Annex A

Government Response to Submissions

Table A.1 – Government and Industry Submissions and Responses (NSW Health)

ERM Ref No.	Government Agency	Issue Raised	Response	Category
1NSWH1	NSW Health	The Environmental Impact Statement (EIS) detailing the proposed construction, operation and decommissioning of up to 88 wind turbines and ancillary infrastructure has undergone an extensive review. The EIS appears to comprehensively address any potential public health issues, particularly in regard to noise, vibration, shadow flicker and blade glint. The proposed monitoring, controls and mitigation measures for affected properties within 1 km of the turbines (involved landholders), and affected properties within 2km of the turbines (non-involved landholders) appear to be adequate. Provided the proposed development complies with the recommendations of the Environmental Impact Statement, including the development of and adherence to comprehensive Construction Environmental Management Plans, and Operational Environmental Plans, and meets the requirements of the Draft NSW Planning Guidelines: Wind Farms, this office would raise no objection to the proposed development.	Comment noted.	Comments
1NSWH2	NSW Health	It is noted that there will be the provision of a permanent operations and maintenance building constructed and utilised on an ongoing basis for employees. Under the provisions of the Public Health Act 2012, and Public Health Regulations 2012, the provision of water to employees utilising this building will be considered as a private water supply. In this regard, it is recommended that the following conditions are applied to any determination of this application: The applicant must demonstrate that the drinking water supplied to the site will consistently meet the Australian Drinking Water Guideline requirements; and The applicant must develop and adhere to a Quality Assurance Program, prepared in accordance with the requirements of the Public Health Act 2010, and the Public Health Regulations 2012.	Comment noted.	Drinking water quality for O&M staff

Table A.2 – Government and Industry Submissions and Responses (QPRC)

ERM Ref No.	Government Agency	Issue Raised	Response	Category
1QPRC1	QPRC	**Other Comments Development Engineer's Comments** The development was referred to Council's Development Engineer, who provided the following comments to be included in Council's submission to the Department:-	Comment noted.	Comments
1QPRC2	QPRC	• The traffic impacts have been modelled utilising an extrapolation of a one day peak hour count undertaken by the proponent's consultant. There is no reference to AADT volume counts (RMS &/or QPRC), hence the assessment is somewhat flawed,	Updated traffic volumes have been sourced and referenced within the assessment (please refer to Sections 2.2 and 4.4 Updated Transport Impact Assessment – Annex G of the RTS / PPR)	Traffic
1QPRC3	QPRC	• Traffic distribution is assumed to be 75% to Goulburn and only 25% to Canberra. These seems unrealistic and does not give consideration to the proximity of the site to Queanbeyan, Bungendore and Braidwood.	The transport impact assessment report has been updated to reflect a 50:50 split between Goulburn and Canberra. This is reflective of the sites location roughly between the two centres. The revised distribution does not result in a material change to the assessment findings and recommendations.	Traffic
1QPRC4	QPRC	• A Construction Traffic Management Plan will be required prior to commencement of construction	A Traffic Management Plan will be prepared after project approval and prior to the commencement of construction. QPRC will be consulted with in preparing the Traffic Management Plan.	Traffic
1QPRC5	QPRC	• There are three proposed construction/ operational accesses to the wind farm, two off Goulburn Road near Boro and one off the Kings Highway at Manar. These roads are State roads controlled by the RMS and the proposed accesses will require construction to RMS requirements.	Comment noted. The Kings HWY access is no longer proposed. The two access points to Goulburn-Braidwood Road will be designed in accordance with RMS guidance.	Traffic
1QPRC6	QPRC	• During the construction phase the intersections should be provided with truck warning signs as per RMS document Traffic Control at Work Sites'	. The traffic management works will be detailed in the Construction Traffic Management Plan (please refer to Section 5.6 of the Updated Transport Impact Assessment – Annex G of the RTS / PPR)	Traffic
1QPRC7	QPRC	• The documentation does not clearly identify their locations nor justification for their selection (apart from achieving appropriate sight distance).	The location of the access points is identified on the Project Area layout plan prepared by ERM. The vehicle access locations were identified having regard for sight distance requirements, constructability and integration with the internal site access roads.	Traffic
1QPRC8	QPRC	• As the State road network will be used for access there will be no impact on the local road network, hence S94 road upgrading or maintenance contributions are not applicable.	Comment noted. Ongoing consultation is occurring with RMS.	Roads
1QPRC9	QPRC	• The access points should all be rural addressed.	Comment noted.	Roads
1QPRC10	QPRC	• The transport of oversize components by Restricted Access Vehicles (RAVs) will require approval by RMS. It is noted that the Kings Highway / Goulburn Road intersection will require upgrading to facilitate the left turn from Goulburn Road into Kings Highway for southbound RAV traffic	Approval will be sought from RMS Special Permits Unit. As a result of the changes to the Project Area, the RAV's will no longer be required to use the Goulburn-Braidwood Road/ Kings Highway intersection.	Roads
1QPRC11	QPRC	• Internal access roads should be constructed to a gravel standard suitable for use by Rural Fire Service vehicles	Further consultation will occur with Rural Fire Service on their requirements.	Access Roads

ERM Ref No.	Government Agency	Issue Raised	Response	Category
1QPRC12	QPRC	• The internal access roads will require a crossing point for Boro Road and for Manar Road. These access points will require approval by QPRC under S138 of the Roads Act 1993	Formal section 138 approval from QPRC will be sought once the project has been approved, prior to construction.	Access Roads
1QPRC13	QPRC	**Town Planner's comments** The EIS has been reviewed by Council's planning staff and the following concerns have been raised to be included in any submission to the department:-	Comment noted.	
1QPRC14	QPRC	• Unacceptable visual impact from both the public and private domain, as the height of the proposed wind turbines will be 173 metres.	In response to the submissions received relating to unacceptable visual impacts and the modification of the proposed project layout, a Revised Landscape Character Visual Impact Assessment has been prepared, and is provided throughout Annex E of this report.	Visual
1QPRC15	QPRC	• Proposed additional vegetation planting to reduce visual impact will potentially contribute to bushfire risk in the locality	The location and design of screen planting used as a visual mitigation measure is site specific and requires detailed analysis of potential views and consultation with surrounding landowners during the detailed design phase. Planting vegetation would not provide effective mitigation in all circumstances and must be undertaken in accordance with the RFS Standards for Asset Protection Zones. In addition EPYC is offering eligible landowners within 3km a mitigation fee so that the landowner can conduct their own mitigation to suit their requirements, which could include the use of non-vegetation screening where appropriate to the landholder. Any dwelling or DA approved dwelling within 3km of the project with a moderate visual impact rating is eligible to receive $3,000 and anyone with a mod/high or high visual impact rating is eligible to receive $5,000 for mitigation purposes subject to reaching agreement.	Fire
1QPRC16	QPRC	• Deterioration of quality of life as within the current landscape there is barely anything manmade	As noted in the updated Landscape and Visual Impact Assessment Report: *The pre-European landscape surrounding the Jupiter Wind Farm has been heavily modified through agricultural practices and clearance of native vegetation. The landscape within the view shed includes many constructed elements including houses and outbuildings, sheds, 330kV high voltage transmission line towers, wind mills, mining and other signs interventions.*	General

ERM Ref No.	Government Agency	Issue Raised	Response	Category
1QPRC17	QPRC	• Increase noise during construction periods	As outlined throughout the Construction Noise Assessment Chapter of the Supplementary Noise Impact Assessment undertaken by ERM (ERM, 2016) the predicted noise levels associated with construction activities will only be experienced for limited periods of time when works are occurring; they will not be experienced for full daytime, evening or night time periods. Any impacts associated with these works will be temporary and do not represent a permanent impact on the community and surrounding environment. Construction noise levels will be reduced and impacts minimised by implementing the recommendations contained in Chapter 7 of the Supplementary Acoustics Assessment (Annex E of the EIS, dated October 2016). These recommendations include the preparation of a Construction Noise Management Plan (CNMP) that would be developed to ensure that appropriate work practices are implemented during the projects construction to minimise impact. Additionally with the removal of 34 WTG's from the overall project layout, it is expected that construction noise impacts will significantly decrease in certain areas of the proposed project area.	Noise
1QPRC18	QPRC	• Inadequate regard to blade flicker impacts	Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 wind turbine generators (**WTGs**) from the Project. These changes have significantly reduced shadow flicker impacts. The number of landholders that could be subject to shadow flicker in excess of 30 hours per year is limited to 4, all of whom are host-landholders..	Shadow Flicker
1QPRC19	QPRC	• As has occurred as part of other wind farm approvals, further assessment needs to be undertaken on individual rural properties and should address issues such as visual impact and noise impact, rather than blanket statements that cover the project area 3 which is 4,999 hectares. This is especially important as 59 dwellings have been identified as having a medium to high impact on them due to visual impact	Appendix A of the Landscape and Visual Impact Assessment Report of the EIS provides a spreadsheet that summarises the mitigated visual impacts for all existing and proposed (DA approved) dwellings within 3km offset from the JWF WTGs predicted as having Moderate/High to High unmitigated visual impacts. A revised Landscape and Visual Impact Assessment has been included as Annex E of the RtS – this also includes property specific assessment findings	Visual and Noise
1QPRC20	QPRC	• A clear assessment of the potential of the Wind Towers to impact on the ability to undertake aerial firefighting duties, especially in light of the recent bushfire that went through the area and required aerial support to save dwellings.	Communication between EPYC and the Lake George Zone RFS (via email dated 2 March 2017) has confirmed that the existence of turbines and windfarm infrastructure were not a factor in their operational response to the recent Currandooley fire. Any firefighting activities in the vicinity of the proposed wind farm by either fixed or rotary wing aircraft would need to be conducted in consideration of the location of the WTGs and monitoring towers (Jupiter Aviation Assessment, 2016). CFA Windfarm guidelines (2015) recommend that WTG be located approximately 300 metres apart. This provides adequate distance for aircraft to operate around a windfarm given the appropriate weather and terrain conditions. The nearest house is located over 599m from a proposed WTG. In the event of a fire in the surrounding properties, based on the information presented in the Jupiter Aviation Assessment presented with the EIS, WTGs would not limit aerial firefighting capabilities on other properties in the surrounding area. Further, the access tracks developed within the wind farm site will also be able to be used by the RFS to assist in responding to bush fires.	Fire

ERM Ref No.	Government Agency	Issue Raised	Response	Category
1QPRC21	QPRC	Financial Implications There is a proposed Voluntary Planning Agreement that is currently being assessed by Council's Strategic Planning staff.	QPRC has now responded to EPYC's letter offering to enter into a VPA. Council has indicated that it is prepared to negotiate further on the VPA if the project is approved. EPYC will continue to negotiate with the Council in this regard.	VPA
1QPRC22	QPRC	Conclusion Whilst the proposal is permissible under the State Environmental Planning Policy (State and Regional Development) 2011 and is considered State Significant Development, there are concerns regarding the impact of the development on the existing amenity of the neighbourhood through visual impact, noise impact, traffic impacts and the potential to impact on aerial bushfire fighting abilities, therefore it is considered appropriate to lodge a submission with the Department outlining these concerns.	Comment noted.	
1QPRC23	QPRC	The Administrator resolved that Council lodge a submission to the NSW Department of Planning and Environment on SSD 13_6277 for the Jupiter Wind Farm Project on Kings Highway, Tarago that raises the issues outlined in this report and objects to the proposal as presented, with the following additional comments: a) the January 2017 Currandooley fire reinforcing the Town Planner's comments about the potential obstruction of aerial firefighting, and b) that if approved, the Jupiter Windfarm will be an impediment to further residential and infrastructure development in this largely rural residential area	Please refer to the response to 1QPRC20 above in relation to the January 2017 Currandooley. Those portions of the wind farm site located within the QPRC are zoned RU1 – Primary Production. Wind farms and agricultural production have been proven to be able to successfully co-exist. The additional income provided to host landholders and neighbours under the benefit sharing arrangements offered, together with the additional contributions offered under the proposed VPA, will provide real and direct benefits to the surrounding community.	Comments

Table A.3 – Government and Industry Submissions and Responses (EPA)

ERM Ref No.	Subject	Issue Raised	Response	Category
1EPA1	EPA	The EPA has identified a number of broader environmental issues that the Department of Planning and Environment (DP&E) may wish to consider in its overall assessment of the application which include the following: - Noise impacts during construction and operation of the wind farm; - Air and water impacts; - Pesticides; and - Waste and contamination.	The EPA's specific comments on each of these issues are addressed below.	General Issues
1EPA2	EPA	1. AIR QUALITY Air quality in and around the project area is expected to be good because of the rural setting with no nearby industrial facilities or point source emissions of air pollutants. The main expected air quality issue for the project is dust emissions. The ridge system on which the wind farm is proposed will be exposed to high wind energy. The traffic generation for an expected 18-24 month construction period for the project is significant, and potential dust impacts along the transport route utilising unsealed roads and newly constructed access tracks has the potential to increase dust deposition at nearby receivers and is an environmental risk.	A detailed Air Quality Management Plan (AQMP) will be prepared as part of the Construction Environmental Management Plan (CEMP) post approval and prior to construction of the Jupiter Wind Farm Project. The AQMP will include specific dust suppression controls.	Air Quality
1EPA3	EPA	The EPA notes that an Air Quality Impact Assessment has not yet been undertaken for the proposed project. Given the extent of unsealed access roads and tracks, and the potential for adverse weather conditions (e.g. high winds and low rainfall) during the construction period, the EPA advises that the proponent should ensure sufficient water is allocated for dust suppression during the construction phase.	Sufficient water for dust suppression will be secured.	Air Quality
1EPA4	EPA	It is noted that the proponent has carried out a Water Balance (Chapter 4 of the Water Quality, Water Supply and Hydrology Assessment Report), which includes an assessment of the water demand for dust suppression on roads.	Comment noted.	Air Quality
1EPA5	EPA	Should the proposal be approved, the EPA recommends the proponent prepare an Air Quality Management Plan (AQMP) to be incorporated into the Construction Environment Management Plan (CEMP) to manage dust impacts during the construction period, as indicated in Table 14.4 - Summary of Soil and Water Mitigation Measures (Erosion Control).	An AQMP will be prepared as part of the CEMP post approval and prior to construction of the Jupiter Wind Farm Project.	Air Quality
1EPA6	EPA	The AQMP should (at a minimum): · Be prepared and implemented prior to the commencement of construction activities;	The AQMP will be prepared prior to construction.	Air Quality
1EPA7	EPA	· Ensure that the proponent maintains a water cart onsite at all times for the purposes of dust suppression on all unsealed roads and exposed surfaces;	The AQMP will include provisions relating to the provision of water carts	Air Quality
1EPA8	EPA	· Provide that all disturbed areas and stockpiles be maintained in a manner that prevents the generation of dust.	The AQMP will include provisions relating to the management of disturbed areas to minimise the generation of dust. .	Air Quality

ERM Ref No.	Subject	Issue Raised	Response	Category
1EPA9&10	EPA	SOIL AND WATER 2.1. Erosion and sediment controls It is noted that the Environmental Management Framework (Chapter 18.2 of the EIS) includes a commitment to preparing a CEMP which will address the construction phase environmental impacts of the proposal. The EPA considers this an important step and the CEMP should provide details of drainage works and associated infrastructure to divert 'clean water' around the construction site(s) and collect and treat 'dirty water' from the construction areas of the project. Any proposed storages and settling/containment ponds should be designed with available capacity to prevent uncontrolled discharges to surface waters and be developed in accordance with the principles and management practices consistent with the 'Blue Book' – Managing Urban Stormwater: Soils and Construction Vol.1 (Landcom 2004). The EPA supports the proponents' recommendation to prepare a Soil and Water Management Plan (SWMP) to be incorporated into the CEMP to manage soil and water impacts as indicated in Table 14.4 - Summary of Soil and Water Mitigation Measures (General Management Considerations).	These measures will be included in the CEMP.	Soil and Water
1EPA11	EPA	2.2. Design ARI's Chapter 6.3 of the Water Quality, Water Supply and Hydrology Assessment Report (Water Report), is titled "Design ARI's and calculation of peak flows for control devices", however there is no text in this Chapter. The EPA is unsure as to whether the proponent intentionally failed to address this matter, however the derivation of appropriate data for the design of control devices is an important component in ensuring adequacy of management.	This was erroneously omitted.	Soil and Water
1EPA12	EPA	It is noted that an Intensity-Frequency-Duration Table is provided in Annex B of the Water Report, however Annex B is referred to in the main text as the Erosion Hazard Assessment (provided as Annex A). There does not appear to be any reference to the IFD Table in the main report. The EPA suggests that the proponent review the Water Quality, Water Supply and Hydrology Assessment Report to ensure that it accurately predicts the impacts of the proposal and that proposed management measures are supported by adequate data.	The report has been reviewed and confirmed to adequately predict the impacts and management measures proposed.	Soil and Water
1EPA13	EPA	WASTE AND CONTAMINATION The EIS provides limited detail in relation to waste management and disposal in Table 14.4 - Summary of Soil and Water Mitigation Measures (Pollution Control and Waste Management Measures). The EPA recommends the proponent develop a Waste sub-plan in the CEMP to fully detail the safe and proper disposal of all wastes generated from the proposal, particularly during the construction phase.	A Waste Management Plan will be prepared as part of the CEMP prior to construction of the project.	Waste and Contamination
1EPA14	EPA	CONCRETE BATCHING Chapter 6.5.2 (page 54 of the Water Quality, Water Supply and Hydrology Assessment Report) states "Water discharged from the (concrete batching plant) wash bay will be encouraged to evaporate and/or infiltrate the soils,…". The EPA does not support the proposed method of infiltration of concrete wastewater to soils, as wastewater associated with concrete batching is usually highly alkaline and can increase soil and water pH. It can also increase the turbidity of waterways. The proponent should ensure that contaminated concrete wastewater is not discharged to the environment from any of the concrete batching and is managed so as not to pollute land or waters.	Concrete liquid wash out waste will be managed in accordance with current NSW EPA guidelines. Management of the liquid wash out waste will be confirmed with the preferred construction contractor and outlined in the CEMP for the Project..	Concrete Batching

ERM Ref No.	Subject	Issue Raised	Response	Category
1EPA15	EPA	CHEMICALS AND PESTCIDES Table 9.8 Proposed mitigation measures (Construction) of the EIS refers to the "controlling existing weed infestations with consideration to potential adverse effects of chemicals or other mechanisms on potentially occurring threatened species". Table 18.1 (Summary of Mitigation Measures for the Project) of the EIS also makes the same statement. Though not explicitly covered in the EIS, the use of pesticides in such a project is likely, and the EPA suggests the addition of a commitment in Table 18 to the effect: · All pesticide applications must be carried out in accordance with the requirements of the NSW Pesticides Act 1999 and the Pesticides Regulation 2009.	All pesticide applications carried out as part of the project will comply with the requirements of the Pesticides Act 1999 and the Pesticides Regulation 2009.	Chemicals and Pesticides
1EPA16	EPA	NOISE – COMPLIANCE MONITORING For the purposes of the EPA's suggested noise limit conditions in Attachment B, wind speed is to be measured directly in accordance with a method nominated by the proponent and at a location nominated by the proponent, consistent with the method and location used to determine the background noise regression curves in the Noise Impact Assessment. · The EPA recommends that the proponent nominate the location and method for wind speed monitoring, prior to any operations commencing.	The location of wind monitoring masts will be determined in accordance with the WTG locations and based on recommendations from the turbine manufacturer. The information regarding wind monitoring during the operation of the wind farm will be discussed with EPA prior to construction.	Noise
1EPA17	EPA	· To ensure the accuracy of modelling and for future compliance monitoring, the proponent should confirm the grid references of all assessed receivers.	Grid references for all assessed receivers are listed in the revised noise assessment included as Annex F (Appendix A of the noise assessment).	Noise
1EPA18	EPA	ATTACHMENT B Attachment B contains the NSW EPA Recommended conditions for noise and blasting – Jupiter wind farm.	Ongoing consultation is occurring with EPA in relation to the EPA's recommended conditions.	Noise Noise

Table A.4 – Government and Industry Submissions and Responses (DoPI)

ERM REF No.	Subject	Issue Raised	Response	Category
1DPI1	Department of Primary Industries	The proponent should provide further detailed information on the current agricultural productivity of the project site in order to form a baseline for the Decommissioning and Rehabilitation Plan. Baseline information should include assessment of current: o Agricultural practices. o Pasture components. o Weed levels. o Soils survey. o Landforms/land assessment.	The Jupiter Wind Farm, Preliminary Decommissioning and Rehabilitation Plan provided in Annex O of the EIS, is preliminary only. This plan will be updated as required by any conditions of approval. It is expected that any conditions of consent imposed for the project will include detailed rehabilitation objectives and a requirement to carry out progressive rehabilitation of all areas of the site not proposed for future disturbance as soon as reasonably practicable following construction or decommissioning.	Decommissioning
1DPI2	Department of Primary Industries	The proposed weed management plan should clearly articulate roles and responsibilities during and post the construction stages, current weed baseline levels, and specific management for areas disturbed during construction and any future rehabilitation works.	A Weed Management Plan will be prepared as part of the Construction Environmental Management Plan to be prepared following project approval and prior to construction of the Project. This plan will incorporate the features identified throughout the Department of Primary Industries submission.	Decommissioning
1DPI3	Department of Primary Industries	The Decommissioning and Rehabilitation Plan should include: o Weed management options for disturbed and covered areas (not just fertiliser treatments) o Appropriate timing seasonally for pasture revegetation and rehabilitation works (not just any six month period) o Appropriate specific indicators for the monitoring program o Specific information on monitoring frequency.	Refer response above to submission 1DP2 above.	Decommissioning
1DPI5	Department of Primary Industries	Insufficient information regarding project activities within waterways and riparian areas has been provided to adequately assess suitability of measures for protecting aquatic ecosystems. The proponent should ensure planned works are in accordance with the requirements listed at Attachment A.	Micro-siting and design for crossing will be developed in accordance with DPI. Mitigation measures outline that design will be undertaken in consultation with DPI. Mitigation measures have been added subsequent to the original measures proposed in the EIS.	Soil & Water
1DPI4	Department of Primary Industries	The proponent should consult with DPI Fisheries (ahp.central@dpi.nsw.gov.au) on the following matters prior to works commencing: o Progressive Erosion and Sediment Control Plans (ESCP's) for works impacting on 3rd order or above waterways. o Dewatering of, or discharge into a 3rd order or above waterway. o The Construction Environmental Management Plan.	Further consultation with DPI Fisheries will be carried out prior to commencement of construction.	Soil & Water

