and thereby benefit local service based economies by encouraging tourists and visitors to stop in the area). A large number of submissions raised concerns that the proposal has the potential to adversely impact on property values and requested compensation for any perceived loss in value. Upper Hunter Council also reiterated this concern. The Department considers that a development would only have the potential to affect the property values of adjacent properties where it would have a direct impact on the relevant land or would not be able to achieve acceptable environmental standards at the receivers such as to affect the normal use or enjoyment of the property. Based on its assessment, the Department is satisfied that the environmental impacts associated with the project can be managed to meet acceptable environmental criteria and standards at surrounding receivers such as to not place a significant constraint on the normal use or enjoyment of the property. The only exception to this is at the Peakhill property where the Department has assessed the predicted noise impacts at this receiver to be unacceptable (with respect to the frequency and level of exceedance of environmental noise criteria predicted) and therefore recommended conditions of approval providing this receiver with acquisition rights on the grounds of noise impact. With respect to general amenity impacts, a number of submissions have raised concerns regarding the visibility of the wind turbines and suggested that the visibility of the turbines would place an unacceptable intrusion and affect the normal enjoyment and use of their properties. With respect to visual amenity, the Department notes that the level of impact is largely influenced by the perception of the turbines by individual receivers (negative or positive) and therefore cannot conclusively be considered to result in negative impacts on property values in all circumstances. The Department considers that other factors such as global economic activity, interest rates and historical values of properties in the area would have far more influence on property prices in the long term compared to any influence attributable to the project. In this regard, previous studies into the impact of wind farms on property values from Australia (e.g. 2004 Panel enquiry on the Bald Hill Wind Farm in Victoria and 2006 Henderson & Horning study into Crookwell wind farm in NSW) and overseas (Hoen & Wiser 2008 US study and Sims & Dent, 2007 UK study) have generally identified that wind farms would have no perceptible impact on agricultural and rural properties, however have the potential to impact the values of "life style" properties particularly in the short term, as a result of general perceptions on amenity impacts. However, these studies generally indicated that there were no statistical differences between property values of properties that were or were not located close to wind farms, in the long term. On this basis, the Department does not consider that there is sufficient nexus between the perceived amenity impacts of wind turbines and property values to warrant compensation on these grounds for the current project. This view is supported by the recent New South Wales Land and Environment Court decision (12 February 2007) on the Taralga Wind Farm, which rejected the right to compensation on the grounds of potential blight impacts for an otherwise compliant development which may have some impact in lowering the amenity of another property, although not so great as to warrant refusal on general planning grounds. With respect to potential landuse impacts of the overhead transmission lines, the Department notes that the Proponent has identified route options that would as far as possible follow existing infrastructure corridors to minimise impacts on new land. Notwithstanding, the Department does not consider that the overhead transmission corridors would pose a significant landuse constraint on the small percentage of new land area to be traversed given the relatively minor size and scale of the infrastructure (consistent with normal rural or suburban transmission infrastructure) and as the transmission lines are not expected to pose any significant environmental impacts such as noise or electro-magnetic radiation which would pose a constraint to existing or future development in the area. Notwithstanding, the Department notes that any easement secured would be subject to appropriate negotiation and compensation as part of easement negotiations. As with other components of the project, the Department notes that the proposed overhead transmission lines would not be a prohibited landuse under relevant environmental planning instruments.
Aviation Safety	The Proponent's assessment indicated that eight of the turbines originally proposed as part of the Middlebrook Station were likely to infringe on the zone of aircraft flight procedures for Scone aerodrome. AirServices Australia in particular raised significant concerns regarding the potential of these turbines to affect the circling and other aircraft procedures at the Scone aerodrome. AirServices Australia stated that permanent intrusions into the airspace should not be approved as it may impact the safety, efficiency or regularity of existing operations at the Scone Aerodrome. Upper Hunter Council as well as public submissions also raised concerns regarding any impact on the safe operation of the Scone aerodrome. In response to significant concerns raised in submissions regarding aviation safety, the Proponent modified the project as part of its Response to Submissions/ Preferred Project to remove the offending turbines. The Department is satisfied that with the removal of these turbines, the project would not place an unacceptable constraint on the operation of the aerodrome and residual risks can be managed through the implementation of standard