ERM REF No.	Subject	Issue Raised	Response	Category
1DPI15	Department of Primary Industries	Where volumetric water entitlement for the volumes of water sought may be required, the proponent should consider if there is sufficient market depth so that a trade of entitlement can be made. Trading must be consistent with the rules of the relevant Greater Metropolitan Water Sharing Plans and more specifically for this project, the Boro Creek and Reedy Creek Management Zones in relation to surface water.	All required water licences and approvals will be obtained prior to taking any water required for the project from any natural water source.	Soil & Water
1DPI6	Department of Primary Industries	It is noted that groundwater is unlikely to be encountered given the project location which is high in the landscape and the relatively shallow depths of excavations required. However, should further investigations indicate that groundwater may be encountered, the proponent should consult with DPI Water (water.referrals@dpi.nsw.gov.au).	All required water licences and approvals will be obtained prior to taking any water required for the project from any natural water source.	Soil & Water
1DPI7	Department of Primary Industries	Determination of the project should include the following Conditions of Consent: • The design of waterway crossings for access roads and cable installations, and any associated instream works are to be prepared in accordance with DPI Water's Guidelines for Controlled Activities on Waterfront Land (2012), except where the waterway has been identified as Key Fish Habitat or where the waterway is 3rd order or above, in which case all works should be in accordance with DPI Fisheries' Policy and guidelines for fish habitat conservation and management (2013). • Construction Soil and Water Management plans relevant to waterway crossings and other activities on "waterfront land" as defined in the Water Management Act 2000 are to be prepared in consultation with DPI fisheries and DPI Water prior to the commencement of such activities.	Ongoing consultation is occurring with DPI in relation to the DPI's recommended conditions.	Soil & Water
1DPI8	Department of Primary Industries	**Attachment A** Jupiter Wind Farm (SSD 6277) Detailed comments – DPI Fisheries The proposal footprint is located within the catchment of the Shoalhaven river and is transected by 3rd and 4th order waterways (identified as Key Fish Habitat) including Doughboy, Boro, Reedy and Manar Creeks and their associated tributaries and drainage lines. The potential impact of the development upon the aquatic habitats and fish communities of these waterways is of particular interest to DPI.	Comment noted.	Soil & Water
1DPI9	Department of Primary Industries	To ensure adequate protection of aquatic ecosystems within the project footprint the proponent should ensure the following: Open trenching techniques should be not be used for traversing waterways of 3rd order or above. Where the proposed cabling network crosses such waterways (as listed in Table 2.2 of Annex I – Water Supply, Water Quality and Hydrology Assessment Report) directional drilling or under boring methods should be undertaken wherever possible. The proponent is requested to consult with DPI Fisheries, including the provision of detailed plans for waterway crossings for review and comment, prior to commencement of any works in or adjacent to waterways.	The proposed mitigation measures will be implemented Watercourse crossings have been located to avoid 3rd order watercourse crossings where practicable. Consultation with DPI will be undertaken regarding the design of permanent watercourse crossings and which crossings will be prepared in accordance with the relevant DPI guidelines.	Soil & Water
1DPI10	Department of Primary Industries	Poles for the above-ground portion of the 33kV and optic fibre network must be positioned to avoid excavation within the bed or riparian zone (minimum 10m measured from the top of the bank) of all 3rd order or above waterways.	The proposed mitigation measure will be implemented where practicable.	Soil & Water

ERM REF No.	Subject	Issue Raised	Response	Category
1DPI11	Department of Primary Industries	Access tracks for construction and maintenance are to be located to avoid crossing 3rd order or above waterways wherever possible. Where unavoidable, the design and construction of all 3rd order and above watercourse crossings must be undertaken in accordance with DPI's Policy and guidelines for fish habitat conservation and management (update 2013 – Section 4.2 Waterway Crossings) and Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (2004). These documents are available on our website www.dpi.nsw.gov.au, under 'Aquatic Habitats' and 'Publications'. The designs for proposed crossings (both permanent or temporary on any 3rd order or above waterway) should be provided to DPI Fisheries prior to works commencing.	Watercourse crossings have been located to avoid 3rd order watercourse crossings where practicable. Consultation with DPI will be undertaken regarding the design of permanent watercourse crossings and which crossings will be prepared in accordance with the relevant DPI guidelines.	Soil & Water
1DPI12	Department of Primary Industries	· It should be noted that the standard drawing SD 5 -1 (Annex C of Annex I - Water Supply, Water Quality and Hydrology Assessment Report) does not meet the DPI Fisheries requirements for waterway crossings and should not be used as a template for 3rd order or above waterway crossings. Waterway crossings should be designed and constructed in accordance with the DPI Fisheries guideline Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (2003). End Attachment A	The standard drawing is from Landcom (2004) Managing Urban Stormwater, Soils and Construction and is recommended for temporary waterway crossing during construction. Permanent crossing structures will be designed in accordance with Fisheries Guideline as noted in the report.	Soil & Water

Table A.5 – Government and Industry Submissions and Responses (DoI)

ERM REF No.	Subject	Issue Raised	Response	Category
1DoI1	Department of Industries (now known as the Division of Resources and Geoscience within the DP&E)	Resource Sterilisation Construction of wind turbines in the northern precinct area will result in the sterilisation of the small deposits known as “Mt Boro Mine” and “Great Boro Mine” and has the potential to limit access to the area for future mineral exploration activity.	No turbines or other infrastructure associated with the Project are proposed to be located over the small deposits identified by DoI as the ‘Mt Boro Mine’ and the ‘Great Boro Mine. These Mines as identified in Figure 1 by Department of Industries are located in crown land and in an area outside of the PA. The project has a set life span and would not permanently sterilise the potential deposits near proposed turbine infrastructure and does not impact 'Mt Boro Mine’ and the ‘Great Boro Mine’. Further, the proponent is not opposed to ongoing exploration by exploration titleholders subject to agreement on an appropriate access arrangement being reached to manage interactions between projects.	Exploration
1DoI2	Department of Industries	Based on upon a geological assessment of the area by DRE, the northern precinct (refer to Figure 1 attached) of the Project should be excluded from the development.	See response to submission 1DoI1 above.	Comment
1DoI3	Department of Industries	Stakeholder Consultation Whilst details of all consultation undertaken are contained in Chapter 7 of the EIS, there is no documented evidence of consultation with Heron (including outcomes). DRE notes email correspondence from the proponent as evidence of consultation with Heron Resources Limited. Heron Resources has indicated concern regarding exploration access to title(s) held (EL8353). DRE requires that the proponent consult further with Heron Resources Limited regarding the northern precinct and access for exploration, document and provide evidence of resolution agreed between the parties.	The proponent has consulted with Heron Resources Limited and ongoing consultation is still occurring with Heron Resources Limited. Please refer to the separate response provided to the submission made by Heron Resources Limited for further information.	Consultation

Table A.6 – Government and Industry Submissions and Responses (GMC)

ERM Ref No.	Subject	Issue Raised	Response	Category
1GMC1	Goulburn Mulwaree Council	Goulburn Mulwaree Council generally supports renewable energy initiatives, however provides the following comments for consideration during the assessment of the development application.	EPYC appreciates the Council's support for renewable energy initiatives.	Comments
1GMC2	Goulburn Mulwaree Council	A review of the proposal documentation indicates potential impacts relating to Goulburn Mulwaree Council and its community including visual amenity, noise and vibration, and traffic	Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 WTGs from the Project. These PPR layout/design changes occurred primarily to minimise potential visual, noise, ecology and heritage impacts. They are also expected to substantially reduce the anticipated impacts across all environmental factors, including traffic impacts.	Comments
1GMC3	Goulburn Mulwaree Council	The potential visual impact on existing residential development in the area is not acceptable. The proposed topographical location and size of turbines will create significant visual impacts on view corridors and the rural vista from both public and private land. Further analysis of the impact of the residential properties identified as having a high or medium impact in the Environmental Assessment is required.	An updated Landscape and Visual Impact Assessment Report has been prepared to assess the visual impacts of the revised Project (Please refer to Annex E of this report)	Visual
1GMC4	Goulburn Mulwaree Council	The construction impacts of the development have not been adequately addressed, particularly the construction traffic impacts. The traffic generation counts do not appear to be realistic and therefore the true traffic impacts have not been identified based on Council's experience with previous similar projects	An updated Transport Impact Assessment has been included as Annex G of the RtS. This updates the traffic volume estimates.	Traffic
1GMC5	Goulburn Mulwaree Council	All local roads within Goulburn Mulwaree that are part of the transport route are to be upgraded to an acceptable standard in agreement with Council and then reinstated to that standard at the completion of construction works and prior to commencement of operations	Ongoing consultation is occurring with Council regarding the road upgrades required.	Traffic
1GMC6	Goulburn Mulwaree Council	The condition assessment and upgrade and repair works relating to roads should be appropriately captured in a Construction Traffic Management Plan endorsed by Council prior to determination of the development application	A Traffic Management Plan will be prepared after project approval and prior to the commencement of construction. The Council will be consulted with in preparing the Traffic Management Plan.	Traffic
1GMC7	Goulburn Mulwaree Council	Other construction impacts within the development site should be addressed in more detail to ensure the potential environmental impacts such as internal road construction are minimised and managed	A CEMP will be prepared post approval and prior to construction of the Project. The CEMP will contain detailed controls to manage construction impacts.	Comments
1GMC8	Goulburn Mulwaree Council	EPYC have proposed entering into a Voluntary Planning Agreement (VPA) with Council. The terms of the VPA and establishment of a Community Enhancement Fund should be considered to align with current practice in the wind power generation industry in NSW. In this regard, Council considers the annual contribution per turbine should be in the order of $3000 and CPI applied. The way in which the annual contributions are paid, administered and allocated to community based projects should be clearly articulated in any revised proposal. The model to be used should also reflect the successful current practices employed by other wind farm developments in the region.	EPYC will continue to engage with the Council regarding EPYC's offer to enter into a VPA. Please refer to the statement of commitments section.	VPA
1GMC9	Goulburn Mulwaree Council	Based on the points outlined above, Goulburn Mulwaree Council does not support the approval of the Jupiter Wind Farm proposal in its current form.	Noted.	Non-support

Table A.7 – Government and Industry Submissions and Responses (CASA)

ERM Ref No.	Subject	Issue Raised	Response	Category
1CASA1	CASA	Accordingly, wind turbines with a height greater than 150 metres Above Ground Level (AGL) should be obstacle lit. As you are aware, the NASF Guideline D provides advice on lighting requirements.	EPYC will comply with CASA's requirements in regards to night lighting.	CASA
1CASA3	CASA	In response to your recent enquiry about the use of radar activated lighting systems, as discussed at our meeting and explained in our previous letter, NASF Guideline D foreshadowed the alternative of using radar activated lighting systems. We have previously provided you a copy of a document from the United States Federal Aviation Administration (FAA) regarding its assessment of one such system which includes a copy of the relevant pages of the FAA Advisory Circular AC 70/7460-1L.	Comment noted	CASA

Table A.8 – Government and Industry Submissions and Responses (Water NSW)

ERM Ref No.	Subject	Issue Raised	Response	Category
1WNSW1	Water NSW	It is noted that the site is located in the Sydney Drinking Water Catchment and falls under the State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 (the SEPP). WaterNSW has reviewed the EIS and undertaken a site inspection and has the following comments:	Comment noted.	Water
1WNSW2	Water NSW	1. The EIS does not include a NorBE Assessment for the proposed development and how the proposed development will achieve a neutral or beneficial effect on water quality as required under clause 10 of the SEPP.	NorBE assessment has been undertaken and it has confirmed that the Project will have a neutral effect of water quality.	Water
1WNSW3	Water NSW	2. Water quality issues have not been adequately addressed in the EIS, including stormwater treatment and management from impervious areas during the operational stage of the proposed development. Clause g of the SEPP states that current recommended practices (CRPs) endorsed by WaterNSW should be applied. The CRPs are listed on the WaterNSW's website at http://www.waternsw.com.au/waterqualitv/catchment/development. WaterNSW considers the practices relevant to this project are those that address stormwater, on-site sewage management, and the construction of roads, access and services.	The development will be undertaken in accordance with current recommended practices (CRPs) endorsed by Water NSW.	Water
1WNSW4	Water NSW	3. The erosion hazard in EIS is listed as low for the majority of the site. However there are a number of locations where the soils are dispersive and saline and in these locations the erosion hazard would be medium to high. There are large numbers of erosion control works including contour banks, concrete flumes, dams and fenced revegetation areas scattered throughout the project area.	The erosion hazard identified for specific areas of the PA is described below: Lower Boro - erodibility for non-concentrated and concentrated flow is moderate to high (highest K-factor is 0.037). Sight Hill - erodibility for non-concentrated and concentrated flows is ranges from moderate to high (highest K-factor is 0.057) Duckfield Hut - erodibility for non-concentrated flows and concentrated flows is high to very high (highest K-factor is 0.056). Morass - erodibility for non-concentrated flows and concentrated flows is moderate through to very high with varying K-factors (highest K-factor is 0.046) ERM utilised a conservative K-factor across the site of 0.05 in calculation of erosion hazard for pad sites using the Revised Universal Soil Loss Equation (RUSLE). The RUSLE utilises the soil erodibility (K factor) along with other factors affecting the erosion hazard including topography (Slope Length/gradient factor - LS factor), rainfall erosivity (R-factor) and Land use (Cover - C factor and Erosion Control Practice Factor - P-factor). The results of RUSLE are then compared to Table 4.2 – (Soil Loss Classes) of the 'Blue Book' (Landcom, 2004) to provide an erosion hazard against the RUSLE calculated soil loss (tonnes/ha/year). Landcom (2004) outlines limitations of RUSLE, but ultimately concludes - 'despite these matters [limitations of RUSLE], the RUSLE has its benefits and should be applied at all urban development sites, even at a cursory level' and it is the expected approach on all such assessment reports. According to this calculation the highest erosion hazard was low to moderate. With the implementation of erosion and sediment controls and limited time of disturbance due to construction, the erosion hazard for pad sites was considered low. ERM notes that existing erosion control works are present on the site and avoidance to these structures should be avoided where possible.	Water

ERM Ref No.	Subject	Issue Raised	Response	Category
1WNSW5	Water NSW	4. The existing erosion control works provide an important role in mitigating the effects of erosion on the site and therefore protecting water quality. Measures to protect these erosion control works should be proposed and implemented in the management plans. This is especially important given that the soils on the site can have high salinity and be highly sodic. If any erosion control works are damaged or removed during construction, those works should be repaired or replaced.	The majority of works are on ridgetops or upper catchments where erosion control devices are less likely to be positioned. ERM notes that existing erosion control works are present on the site and micrositing of infrastructure will be carried out to avoid these where practicable. If any erosion control works are damaged or removed during construction, those works will be repaired or replaced.	Water
1WNSW6	Water NSW	Not all watercourse crossings are identified in the EIS. Some of the watercourse crossings will require major construction whilst some of the proposed watercourse crossings require relocation as there are better places to cross.	Table 2.2 of the EIS 'Water Crossings by Access Roads and Transmission Line' lists all third order water courses and above. Minor first and second order watercourse crossings were not included in the table. The changes made to the Project have removed the following watercourse crossing that were previously listed in Table 2.2: WC56 (note that this is the existing Duckfield Road); WC60 - removal of turbine 85 eliminates the requirement for an access track and creek crossing; and WC85 and WC91 - the removal of the southern precinct eliminates the requirement for an access track and creek crossing. ERM notes that if the transmission line is constructed as above ground no disturbance to watercourses will be posed by the construction. If underground transmission line to be constructed across a third order and above watercourse the line will be installed using under boring techniques.	Water
1WNSW7	Water NSW	The access road into the southern precinct is 3.5km long and will require a major upgrade.	The Southern Precinct has been removed from the Project, and as such the access track is no longer required.	Water
1WNSW8	Water NSW	There is erosion on the existing road.	Comment noted.	Water
1WNSW9	Water NSW	**6. Other Comments** a. Annex I, Section 6.3 - There is no information given under the heading "Design ARIs and Calculation of Peak Flows for Control Devices"	This was erroneously omitted. This omission has now been rectified and the design information included.	Water
1WNSW10	Water NSW	b. The Sydney Catchment Authority became Water NSW and is not part of DPI Water as is noted in a number of locations in the EIS. c. Some of the documents noted in the EIS are not WaterNSW's CRPs. WaterNSW will further consider the application following a response to the above comments	Noted.	Water

Table A.9 – Government and Industry Submissions and Responses (OEH)

ERM Ref No.	Subject	Issue Raised	Response	Category
1OEH1	OEH	OEH recommends that thirteen of the 88 turbines are removed due to unacceptable risk to biodiversity (29, 37, 40, 41,47,48,51,60, 62,63,66,78 and 81);	Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 WTGs from the Project. In particular, the number of WTGs has reduced from 88 to 54, resulting in a development footprint reduction from 86.28ha to 53.75ha. Figure 3.1 (Project Design Alterations) shows the alterations and attachment 1 (RtS Layout changes summary) contains the discussion. Specifically, WTGs T29, T47, T51, T60, T62, T63, T66, T78 and T81 have all been removed from the project. WTG's T37 and T40 have been relocated within 100m of the original location to reduce the risk to biodiversity and other associated impacts. WTG's T41 and T48 are still located within their original locations as they are sited away from vegetation and are in higher wind resource area. Key summary points regarding development footprint changes during this RtS process are: Entire Southern Precinct removed resulting in less potential impacts from lower area surrounded by higher wooded areas. Reductions consistent with agency submission. Removal of WTGs in the GBC habitat in the Northern Precinct and realignment of access tracks reduces and avoids some impacts to the denser Allocasuarina patches. Removal of WTGs and realignment of access tracks in the patch of highest quality EPBC Act-listed TEC (southern part of the central precinct) reduces impacts to this TEC as far as practicable (impact area reduced from 1.63ha to 1.17ha). Reduction of impacts to TSC act listed EECs: White Box Yellow Box Blakely's Red Gum Woodland 2.19ha down to 1.19ha; Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland in the South Eastern Highlands, Sydney Basin, South East Corner and NSW South Western Slopes Bioregion 4.70ha down to 4.39ha. Movement of a number of WTGs from woodland edges throughout the central precinct reduces impacts to woodland edges. Deletion of a number of WTGs reduces the densities of WTGs in the PA.	Biodiversity
1OEH2	OEH	OEH recommends that fourteen turbines are moved to reduce biodiversity impacts (2, 5, 6, 9,10, 11,19, 24, 28, 31, 32, 42, 59 and 85);	Please refer to response to submission 1OEH1 (above) for details of the changes made to the Project. Specifically, WTGs 9, 10, 28 have been relocated to address OEH's concerns. WTGs 19, 32, 42, 85 have now been removed entirely from the project. No change is proposed to WTGs 2, 5, 6, 11, 24, 31, 59. These turbines are sited away from vegetation and are in higher wind resource area. Any residual biodiversity impacts (as built) will be offset.	Biodiversity
1OEH3	OEH	OEH recommends that the impacts of the other 61 turbines are managed by offsetting alienated habitat within 100m;	Offsets will be provided to ensure that overall conservation values are improved or maintained.	Biodiversity
1OEH4	OEH	OEH recommends that a Bird and Bat Adaptive Management Plan (BBAMP) is prepared in consultation with OEH, including: 12 months pre-construction surveys for birds and bats; adequate monitoring regimes during the operational phase; and clear management protocols in the case of threatened species impacts;	A BBAMP will be implemented for the Project.	Fauna
1OEH5	OEH	• Further biodiversity surveys are undertaken to adequately address OEH's Director-General's Requirements (DGRs) and the Secretary's Environmental Assessment Requirements (SEARs);	The OEH's detailed comments on further surveys are discussed in detail in relevant rows below.	Biodiversity

ERM Ref No.	Subject	Issue Raised	Response	Category
1OEH6	OEH	OEH recommends that all areas to be impacted by the project are archaeologically surveyed;	ERM prepared an addendum to the original Aboriginal heritage assessment to reflect the reduced 54 turbine layout and provide additional information to support the Responses to Submissions (RtS). The revised mapping and predictive modelling is based on an updated literature review and the results of previous surveys undertaken across the PA by ERM in September 2014 and August 2015. No additional field survey is proposed to be undertaken at this stage of the project. Any additional impact areas that have not been surveyed (due to project layout changes) will be included and surveyed as part of the detailed Aboriginal Cultural Heritage Management Plan (ACHMP) that will be prepared during the detailed design phase of the Project, during which the final locations of Project infrastructure components and ground disturbance activities will be confirmed. Where disturbance to any areas identified (and verified in the field) as having the potential for containing archaeological deposits cannot be avoided, a program of subsurface testing will occur. The area to be tested should be confined to the proposed areas of direct impact only, and should occur prior to ground disturbing activities in the immediate area. The results of any additional field survey will be provided to OEH and RAPs prior to works commencing in these areas.	Heritage
1OEH7	OEH	OEH recommends that subsurface test excavations are undertaken in areas of identified potential archaeological deposit as part of the environmental assessment; and	The proponent is committed to undertaking test excavation and preparing an Aboriginal Cultural Heritage Management Plan (ACHMP) in consultation with both the Projects Registered Aboriginal Parties (RAPS) and OEH. Subsurface test excavation will be undertaken following project approval and during the detailed design phase of the Project, during which the final locations of Project infrastructure components and ground disturbance activities will be confirmed. Where disturbance to any areas identified (and verified in the field) as having the potential for containing archaeological deposits cannot be avoided, a program of subsurface testing will occur. The area to be tested should be confined to the proposed areas of direct impact only. If the subsurface testing program identifies significant archaeological deposits (ie high density stratified site, or site characteristics not typical of the southern tablelands which could be used to inform the archaeological record) these may be subject to a salvage excavation or avoided through detailed design and micrositing. . Any detailed salvage excavation program will be based on the results of the subsurface testing and will be subject to approval from OEH.	Heritage
1OEH8	OEH	OEH recommends that the Cultural Heritage Assessment Report is revised to include an adequate archaeological context and predictive model, correct information regarding the Aboriginal consultation process and the results of subsurface test excavations.	ERM prepared an addendum to the original Aboriginal heritage assessment to reflect the reduced 54 turbine layout and provide additional information to support the Responses to Submissions (RtS). - refer to Annex J of the RtS. An updated Aboriginal community consultation log is included in Annex A to the Cultural Heritage Assessment Report. Subsurface test excavation will be undertaken following project approval and during the detailed design phase of the Project, during which the final locations of Project infrastructure components and ground disturbance activities will be confirmed. Where disturbance to any areas identified (and verified in the field) as having the potential for containing archaeological deposits cannot be avoided, a program of subsurface testing will occur. The area to be tested should be confined to the proposed areas of direct impact only. If the subsurface testing program identifies significant archaeological deposits (ie high density stratified site, or site characteristics not typical of the southern tablelands which could be used to inform the archaeological record) these may be subject to a salvage excavation or avoided through detailed design and micrositing. The area to be tested will be confined to the proposed areas of direct impact only and the results used to inform a more complete record of the archaeology of the PA.	Heritage

ERM Ref No.	Subject	Issue Raised	Response	Category
1OEH9	OEH	OEH has three main areas of concern about the project's biodiversity impacts; threatened species, connectivity values and adequacy of impact assessment and offsetting. The EIS does not adequately meet all the requirements provided in OEH's DGRs, and SEARs. Of particular concern is an incomplete assessment of the impacts on the migrating Eastern Bentwing Bat and threatened and migratory waterbirds, the proximity of turbines to important habitat features and the cumulative impacts on raptors and migratory species. We recommend further survey for some species, and the provision of further information on the surveys undertaken to date (Attachment 1). Detailed recommendations and impacts for each turbine is provided in Attachment 2, and the accompanying maps. Additional biodiversity information required from the proponent	These issues are discussed in detail in relevant rows below.	Biodiversity
1OEH10	OEH	• A comprehensive map indicating all biodiversity constraints - including all threatened species and their habitat such as hollow-bearing trees (HBT), and Endangered Ecological Communities (EECs). Impacts in areas of high constraint needs to be avoided.	Please refer to Figure 2 (Biodiversity Constraints Map) provided within Annex I of this report.	
1OEH11	OEH	• Further surveys undertaken for: o Eastern Bentwing Bat - targeting migration times of Sep-Nov and March and using more detectors; o Threatened and migratory waterbirds - to meet OEH's DGRs o Newly listed threatened species White bellied Sea Eagle and Dusky Woodswallow.	Refer to response to submission reference no. 1OEH23 for further discussion on the Eastern Bentwing Bat Refer to response to submission reference no. 1OEH24 for further discussion on threatened and migratory waterbirds. The White-bellied Sea-eagle and Dusky Woodswallow were each identified once during surveys in the PA. Both species were listed in the latter part of 2016 (December 2016 and August 2016 respectively) and thus were not assessed in the EA. Seven-part tests have been amended to include these species (please refer to attached document - 2. Amended seven part tests).	Surveys
1OEH12	OEH	• Wind turbine generator (WTG) setback analysis and calculation of the area of habitat within 100m of all turbines. The EIS repeatedly states that turbines will cause alienation of adjacent habitat. This alienated habitat needs to be calculated and offset.	Impact area calculations have been prepared using an 8m width and a 15m width has been prepared for discussion and demonstration purposes (refer attachment 8 (HBT-WTG Separation Analysis within Annex I of this report) for impact area calculations). An impact area calculation for the area of 100m around each WTG has also been prepared, although the requirement to offset all area within 100m of WTGs will be discussed further with DP&E.	
1OEH13	OEH	• A revised impact calculation for roads using an average width of 15m. The EIS refers to an average width of 8m however this does not adequately allow for cut and fill and the accommodation of over-dimensional vehicles.	Regarding the access track widths, EPYC is confident that the 8m width will represent the required clearing width along the length of access tracks, however a 15m width has been prepared for the purposes of discussing the impact area and to continue discussions through the suitability and capacity of any candidate offset sites. A final GIS calculation of the impact area will be conducted using the 'as built' surveyed design and the vegetation mapping to ascertain the quantum of offsets required. Using the 15m access track width consideration will allow an 'upper clearing limit' to guide the process, however offsets will be secured which meet EPYC's offsets obligations, rather than a 15m arbitrary limit. (Refer to attachment 10 - RtS GIS Calculation Sums within Annex I of this report).	Roads/Access Tracks

ERM Ref No.	Subject	Issue Raised	Response	Category
1OEH14	OEH	Aboriginal cultural heritage OEH is concerned that the project area (PA) and associated infrastructure have not been adequately surveyed. As a result, we believe that the archaeological resource of the PA has been underestimated and that the project will have greater impacts to Aboriginal cultural heritage values than predicted. We support the preparation of an Aboriginal Cultural Heritage Management Plan (ACHMP) and the recommendation that areas of potential archaeological deposit (PAD) are tested prior to ground disturbing works. Ideally, the test excavations should be undertaken as part of the environmental assessment in order to adequately assess impacts to Aboriginal cultural heritage values across the area. Detailed advice on our Aboriginal cultural heritage concerns is provided in Attachment 3.	The proponent is committed to undertaking test excavation and preparing an Aboriginal Heritage Management Plan in consultation with both the Projects RAPS and OEH. Please refer to the response provided to submission reference no. 1OEH7 for further details.	Heritage
1OEH15	OEH	Attachment 1 -Information on biodiversity impacts of Jupiter Wind Farm Threatened species and ecosystems Glossy Black Cockatoo (GBC) Conservation status in NSW Vulnerable The EIS states that the project will have a significant impact on GBC. This is of great concern as this species is very rare in region.	The removal of WTGs (in particular, T51, T78 and T81) throughout potential GBC habitat in the Northern Precinct and realignment of access tracks has been undertaken to reduce and avoid some to the denser Allocasuarina patches, which will substantially reduce impacts to potential GBC habitat. Reductions generally in line with OEH recommendations. Please refer to response to submission reference no. 1OEH1, 1OEH2, 1OEH16 and Figure 3.3 (Glossy Black-Cockatoo Habitat and Project Changes) for additional information.	Biodiversity
1OEH16	OEH	We therefore recommend the removal of turbines 41 , 48, 51, 78 and 81 to avoid the removal of known foraging and known or potential nest trees (see Map 1).	WTG's T51, T78 and T81 have been removed from the project and will reduce the clearance of known foraging habitat in this area of GBC habitat (refer to Figure 3.3 - Glossy Black-Cockatoo Habitat and Project Changes).	Glossy Black Cockatoo
1OEH17	OEH	Turbines 13, 43, 52 and 76 could be constructed in this area of habitat, provided the construction of turbines, cables and roads does not result in removal of foraging habitat (Allocasuarina) or any trees with hollows greater than 15cm diameter.	Comments noted. ERM notes that OEH accept some WTGs can be built in that GBC habitat area, rather than complete removal.	Biodiversity
1OEH18	OEH	The project will also have a significant impact on Commonwealth-listed Box-Gum Woodland Endangered Ecological Community (EEC). 1.6 ha of EPBC Box-Gum woodland EEC will be removed.	Comment noted. Please refer to response to submission reference no. 1OEH2 and Figure 3.4 (Box Gum Woodland and Project Changes) for discussion regarding impacts to Endangered Ecological Communities of concern.	EEC
1OEH19	OEH	OEH recommends removal of turbines 37, 40 and 66 to protect the most significant stands of woodlands (see Map 2).	WTG 66 has been removed from the project to minimise impacts through the BGW patch (containing Hoary Sunray). WTG's T37 and T40 have been moved <100m with T40 moved east away from the woodland edge. WTG movements and deletions through this section has minimised the footprint through that BGW (and Hoary Sunray) patch. Weed hygiene measures will be included in a Construction Environmental Management Plan (CEMP) and hydrological alterations will not occur from track development, therefore the Hoary Sunray will likely not be significantly impacted being a flora species with a large population across the greater patch / area. Being a flora species, once access tracks are constructed and WTGs are operational (should weed management measures be implemented through a CEMP) then impacts will be negligible.	Box-Gum Woodland

ERM Ref No.	Subject	Issue Raised	Response	Category
1OEH20	OEH	This would have the additional benefit of protecting known Hoary Sunray habitat (see Map 5.6 from EIS Appendix D Biodiversity Assessment - reproduced here as Map 6). The Hoary Sunray is listed as Endangered under Commonwealth legislation. Natural Temperate Grasslands (EEC) Commonwealth status: Critically Endangered Ecological Community. More detail needs to be provided on the classification of the native grassland.	Please refer to response to submission 1OEH19 above relating to impacts to potential Horay Sunray habitat. Attached discussion document 3 (NTG discussion) has been prepared to respond to this submission, and to provide additional justification behind the classification of the native grassland. Please refer to Annex I for abovementioned discussion.	EEC
1OEH21	OEH	A full explanation of the possibility of occurrence of Natural Temperate Grassland must be provided.	Please refer to attached discussion document - 3. NTG Discussion (from ERM 2016) for an explanation of the possibility of occurrence of Natural Temperate Grassland.	NTG
1OEH22	OEH	More detail must be provided about origins of derived grasslands, particularly if derived from one of the EECs.	Figure 5.4 of the EA (ERM 2016) shows the vegetation types with the style of vertical lines, or dots demonstrating the grasslands that were described as derived from the parent vegetation type (shown as the solid colour block). Grasslands were determined as derived from which vegetation zone based on species presence in comparison to the vegetation community characteristic species (described in the Vegetation Information System (VIS) or other sources such as the OEH Threatened Species Profile Database or the Commonwealth Species Profiles and Threats database) identifiable as the ground layer vegetation in the 'derived grassland'. Conservative estimates were made with a large proportion of the Study Area being assigned as derived variants of the parent vegetation types, rather than writing off whole areas of grasslands as not native or pasture. Vegetation mapping nomenclatural rules were created and applied to describe these variants as described in Section 4.2.2 of the EIS and in the attachment 4 (4. Vegetation Nomenclature Rules). Derived variants were identified using evidence lines identified in the field including: - ground layer species presence in the grasslands (comparing to published characteristics of the vegetation types) - any scattered remnant trees possibly evidence of past clearing - landscape position noting adjacent vegetation or remnant woodland type (so as to set aside those derived from BGW vs those on rocky rises likely derived from clearing the upland vegetation types) - qualitative soil type, depth or geology (noted in roaming observations via cross sections of erosion gullying, tracks or outcropping).	Biodiversity
1OEH23	OEH	Eastern Bentwing-bat (EBB) Conservation status in NSW: Vulnerable The assessment of the EBB and migratory pathways does not adequately address the Director General's Requirements (DGRs). The DGRs required the proponent to address the impact of the project, specifically in the rotor sweep area (RSA), on the migrating EBB, with specific consideration of the nearby staging cave at Mount Fairy. Recent research by OEH demonstrated that EBBs fly within the RSA so the proposal presents a substantial risk particularly if the species migrates through the area. The EIS states that Eastern Bentwing-bats were detected at ground and 50 m above ground level (AGL), yet it states that the EIS claims there is no evidence that a significant proportion of the population passes through the site. We have little confidence in this view as there were few detectors used and the data was collected from only one year. Further surveys targeting the migration times of Sep-Nov and March needs to be done using more detectors. EBB mitigation measures are inappropriate (p. H13) and need to be revised to provide realistic mitigation.	**EBB** EPYC and ERM undertook extensive discussions with OEH regarding the Eastern Bentwing-bat survey effort. The OEH correspondence from early March 2015 indicates OEH's acceptance of targeted detector deployment number, spacing and seasonal timing. This included ground-level detection units in woodlands across the PA for a variety of durations and three units mounted at 50m above ground level for one year. There was also a specific effort to have sufficient units deployed at ground level across the PA to detect any 'pulse' of the species moving across the site. Those units were deployed as directed by OEH from 5th March 2015 for at least two weeks (were in place for 21 days until 26th March 2015) (acknowledging a typographical error in the EA Table 4.13). The results detected no 'pulse' of the species migration through the PA. Refer to Figure 3.5 (Eastern Bentwing-bat Migration Monitoring Ground Level Units 5/3/15-26/3/15) of the RtS for additional information. Mitigation measures for the Eastern Bentwing-bat will be presented in the CEMP which will be drafted in consultation with DP&E.	Eastern Bentwing Bat

ERM Ref No.	Subject	Issue Raised	Response	Category
1OEH24	OEH	Golden Sun Moth (GSM) Conservation status in NSW: Endangered Ecological Community Commonwealth status: Critically Endangered Standard practice for undertaking surveys for GSM is to do the surveys in the time period when the species is flying . This changes from year to year so known locations of the species (reference sites) are monitored to determine the flying period. However the SIS does not provide sufficient information to determine whether the survey days at Jupiter aligned with active days at the reference sites. This information is required before an assessment can be made on the adequacy of the work. In addition, an estimate of effort for each survey site needs to be provided, i.e. time on-ground and area covered. Some of the surveys were undertaken quite late in the day. Waterbirds The EIS does not adequately meet the DGRs related to the assessment of threatened and migratory waterbirds. The DGRs required particular assessment of the impact of the Project on threatened and migratory waterbirds using Lake Bathurst and The Morass wetland areas, as well as any movements between Lake Bathurst and the nearby Lake George or other waterbodies in the region . Waterbird surveys must be more systematic and repeated, given the importance of regional habitat and the threatened species records on the site. Survey effort was poor at Lake George and Lake Bathurst and searching in farm dams was cursory and opportunistic. Reptiles Details need to be provided for the timing and temperature of each tile check. Page 46 states that survey "was typically conducted in the morning" and when the temperature was below 27 degrees, but if sunny, this temperature is too high for finding Striped Legless Lizards. A description must be provided of the ground cover under the tiles, if cleared it could have affected the result. Tiles may not have been established long enough for Little Whip Snakes. Bird utility studies (BUS) More survey should be undertaken, particularly in key interface areas where proposed turbines are close to edge of forest/woodland. More than six locations are required to adequately survey across such a large study area.	**GSM** OEH letter to ERM dated 28 November 2014 states that OEH are satisfied with no further surveys being required. Opinion stated as being formed based on review of ERM Jupiter Wind Farm Seasonal Interim Ecology Report (January 2014), the ERM Jupiter Wind Farm GSM effort memo (24 November 2014) and the DGRs (December 2013). **Waterbirds** ERM provided OEH a spring/summer survey schedule (dated 13 November 2014 (as Rev 3) detailing proposed survey effort for comment regarding a number of taxonomic or functional groups. OEH responded with comments in a document on 10 December 2014 (DOC14_284380_8_OEHResponseReSurveyEffort). The spring/summer survey schedule states no further effort would be undertaken at Lake Bathurst or The Morass with effort spent onsite. OEH response on stated that the proposed approach is sufficient if the EIS can establish that waterbirds travelling between Lake George and Lake Bathurst are not using the site. The EA establishes the waterbird use of the site in section 5.7.4, Table 5.18, section 6.3.4 and section 7.1.4. **Reptiles** Artificial habitat (tile grids) were installed in areas of potentially suitable habitat in native tussock grasslands and areas with some surface rocks present on north facing flat aspects. They were installed in late July 2014 and were left unchecked until survey commencement in mid-October 2014. The Little Whip Snake was targeted using a variety of methods and not detected. It was considered as potentially occurring and considering the small amount of potential habitat present in the development footprint relative to that present in the Study Area, the species is not likely to suffer a significant impact from the Project. Survey requirements of DGRs state that if using tiles there is a need to check at least every 2 weeks through spring and early summer. ERM conducted six surveys in total, occurring every two weeks - commencing 15 October through to mid-December. Surveys were not conducted when temperatures were above 27 degrees. Refer attachment 5 (Tile Check Temperatures) for the temperatures reported by the Bureau of Meteorology from the closest automatic weather station on the days when tiles were checked. Only five days were in excess of 25 degrees (recorded at the hottest part of day), with actual survey episodes taking place earlier in cooler part of the day. **BUS** (woodland bird surveys) All surveys undertaken were completed according to that which was agreed with OEH. Spring/summer survey schedule (dated 13 November 2014 (as Rev 3)) states that effort in DGRs was “at suitable locations throughout Study Area, 20 minutes / 2 ha in open woodland or 40 minutes/ 2 ha in dense and tall vegetation. On at least three separate locations separated by at least one week”. Spring/summer survey schedule (dated 13 November 2014 (as Rev 3)) states ERM would undertake: “Each survey > 40 min duration and with 2 ecologist present. • Summer 13/14. 4 sites • Autumn 14 (GB Cockatoo focused) - 5 sites (included an extra BUS site in the 31-68 cluster). • Winter – 5 Sites • Spring 14 – 5 sites • Superb Parrot Transect – 1hr spring/summer. Will also include an additional BUS survey." OEH response to spring/summer 2014 proposed survey effort (dated 10 December	Biodiversity

ERM Ref No.	Subject	Issue Raised	Response	Category
			2014) requested an additional BUS in the 15-70 clusters. ERM clarified with OEH (email on 12 December 2014) which reiterated at least one more in that cluster, which ERM conducted. Although during the RtS the far southern cluster of WTGs was removed, thus rendering discussion on this effort irrelevant. ERM addressed all of OEH's requirements as demonstrated in the above.	
1OEH25	OEH	Raptors Further raptor survey should be undertaken. OEH's main concern is that there were no autumn or winter surveys. The survey sites for raptors in the southern cluster were nowhere near the turbine locations, so may not represent true level of raptor activity and risk of turbine strike. There is no data presented on the proportion of total time that raptors were recorded during surveys. Despite what the EIS says about the flight height of Spotted Harriers, one has been killed by blade strike at another windfarm in the region. This is an at-risk species. Owls Further survey for owls should be undertaken. Survey effort was relatively low. There are known records of Sooty Owl and Powerful Owl within 6km and 10km of the site. The project area therefore occurs within foraging habitat for these species.	**Raptor Survey Effort:** DGRs specified a minimum of five one hour surveys at each survey location and each control location. Spring/summer survey schedule (dated 13 November 2017 (as Rev 3)) stated proposed surveys of 6 on site and 6 offsite raptor survey points during those seasons (to be repeated 5 times with two ecologists for each survey this is equivalent to 120 person hours). Raptor surveys were undertaken at six onsite locations and six offsite (control) locations, repeated at least five times. **Southern Precinct:** The southern precinct is no longer part of the Project. **Data Collection:** Spring/summer survey schedule (dated 13 November 2017 (as Rev 3)) stated that data would be collected using the DGR recommended proforma. Data were collected in the DGR-recommended proforma (refer attachment 6 (Example Raptor Survey Proforma - completed dated 10-11-14) for an example sheet - more can be provided upon request). Data were collected on flying time durations according to that DGR-recommended proforma (raw data can be provided). **Revised Spotted Harrier bird strike discussion:** The EA (ERM 2016) contains a seven-part test which discusses the significance of impacts to this species acknowledging that it will spend at least some of its time in the rotor strike area. The conclusion is that the species will not be significantly impacted by the Project. Refer attachment 1 for updated seven-part tests. Further discussion of this species across the region in terms of cumulative impacts is provided in response to submission reference no. 1OEH30. **Owls in the PA:** Attachment 7 (Threatened Owls) contains further discussion of owls. Owls were targeted in 22 hours of call playback and spotlighting through autumn and winter of 2014. Suitable habitat was considered and mapped (including HBTs suitable for owl use). Their use of the PA was analysed and considered in the impact assessment. The impact assessment (seven-part tests) concluded that the potential impacts of the Project on the Powerful Owl and Barking Owl "...include habitat loss and WTG collision. Given the small proportion of habitat to be cleared habitat loss is unlikely to lead to a significant impact on these species. Furthermore neither owl species nor suitable nest hollows were recorded during field surveys, and the majority of the habitat within the Study Area is considered sub-optimal. If the threatened owl species occur within the Study Area it is likely to be limited to occasional foraging, rather than being resident or breeding within the Study Area. The risk of WTG collision is uncertain however it is expected that while hunting the species are likely to fly below RSA height." The development footprint has contracted during the RtS process with less WTG's and less vegetation clearance. The far southern cluster has now been removed from the development footprint and associated potential owl habitat in the more forested areas has been avoided. WTG densities adjacent the forested areas in the east and north east of the PA have been reduced. It is not anticipated that any reduction in the development footprint would affect the conclusion in the EA: that is, it is not anticipated the threatened owl species will be significantly impacted by the reduced project footprint.	Biodiversity