	safety measures such as the identification of the turbines in aviation charts so that pilots are aware of the presence of the hazards. The Department has recommended conditions of approval requiring the Proponent to progress the detailed design of the project in consultation with the Civil Aviation Safety Authority (CASA) and AirServices Australia to ensure that appropriate flight safety protocols may be established prior to the commencement of operation of the project. With respect to impacts on private air strips, the Proponent has identified four private air strips within five kilometres of the project, three of which are located on site (one at Middlebrook Station and the other two comprising makeshift air strips located on the Mount Moobi plateau at Mountain Station). The other private air strip is identified to be located approximately four kilometres from the site. The Proponent has identified that the proposed project components on Mount Moobi plateau at Mountain Station (solar plant/ visitors centre) would require the decommissioning of the two makeshift air strips located at this site, and has been agreed to by the landowner. The Department understands that the remaining airstrip would continue to be used by the landowner on an irregular basis. Private air strips in the locality (including those onsite) are mainly used for aerial spraying, monitoring of stock and scenic flights as part of farm based tourism ventures. As these uses would involve daytime flights, the Department does not consider that the project will result in any significant adverse safety risks to the operation of private air strips as the small aircraft that use these trips would utilise visual aids and the turbines associated with the project would be readily visible and able to be avoided during any aerial operations. A number of submissions raised concerns regarding then potential visual impacts of night lighting associated with the turbines. This issue is further assessed in section 5.2.
Project Justification and Benefits	Section 2.3
Consultation	A number of submissions stated that the exhibition period was not long enough to adequately consider the Environmental Assessment and provide a submission within the statutory timeframe. The Department determined that an extension to the public exhibition period was not warranted for the project as the exhibition period was considered to meet statutory requirements and was considered to be commensurate with other major development projects of a similar scale and nature which have been recently exhibited. Notwithstanding, and as is common practice, the Department did consider any issues raised in late submissions received within a reasonable period following the end of the exhibition period (i.e. up to two weeks), in the assessment of the project. The consultation undertaken by the Proponent during and since the preparation of the Environmental Assessment is detailed in the Proponents' Response to Submissions/Preferred Project Report and is considered to be acceptable.
EA Information	The Department is satisfied that the information presented in the Proponent's Environmental Assessment and Response to Submissions/Preferred Project Report provides sufficient information to enable the assessment of all components of the project (including transmission line options).
Roads and Traffic	The project is not expected to generate significant volumes of operational traffic due to low numbers of operational staff and infrequent maintenance requirements. However, submissions raised concerns regarding potential increased traffic associated with ongoing visitors to the site. Visitors to the energy park and Visitor's Centre during the operational phase are expected to be intermittent (i.e. approximately 3-4 bus trips a week as the centre is not proposed to be open to the public and any visitors would be by appointment only) and well within the capacity of existing roads which already accommodates tourist traffic to the sites as part of existing tourism ventures at Mountain and Middlebrook Stations. The Department has incorporated conditions of approval requiring that traffic generated by visitors to the site be limited to the maximum volumes identified in the Environmental Assessment, unless further detailed assessment is undertaken which demonstrates to the satisfaction of the Director-General that additional traffic volumes can be accommodated within the local roads and would not result in unacceptable traffic impacts. Submissions relating to construction traffic raised concerns regarding potential impacts on road safety, level of service and dust generation (from haulage on unsealed roads) and the capacity of local roads to accommodate construction vehicles (particular over-mass or over dimensional traffic). Worst case traffic generation is predicted to be around 70-100 (two way) movements per day for a period of two months including around 80 light vehicle movements and 16 heavy vehicle movements. In addition, up to five over mass vehicles per day are proposed to be generated for an approximately 2-4 week period. In addition, construction of the transmission line is expected to require approximately 140 vehicle movements for the duration of the construction period, spread along the route. Given the generally low volumes of traffic predicted to be generated by the project even under worst case and the relatively short term and finite nature of impacts (i.e. 2 months of worst case impacts and