ERM Ref No.	Subject	Issue Raised	Response	Category
1OEH26	OEH	Threatened flora surveys Further surveys for threatened flora and known threatened flora habitat are needed in the southern precinct and the road reserves of Goulburn-Braidwood Road and the Kings Highway. Surveys were confined to one year and some were likely to be too early for detecting *Oiuris aequais*. We do not recommend relying on pre-clearance surveys as the surveys must be done in a fairly narrow seasonal window which will place considerable limitations on the construction schedule (p188). If it is located in pre-clearance surveys it will impact on the project as this species is difficult to offset. There is no evidence to support the statement that "The transmission line alignment has been chosen in an area of least disturbance along the road edge immediately adjacent to the hardstand. The alignment has been chosen as the lowest ecological impact achievable". The alignment does not appear to have been surveyed. The targeted Flora Searches (shown on the maps under sections 4.2.3) appear to just be meanders. If these are the areas identified as the most likely to contain the target species then transects should also be walked in a regular pattern at intervals which reflect the area of visibility according to terrain and vegetation cover. Hollow-bearing Trees (HBT) The OGRs required assessment of the proximity of WTG to habitat features including HBT, margins or ecotones of remnant woody vegetation and riparian areas, in particular habitat resources used by birds and bats. All HBT within 200m of turbines must be mapped. HBTs must be offset, including "alienated" ones within 100m. This requirement was poorly met. Conflicting and unclear numbers are presented in the EIS and associated documents about the number of HBTs to be impacted. Clarification on the number and type of HBT within the development footprint, including all access tracks, transmission lines, and within 100m of all turbines is required. Page E8 and E9 say only 13 of 249 HBTs recorded are in the development footprint, but this does not include access tracks or alienation within the 100m buffer. Table 06 lists 300 HBTs surveyed. Page E7 says "Micro siting of access tracks and other areas not yet surveyed for HBTs will be undertaken with involvement from an ecologist, and any suitable nesting trees will be avoided, where practicable." OEH is not supportive of the proposal to use "artificial hollows within adjacent suitable habitat at a suitable replacement ratio to be calculated." (p 187). OEH has strict guidance about hollow replacement and does not recommend nest boxes. Hollow augmentation may be appropriate.	**Threatened Flora** **Southern Precinct:** The southern precinct is no longer part of the Project. **Road reserves:** No targeted threatened flora surveys were conducted in the Kings Hwy and the Goulburn-Braidwood Road reserves. Qualitative vegetation mapping was undertaken in August 2015 to identify the vegetation types and condition along the road reserves of both sides of the Kings Highway and Goulburn-Braidwood Road between the (former) Southern Precinct, the Central and Northern Precincts. Targeted threatened flora surveys are scheduled for spring 2017. It is however true that if the transmission line alignment is to take the route along those roads that immediately adjacent to the current hardstand is the least likely to contain threatened species because it is most likely to be previously impacted by road shoulder, blue metal, compaction and other impacts. **Regarding timing of surveys:** Threatened flora meanders were undertaken in: • 3-7 February 2014 • 27-31 October 2014 • 10-14 November 2014 and 8-12 December 2014 ERM sought clarification of flowering times in that season for *Diuris aequalis* and the [discussed] Caledenia spp. OEH email to ERM on 27 October 2014 recommended to survey from 27 October 2014. This was vindicated as ERM observed *D. aequalis* on 28 October 2014. Using these identification dates observed in field of target species, and OEH email, further ERM surveys after those identification dates covered potential habitat. ERM feels this method is adequate and is confident the methods identified individuals present. **Regarding meanders vs regular transects:** The line shown on the map as field survey effort was a single meander accompanied by a parallel meander by a second ecologist. This was undertaken to cover the potential habitats at the correct season and considered visibility. The timing and field methods were vindicated as during field surveys on 28 October 2014. ERM ecologists identified *Diuris aequalis* in a woodland patch and *Leucochrysum albicans subsp. albicans* in a grassy woodland patch on 29 October 2014 (which was mapped thoroughly on 10 December 2014). The observation of both of these species led to project redesign to avoid (in the case of *D. aequalis*) and to minimise impacts to these species as far as practicable (in the case of *L. albicans*).	Biodiversity

ERM Ref No.	Subject	Issue Raised	Response	Category
1OEH27	OEH	Threatened flora surveys Further surveys for threatened flora and known threatened flora habitat are needed in the southern precinct and the road reserves of Goulburn-Braidwood Road and the Kings Highway. Surveys were confined to one year and some were likely to be too early for detecting *Oiuris aequais*. We do not recommend relying on pre-clearance surveys as the surveys must be done in a fairly narrow seasonal window which will place considerable limitations on the construction schedule (p188). If it is located in pre-clearance surveys it will impact on the project as this species is difficult to offset. There is no evidence to support the statement that "The transmission line alignment has been chosen in an area of least disturbance along the road edge immediately adjacent to the hardstand. The alignment has been chosen as the lowest ecological impact achievable". The alignment does not appear to have been surveyed. The targeted Flora Searches (shown on the maps under sections 4.2.3) appear to just be meanders. If these are the areas identified as the most likely to contain the target species then transects should also be walked in a regular pattern at intervals which reflect the area of visibility according to terrain and vegetation cover. Hollow-bearing Trees (HBT) The OGRs required assessment of the proximity of WTG to habitat features including HBT, margins or ecotones of remnant woody vegetation and riparian areas, in particular habitat resources used by birds and bats. All HBT within 200m of turbines must be mapped. HBTs must be offset, including "alienated" ones within 100m. This requirement was poorly met. Conflicting and unclear numbers are presented in the EIS and associated documents about the number of HBTs to be impacted. Clarification on the number and type of HBT within the development footprint, including all access tracks, transmission lines, and within 100m of all turbines is required. Page E8 and E9 say only 13 of 249 HBTs recorded are in the development footprint, but this does not include access tracks or alienation within the 100m buffer. Table 06 lists 300 HBTs surveyed. Page E7 says "Micro siting of access tracks and other areas not yet surveyed for HBTs will be undertaken with involvement from an ecologist, and any suitable nesting trees will be avoided, where practicable." OEH is not supportive of the proposal to use "artificial hollows within adjacent suitable habitat at a suitable replacement ratio to be calculated." (p 187). OEH has strict guidance about hollow replacement and does not recommend nest boxes. Hollow augmentation may be appropriate.	Additional survey on transmission line corridor will be undertaken post project approval. HBTs Separation Calculations Between HBTs and WTGs Attached is a separation calculation of HBTs within proximity to WTGs (refer to attachment 8 - HBT-WTG Separation Analysis). There are 13 WTGs with a total of 23 HBTs within 100m, the closest being an HBT 33m from WTG T11. A further 73 HBTs occur between 100m and 200m of a total of 22 WTGs. These are also shown in FIGURE3.2. HBTs in Development Footprint No HBTs are within the WTG development footprints (described above). There are 22 HBTs within the development footprint, all of which are located within the transmission line route and the substation area (14 and 8 respectively). The impacted HBTs may be reduced along the transmission line route where possible during detailed design. Mitigation measures will be developed as part of the CEMP in consultation with DP&E regarding their hollow augmentation recommendations.	Biodiversity
1OEH28	OEH	Connectivity values The wind farm is surrounded by areas of intact forest and woodland vegetation, much of it at higher elevations. Several of the turbines in the proposal are poorly located within the landscape and may result in considerable impacts on birds and bats during operation. OEH recommends that the design layout for this wind farm should aim to maintain habitat connectivity and ensure a buffer distance from intact remnants OEH is concerned about the ecological implications of locating turbines along both sides of contiguous ridgeline vegetation and in gaps and saddles between remnants where flying animals might be channelled. There is inadequate consideration given to the impact of loss of connectivity and disruption to the fauna movement pathways both north-south and east-west. Of particular concern are the turbines in the central cluster, along the western and eastern fringes of a forested ridgeline (Map 2). We recommend moving	The proponent has considered the agency and public submissions and to reduce the Project's potential impacts on biodiversity, has made a number of changes to the development footprint. Notably, the number of WTGs has reduced from 88 to 54, resulting in a development footprint reduction from 86.28ha to 61.81ha. Figure 3.1 (Project Design Alterations) shows the alterations and attachment 1 (RtS Layout changes summary) contains the discussion. Key summary points regarding development footprint changes during this RtS process are: Entire Southern Precinct removed resulting in less potential impacts from lower area surrounded by higher wooded areas. Reductions consistent with agency submission. Removal of WTGs in the GBC habitat in the Northern Precinct and realignment of access tracks reduces and avoids some impacts to the denser Allocasuarina	Biodiversity

ERM Ref No.	Subject	Issue Raised	Response	Category
		turbines 2, 9, 10, 11 , 24, 28, 31 and 59 further back from the vegetation. Turbines 40 and 66 should be removed as they are located in the middle of the N-S remnant. This remnant open forest is in good condition and will provide important habitat for a range of threatened and other species, surrounded as it is by much lower condition vegetation and cleared farm land. Birds and bats utilising the ridgetop forest in this area, will fly from the treetops, Page 6 directly into the rotor swept area (RSA) of the adjacent turbines at lower elevations surrounding the forest. RSA height is 47-173m. Many aerial species will move into or out of this woodland patch periodically, thus needing to move between turbines; being surrounded by turbines will increase their risk of blade strike. Raptors and owls are also likely to be attracted to this area for hunting, and will be at greater risk of blade-strike due to this design. The EIS suggests habitat alienation around turbines is a positive response that will reduce blade strike, but is of concern if it also causes adjacent patches to be avoided because of the concentration of turbines along the edges. OEH considers that the turbines in the southern cluster will have an unacceptable impact on biodiversity values. These turbines are also located in a lower elevation area between forested ridges (100-200m higher), increasing risk of blade-strike (Map 3). Turbine 29 should be removed due to the proximity of threatened species and EEC. Turbines 47, 62 and 63 should be removed as they pose a high risk to birds and bats flying between adjacent forested hills through RSA. 64 and 35 are also likely to be high-risk turbines for threatened and migratory species moving between the surrounding patches of HCV vegetation - especially EBB.	patches. Reductions generally in line with OEH recommendations. Removal of WTGs and realignment of access tracks in the patch of highest quality EPBC Act-listed TEC (southern part of the central precinct) reduces impacts to this TEC as far as practicable (impact area reduced from 1.63ha to 1.17ha). Reduction of impacts to TSC act listed EECs: White Box Yellow Box Blakely's Red Gum Woodland 2.19ha down to 1.19ha; Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland in the South Eastern Highlands, Sydney Basin, South East Corner and NSW South Western Slopes Bioregion 4.70ha down to 4.39ha. Movement of a number of WTGs from woodland edges throughout the central precinct reduces impacts to woodland edges. Deletion of a number of WTGs reduces the densities of WTGs in the PA. Specifically addressing the submission in this row: WTGs T29, T47, T51, T60, T62, T63, T66, T78 and T81 have all been removed from the project. WTG's T37 and T40 have been relocated within 100m of the original location to reduce the risk to biodiversity and other associated impacts. WTG's T41 and T47 are still located within their original locations.	
1OEH29	OEH	Impact calculation and offsetting An ecological constraints map which combines all the important ecological features, and designates high constraint areas to be avoided needs to be prepared and presented. All habitat within 100m of turbines must be offset, including HBT. The WTG setback analysis has not yet been completed by the proponent (p 9-22). This analysis is essential to inform the placement of turbines. The report cites an outdated reference from 2001 to assert that 10,000 - 40,000 birds and bats are killed annually by blade-strike in USA (p 183). However Smallwood (2013) estimates that there are 888,000 bat and 573,000 bird fatalities/year (including 83,000 raptor fatalities) due to wind farms in the United States. A BBAMP needs to be prepared in consultation with OEH, including 12 months pre-construction survey of at-risk species, including control sites and transects in woodland areas surrounded by WTG. Roads Roads are mapped and impacts calculated at a width of 8m throughout the wind farm. OEH considers that this is an underestimate, in our experience wind farm roads average approximately 15m wide, and slopes requiring cut and fill will result in an even wider road. There are approximately 50km of roads shown in the current layout, resulting in approximately 40ha of impact (some of which is already farm tracks), however if the more realistic width of 15m is used, the impact area of the roads will be approximately 75ha. Vegetation along rural roads often need to be removed to accommodate over-dimensional vehicles and machinery required to construct the turbines. Roadside vegetation in agricultural areas may provide essential refuges for threatened and non-threatened species. Any vegetation subject to road	**Ecological Constraints Map:** Refer attached FIGURE 3.2 (Biodiversity Constraints Map) **BBAMP and HBT Separation Analysis:** A WTG and HBT separation analysis has been undertaken (refer to response to submission reference no. 1OEH34 and attachment 9 - BBAMP Outline). A Bird and Bat Adaptive Management Plan will be prepared in consultation with DP&E. **Impact Area Calculations, Track Widths and WTG Environs:** Impact area calculations have been prepared using an 8m width and a 15m width has been prepared for discussion and demonstration purposes (refer attachment 8 (HBT-WTG Separation Analysis) for impact area calculations). An impact area calculation for the area of 100m around each WTG has also been prepared, although the requirement to offset all area within 100m of WTGs will be discussed further with DP&E. Regarding the access track widths, EPYC is confident that the 8m width will represent the required clearing width along the length of access tracks, however a 15m width has been prepared for the purposes of discussing the impact area and to continue discussions through the suitability and capacity of any candidate offset sites. A final GIS calculation of the impact area will be conducted using the 'as built' surveyed design and the vegetation mapping to ascertain the quantum of offsets required. Using the 15m access track width consideration will allow an 'upper clearing limit' to guide the process, however offsets will be secured which meet EPYC's offsets obligations, rather than a 15m arbitrary limit. (Refer to attachment 10 - RtS GIS Calculation Sums). **Rural Road Widening:** No road widening will be required along public roads (with the exception of the site access points).	Biodiversity

ERM Ref No.	Subject	Issue Raised	Response	Category
		widening must be carefully surveyed and managed to avoid impacts to HBT and threatened species. Surveys need to be done in the correct season to determine if habitat occurs, and if so, impacts to threatened species must be avoided or minimised by undertaking work in the appropriate season.		
1OEH30	OEH	Cumulative impacts The DGRs required "assessment of the cumulative impact of the Project and other wind farms in the region (currently operating, planned or under construction) particularly on large raptors and migratory species". The purpose of this assessment is to consider the potential added pressure on at-risk Page 7 species from this development, including potential barriers to movement for dispersive and migratory species, avoidance or alienation of scarce remnant vegetation, increased risk of blade-strike. The EIS does not adequately address this requirement: Table 7.9 (p 209 in the BA - Operational and Proposed Wind Farms near the PAI omitted eight wind farms in the region which may also contribute to the cumulative impacts on migratory, dispersive and wide ranging species. The following wind farms need to be considered in the discussion as they comprise over 500 turbines, on top of the 326 listed in Table 7.9, and the 88 at Jupiter.	The following list of 17 windfarms occur northwest of the Project between 6 km and 91 km away (listed in increasing distance away from the Project): Woodlawn, Capital, Capital 2 , Collector, Cullerin Range, Gunning, Gullen Range, Crookwell 3, Crookwell 2, Crookwell 1, Ryepark, Taralga Windfarm, Bango, Biala, Conroy's Gap, Yass Windfarm (Coppabella Hills) and Yass Windfarm (Marilba Hills) (note that two of these have no information publically available via the major projects website: Crookwell 1 and Gunning, and a third (Taralga) contains scant ecological information in the EA). The 17 wind farms cover a cumulative area of 85,000 ha spread across an area of approximately 550,000 ha (this has used a 5,000 ha 'envelope' of land area which covers all the WTGs, rather than the actual development footprints). The wind farm envelopes cover a relative area of approximately 15.5% of that larger area (refer to Figure 3.6 - Existing and Proposed Wind Farms in Proximity to the Project Area). A list of 'at risk' species and communities have been identified using the EA (ERM 2016) and the Project DGRs/SEARs. The potential impacts posed by these projects to these species and communities have been analysed using the publically available impact assessment documentation (available from the DP&E Major Projects website: http://majorprojects.planning.nsw.gov.au/). This cumulative impacts assessment is attached (refer to attachment 11 - At Risk Species Cumulative Impacts). It must be noted that ERM have provided a coding for the cumulative analysis, but have replicated the finding of that project regarding the particular species or community. The analysis has highlighted most notably that inconsistencies exist across the various impact assessments. Limitations occur in the way each impact assessment has considered each species with some considered as a large group of species grouped functionally (such as 'raptors' or 'migratory' species) and others selecting any one specific species for more detailed analysis. This may be due to a focus on threatened species (listed at the time) and a lack of focus on non-threatened taxa. Further, the method of attributing the impact significance or severity is greatly varied across the impact assessments with some quoting habitat areas impacted and others providing more general statements. Not all impact assessments agree on which species fly in the rotor swept area with disagreement on whether some flying species are at risk of blade strike.	Biodiversity

ERM Ref No.	Subject	Issue Raised	Response	Category
			The cumulative impact assessment highlights that across the 14 wind farms (for which a level of ecological information was available) there are only two 'at risk' species or communities which are generally considered to be impacted by most projects: the Eastern Bentwing-bat and the White Box, Yellow Box, Blakely's Red Gum Woodland. Including the Project in the wider boundary of all windfarms as part of the cumulative impact assessment increases the large bounding area from 550,000 ha to 650,000 ha. Given the low relative contribution of the Project when considering it in combination with all other wind farms in the greater region, the added cumulative impact from the Project could not be stated as being significantly higher if the Project is constructed.	
1OEH31	OEH	There are five wind farms within 50km of Jupiter, and a further 11 within 100km. There are close to 1,000 turbines operating or proposed within 100km, many of which are located on north-south ridgelines, like Jupiter (see Map 7). OEH agrees that Jupiter and the closest three wind farms will have a combined ecological impact on the region (p 209). Of particular concern is increased risk of blade-strike for wide-ranging species such as Wedge-tailed Eagles (WTE) and other raptors. Anecdotal evidence suggests fledglings and dispersing sub-adult WTE are at greatest risk of blade-strike. OEH recommends that the proposal include a discussion of cumulative impacts on these wide-ranging predators that are highly at risk of blade-strike within a landscape containing such a large number of turbines, as well as possible mitigation measures. The cumulative clearing and alienation of habitat in the vicinity for threatened and migratory species is also a concern, and needs to be assessed. Offsetting We have reviewed the impact assessment which has used the 'Bio banking Assessment Method' (BBAM 2014). There were too few vegetation plots in some of the vegetation zones. Once the final impact footprint is known (see comments on the true impact footprint of the road network above/below), the required number of vegetation plots will need to be provided and the credit calculations will need to be updated. OEH is prepared to work with the consultants to resolve the mismatches between BVTs and PCTs that were described in section 2.2.1 to avoid errors in the final calculation of credits. We support the recommendation that the vegetation zones be refined based on the plot data. References Smallwood, K. S. (2013). Comparing bird and bat fatality-rate estimates among North American wind energy projects. Wildlife Society Bulletin, 37: 19-33. doi:10.1002/wsb.260	Refer to Submission 1OEH30 above for information regarding potential cumulative impacts to the WTG and other raptors as a result of the proposed development. With regards to offsetting: refer above response to submission reference no. 1OEH29; and: Regarding plot numbers, point noted. The field survey conducted 40 plot/transects (33 in native vegetation, 7 in non-native vegetation). The current intersect with the GIS identifies a required plot total quantity of 17 plots. Therefore the quantum of plot/transects required far outweighs the minimum number required. There are five intersected vegetation zones of >0.25<0.75ha impact area which are showing a shortfall (an impact area of 0.5ha would require one plot/transect) however it is likely that these numbers will change during detailed design. Offset suitability analyses will be progressed using 'benchmark data' in the interim. As the design progresses, any plot/transect shortfalls will be rectified through additional data collection. BVTs/PCTs: noted.	Biodiversity

ERM Ref No.	Subject	Issue Raised	Response	Category
1OEH32	OEH	Attachment 3- Information on Aboriginal cultural heritage impacts of Jupiter Wind Farm Page 12 OEH has reviewed the Jupiter Wind Farm Cultural Heritage Assessment Report (CHAR), prepared by ERM and dated October 2016, and have the following concerns about the assessment of Aboriginal cultural heritage values. Inadequate research into archaeological background of PA A copy of the Aboriginal Heritage Information Management System (AHIMS) search conducted by ERM has not been included in the CHAR. OEH requests that either the AHIMS client search number or a copy of the search results are included in the CHAR. A previously recorded Aboriginal Site "EGP 2-81: Manar Creek" (AHIMS #59-3-0262) is located within the PA and consists of between 50 and 100 surface artefacts. This site has not been described in the archaeological background of the CHAR. Considering the size of the artefact scatter and its location within the PA, this site must be considered as part of the archaeological resource of the PA. The archaeological report associated with this AHIMS record must also be reviewed. Within the Southern Tablelands there has been significant archaeological research into subsurface deposits within landforms impacted by agricultural practices such as ploughing. This has shown that the surface expression of artefact assemblages is not an accurate reflection of what is below the surface. OEH is concerned that this type of research has not been considered as part of the background and that the archaeological resource of the PA has been underestimated. OEH notes that there are a number of reports summarised in the CHAR that are not listed in the references section. OEH queries the addition of some reports, i.e. Silcox 1988 in Table 5.1. The location of this study area is incorrectly referenced as 10 km east of the PA however Chatsbury is located to the north of Goulburn over 80 km away. The CHAR needs to be amended to adequately reference all reports.	The original AHIMS search was undertaken on 4 November 2013 (Client Service ID: 115835). An updated AHIMS search was completed on 24 July 2017 (Client Service ID: 292741) and confirms that no additional sites have been recorded within the PA since the original search in 2013. A copy of this extensive search has been appended to the RtS. As identified in the EIS, EGP 2-81: Manar Creek" (AHIMS #59-3-0262) has been recorded within the southern precinct. ERM have reviewed the site card and confirm that it is located outside of the current PA as the southern precinct is no longer included within the Preferred Project layout and this site will not be impacted as a result of the proposed works. The location of this artefact scatter (containing 50-100 artefacts) within the lower slope landform, close to Manar Creek has been considered within the updated assessment of available background data as appended to this RtS. It is also noted that although ploughed, the site was recorded as having a high potential for subsurface material. ERM agree that surface expression of artefact assemblages is not an accurate reflection of what is below the surface. An updated assessment of available background data, landform mapping and the predictive model have been prepared and appended to this RtS. ERM recognise that several crests and flat or gently sloping landforms, slightly elevated and adjacent to drainage lines within the PA would have been attractive camping locations. Such landscape zones within the PA were identified during the fieldwork as being relatively undisturbed and are considered to have an increased potential for containing archaeological deposits (refer to Supporting Heritage Addendum document). The reference list in the CHA will be updated post approval and prior to the construction of the project.	Heritage

ERM Ref No.	Subject	Issue Raised	Response	Category
1OEH33	OEH	Underestimation of archaeological resource While two areas of potential archaeological deposit (PAD) were recorded in the PA (JWF PAD1 and JWF PAD2), OEH is concerned that there are many other areas within similar landforms that will be impacted by the current design. OEH recommends that these areas are resurveyed to determine whether they also have potential or justification provided as to why they are not PADs. Our areas of concern are the creeklines within the following survey units: SU1, SU7, SU9-SU9, SU12, SU17, SU19 and SU27. It should be noted that in some areas the survey units and proposed impacts may not be aligned. In these cases, our area of concern is not the creekline within the survey unit, but the adjacent impact area. The CHAR (ERM 2016: 37) describes that burials may be present in the "alluvial soils that make up the PAs flood plain, creek and river terraces or found in crests and hill tops". OEH is concerned that the potential for burials to occur in theses landforms across the project area has not been considered . Inadequate survey effort As predicted in the CHAR (see above), artefacts are likely to be found on "hill tops, crests or upper flats". Based on the maps provided showing survey units, many of these landforms have not been surveyed. Given the likelihood that these landforms are likely to contain artefacts all impact areas need to be assessed in the field. There is no map in the CHAR to support the described landforms. OEH requires that, when compiling the description, the landscape and landform units used for the study (at the different levels of landscape, landscape unit, landform, topographic unit) must be described and mapped. Page 13 The CHAR itself states that not all of the amended project areas have been surveyed. OEH advises that all areas proposed to be impacted must be surveyed in order to assess and consider the full impact on Aboriginal cultural heritage values by the Project.	ERM recognise that several crests and flat or gently sloping landforms, slightly elevated and adjacent to drainage lines within the PA would have been attractive camping locations (refer to Supporting Heritage Addendum document - Annex J of this report). These mapped areas have been identified based on their relatively undisturbed ground within archaeologically sensitive landforms close to water and are identified as having moderate potential to reveal Aboriginal cultural heritage. Where disturbance to these areas cannot be avoided a program of subsurface testing has been recommended. The potential for burials in flood plains cannot be discounted (nor can it be accurately predicted) and will be discussed further with OEH and the RAPS during development of the Aboriginal Cultural Heritage Management Plan (ACHMP). This detailed plan will be prepared and implemented to manage subsurface testing activities and the Aboriginal heritage values within the PA. This ACHMP should include strategies to manage any Aboriginal heritage sites identified during future survey work or significant deposits found during subsurface testing (including potential burials). The Supporting Heritage Addendum document provides a detailed description and mapping of each of the landforms identified by ERM (2016). Figure 1(refer to Supporting Heritage Addendum document - Annex J of this report) shows the location of each of the survey transects as mapped in ERM (2016) and confirms that the survey methodology has sampled all landforms identified within the PA.	Heritage
1OEH34	OEH	Previously recorded Aboriginal sites The CHAR identifies that three previously recorded AHIMS sites were located within the PA. During our background research, OEH noted that sites DL 14 (AHIMS #62-6-0248) and DL 15 (AHIMS # 62- 6-0247) were plotting in the wrong location. On reading the Aboriginal site recording forms, it was clear that the coordinates were entered incorrectly into AHIMS. These sites are actually located about 100km south of the PA. It is therefore not surprising that these two sites were not able to be relocated. As a result of reviewing the Aboriginal site recording forms, OEH has corrected the coordinates in AHIMS. The CHAR states that these two AHIMS sites were also used to develop the predictive of Aboriginal cultural heritage values in areas not surveyed. As these sites are not located with the PA, OEH is concerned about the adequacy of the model used to predict heritage values within the PA. The CHAR provides no detail of the third AHIMS site that is reported to occur within the PA. A description of this site as recorded in the field needs to be a provided and a new site card submitted to AHIMS updating the site condition. None of the known AHIMS sites are mapped as Aboriginal sites/ heritage sites within Figures 7.1, 7.2,7.3 or 7.4. These sites must be included on the figures. Addition of newly recorded Aboriginal sites to the AHIMS database OEH notes that Aboriginal site recording forms have not been submitted to AHIMS for JWF1, JWF2 and JWF3, JWF PAD1 or JWF PAD2. Given these sites were	The updated AHIMS search completed on 24 July 2017 (Client Service ID: 292741) confirms that sites DL 14 (AHIMS #62-6-0248) and DL 15 (AHIMS # 62- 6-0247) no longer appear in the search area. Refer to Supporting Heritage Addendum document (Annex J).	Heritage

ERM Ref No.	Subject	Issue Raised	Response	Category
		recorded as part of surveys in 2014-2015, we require that Aboriginal site recording forms are submitted as soon as possible. Submission of Aboriginal site recording forms is a legal requirement under section 89A of the National Parks and Wildlife Act 1974.		
1OEH35	OEH	Aboriginal community consultation process The Aboriginal community consultation log included in Annex A contains incorrect details of stakeholders and dates under the Stage 1.4 Lists. These details must be reviewed and the CHAR amended to reflect the correct details. We are concerned that the latest CHAR, dated October 2016, may not have been sent to the Registered Aboriginal Parties (RAPs) seeking their comments. We acknowledge that RAPs were informed of changes to the project footprint in September 2015, however as further changes occurred in April 2016, we are concerned that RAPs have not been given adequate opportunity to consider and comment on these changes. OEH requests that copies of all correspondence between ERM and the RAPs is included in Annex A of the report. Recommendations of CHAR Subsurface testing of PADs OEH notes the recommendation for subsurface testing of PADs, prior to ground disturbance activities commencing, where disturbance to these areas cannot be avoided. OEH considers any subsurface testing should occur at the environmental assessment stage to ensure an adequate understanding of the Aboriginal heritage values prior to Project approval. It also allows for appropriate management measures to be considered before the Project design is completed. If significant deposits are located post approval it will be highly problematic for the proponent. Page 14 This recommendation for subsurface testing outlines that any "significant archaeological deposit" may be subject to salvage excavation. A quantifiable definition of what is considered a "significant archaeological deposit" needs to be provided. Given that only a total of four stone artefacts from three locations have been recorded in the PA, it could be argued that anything over four artefacts is significant. We would also not support any recommendations for salvage excavation until the results of testing are provided.	The intention was to send the CHA to the RAPs following incorporation public exhibition so that a final they received a final report for consideration. The amended CHA has been issued to the RAPs on 14/09/2017 and any comments consolidated and will be incorporated into the revised final CHA (which will be completed prior to construction of the proposed development, post approval. Where written correspondence was exchanged and the RAPs approve publication of their correspondence, these records will be included in the CHA. Authorisation to publish their letters and emails has not yet been received, hence the exclusion of these documents at this time. If no approval is provided, this will be noted in the final report. The proponent is committed to undertaking test excavation (where required) and preparing an Aboriginal Cultural Heritage Management Plan (ACHMP) in consultation with both the Projects Registered Aboriginal Parties (RAPS) and OEH. Subsurface test excavation will be undertaken following project approval and during the detailed design phase of the Project, during which the final locations of Project infrastructure components and ground disturbance activities will be confirmed. Where disturbance to any areas identified (and verified in the field) as having the potential for containing archaeological deposits cannot be avoided, a program of subsurface testing will occur. The area to be tested should be confined to the proposed areas of direct impact only. If the subsurface testing program identifies significant archaeological deposits (ie high density stratified site, or site characteristics not typical of the southern tablelands which could be used to inform the archaeological record) these may be subject to a salvage excavation or avoided through detailed design and micrositing. Any detailed salvage excavation program will be based on the results of the subsurface testing and will be subject to approval from OEH. Clear, quantifiable definitions of 'significant archaeological deposits' will also be included as part of the ACHMP.	Heritage
1OEH35	OEH	Aboriginal Cultural Heritage Management Plan (ACHMP) We support the preparation of an Aboriginal Cultural Heritage Management Plan (ACHMP). This needs to be prepared by a qualified archaeologist in consultation with OEH and the RAPs. OEH recommends that the ACHMP is prepared sooner rather than later to assist with the management and mitigation measures for the PA. The plan must include but not be limited to: a) Identifying and mapping the known Aboriginal objects or sites within the project area. b) describing the procedures of how known Aboriginal sites will be managed during the life of the Project including, • an outline of the management measures to avoid and protect sites that will not be impacted by the project activities through fencing and signage, • an outline of the mitigation measures for test excavations of PADs that will be impacted by the project, • details on the long term management of any excavated or salvaged objects. c) describing the procedures that would be implemented if any new Aboriginal objects are found at any stage during the life of the project,	<u>Aboriginal Cultural Heritage Management Plan (ACHMP)</u> Noted. As part of the ACHMP, the proponent will consult with RAPs and OEH as required. <u>Site Specific Recommendations</u> The CHA will be amended (prior to construction and post approval of the proposed development) to remove any errors or inconsistencies in this regard and OEH consulted during development of the testing strategy, production of the ACHMP and in regard to any proposed salvage activities, notably during development of the research design and the resultant AHIP approval process.	Heritage

ERM Ref No.	Subject	Issue Raised	Response	Category
		d) describing a contingency plan and reporting procedure should damage to Aboriginal objects or sites occur outside of the approved disturbance areas of the project area, e) detailing the procedures to be followed if any Aboriginal skeletal material is uncovered during the project and allow for the development of appropriate management measures, and f) outlining the process that will be followed for continuing consultation with the RAPs and OEH as required. Interpretive Strategy OEH seeks clarification on what is the proposed interpretive strategy. Site specific recommendations OEH questions the proposed collection of Aboriginal sites if they are not to be impacted. Sites JWF1 and JWF3 do not appear to be close to any proposed impacts. We note there is a discrepancy between the recommendation within section 7.2.6 and Table 10.1 in relation to site management recommendations regarding site collection.		

Table A.10 – Government and Industry Submissions and Responses (RFS)

ERM Ref No.	Subject	Issue Raised	Response	Category
1RFS1	RFS	**Asset Protection Zones** Intent: The intent of this measure is to: • minimise the risk that a bush fire will damage a wind turbine by providing sufficient space and maintain reduced fuel loads, so as to ensure radiant heat levels are below critical limits and to prevent direct flame contact with structures; and • minimise the risk that the construction and/or operation of the wind farm will create a fire that could spread from the site. 1. Asset Protection Zones (APZ's) are to be established around each structure and building to prevent direct flame contact from the hazard and a minimum APZ of 10m is required around each tower and a minimum 20m APZ (including a defendable space) will also be provided around each substation and compound. 2. The APZ must be free of surface fuel and elevated fuel and should have minimum canopy. 3. In addition to the above, APZ's are to be maintained for the operating life of the building and structures in accordance with Planning for Bush Fire Protection 2006 and the NSW Rural Fire Service document titled Standards for Asset Protection Zones	As noted in the Jupiter Wind Farm Bushfire Risk and Hazard Assessment (ERM 2016) EPYC will maintain a fuel reduced zone for all overhead transmission lines in consultation with TransGrid. Implementation and maintenance of fuel free zones, insulating sleeves, bird deterrents and/or auto-reclose systems will also be considered. During construction and operation, EPYC will maintain a reduced fuel zone (APZ or defendable space) around each WTG to ensure adequate defendable space in accordance with the performance criteria and acceptable solutions of Planning for Bushfire Protection 2006 (NSW RFS) (PBP 2006). ERM also note that the new guideline (REF 2017) is currently on public exhibition and will also be considered within the final design and ongoing operation of the windfarm. Each WTG will be erected on a concrete foundation located on a cleared hardstand area (measuring approximately 25 m by 25 m). The hardstand will remain in situ after construction to allow for future maintenance and provides a minimum 10.5 m wide fuel free zone surrounding each tower. The WTG crane pad/ assembly area immediately adjacent to WTGs provides an additional 30 m x 50 m fuel free zone providing additional defendable space at each WTG. A minimum 20 m defendable space (fuel reduced zone) will also be maintained around each of the substations and compounds. The APZs will be maintained during construction and operation as a fuel reduced zone.	Fire
1RFS2	RFS	**Fire Management Plan** Intent: The intent of this measure is to: • ensure fire safety for firefighting personnel, workers and visitors during the construction and operation phase; and • ensure there is appropriate firefighting equipment and water on site to provide an operational response to a bush fire; and • provide for consultation with NSW RFS District with regard to operational responses.	As described in the Bushfire Risk and Hazard Assessment (ERM 2016) EPYC will prepare a Bushfire Management and Emergency Response Plan in consultation with the RFS and surrounding property owners and other relevant stakeholders prior to the commencement of any construction works.	Fire
1RFS5	RFS	4. Prior to the commencement of works, the proponent shall prepare and implement a Bush Fire Management and Response Plan for the site. The proponent shall consult with NSW RFS in the preparation of this plan. The Bush Fire Management and Response Plan must include:	Refer to response to submissions below regarding the information to be included in the Bush Fire Management and Response Plan.	Fire
1RFS6	RFS	a) details of the internal road and APZ network.	As part of the Bushfire Management and Emergency Response Plan, the RFS will be provided with the following information to assist with their internal response planning: • a construction works schedule; • maps of the final WTG layout and identification information for individual WTG sites; • on-site access road plans and locations of access gates; • security information such as location of locked gates and restricted access areas; and • location of any additional water supplies installed for construction activities.	Fire
1RFS7	RFS	b) where locked gates are proposed, procedures and/or systems to ensure access for fire fighters.	Refer to response to submissions above.	Fire

ERM Ref No.	Subject	Issue Raised	Response	Category
1RFS8	RFS	c) prevention of fires igniting during the construction and operation phase.	The detailed prevention, management and mitigation measures will be addressed within the Bushfire Management and Emergency Response Plan and will be developed in consultation with the RFS and surrounding property owners and other relevant stakeholders prior to the commencement of any construction works.	Fire
1RFS9	RFS	d) proposed management to limit the spread of fire within the site.	Proposed management measures to limit the spread of fire within the site will be addressed within the Bushfire Management and Emergency Response Plan and will include: • construction and maintenance staff will be trained in the basic first response firefighting techniques; • provide and maintain firefighting equipment capable of controlling and suppressing small initial outbreaks of fire; • ensure adequate access to water for RFS and firefighting crews and provide static water supplies; and • provide all weather access for heavy fire fighting vehicles, including RFS Category 1 fire tankers.	Fire
1RFS10	RFS	e) procedure for an operational response for fire suppression and mitigation in and around the site and the response to emergencies in the vicinity of the site.	Safe working procedures and emergency response procedures will be developed and strictly implemented for all work tasks, with all employees and visitors involved in the operation and maintenance of the wind farm routinely trained in the safe operating procedures and emergency response. Construction and maintenance staff will be trained in the basic first response firefighting techniques including: • communication and reporting requirements such as alerting emergency crews (000) and reporting details of location, size, proximity to assets and access capabilities; • maintaining provision for mobile telephone and UHF radio communications; • use of 4WD striker unit (to be available on site daily during the construction and maintenance phases of the development, particularly during the bushfire season); • use of a dedicated 10,000 litre tanker (to be available on site daily during the construction phase of the development, particularly during the bushfire season or when high risk activities such as welding are being undertaken); and • use and location of extinguishers, knap-sacks and hoses.	Fire
1RFS11	RFS	f) maintenance of the required Asset Protection Zones around all buildings on site.	The APZs will be maintained during construction and operation as a fuel reduced zone in accordance with the requirements of PBP 2006 and the NSW RFS Standards for Asset Protection Zones. The new Planning for Bushfire Protection guideline (REF 2017) is currently on public exhibition and will also be considered within the final design and ongoing operation of the windfarm.	Fire

ERM Ref No.	Subject	Issue Raised	Response	Category
1RFS12	RFS	g) actions to minimise the risk of bush fire on the site.	Noted – will be addressed within the Bushfire Management and Emergency Response Plan. Safe working procedures and emergency response procedures will be developed and strictly implemented for all work tasks, with all employees and visitors involved in the operation and maintenance of the wind farm routinely trained in the safe operating procedures and emergency response. There will also be requirements and commitments in terms preparedness and property maintenance to be completed prior to every bushfire season. This would include maintenance of all fuel reduced zones around infrastructure (and under all overhead powerlines). EPYC recognise that this is a bushfire prone area and commit to regular discussions with RFS and property owners to discuss ongoing bushfire hazard maintenance such as ensuring grass along all property boundaries, strategic advantage zones and road verges is less than 10cm high prior to the onset of the declared bushfire danger period (via grazing and/or slashing).	Fire
1RFS13	RFS	h) details of water supply available including access to the water supply.	Noted – to ensure adequate access to water for RFS and firefighting crews, the allocation of static water supplies is necessary and will be further detailed in the Bushfire Management and Emergency Response Plan. A water supply reserve for firefighting purposes will be installed and maintained as per the performance criteria and acceptable solutions of PBP 2006.	Fire
1RFS14	RFS	i) identification of work which may increase the risk of ignition during the bush fire danger period and details of when this work should not be carried out.	Both the likelihood and consequences of a fire will be reduced by the development and implementation of safe working and emergency response procedures for all work tasks. This requirement will be addressed within the Bushfire Management and Emergency Response Plan.	Fire
1RFS15	RFS	j) process for the notification of the NSW Rural Fire Service District when works are to be carried out during the bush fire danger period.	This requirement will be addressed within the Bushfire Management and Emergency Response Plan.	Fire
1RFS16	RFS	k) procedures for the emergency management of staff and visitors to the site.	This requirement will be addressed within the Bushfire Management and Emergency Response Plan.	Fire
1RFS17	RFS	l) a program for the monitoring and reporting on the effectiveness of the above measures.	A detailed monitoring and review process will be included within the Bushfire Management and Emergency Response Plan.	Fire
1RFS18	RFS	m) details of the location of the Wind Turbine Generators and monitoring towers must be made available to the NSW RFS .	As part of the Bushfire Management and Emergency Response Plan, the RFS will be provided with maps of the final WTG layout and identification information for individual WTG sites.	Fire
1RFS19	RFS	**Access** Intent: The intent of this measure is to: • provide safe operational access to structures and water supply for emergency service; and • to provide safe access to/from the public road system for fire fighters and staff during firefighting operations. 5. An internal road network plan shall be prepared and will include the following; (Note: some short constructions in the access may be accepted where they are not less than the minimum 3.5m and extend for no more than 30m and where the obstruction cannot be reasonably avoided or removed.	EPYC will provide and maintain public and property access roads as per the performance criteria and acceptable solutions of PBP 2006. This includes, but is not limited to ensuring that fire fighters are provided with safe all weather access to structures, that public road widths, design and capacity allow for fire fighter access and resident evacuation, and that roads are clearly signposted. As part of the Bushfire Management and Emergency Response Plan, the RFS will be provided with maps of the final WTG layout and identification information for individual WTG sites.	Comment

ERM Ref No.	Subject	Issue Raised	Response	Category
		a) details of the location of the internal road network within the site; and b) constructed road should be a minimum of 4.5m in trafficable width (1 m clearance on either side) with a minimal vertical clearance of four metres to any overhanging obstructions, including tree branches. c) roads and bridges should be constructed to a standard so that they are accessible in all weather conditions and capable of accommodating a vehicle of 15 tonnes for the trafficable road width; d) dead end roads should incorporate a loop around any structure or incorporate a turning circle with a minimum 12m outer radius. e) curves have a minimum inner radius of six metres and are minimal in number to allow for rapid access and egress f) the minimum distance between inner and outer curves is six metres g) the cross fall is not more than 10 degrees. h) maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads.		
1RFS20	RFS	**Water, Electricity and Gas** Intent: The Intent of this measure is to; • provide adequate serves of water for the protection of structures during and after the passage of a bush fire and tom manage the spread of fire from the site. 6. The fire management plan shall include; • details of the location and availability of water supplies; and • measures to the water supply that are easily accessible and located; and • above ground tanks are to be manufactured of concrete or meal and raised tanks must have their stands protected. Plastic tanks are not to be used; and • suitable connections for firefighting purposes are made available.	This requirement will be addressed within the Bushfire Management and Emergency Response Plan. Please refer to response above for more details.	Comment
1RFS21	RFS	It is noted that an aeronautical impact assessment report is included in the documentation which states that "any firefighting activities in the vicinity of the project by either fixed wing or rotary wing aircraft would need to be conducted in consideration of the location of the Wind Turbine Generators and monitoring towers." The location of the wind turbine generators and monitoring towers must be made available to the NSW RFS.	As part of the Bushfire Management and Emergency Response Plan, the RFS would be provided with maps of the final WTG layout and identification information for individual WTG sites for their internal response planning. EPYC will liaise with the Civil Aviation Safety Authority (CASA) and the RAAF Aeronautical Information Service, which maintains a database of structures on behalf of CASA. WTGs will be painted white/light grey for increased visibility.	Comment