	20 month construction period in total), the Department is satisfied that the project is unlikely to significantly impact on the functioning of the local road network. To minimise the number of receivers exposed to haulage impacts associated with the energy park site, the Proponent has indicated that concrete aggregate haulage from Braeside Quarry (north of Middlebrook Station) to the energy park can be diverted from Middlebrook Road via an internal access road within Middlebrook Station to Bunnan Road, to avoid the need to travel through Saturn village within the Scone township; however, Upper Hunter Council has stated that this may be inconsistent with the current development consent for the Braeside Quarry which prohibits haulage along Middlebrook Road. Notwithstanding the ability to use this alternate haulage route, the Department considers that subject to appropriate management the construction traffic impacts of the project are unlikely to significantly impact on the amenity of nearby receivers. In this regard, the Department has recommended conditions of approval requiring the preparation of a Construction Management Plan prior to the commencement of construction in consultation with relevant road authorities to address detailed traffic management measures at specific roads including road safety, level of service, alternative access routes and management of over-mass transport and transmission line construction. The Department notes that the owner of the residence ("Airdrie") situated directly adjacent to the existing access road into Middlebrook Station (which is currently used by trucks from the quarry operation located within Middlebrook Station) has raised significant concerns regarding the increase of traffic volumes along this road and past this property. The Department considers that the reduction of turbine numbers at Middlebrook Station is likely to have considerably reduced the volume of construction traffic access to the site and given the predicted low volumes of operational traffic, notes that the permanent increase to traffic volumes along this road (following construction and commissioning) is likely to be negligible and infrequent. Consequently, the Department is satisfied that traffic associated with the project is unlikely to significantly impact on this residence, particularly in the long-term. To minimise impacts at this receiver during construction the Department has recommended that the Construction Management Plan required to be prepared for the project include specific measures for minimising cumulative traffic impacts from the project and the quarry operation at Middlebrook station at the Airdrie residence (such as limiting project related traffic to the work hours currently approved for the quarry operations). Upper Hunter Council suggested as a number of road improvement works that should be undertaken as part of the project to ensure safe vehicular access to the site. To ensure that the project does not result in unacceptable impacts to road infrastructure during construction, the Department has recommended the conditions of approval requiring the Proponent to: • undertake a detailed assessment of all roads proposed to be used for over-mass or over-dimensional haulage and upgrade these roads as necessary prior the commencement of construction to facilitate this over-mass transport; and • undertake pre- and post construction dilapidation surveys of roads and repair any damage caused to the roads from construction traffic.
Fire Risk	The Department is satisfied that the fire risk posed by wind turbines would be low given the internal fire protection and suppressions systems built into the structure and nacelle (including lighting protection and earthing mechanisms); the cleared nature of turbine footings and the height of the turbines which would minimise the opportunity for any fire started at the nacelle to reach any flammable vegetation below and spread; the undergrounding of internal transmission networks; the asset protection zones incorporated into the design of building structures on site; the proposed storage of water on site for fire fighting; and the presence of access tracks which would act as fire breaks and provide for fire fighting access. Notwithstanding, the Department has recommended a condition of approval requiring the Proponent to prepare a Bushfire Management Plan in consultation with the Rural Fire Services to identify measures to minimise and mange fire risk on site including response protocols in the event of a fire.
Aboriginal Heritage	Submissions by indigenous stakeholders and the DECCW raised concerns that the consultation undertaken as part of the indigenous heritage assessment was inadequate and that the assessment did not appropriately consider relevant Aboriginal objects and cultural landscapes in the study area. A key consideration in the Department's assessment of indigenous heritage impacts is whether relevant indigenous stakeholders have been provided due opportunity to have input into the assessment including assessment/ survey mythology, site survey, assessment of significance and input into recommended mitigation. Based on the information provided in the Proponent's Environmental Assessment and Response to Submissions/Preferred Project Report, the Department is satisfied that active attempt has