Annex B

Special Interest Response to Submissions

Table B.1 – Special Interest Group Submissions and Responses (Tarago P&C)

Category	ERM Ref No.	Special Interest Group	Summary of Issues Raised	Response
Proximity to Tarago District	2TPCA1	Tarago Parents and Citizens Association	Opposition to developing the windfarm in the Tarago District with 75 wind turbines within Tarago and 13 turbines around 20km away.	The project design has been revised significantly. The revised layout now comprises of 54 turbines (34 deleted).
Proximity to schools	2TPCA2	Tarago Parents and Citizens Association	Opposition to turbines being in proximity (4km-10km) to schools.	With regards to noise, the wind farm is not expected to impact Tarago Public School, which is located approximately 6.4 km from the closest WTG. Wind farm noise levels were not modelled beyond 5 km, in either the JWF EIS or updated wind farm noise assessment conducted by DNV GL, such that a predicted value at the school is not available to provide comment on levels or audibility. The 5 km threshold was selected by DNV GL as levels beyond that distant are expected to be fully compliant at all receptors. However, receptor J67 is situated approximately 2.5 km south-east of Tarago Public School, closer to the wind farm, 4 km from the closest WTG. The highest predicted noise level at J67 is 31 dBA and fully compliant with the applicable noise limits. Assuming a noise level of ≤ 31 dBA is received at the school, noise levels at external school use positions e.g. in the playground, are unlikely to be audible or to dominate the acoustics environmental during the daytime as they will be masked by other sources of noise within the existing environment e.g. traffic, animals, wind-blown vegetation. Noise levels at internal school use positions e.g. in the classroom, are also unlikely to audible as the noise reduction provided by the classroom building envelope (windows open) would reduce internal levels to be ≤ 21 dBA, which are also expected to be masked by other sources of noise within or near to the classroom itself. With windows closed this internal noise level would be reduced further and depending on the classroom building envelope could actually be reduced by an additional 20 dBA. This discussion assumes a level of 31 dBA is received at the Tarago Public School based on the levels predicted at J67. Given that the school is an additional 2.5 km from the nearest WTG levels are in fact going to be significantly lower than the assumed 31 dBA value conservatively adopted and referenced (based on the DNV GL assessment) for this discussion.
Consultation	2TPCA3 2TPCA7	Tarago Parents and Citizens Association	EPYC has not consulted the P and C in relation to the proposal and has therefore not met community consultation requirements under the DGR. Failure to provide P and C with information on the impacts of the wind farm and what effects it may have on the school and children who attend school due to the proximity of the wind farm to the school. Failure to consult the Department of Education. Concerns that the wind farm will create a divide between students and will hinder residential development and therefore growth in the number of students at the school.	EPYC met with the school principal of Tarago Public School in 2014. In addition EPYC met with the head of P&C at a meeting with Roseview Road residents and offered to meet with the P&C however this offer was not accepted. EPYC remains happy to meet with the P&C to present to them on the project. Please refer to Chapter 4 of the RtS for details of the additional community consultation undertaken since the public exhibition of the EIS. EPYC confirms that it has consulted with the Department of Education and the school principal of Tarago Public School. The Project is considered to be compatible with existing land uses, including existing residences and the school.

Category	ERM Ref No.	Special Interest Group	Summary of Issues Raised	Response
Health/Noise	2TPCA8	Tarago Parents and Citizens Association	Concern regarding the impact of the windfarm on health and educational development of children. Concern regarding the impact of noise on the community's health.	The wind farm is not expected to be audible at the Tarago Public School. Refer Chapter 7 of the RtS for summaries of responses to health related concerns.
Traffic	2TPCA10	Tarago Parents and Citizens Association	Concern regard generated traffic, road closures and interference with school bus routes. Concern regarding the posed risk on children due to increase in traffic especially at bus stops.	A detailed Traffic Management Plan will be developed in consultation with the local Councils as road authorities and RMS to ensure that the timing for oversize and overmass deliveries are scheduled to minimise the impacts on existing road users. School bus routes and timings will be a factor considered in the traffic management plan. An updated Transport Impact Assessment has been prepared as part of the Jupiter Wind Farm Response to Submissions and Preferred Project Report, which provides additional information relating to school bus routes that were missed during the initial Transport Assessment as part of the EIS in addition to updated information relating to traffic volumes and generation estimates and provide a response to any potential impacts.
Future Growth	2TPCA11	Tarago Parents and Citizens Association	Concern that the wind farm development will hinder residential growth and therefore cause the school to close down and negatively impact the businesses that rely on it.	EPYC recognises the importance of the school to the local area. As outlined above, the school is located over 6km from the project and there is no reason to think that the project will have any adverse impact on enrolment numbers at the school.
Impact	2TPCA12	Tarago Parents and Citizens Association	Concern regarding impacts of the windfarms on all aspects of the area and community.	We note that the Preferred Project Report (PPR) wind farm layout/design incorporates a reduction in the total number of Wind Turbine Generators (WTG) from 88 to 54 (34 WTG have been removed), including the complete removal of the Southern Precinct as was previously identified in the EIS layout. These PPR layout/design changes occurred primarily to minimise potential visual, noise, ecology and heritage impacts. They are also expected to substantially reduce the anticipated impacts across all environmental factors, including those potentially associated with decommissioning and rehabilitation required in the future.

Table B.2 –Special Interest Group Submissions and Responses Tarago and District Progress Association (TADPAI)

Category	ERM Ref no.	Submission Reference no.	Issue Raised	Response
Comment	2TADPAI1	TADPAI	The Tarago and District Progress Association (TADPAI) objects to Jupiter Wind Farm and requests that EPYC resolves relevant issues raised throughout submissions.	Comment noted.
Comment	2TADPAI2	TADPAI	Tarago is already in proximity to wind farms and has been inconvenienced by the impacts caused by their construction and operation. Concern that the majority of the community is in opposes the wind farm.	Comment noted.
Visual	2TADPAI3 2TADPAI4 2TADPAI5	TADPAI	Concern regarding visual impact on residents. Concern regarding vegetation screening being an inadequate mitigation measure. Concern that smaller turbines (such as 2.2MW generators that are 30m tall) or a different site location have not been considered to reduce visual impact.	Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 wind turbine generators (WTGs) from the Project. The revised layout has significantly reduced the overall impact of the project as well as reducing the proximity of turbines to nearby neighbours. A Review of the Impact of Wind Farms on Property Values was undertaken in July 2016 by Urbis in conjunction with the OEH which involved an extensive literature review of available reports on this topic, along with research and review of other publications dealing with the impact of infrastructure on surrounding land values In Australia and internationally). The research was used to prepare a case study which utilized sales data to investigate before and after land value for the land around identified infrastructure, and reviewed the same property resale data to compare the sale of a property transacted before announcement of a proposed wind farm with the sale of the same property after commissioning of the wind farm. The findings from the review of case studies in NSW and Victoria did not identify any conclusive trends that would indicate that wind farms have negatively impacted on property values (Urbis, 2016). In 2009, the NSW Valuer-General released a report, “Preliminary Assessment of the Impact of Wind Farms on Surrounding Land Values in Australia”, which assessed eight wind farms located in NSW and Victoria and considered available market data mainly through the analysis of property sale transaction data. The report concluded that wind farms do not appear to have negatively affected surrounding property values in most cases. This is further explained throughout the EIS in Chapter 15 (Socio-economic Issues). Under the revised SEARs in March 2016 the feasibility of mitigation was required to be assessed. The proposed screening was an example only. The location and design of screen planting used as a visual mitigation measure is site specific and requires detailed analysis of potential views and consultation with surrounding landowners during the detailed design phase. EPYC recognises that planting vegetation as screening would not provide effective mitigation in all circumstances. In addition EPYC is offering eligible landowners within 3km a mitigation fee so that the landowner can conduct their own mitigation to suit their requirements, which could include the use of non-vegetation screening where appropriate. Any dwelling or DA approved dwelling within 3km of the project with a moderate visual impact rating is eligible to receive $3,000 and anyone with a mod/high or high visual impact rating is eligible to receive $5,000 for mitigation purposes subject to reaching agreement with EPYC.

Category	ERM Ref no.	Submission Reference no.	Issue Raised	Response
				A 1MW system has a height of 57m and would only produce just over 1.2MWH per annum. To compare this to proposed Jupiter turbines at 1100GWH p.a. The equivalent would be to install over 900,000 of these. A 5MW system has a height of 124m and intake diameter of 159m and a ground length of 86m. EPYC has reviewed the suggested option and is of the opinion that use of these devices would not be an improvement aesthetically and would, in any event result in the project failing to deliver the renewable energy benefits offered by the Project.
Community Consultation PPR	2TADPAI6	TADPAI	Concern that turbine location and specifications have not been finalised. Details of the benefit sharing program have not been shared. Details of the Community Enhancement Fund have not been shared. Concern that information has been withheld from the CCC and the EIS. The EIS does not provide the details of community consultation and the outcome of the benefit sharing program offer. Concern that the benefit sharing programme might not be equitable. Concern that the updated EIS will not be publically exhibited.	The Project is, like all wind farms, a State Significant Project and remains subject to further detailed design once a final turbine model has been selected. This RTS report contains an updated assessment of the revised Project and will be made publicly available on the DP&E's major projects website. Details of the proposed community enhancement fund are contained in Chapter 4 of the RtS Report. EPYC has communicated its benefit sharing scheme to all eligible landholders. Please refer to Chapter 4 of the RtS report and relevant sections of Annexure C for details of the consultation undertaken in this regard.
Decommissioning	2TADPAI9	TADPAI	Concern regarding lack of estimate of the fund. TADAPI would like the decommissioning fund to be an amount not less than $200,000 per turbine, with increases in line with CPI rises calculated every year. The funds should be held in a Trust Account, as a safeguard against EPYC or its successors becoming insolvent.	The Jupiter Wind Farm, Preliminary Decommissioning and Rehabilitation Plan provided in Annex O of the EIS, is preliminary only. This plan will be updated as required by any conditions of approval. It is expected that any conditions of consent imposed for the project will include detailed rehabilitation objectives and a requirement to carry out progressive rehabilitation of all areas of the site not proposed for future disturbance as soon as reasonably practicable following construction or decommissioning. Funding arrangements are described in Chapter 5 of Decommissioning and Rehabilitation Plan prepared as part of the Jupiter Wind Farm EIS. A fund to cover the costs of decommissioning the Project infrastructure and rehabilitating the Project Area will be established during operation and prior to decommissioning of the wind farm. The size of the decommissioning fund will be based on the estimated cost of decommissioning and the value of the WTGs and associated infrastructure at the time of the fund's establishment. The amount set aside for the decommissioning fund will have consideration for two cost scenarios (re-uses of WTG or scrap metal as described in the plan) and will be first estimated prior to commencement of construction of the Project, and then during detailed design when turbine make and capacity is known. These funds may be held by a legal firm or an authorised appointed trustee corporation. The estimated decommissioning costs will be re-evaluated every five years with each review of this plan (refer to Chapter 7 of the plan) and prior to decommissioning. In response to other submissions, this plan will be updated following project approval and prior to construction of the Project. This review will account for the detailed design of the wind farm, to the extent possible at the time. The review features and objectives of Chapter 7 of the EIS, Annex O, Preliminary Decommissioning and Rehabilitation Plan will be achieved for this purpose.

Category	ERM Ref no.	Submission Reference no.	Issue Raised	Response
Project alternatives	2TADPAI10	TADPAI	Request for cost benefit analysis for alternative site locations (a site that allows the wind farm to be more than 5km away from residential blocks). Request for cost benefit analysis for an alternative source of renewable energy to generate the same amount energy.	The alternatives to the wind farm were considered in Chapter 5 of the JWF EIS. Relocating the project to within a national park is not a viable option and is not proposed to be considered further. Consideration of alternative energy sources are outlined in Chapter 5.2.2 of the JWF EIS. In the last two years large scale solar has become more economical however the site is predominantly used for farming activities and solar farms have a larger footprint which could hinder potential farming activities.
Community Enhancement Fund	2TADPAI12	TADPAI	The Community Enhancement Fund suggested by EPYC, should be specified in more detail in the EIS, and should contribute an annual amount agreed by the Jupiter CCC, with increases in line with CPI rises calculated every year, to the local community to benefit those affected by the development.	Details of the proposed community enhancement fund are contained in Chapter 4 of the RtS Report.
Benefit Sharing	2TADPAI13	TADPAI	Details of The Resident's Benefits Sharing scheme qualification criteria and benefit amount needs to be specified in the EIS, and the scheme must apply to all impacted residents, rather than to those residents who have foregone their rights to lodge an objection to the Jupiter proposal. The Residents Benefits Sharing scheme must determine compensation based on the proximity of a dwelling to the nearest turbine. Residents who have already signed Benefits Sharing agreements with Jupiter must not be disadvantaged when the new agreement comes into force. The Residents benefit Sharing Scheme payment scale must be agreed by the members of the Jupiter CCC.	EPYC has communicated its benefit sharing scheme to all eligible landholders. Please refer to Chapter 4 of the RtS report and relevant sections of Annexure C for details of the consultation undertaken in this regard.

Table B.3 – Special Interest Group Submissions and Responses (RERG)

Category	ERM Ref No.	Submission Reference no.	Issue Raised	Response
Objection to Wind Farm	2RERG1 2RERG37	Roseview Estate Residents Group	All residents and soon-to-be residents of Roseview Estate, Mt Fairy, are strongly opposed to the Jupiter Wind Farm proposal lodged by EPYC Pty Ltd. Our properties are identified in the EIS as J257, J134, J130, J135, J19, J10, J93, J33, J65, and J272. Concern regarding general impacts of the wind farm on the rural residential area and the natural beauty of the area. The proposal will not benefit the local community.	In the 88 WTG layout (EIS) the distance between the nearest dwelling on Roseview Road (J257) and the nearest turbine on site was 1684m. However, following the revised layout, the distance between the nearest dwelling on Roseview Road (J257) and the nearest turbine on site has now been increased to 2269m. In addition, properties with ID no. J272, J33, J65, J93 are now outside 3km. Wind farms have been shown to be able to successfully co-exist with rural land uses. The Project will provide immediate and long term benefits for the local community and Australia as a whole.
EIS	2RERG2 2RERG3 2RERG34	Roseview Estate Residents Group	Two Roseview properties have not been included in the EIS. One of those properties has recently had a home built on it, and the other has an approved Development Application in which a house site has been selected. Roseview Road is not shown on several of the EIS maps. EIS has misleading information. EPYC does not agree that the EIS contained any misleading information.	The PPR includes recent development approval of 1 additional dwelling on Roseview Road. EPYC has obtained dwelling location in consultation with council and the landowner and has been included in the updated assessments. The Roseview road is now shown on the updated maps in the RtS and PPR.
Zoning and Site Selection	2RERG4 2RERG8 2RERG9	Roseview Estate Residents Group	Roseview Estate began to develop in 2006 when it was still zoned RU2 Rural Landscape. This area was rezoned to RU1 Primary Production in October 2014. Property owners do not think that the proposal is suitable for the area. Concerns regarding the terrain and wind availability being unsuitable for a wind farm.	Wind farms are permissible on land zoned RU1 under the provisions of *State Environmental Planning Policy (Infrastructure) 2007*. The site selection process is outlined in Chapter 5.3 of the EIS and the site is located within P4 of the NSW government renewable energy precinct as shown in Figure 2.2. The site has been selected based a number of factors, including wind data, nearby connection and density.
Proximity to dwellings	2RERG7	Roseview Estate Residents Group	Concerns regarding the number of dwellings in proximity to the wind farm and therefore the number of residents being impacted by the proposal.	Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 wind turbine generators (WTGs) from the Project. These changes have significantly reduced the number of dwellings in the vicinity of the Project. Please refer to Chapter 5 of the RTS for details.
Project Layout	2RERG9	Roseview Estate Residents Group	Site layout is inefficient and could lead to increased environmental and noise impacts.	Site selection is outlined in chapter 5 of the EIS. Turbine locations have been selected to ensure suitability for the turbine models currently under consideration. This RTS report contains an updated assessment of the revised Project including in relation to noise, visual and ecological impacts.
Transmission Lines	2RERG10	Roseview Estate Residents Group	The EIS admits that the reason for the choice of this site is easy access to the 330kV transmission line. In section 2.6.2 it states “The distance to nearby transmission networks is a factor that influences the commercial feasibility of wind farm projects, and being able to connect to the immediately adjacent TransGrid network within the project area was a significant factor that informed the selection of the project’s location.”	Comment noted.

Category	ERM Ref No.	Submission Reference no.	Issue Raised	Response
Visual	2RERG11 2RERG16 2RERG20 2RERG21	Roseview Estate Residents Group	Concern regarding the visual impact of the Wind Farm with the turbines becoming a predominant feature. Concern regarding night lighting and associated visual impact. Screen planting as a mitigation measure is inadequate as it poses fire risks and will block views. Concern regarding adequacy and accuracy of visual impact assessment methodology. Concern regarding the experience and qualifications of the consultant. Concern regarding the assessment not complying with legislative framework. Consultation regarding landscape values did not occur. Concern that issues raised by the community were not taken into consideration. These Planning Policies referred to in: Public domain views – Rose Bay Marina Pty Ltd v Woollahra Municipal Council (2013) and; Private views – Tenacity Consulting v Warringah Council (2004) are not 'relevant' to a visual impact assessment for a wind farm in a rural/residential area.	An updated Landscape and Visual Impact Assessment Report has been prepared to assess the visual impacts of the revised Project. This new assessment was completed to review and revise the existing methodology, and adjust any ratings to be in line with the revised layout. Importantly, this new assessment accounts for the layout changes incorporating the reduction in the total number of Wind Turbine Generators (WTG) from 88 to 54 (34 WTG have been removed), including the complete removal of the Southern Precinct previously identified in the EIS layout. These PPR layout/design changes occurred primarily to minimise potential visual, noise, ecology and heritage impacts but are also expected to substantially reduce the anticipated impacts across all environmental factors. The planning principles developed by the Land and Environment Court apply to all development, including wind farms. Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 wind turbine generators (WTGs) and the whole of the Southern Precinct from the Project. These changes have significantly reduced the number of dwellings in the vicinity of the Project. Please refer to Chapter 5 of the RTS for details.
Benefit Sharing	2RERG14	Roseview Estate Residents Group	Benefit sharing program is perceived as a way to stop people from objecting and is therefore an unethical compensation measure. Concerns that the benefit sharing program does not consider visual impact.	EPYC has offered voluntary participation in Neighbouring Benefit Sharing (NBS) to all residents with a dwelling or a DA for a dwelling within 3km of the project to ensure neighbouring landholders are able to directly participate in the benefits which the Project will bring to the region. No landholder is required to participate – this is an absolutely voluntary benefit offered by the proponent to the community in the nearby vicinity of the project.
Noise	2RERG23	Roseview Estate Residents Group	Concerns regarding the noise impact of the wind farm that could not be mitigated.	The noise assessment at the Jupiter site has been carried out in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. These guidelines require the wind farm noise to be below a noise limit that is defined according to the existing background noise, which varies with wind speed. While there may be some audible wind turbine noise, it should be noted that applicable noise limits are designed to protect amenity. The revised noise assessment indicates that the revised Project layout is compliant with noise limits at all identified non host properties.

Category	ERM Ref No.	Submission Reference no.	Issue Raised	Response
Construction Impacts	2RERG24 2RERG25 2RERG28 2RERG33	Roseview Estate Residents Group	Concern regarding the construction impacts and undetermined location of construction facilities. Concern that no certainty is given regarding the management of construction noise levels. Concern regarding the impact of blasting and vibration on the wellbeing of animals	Indicative locations of key construction facilities are shown in Figure 6.2 of this report that identifies the updated Jupiter Wind Farm Project layout. Construction impacts will be temporary and managed in accordance with a detailed Construction Environmental Management Plan (**CEMP**). Stringent consent conditions will apply to limit blasting impacts, including noise and vibration. EPYC will comply with permissible limits for any blasting required during construction. Wind farms and agricultural production have shown that they can successfully co-exist.
Traffic	2RERG26	Roseview Estate Residents Group	We are particularly concerned about the wind farm traffic along Goulburn/Braidwood Road because of the number of school children from Roseview who travel daily on school buses along that road. Currently there are 12 children living at Roseview. These children, and the many other children living in Jupiter affected areas, will be using buses each day in an industrial area. The EIS contains a statement that "A review ….. indicates that no public bus services run along Braidwood-Goulburn Road. However, a school bus service operates between Goulburn and Lake Bathurst. It is understood that the school bus routes in the vicinity of the site are reviewed on an annual basis (dependent on the distribution of student households) and are subject to change." (Our emphasis) Information about school bus services and our concerns about this were provided to EPYC in a meeting of Roseview residents on 2 occasions (16 October 2014 and 3 March 2016). We know from our inquiries that there are 5 separate bus services operating in the proposed Jupiter wind farm area on Braidwood/Goulburn Road, 28 bus stops and around 150 children on these buses.	A detailed Traffic Management Plan will be developed in consultation with the local Councils as road authorities and RMS to ensure that the timing for oversize and overmass deliveries are scheduled to minimise the impacts on existing road users. School bus routes and timings will be a factor considered in the traffic management plan. Further consideration on school bus routes is contained in Annex G of this report (Updated Transport Impact Assessment).
Property Values	2RERG29	Roseview Estate Residents Group	Concern regarding the decrease in property values and saleable features of dwellings as a result of the wind farm development. Concern for the attractiveness of the whole Tarago/Mulloon/Mt Fairy/Lake Bathurst area for future development.	A Review of the Impact of Wind Farms on Property Values was undertaken in July 2016 by Urbis in conjunction with the OEH which involved an extensive literature review of available reports on this topic, along with research and review of other publications dealing with the impact of infrastructure on surrounding land values In Australia and internationally). The research was used to prepare a case study which utilized sales data to investigate before and after land value for the land around identified infrastructure, and reviewed the same property resale data to compare the sale of a property transacted before announcement of a proposed wind farm with the sale of the same property after commissioning of the wind farm. The findings from the review of case studies in NSW and Victoria did not identify any conclusive trends that would indicate that wind farms have negatively impacted on property values (Urbis, 2016). In 2009, the NSW Valuer-General released a report, "Preliminary Assessment of the Impact of Wind Farms on Surrounding Land Values in Australia", which assessed eight wind farms located in NSW and Victoria and considered available market data mainly through the analysis of property sale transaction data. The report concluded that wind farms do not appear to have negatively affected surrounding property values in most cases. This is further explained throughout the EIS in Chapter 15 (Socio-economic Issues).

Category	ERM Ref No.	Submission Reference no.	Issue Raised	Response
Consultation	2RERG30	Roseview Estate Residents Group	Not regularly informed of updates and details of the project, newsletters were sporadic and uninformative, meetings were not informative. Concern that issues raised by the residents were not taken into consideration and addressed. Inadequate consultation. Mitigation measures are inadequate and were not determined by consulting the community. Information was reluctantly shared with CCC and much of it was not revealed until the EIS was published.	EPYC provided regular updates via newsletters, website and consultation activities throughout the EIS preparation. Please refer to Chapter 4 for updated consultation details undertaken since exhibition of the EIS. EPYC acknowledge that WTGs are tall structures and clearly visible from some areas. The revised layout reduces the proximity of turbines to Roseview Road
Fire	2RERG35	Roseview Estate Residents Group	Vegetation screening as a mitigation measure is a fire hazard. Concern regarding the wind farm contributing to fires. Concern that historical fires were not taken into account in the Bushfire Risk and Hazard Assessment. Concern that mandatory conditions on wind farm operators do not stop fires from occurring.	As described in the Bushfire Risk and Hazard Assessment (ERM 2016) EPYC will prepare a Bushfire Management and Emergency Response Plan in consultation with the RFS and surrounding property owners and other relevant stakeholders prior to the commencement of any construction works. The location and design of screen planting used as a visual mitigation measure is site specific and requires detailed analysis of potential views and consultation with surrounding landowners during the detailed design phase. EPYC recognises that planting vegetation as screening would not provide effective mitigation in all circumstances. In addition EPYC is offering eligible landowners within 3km a mitigation fee so that the landowner can conduct their own mitigation to suit their requirements, which could include the use of non-vegetation screening where appropriate. Any dwelling or DA approved dwelling within 3km of the project with a moderate visual impact rating is eligible to receive $3,000 and anyone with a mod/high or high visual impact rating is eligible to receive $5,000 for mitigation purposes subject to reaching agreement with EPYC.

Table B.4 – Special Interest Group Submissions and Responses (RAJWT)

Category	ERM Ref No.	Subject	Issue Raised	Response
Comment	2RAJWT1 2RAJWT8 2RAJWT13 2RAJWT12 2RAJWT41 2RAJWT56	Residents Against Jupiter Wind Turbines (RAJWT)	This objection is from Residents Against Jupiter wind turbines, a community group with more than 150 members. Concern regarding the different impacts that the wind farm can have on the local community including health and property values. Concern regarding the environmental impacts of the wind farm. Concern regarding the reduction of the security of electricity supply in NSW. The Jupiter Wind farm does not serve the local community. Opposition to the height of the turbines and their visibility.	The revised Project will provide the following primary benefits, whilst balancing environmental issues and community concerns: • In full operation the revised Project will generate up to 240MW of electricity which equates to up to 755 Gigawatt-hour (GWh) per year and is sufficient to power equivalent to up to 103,400 homes annually (calculated using the NSW Wind Farm Greenhouse Gas Saving Tool and based on average NSW household electricity consumption); • contributing to the additional generating capacity required to meet the growing energy demand in NSW, and improve security of supply through avoidance of reliance on electricity supply from other States and diversification of electricity generation sources and supply locations • reduction in potential visual, noise, biodiversity and heritage concerns in comparison with the exhibited Project; • saving approximately 0.6 Mt of GHG emission in 2020, which is the equivalent of removing of the order of 183,000 passenger vehicles from NSW roads each year during the operational life of the Projectcontribute toward the Federal Government's Renewable Energy Target of ensuring at least 33,000 GWh of Australia's electricity comes from renewable sources by 2020; • contribute toward the NSW 2021 plan target of 20% renewables energy by 2020; • provide significant direct investment in the local economy, consisting of an estimated $71 million during construction, and a further $4.8 million per annum during operation; • providing direct fulltime employment opportunities for an estimated 230 people during construction, and an estimated 22 staff during its operational life; and • generating additional economic stimulus in the local area and broader region associated with indirect employment opportunities through the use of local contractors and suppliers during construction, and demand for local services, particularly during construction. Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 WTGs from the Project. The revised layout has significantly reduced the overall environmental impacts of the Project.
Residents	2RAJWT3 2RAJWT41	RAJWT	The wind farm will impact a large number of people due to the proximity of the subject site to a large number of residents.	Please refer to the response provided to submission 2TADPAI10 above.

Category	ERM Ref No.	Subject	Issue Raised	Response
Electricity Grid	2RAJWT4 2RAJWT10 2RAJWT31 2RAJWT33 2RAJWT34 2RAJWT32 2RAJWT41 2RAJWT56	RAJWT	Concern regarding the adverse effect on electricity security for the people of NSW; Concern regarding the result of blackouts due to wind farms such as in South Australia. Because wind farms are subsidised, while other power plants are not, wind farms gradually make existing coal-fired plants uneconomic, so they close, leaving no adequate backup.	The Project would improve the security of electricity supply through diversification of generation locations. The 2016 report released by Australian Energy Market Operator Limited highlights that underlying electricity demand is predicted to continue to increase, and this, along with further withdrawals of coal-fired generation, needs to be met through increased future generation capacity. Coal-fired plants are phasing out due to business decisions made by their operators which recognise that promoting the use of renewable energy sources (including wind energy from wind farms) is critical to ensuring the health of the environment. Investment in new, cost effective renewable sources, such as wind energy, is an important component in increasing electricity supply in response to increasing demand, whilst reducing GHG emissions. AEMO is able to plan and forecast the amount of renewable energy on the grid and the amount of base load power required as backup (gas or coal power plants). South Australia electricity blackouts occurred because of fallen power lines not because of wind farms. AEMO manages the electricity grid and its security; Generators are required to comply with AEMO regulations to maintain security. The NSW Government has created five renewable energy precincts in areas where significant future renewable energy development is expected, especially wind farms. The Project is located within the South East renewable energy precinct. The NSW Renewable Energy Action Plan was released by the NSW Government in September 2013 to guide NSW's renewable energy development and to support the former national target of 20% renewable energy by 2020.
Electricity Prices	2RAJWT5 2RAJWT34 2RAJWT41 2RAJWT56	RAJWT	Concern regarding the contribution to increasing electricity prices caused by wind farms.	Electricity prices are made up of a number of factors and are not driven by renewables. Retail prices have increased due to significant increase in wholesale market prices. Increased investment in renewable energy is required to reduce GHG emissions and meet NSW and Federal Government targets.
Consultation	2RAJWT6 2RAJWT11 2RAJWT41	RAJWT	Concern regarding inadequate consultation. False or misleading communication, failure to provide information requested about the wind farm, and failure to pay attention to and respond to the concerns expressed by members of the local community. Benefits were not outlined.	EPYC has undertaken extensive consultation to date with neighbouring residents. A summary of the consultation undertaken prior to exhibition of the EIS was included in the EIS. Please refer to Chapter 4 of the RtS for details of the additional community consultation undertaken since the public exhibition of the EIS. EPYC sought to consult with RAJWT representatives and remains happy to consult further with them. EPYC is continuing to work with the CCC and to meet its obligations under the NSW Community Consultative Committee Guidelines.

Category	ERM Ref No.	Subject	Issue Raised	Response
Environmental Impacts	2RAJWT7 2RAJWT40 2RAJWT41 2RAJWT56	RAJWT	Concern regarding the environmental impact on the natural environment and on fauna. Concern regarding the impact of the JWF on habitat corridors.	EPYC has listened to the outcomes of the consultation undertaken. Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 WTGs from the Project. The revised layout has significantly reduced the overall environmental impacts of the Project. Detailed fauna assessments (Refer to Annex D of the JWF EIS) have been undertaken to ensure that the removal of vegetation does not significantly impact habitat utilisation by fauna. Additionally, with the removal of 34 WTGs from the overall project, impacts to biodiversity are greatly reduced.
Health/Fire/Property Values	2RAJWT9 2RAJWT41 2RAJWT56	RAJWT	Jupiter should not be approved given the large number of residents who will suffer adverse sleep, health, and lifestyle impacts as well as increased risk from wildfires and property devaluation.	After extensively reviewing the available peer-reviewed scientific evidence the National Health and Medical Research Council (NHMRC) released a statement on 11/2/2015 concluding that 'there is currently no consistent evidence that wind farms cause adverse health effects in humans. Furthermore, NSW health in their submissions stated that they would raise no objection to the proposed development.
Project Modifications	2RAJWT14	RAJWT	Concern that the height of the turbines will be amended to further increase.	The tip height proposed for the Project remains at 173m.
Visual/Screening	2RAJWT15	RAJWT	Vegetation screening is an inadequate mitigation measure as it blocks views.	Please refer to the response to submission 2TADPAI4 above.
Noise	2RAJWT16 2RAJWT20	RAJWT	Background noise levels were inadequately assessed which led to an inaccurate assessment of noise levels. Concerns regarding the effects of noise impact on sleep and health. Concern that residences at up to 10kms away from the wind farm will suffer from noise impacts. The EIS for Jupiter does not produce separate noise forecasts for night and day. Concern regarding blasting and other construction noise over the years of construction.	The noise assessment at the Jupiter site has been carried out in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. The background noise assessment carried out by ERM and DNV GL has met these requirements for each noise monitoring location, including the requirement that a minimum of 500 data points should be from the worst case wind direction or at least 6 weeks of monitoring should be undertaken. In order to maintain consistency with the background noise measurements, post-construction measurements confirming compliance are normally carried out at a similar time of year as the pre-construction measurements. The noise compliance limits for the wind farm have been derived from background noise measurements taken at the site; therefore the derived noise limits take into account the existing rural background noise environment. A number of the logger locations have been assumed to be representative of other residential locations neighbouring the Project, based on consideration of proximity, topography, vegetation, and general similarity of acoustic environments. In the DNV GL noise assessment included in ANNEX E, the effects of metrological conditions have also been considered, including the influence of the wind regime, temperature effects and conditions for enhanced propagation though the year. While the revised noise assessment indicates that the wind farm is compliant with noise limits at all non-host properties, in the event that the operational wind farm

Category	ERM Ref No.	Subject	Issue Raised	Response
				noise is found to exceed the operational noise limits, there are a number of established mitigation and management options (e.g. noise reduced operation modes, turbine shut-down, physical barriers, etc) that can be used to control the wind turbine noise. These methods are detailed in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E.
Visual	2RAJWT17	RAJWT	Impact on Residents As noted, the Department says that this proposal is at the "highest" level in terms of the number of residences that would be impacted. According to the EIS there are 140 dwellings within 3 kms. We know there are more than 250 residences within 5 kms and hundreds more not far beyond that distance. Plus there are large numbers of properties within those distances which have residence rights but have not been built on. Residents near wind farms are adversely affected in many ways: Visual impact, most have chosen to live in natural and/or rural surroundings. Many have views they prize which are important to their lifestyle. Numerous moving industrial structures 40 metres higher than Sydney Harbour Bridge destroy that peaceful character. Charlie Prell is an advocate for wind farms and an aspiring host for the Crookwell 2 wind farm. In October 2015, he was interviewed1 by Louise Maher on the ABC about the proposed Jupiter wind farm, for which the first EIS had then been recently rejected. During the interview, Ms Maher asked Mr Prell “How much of a visual impact would there have been?” To which Mr Prell replied “With turbines they’re very large, there will always be a large visual impact.” The EIS has identified a very large numbers of properties which will suddenly have wind turbines in their view. In a great many cases thirty, forty or more wind turbines would be visible. As Mr Prell has rightly noted, there will be “a large visual impact”, for a lot of people.	Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 WTGs from the Project. The revised layout has significantly reduced the overall impact of the project as well as reducing the proximity of turbines to nearby neighbours.
Property Values	2RAJWT22 2RAJWT56	RAJWT	Concern regarding property values and the ability to sell.	Please refer to the response to submission 2TADPAI3 above.
Traffic	2RAJWT23	RAJWT	Concerns regarding increased traffic hazards as a result of the construction stage of the wind farm while transporting materials. Concerns regarding increased traffic generation.	Please refer to the response to submission 2TPCA10 above.
Fire	2RAJWT24	RAJWT	Concerns regarding the wildfire risk introduced by the windfarm. Concern regarding the ability to bring aerial firefighting to effectively protect residences, their people and on-the-ground firefighters in that locality. Inadequate assessment of bushfire risk and the likelihood for aerial firefighting to be needed. The assessment of fire risk provided in the EIS appears to ignore grasslands that are contributors to fires. The RFS has no record of either a formal request for advice from the developer and its consultants or of the RFS providing informal advice.	As described in the Bushfire Risk and Hazard Assessment (ERM 2016) EPYC will prepare a Bushfire Management and Emergency Response Plan in consultation with the RFS and surrounding property owners and other relevant stakeholders prior to the commencement of any construction works. This plan will include management measures to limit the spread of fire within the site including: • construction and maintenance staff will be trained in the basic first response firefighting techniques; • provide and maintain firefighting equipment capable of controlling and suppressing small initial outbreaks of fire; • ensure adequate access to water for RFS and firefighting crews and provide static water supplies; and • provide all weather access for heavy fire fighting vehicles, including RFS Category 1 fire tankers. The current RFS position in relation to windfarm development is that wind

Category	ERM Ref No.	Subject	Issue Raised	Response
				turbines are not expected to pose unacceptable risks. Communication between EPYC and the Lake George Zone RFS (via email dated 2 March 2017) has confirmed that the turbines and windfarm infrastructure were not a factor in their operational response to the recent Currandooley fire. The installation of WTGs will remove the option of aerial suppression of fires over the wind farm itself. CFA Windfarm guidelines (2015) recommend that WTG be located approximately 300 metres apart. This provides adequate distance for aircraft to operate around a windfarm given the appropriate weather and terrain conditions. The nearest house is located over 800m from the WTG and supports EPYCs position that WTGs would not limit aerial firefighting capabilities on other properties in the surrounding area. The updated bushfire risk assessment shows that the windfarm will not result in any increase bushfire risk to that already present within the rural landscape. Refer to Annex H (supporting bushfire addendum document) for more information.

Table B.5 – Special Interest Group Submissions and Responses (PMLG)

Category	ERM Ref No.	Subject	Issue Raised	Response
Comment	2PMLG1	Parkesbourne/Mummel Landscape Guardians Inc (PMLG)	Concern regarding the site size and turbine size.	The project design has been revised significantly. The revised layout now comprises of 54 turbines (34 deleted). No changes are proposed to the maximum tip height of the turbines as part of the revised Project. Wind turbine technology is continuing to evolve with larger turbines capable of generating larger amounts of renewable energy per turbine now being used.
Noise and health	2PMLG2 2PMLG4 2PMLG26	PMLG	There will be 140 residences within 3 kilometres of the proposed Jupiter Wind Farm, and more than 250 residences within 5 kilometres. Many of the residences within 3 kilometres of the turbines will suffer from noise and health impacts. Neighbours within 3 kilometres, and neighbours at 4 or 5 kilometres will be exposed to this risk. Concern regarding the height of the turbines decreasing the frequency of the note of the turbine noise and therefore making it easier for noise to penetrate buildings. According to the Secretary's Environmental Assessment Requirements (SEARs), the noise impacts of the Jupiter Wind Farm Project are to be assessed in relation to the South Australian Noise Guidelines (2009) and low frequency noise criteria of the Department's adoption. Both sets of South Australian Noise Guidelines are inadequate to measure wind turbine sound emissions, and so are incapable of protecting neighbours from adverse impacts. Disregard to studies (Cooper, 2012,2016) that state that setting a noise limit for wind turbines in dBA is inappropriate. The South Australian Noise Guidelines make the false assumption that infrasound is not present at any modern wind farm site (see Zajamšek et al, 2016). It has been pointed out to the Department many times that the LFN noise limit of 60 dBC is too high to protect neighbours, since it is more than 20 dB above the official limit of 35 dBA. The Department still stipulates no limit for infrasound, despite the work of Steven Cooper on the impacts of low frequency noise and infrasound at the Cape Bridgewater Wind Farm in South Australia (Cooper, 2016). On the subject of adverse health effects from wind turbine sound emissions there is now a comprehensive literature survey compiled by two distinguished noise experts, which establishes a general causal link between a variety of commonly observed AHEs [adverse health effects] and noise emitted by IWTs [industrial wind turbines]. (Punch and James, 2016, p. 54). The Department should recognize the sufficiency and abundance of the evidence to indicate the potential for adverse health effects from wind turbines, and cease to hide behind the discredited reports of the NHMRC.	The noise output from a particular wind farm will depend on many factors such as turbine type, layout, local topography and site features, and distances to critical receptors. Noise compliance will also depend on additional factors such as the existing background noise environment at critical receptors, and how the noise limits derived from the background noise compares to the wind farm noise at these locations. Therefore the noise output level of two different wind farms is not necessarily comparable. Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 WTGs from the Project. The revised layout has significantly reduced the proximity of turbines to nearby neighbours. An updated noise assessment has been carried out by DNV GL for the revised Project which confirms that it will comply with relevant noise limits at all identified non host properties. Please refer to ANNEX E for a copy of this report. The noise assessments prepared by DNV GL for the Project have been prepared having regard to the noise guidelines adopted by the DP&E, including the noise guidelines required by DPE, importantly the Wind Farms - Environmental Noise Guidelines, EPA SA, July 2009 and Draft NSW Planning Guidelines: Wind Farms, NSW Department of Planning and Infrastructure, December 2011 adopted by DNV GL with regard to the SEARs, 2016. These are referenced in the JWF EIS wind farm noise impact assessment: DNV GL - Jupiter Wind Farm Project - Wind Farm Noise Impact Assessment (Ref: 170338- AUME-R-03 Jupiter Wind Farm Noise Impact Assessment), report prepared for ERM Australia Pty Ltd. Compliance with the South Australian Guidelines inherently provides an adequate level of protection of amenity from low frequency noise. The NSW Government Environment, Climate Change and Water prepared a document (Wind Energy in NSW: Myths and Facts) which states that "The SA Guidelines are amongst the strictest in the world, with more stringent requirements than European and North American standards." In particular, DNV GL considered the frequency of the wind farm noise and its effect on noise propagation in completing the updated noise assessment. DNV GL uses the industry-standard ISO 9613-2 noise model to predict the wind farm noise. Important inputs into this model include the overall turbine sound powers levels as they vary with wind speed, as well as the octave band profile of the turbine noise, which is the breakdown of the overall noise into different frequencies, including lower frequencies. The ISO noise model uses this input data and attenuates the wind turbine noise with distance at different rates depending on the frequency. The quantification of the human perception of sound uses weighted scales, as human sensitivity to sound changes with frequency. The most commonly used weighting for environmental noise is the A-weighting scale (with units of dBA), and this is also generally used for measuring wind farm noise and other environmental noise sources. The A-weighting scale adjusts the sound power to reflect the greater human sensitivity to higher frequency noise, as higher frequencies tend to be subjectively perceived by the listener as more audible at lower levels of sound pressure. In addition to A-weighted scales, DNV GL also included a separate