	been made to identify and engage with indigenous stakeholders that are likely to have an interest in the project and that the consultation undertaken by the Proponent has provided due opportunity for registered stakeholders to have input into the assessment including field survey and recommended management measures. The Proponent's indigenous heritage assessment did not identify any artefacts or areas of potential subsurface deposits on site and concluded there were no indigenous heritage constraints to the development of the project. The DECCW and public submissions raised concerns that the assessment did not appropriately consider potential impacts to cave and shelter sites below the turbines and other objects that may occur in the area based on previously recorded sites and that the cultural significance of the Wedge–Tailed Eagle as a cultural totem was not considered. Based on the information provided in the Proponent's Environmental Assessment and Response to Submissions/Preferred Project Report, the Department is satisfied that the Proponent has undertaken an appropriate and representative level of assessment (in liaison with relevant stakeholders) and accepts the conclusions of the assessment which indicates that the project is unlikely to impact on any Aboriginal objects due to the previously disturbed nature of the site from agricultural use, the project not being located at or in the immediate vicinity of sensitive landscape types associated with Aboriginal occupation such as rock shelter/ caves or near waterways and the absence of any artefacts identified in the field survey. To minimise the potential for impact to any Aboriginal objects, the Proponent has committed to continued liaison with registered stakeholders during final detailed design refinement and micro-siting of project components and in the case that any new objects are identified during construction. The Department is satisfied that with the implementation of the above measures, the project can be developed with due consideration to indigenous heritage values and has recommended conditions of approval to reinforce the Proponent's commitments. With respect to cultural values, the Proponent's assessment recognised that the ridge lines and associated distinctive geological features (such as Castle Rock) would have social and historical significance to the Aboriginal people as signalling and lookout areas, song trails, walking tracks connecting ceremonial places and campsites and points of interaction with early European settlers. Notwithstanding, none of the locations that the project components are proposed to be sited were identified entailing any special or outstanding cultural values that would preclude the development of the project as proposed. Castle Rock is listed under the Upper Hunter Council *Scone Local Environmental Plan 1986* as a "heritage landscape". The Proponent has identified that the project would have no direct interaction with Castle Rock and that the removal of eight turbines from Middlebrook Station would mean that the buffer distance between this formation and the nearest turbine would increase from 1.3 to 1.9 kilometres. To offset any residual impacts to cultural values, the Proponent has committed to reaching a binding agreement with indigenous stakeholders which may include financial contribution and/or the enhancement and recognition of Aboriginal cultural values as part of the information centre for the project. The Department supports this measure and has reflected this commitment in its recommended conditions of approval. The Department considers that the potential impacts of the project on the Wedge-Tailed Eagle including measures to minimise and manage impacts have been appropriately considered by the Proponent in its flora and fauna assessment (refer Section 5.4). Subject to appropriate management, the Department is satisfied that the project would not pose a significant impact to this culturally significant species.
Electromagnetic interference and electro magnetic radiation associated with transmission lines	Electro-magnetic interference from the rotation of wind turbines has the potential to interfere with radio communication towers, microwave signals (for line of site data, video and voice connections) and analogue TV signals. Due to the distance of nearest radio communication towers (10 kilometres away) and microwave transmission towers (8.5 kilometres away), the project is not expected to impact on these signals. Notwithstanding, the Proponent has committed to consult with registered communications licensees (including emergency services) during the detailed design of the project to minimise the potential risk of conflict with these services. The Department supports this measure and has incorporated conditions of approval in this regard to reinforce this commitment. With respect to analogue TV signals, the Proponents assessment indicates that signals within one to five kilometres of the wind turbines have the potential to be impacted. Mitigation measures would take the form or repositioning TV antenna to get better reception or providing for digital reception (through a digital set top box etc) at the affected receiver. The Proponent has committed to investigating and fixing TV reception at affected residences within one year of operation of the project. The Department considers this timeframe to be inadequate, and has recommended a condition of approval requiring the Proponent to identify existing quality of reception at a representative sample of receivers within five kilometres of the wind turbines prior to project commissioning and investigate and rectify any problems with reception attributable to the project (compared to the

	pre-commission phase) within three months of a complaint being received on reception problems during the operation of the project. With respect to electro-magnetic field (EMF) impacts from proposed transmission infrastructure, the Proponent has compared expected exposure from the transmission lines to the standards identified by the Australian Radiation Protection and Nuclear Safety Agency (ARPENSA): • limits issued by the National Health and Medical Research Council (NHMRC) being 1,000 milligause for general exposure (24 hour exposure); and • draft limits being developed by ARPENSA, being 100 micro Telsa for ongoing exposure by the general public. The Proponent's assessment indicates that the EMF exposure associated with both preferred transmission line route options (i.e. 66 and 132 kilovolts) would easily comply with the above limits at source. As electro-magnetic fields decay exponentially as a function of distance, this means that the further away from the poles the resident is located the less exposure is expected. Based on the Proponent's assessment, the Department is satisfied that the transmission line infrastructure can be developed to achieve current best practice standards for EMF exposure. The Department notes that the design standards of the transmission line infrastructure would need to meet EnergyAustralia requirements, as the ultimate operator of the infrastructure.
Dust Impacts	The Department is satisfied that dust generated during the construction of the project is unlikely to significantly impact on the amenity of surrounding residents give their distance from the work site (i.e. >1.3 kilometres) and can be managed through standard measures such as the wetting down of surfaces, progressing rehabilitation and the winding down of works during very windy conditions. The Department has incorporated requirements in this regard in its recommended conditions of approval. With respect to dust generation from unsealed roads, the Department notes that the only unsealed road proposed to be used during construction is Yarrandi Road for over-mass transport. The Department considers that the risk of dust generation from this road would be low (i.e. less than existing vehicle travel at normal speed) given the very slow nature of over-mass transport and notwithstanding would be limited to a very short period of time (i.e. 2-4 weeks). With respect to internal access roads, the Department notes that with the exception of the Airdrie residence, dust generation from these roads in unlikely to impact on surrounding receivers due to their distance from the site. Dust is currently managed along the Middlebrook Station access road by the quarry operator through the watering down of the road and this practice is proposed to be continued by the Proponent to mange dust generated by project related construction traffic. Upper Hunter Council has suggested the requirement to seal 300 metres either side of the Airdrie residence to minimise dust impacts to this receiver. The Department considers that the measures proposed by the Proponent would be sufficient to manage construction traffic related dust impacts. Given the negligible traffic volumes proposed to be generated during operation, the Department does not consider that the project would pose a significant risk of ongoing traffic related dust generation at this receiver and therefore does not consider that sealing of the access road at this location would be warranted. The Department has recommended conditions of approval requiring the appropriate management of traffic related dust during construction and operation (particularly significant maintenance periods) as part of its recommended conditions of approval.
Development contributions	The Upper Hunter Shire Council requested that the Proponent be required to provide a contribution in accordance with its *Section 94A Development Contributions Plan 2008*. The Department considers that development contributions should only be levied where a clear nexus has been established that the project would lead to an increased demand for public services in the area or where there is a high likelihood that the project would result in residual amenity impacts at a local level even after the implementation of all reasonable and feasible mitigation measures. Project related demand on public services would be limited to the use of Council roads. In this regard, the main impacts to roads are expected to be in the construction stage from construction haulage and oversize vehicle transport, whilst the operation stage (which would involve low volumes of personnel) is not expected to result in a significant demand for road use. To mitigate impacts, the Proponent has committed to undertake pre construction and post construction dilapidation surveys for roads used for haulage and other movements associated with the project's construction. The Department is satisfied that this measure will ensure that the Proponent bears full responsibility for any damage caused to Council/RTA roads and would fully fund any necessary repairs. The Department has also incorporated this committed into its recommended conditions. With respect to local amenity impacts, the Department's assessment indicates that the wind turbine component of the proposal does have the potential to result in some residual amenity impacts following the implementation of reasonable and feasible measures. To offset these impacts, the Proponent committed to establishing the

	Moobi Foundation with 0.25% of annual revenue (equating to approximately $60-65,000 per annum) from the project being contributed per annum to fund community enhancement and other local initiatives. To ensure that the quantum of contributions are consistent with that imposed for other recently approved wind farm related development (i.e. approximately $850 per megawatt of electricity generated by wind turbines), the Department has recommended conditions of approval increasing the required rate of contributions to approximately $86,700 per annum, reflecting the total megawatt capacity of the wind turbine component of the project. Upper Hunter Shire Council has requested that the level of contribution be increased to take into account the remainder of generating components on site. However, as the necessity for contributions has been determined on the basis of the need to offset potential residual amenity impacts, the Department considers it reasonable that the quantum of contribution be based on that part of the development which is recognised to be the source of those amenity impacts (i.e. the wind turbines) rather than those components (i.e. solar and hydro) which do not raise significant concerns with respect to amenity impacts and have been supported in the vast majority of submissions. On the above basis the Department is satisfied that additional contributions (beyond that already proposed to be levied for the project) would not be warranted.
Viewing Platform, Decommissioning, Community Consultative Committee, Complaints Line	The Department has considered Council's recommendations regarding these matters in formulating recommended conditions of approval for the project.
Other Issues (construction disturbance, crown land, surface and groundwater, European heritage, mineral resources, interaction with quarry operations)	The Department is satisfied that these matters have been adequately addressed in the Proponent's Response to Submissions and / or revised Statement of Commitments.

APPENDIX B – RECOMMENDED CONDITIONS OF APPROVAL

APPENDIX C – STATEMENT OF COMMITMENTS

APPENDIX D – RESPONSE TO SUBMISSIONS

APPENDIX E – ENVIRONMENTAL ASSESSMENT