Category	ERM Ref No.	Subject	Issue Raised	Response
				assessment of the low frequency noise of the wind farm, based on using C-weighted noise levels. As with other sound, low frequency noise or infrasound has a threshold of hearing. It is only above this level where the sound becomes audible. A large range of measurements from modern wind turbines indicates that at a distance of 200m, infrasound is in the order of 25dB. This is significantly below the recognised threshold of hearing of 85dB(G). As no residences are located within 200m of turbines, the level of infrasound at all residences near the revised Project will be even further below hearing thresholds. Further, DNV GL is not aware of any peer-reviewed scientific studies that demonstrate a direct link between wind farm noise and adverse health effects in humans, including from infrasound. In fact a study carried out by Resonate Acoustics (an independent acoustics consultant not associated with the Project) in 2013 has shown that infrasound measured from WTGs is similar in magnitude to other sources of environmental noise, such as wind and ocean waves, which natural phenomenon have not been linked to any adverse health effects in humans. After extensively reviewing the available peer-reviewed scientific evidence the National Health and Medical Research Council (NHMRC) released a statement on 11/2/2015 concluding that 'there is currently no consistent evidence that wind farms cause adverse health effects in humans.'
Visual and Screening	2PMLG14 2PMLG26	PMLG	The turbines are grossly out of proportion with the features of the existing landscape. The moving blades will contribute to the visual impact on the landscape. Vegetation screening is an inadequate mitigation measure. The assessment procedures and criteria for visual impact are inadequate.	Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 WTGs from the Project. The revised layout has significantly reduced the overall impact of the project as well as reducing the proximity of turbines to nearby neighbours. An updated Landscape and Visual Impact Assessment Report has been prepared to assess the visual impacts of the revised Project. The location and design of screen planting used as a visual mitigation measure is site specific and requires detailed analysis of potential views and consultation with surrounding landowners during the detailed design phase. EPYC recognises that planting vegetation as screening would not provide effective mitigation in all circumstances. In addition EPYC is offering eligible landowners within 3km a mitigation fee so that the landowner can conduct their own mitigation to suit their requirements, which could include the use of non-vegetation screening where appropriate. Any dwelling or DA approved dwelling within 3km of the project with a moderate visual impact rating is eligible to receive $3,000 and anyone with a mod/high or high visual impact rating is eligible to receive $5,000 for mitigation purposes subject to reaching agreement with EPYC.
Property Value	2PMLG17 2PMLG18 2PMLG26	PMLG	Concern regarding the impact that the development will have on property value. Flaws in the methodology of surveys on property value impacts, conducted on behalf of the Department.	A Review of the Impact of Wind Farms on Property Values was undertaken in July 2016 by Urbis in conjunction with the OEH which involved an extensive literature review of available reports on this topic, along with research and review of other publications dealing with the impact of infrastructure on surrounding land values In Australia and internationally). The research was used to prepare a case study which utilized sales data to investigate before and after land value for the land around identified infrastructure, and reviewed the same property resale data to compare the sale of a property transacted before announcement of a proposed wind farm with the sale of the same property after commissioning of the wind farm. The findings from the review of case studies in NSW and Victoria did not identify any conclusive trends that would indicate that wind farms have negatively impacted on property values (Urbis, 2016). In 2009, the NSW Valuer-General released a report, "Preliminary Assessment of the Impact of Wind Farms on Surrounding Land Values in Australia", which assessed eight wind farms located in NSW and Victoria and considered available

Category	ERM Ref No.	Subject	Issue Raised	Response
				market data mainly through the analysis of property sale transaction data. The report concluded that wind farms do not appear to have negatively affected surrounding property values in most cases. This is further explained in Chapter 15 (Socio-economic Issues) of the EIS.
Fire	2PMLG19 2PMLG26	PMLG	Concern regarding the wind farm resulting in an increase to bushfire risk. Concern regarding Aerial water-bombing becoming much more difficult, if not impossible, in the vicinity of wind farms, thus reducing the probability that a fire will be extinguished before it inflicts damage on life and property.	As described in the Bushfire Risk and Hazard Assessment (ERM 2016) EPYC will prepare a Bushfire Management and Emergency Response Plan in consultation with the RFS and surrounding property owners and other relevant stakeholders prior to the commencement of any construction works. This plan will include management measures to limit the spread of fire within the site including: • construction and maintenance staff will be trained in the basic first response firefighting techniques; • provide and maintain firefighting equipment capable of controlling and suppressing small initial outbreaks of fire; • ensure adequate access to water for RFS and firefighting crews and provide static water supplies; and • provide all weather access for heavy fire fighting vehicles, including RFS Category 1 fire tankers. The current RFS position in relation to windfarm development is that wind turbines are not expected to pose unacceptable risks. Communication between EPYC and the Lake George Zone RFS (via email dated 2 March 2017) has confirmed that the turbines and windfarm infrastructure were not a factor in their operational response to the recent Currandooley fire. The installation of WTGs will remove the option of aerial suppression of fires over the wind farm itself. CFA Windfarm guidelines (2015) recommend that WTG be located approximately 300 metres apart. This provides adequate distance for aircraft to operate around a windfarm given the appropriate weather and terrain conditions. The nearest house is located over 800m from the WTG and supports EPYCs position that WTGs would not limit aerial firefighting capabilities on other properties in the surrounding area. The updated bushfire risk assessment shows that the windfarm will not result in any increase bushfire risk to that already present within the rural landscape. Refer to Annex H (supporting bushfire addendum document) for more information.
Decommissioning	2PMLG20 2PMLG26	PMLG	Concern that decommissioning will be the responsibility of the landholder who would not be able to afford the relevant costs.	The Jupiter Wind Farm, Preliminary Decommissioning and Rehabilitation Plan provided in Annex O of the EIS, is preliminary only. This plan will be updated as required by any conditions of approval. It is expected that any conditions of consent imposed for the project will include detailed rehabilitation objectives and a requirement to carry out progressive rehabilitation of all areas of the site not proposed for future disturbance as soon as reasonably practicable following construction or decommissioning. Funding arrangements are described in Chapter 5 of Decommissioning and Rehabilitation Plan prepared as part of the Jupiter Wind Farm EIS. A fund to cover the costs of decommissioning the Project infrastructure and rehabilitating the Project Area will be established during operation and prior to decommissioning of the wind farm. The size of the decommissioning fund will be based on the estimated cost of decommissioning and the value of the WTGs and associated infrastructure at the time of the fund's establishment. The amount set aside for the decommissioning fund will have consideration for two cost scenarios (re-uses of WTG or scrap metal as described in the plan) and will be first estimated prior to commencement of construction of the Project, and then during detailed design when turbine make and capacity is known. These funds may

Category	ERM Ref No.	Subject	Issue Raised	Response
				be held by a legal firm or an authorised appointed trustee corporation. The estimated decommissioning costs will be re-evaluated every five years with each review of this plan (refer to Chapter 7 of the plan) and prior to decommissioning. In response to other submissions, this plan will be updated following project approval and prior to construction of the Project. This review will account for the detailed design of the wind farm, to the extent possible at the time. The review features and objectives of Chapter 7 of the EIS, Annex O, Preliminary Decommissioning and Rehabilitation Plan will be achieved for this purpose.
Electricity Grid	2PMLG21	PMLG	Concerns regarding the risks that wind energy poses to the electricity supply and to the grid. Wind energy is intermittent, and needs to be backed up by baseload power generators (coal, or gas in Australia) which are being driven out of business due to the Renewable Energy Target. Concerns that wind energy will not be able to consistently supply the grid with power.	Increased investment in renewable energy is required to reduce GHG emissions and meet NSW and Federal Government targets. The 2016 report released by Australian Energy Market Operator Limited highlights that underlying demand is predicted to continue to increase, and this, along with further withdrawals of coal-fired generation, needs to be met through increased future generation capacity. It is acknowledged that additional intermittent generation alone may not materially improve reliability of the system, however investment in new, cost effective renewable sources, such as wind energy, is an important component in increasing electricity supply in response to increasing demand, whilst reducing GHG emissions. This is in line with the Independent Review into the Future Security of the National Electricity Market by Dr Alan Finkel which resulted in four key outcomes, namely increased security, future reliability, rewarding consumers and lower emissions. Jupiter project is expected to contribute to these key outcomes as well as AEMO forecasts with anticipated generation of 755GWh annually into the national grid. AEMO manages the electricity grid and its security. Generators are required to comply with AEMO regulations to maintain security.
Reduction in GHG	2PMLG24 2PMLG26	PMLG	Wind energy is an uneconomic method of reducing greenhouse gas emissions fails to provide a reliable power supply. Because of the intermittency of its electricity production, wind energy must be backed up by baseload generators which emit greenhouse gases.	The 2016 report released by Australian Energy Market Operator Limited highlights that underlying demand is predicted to continue to increase, and this, along with further withdrawals of coal-fired generation, needs to be met through increased future generation capacity. It is acknowledged that additional intermittent generation alone may not materially improve reliability of the system, however investment in new, cost effective renewable sources, such as wind energy, is an important component in increasing electricity supply in response to increasing demand, whilst reducing GHG emissions. As outlined in Section 2.3.1 of the EIS, the estimate of 0.9Mt of GHG savings was derived by using the NSW Department of Environment and Heritage (OEH) Wind Farm Greenhouse Gas Savings Tool (WFGGT). During the production of electricity the actual project (Wind turbines) will create 100% renewable energy with 0 emissions. This is occurs when the wind is blowing. Fossil fuel power plants need to burn coal to make steam to generate electricity. The vehicles used for human transportation are not considered in GHG of electricity generation. However point noted. Maybe it should be.
Electricity Prices	2PMLG25 2PMLG26	PMLG	Concern regarding the increase of electricity prices. The social and environmental reasons to invest in wind energy do not outweigh the fact that it cannot provide a reliable supply of electricity; it tends to destabilize the grid. Therefore the increase in electricity prices is inadequately justified.	Electricity prices are made up of a number of factors and are not driven by renewables. Retail prices have increased due to significant increase in wholesale market prices. With regard to providing a reliable supply of electricity and grid destabilisation, the 2016 report released by Australian Energy Market Operator Limited highlights that underlying demand is predicted to continue to increase, and this, along with further withdrawals of coal-fired generation, needs to be met through increased future generation capacity.

Category	ERM Ref No.	Subject	Issue Raised	Response
				It is acknowledged that additional intermittent generation alone may not materially improve reliability of the system, however investment in new, cost effective renewable sources, such as wind energy, is an important component in increasing electricity supply in response to increasing demand, whilst reducing GHG emissions. This is in line with the Independent Review into the Future Security of the National Electricity Market by Dr Alan Finkel which resulted in four key outcomes, namely increased security, future reliability, rewarding consumers and lower emissions. Jupiter project is expected to contribute to these key outcomes as well as AEMO forecasts with anticipated generation of 755GWh annually into the national grid.

Table B.6 – Special Interest Group Submissions and Responses (Mulloon Matters Group)

Category	ERM Ref No.	Subject	Issue Raised	Response
Site Selection	2MMG2 2MMG3	Mulloon Matters Group	Alternative sites were not considered.	Site selection was assessed outlined in chapter 5 of the EIS.
Biodiversity	2MMG4 2MMG2 2MMG25 2MMG26 2MMG27 2MMG33 2MMG35 2MMG19 2MMG36 2MMG42 2MMG49 2MMG60	Mulloon Matters Group	Concern that the wind farm will lead to destruction of habitat and habitat fragmentation and therefore contribute to species extinction rate. Concern for the wildlife corridors present in the area. The impact of the wind farm is considered to be high due to its proximity to its location along migratory routes, and is surrounded by land rich in biodiverse and viable habitat. Inadequate assessment since it only takes into account the PA and not its surrounds. Environmental impacts are not adequately addressed. Wind energy generated from this site is considered to be dispensable in comparison to the potential impacts on biodiversity. Concern regarding the impacts of wind farms on avian populations, including the cumulative impact of multiple wind farm projects. The proposed Jupiter wind farm would be placed in the path of the bat's migratory breeding route, and could interfere with feeding ranges, as it is not known how far the bats travel to feed and drink. These latest OEH bat studies were not included in the biodiversity study of the Jupiter Wind Farm EIS. The OEH bird survey at Mulloon Creek was not included in the biodiversity study of the Jupiter Wind Farm EIS. Concerns regarding OEH's capacity to effectively protect the environment in the face of funding cuts and job insecurity. Concern that developments are being prioritised over protecting biodiversity by implementing offset measures. Concerns regarding habitat alienation and fragmentation. Concern that existing viable habitat and corridors is being replaced by offsets. Concerns regarding the impact of the wind farm on biodiversity considering that The Scott Nature reserve, zoned E3, sits alongside the PA of the southern precinct and is a vital environment for a range of flora and fauna The viability of the reserve, and its biodiversity value derive from the corridor. The Jupiter wind farm cuts off Scott Nature Reserve from Tallaganda. The Scott Nature Reserve Plan of Management was not included in the biodiversity study of the Jupiter Wind Farm EIS. Nor were any studies conducted there. The population of The Glossy Black-Cockatoo is continuously declining. Submitters have located them feeding from nearby properties and in the Scott Nature Reserve. The Glossy Black Cockatoo flies to and from feeding grounds. Their flight path takes them directly through the placement of proposed turbines therefore the wind turbines act as a barrier keeping the cockatoos from their feeding grounds, and further fragmenting their habitat.	Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 WTGs from the Project. In particular, the number of WTGs has reduced from 88 to 54, resulting in a development footprint reduction from 86.28ha to 61.81ha. Figure 3.1 (Project Design Alterations) shows the alterations and attachment 1 (RtS Layout changes summary) contains the discussion. These changes have significantly reduced the ecological impacts of the Project as follows: • The Entire Southern Precinct has been removed, removed resulting in less potential impacts from lower area surrounded by higher wooded areas. Accordingly, the PA no longer adjoins Scott Nature Reserve • Removal of WTGs and realignment of access tracks in the patch of highest quality EPBC Act-listed TEC (southern part of the central precinct) reduces impacts to this TEC as far as practicable (impact area reduced from 1.63ha to 1.17ha). • Reduction of impacts to TSC Act listed EECs: White Box Yellow Box Blakely's Red Gum Woodland 2.19ha down to 1.19ha; Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland in the South Eastern Highlands, Sydney Basin, South East Corner and NSW South Western Slopes Bioregion 4.70ha down to 4.39ha. • Movement of a number of WTGs from woodland edges throughout the central precinct reduces impacts to woodland edges. Refer to Response to submission reference no. 1OEH23 (Government submissions spreadsheet) for Eastern Bentwing Bat. A Bird and Bat Adaptive Management Plan (BBAMP) will be prepared in consultation with OEH, including: 12 months pre-construction surveys for birds and bats. The EA (ERM 2016) used data available by licence agreement with OEH via the NSW Wildlife Atlas (BioNET) for a search area of 10km around the (former) Project Area. Licenced users of BioNET lodge records of species sightings back into the database. If the data were in BioNET, and the sightings were within 10km of the (former) Project Area then they would have been considered among all equivalent data available. Should OEH hold relevant data that is not available by the means employed by ERM (2016) and if required then ERM will consider this data when it becomes available. OEH has provided detailed comments on the Project which have been addressed as part of the RtS and PPR. The revised Project has been robustly assessed and will be determined by the independent Planning and Assessment Commission (PAC). In determining the SSD application for the revised Project, the PAC will have regard to a broad range of issues included the precautionary principle. There is very limited clearing within Glossy Black-cockatoo habitat. Never the less following project construction completion the areas will be surveyed and any impacted areas will be offset according to Bio Banking Assessment Methodology (BBAM). See response to submission reference no. 1OEH16 (Government submissions spreadsheet) for measures to mitigate impacts to Glossy Black-cockatoo.

			Research specific to Australian species to determine alienation of habitat effects has not been conducted. Conclusions based on studies on one species cannot be transferred across to other species. Noise impacts on nesting birds, with the danger of nest abandonment, have not been studied. Wind turbines are large, noisy, permanent and moving create a more extreme form of habitat fragmentation as interconnectivity and accessibility of fragmented habitats is lost. The difficulty of determining where viable habitat begins and ends is complex. Placing a turbine on the edge of viable habitat, is potentially placing a turbine in the edge zone of that habitat as the location of the site is in the middle of an important biodiversity corridor, and in proximity to E3 zoned land. The EIS does not examine the placement of turbines in relation to biodiversity corridors and E3 zoned land. This prediction of habitat alienation and consequent fragmentation suggests that species are able to navigate round obstacles in their path. This is unlikely, as Australian species notoriously have minimal margin of deviation, particularly migratory species. A convenient conclusion, but not an accurate one.	
Community	2MMG28 2MMG31	Mulloon Matters Group	K2C Kosciuszko to Coast (K2C) is a partnership of eleven organisations and numerous associate members working with landholders between Kosciuszko and Namadgi National Parks and the Coast (K2C region) to conserve and recover our grasslands, woodlands, riparian and wetland areas, small bush birds, arboreal mammals and treasured forest communities and species. K2C and its programmes were not included in the biodiversity study of the Jupiter Wind Farm EIS. Mulloon Institute: Mulloon Community Landscape Rehydration Project This project is a model for community programmes to heal and rehabilitate landscapes across Australia, providing stable, resilient and productive landscapes. Mention of the Mulloon Institute and its programmes were not included in the biodiversity study of the Jupiter Wind Farm EIS.	Comment noted.
Mitigation	2MMG54	Mulloon Matters Group	Concern that mitigation measures will be inadequate. Biodiversity impact mitigation measures have not yet been finalised despite the determined GPS coordinates of turbine placement. Bird and Bat Adaptive Management Program has not been developed and therefore cannot be assessed.	Mitigation measures proposed including flora and fauna management plants will be included as part of the CEMP which will be drafted in consultation with DP&E. A Bird and Bat Adaptive Management Plan (BBAMP) will be prepared in consultation with OEH which will include 12 months pre-construction surveys for birds and bats.
Comment	2MMG62	Mulloon Matters Group	Inappropriate placement of turbines in close proximity to residences.	Significant changes have been made to the Project to respond to submissions and reduce environmental impacts, including the removal of 34 wind turbine generators (WTGs) from the Project. The revised layout has significantly reduced the overall impact of the project as well as reducing the proximity of turbines to nearby neighbours.
Comment	2MMG63	Mulloon Matters Group	Objection to the use of offset as a solution for habitat loss for the proposed Jupiter	Impact area calculations have been prepared using an 8m width and a 15m width has been prepared for discussion and demonstration purposes (refer attachment 8 (HBT-WTG Separation Analysis) for impact area calculations). An impact area calculation for the area of 100m around each WTG has also been prepared, although the requirement to offset all area within 100m of WTGs will be discussed further with DP&E.

Table B.7 – Special Interest Group Submissions and Responses (AWA)

Category	ERM Ref No.	Subject	Issue Raised	Response
Consultation	2AWA1 2AWA3	AWA	We are concerned that the proponent has not developed the wind farm in a manner that sufficiently benefits the wider community in the area. Inadequate community consultation which led to hostility of the project and therefore outweighs the benefits a wind farm should bring to a local community. While we are unable to support this proposal, we would be happy to see another proposal for a wind farm in this area at a future time that is more cognisant of local community well-being. AWA is concerned for the well-being of the farmers who have signed up to host turbines within the Jupiter Wind Farm. We have met with and spoken to a number of these farmers on numerous occasions and communicated their concerns to the proponent to try to achieve a favourable outcome for them. Again, we have been frustrated that the concerns of the host landholders were not given more attention by the proponent.	The proponent acknowledges AWA's confirmation that the proposed site is suitable for a wind farm, but is very disappointed by AWA's opposition to the project. The proponent has worked hard to ensure a high standard of community consultation and communication and has offered transparent benefit sharing arrangements to the surrounding community. AWA's submission seems to be based on a fundamental misunderstanding as to the consultation and robust environmental assessment which has been carried out to date. AWA's expressed concerns regarding host landholders do not reflect the ongoing support given to the project by the host landholders (a number of whom have contacted the proponent to express significant disappointment at the position being taken by AWA and the manner in which AWA has engaged with them).
EIS	2AWA2	AWA	The updated EIS has not been substantially improved to the original document to change the view of rejecting it.	The Department accepted and exhibited the EIS for the project in November 2016. The exhibited EIS contained a robust assessment of the project and has been further supplemented by the additional assessments presented in this report.
Benefit Sharing	2AWA2 2AWA5	AWA	Disappointment in the substance of the neighbour agreements that have been offered by the proponent. These agreements have been offered on an ad-hoc basis and very late in the development process. AWA strongly supports local ownership or investment in wind farms. This model increases the financial benefits for the community beyond what a wind farm already provides, and that this leads to stronger support for the project. Such an approach for a future proposal in this area could be very fruitful and potentially open the way for a more constructive dialogue with the community. NSW Office of Environment and Heritage study into Ownership and Benefit Sharing Models for Wind Farms in NSW1 The proponent of the Jupiter Wind Farm has not embraced the philosophy of this document in any meaningful manner and their lack of flexibility and poor communications have unnecessarily raised the ire of many local residents.	EPYC has offered transparent benefit sharing arrangements to the surrounding community. The Proponent's proposed benefit sharing arrangements were first announced at the October 2015 CCC meeting. Benefit sharing discussions have continued since this time with relevant community members. In particular, benefit sharing workshops being held in May 2017 to ensure that all interested community members were provided with details of the benefit sharing arrangements proposed.
Visual	2AWA6	AWA	The Landscape Aspect of Wind Turbines in Closely Settled Areas AWA would like to comment on the most regularly cited reasons for rejection of turbines in more closely settled areas such as parts of the Tarago-Braidwood region. AWA believes that turbines should be seen in the context of a contemporary rural landscape and that the visual effect of wind turbines will become an integral part of this landscape. Opposition to wind turbines normally comes from those who are not involved with the project. The "visual impact" of the turbines is an easy target. AWA dismisses these arguments and strongly endorses the rights of landholders (particularly family farmers) to develop wind farms on their properties. As stated above, these developments need to be facilitated by meaningful and open communication with the whole community.	Comment Noted.

Table B.8 – Special Interest Group Submissions and Responses (HERON)

Category	ERM Ref No.	Subject	Issue Raised	Response
Mineral Exploration	2Heron1	Heron	The Jupiter Wind Farm project area covers a belt of prospective rocks within Heron's Boro Exploration Licence EL 8353 that is located 6 km southeast of the Woodlawn Mine Site and contains a number of historical silver and base metal workings. This report outlines the prospectively of the area for additional mineral deposits and the impacts the proposed wind farm would have on future exploration efforts and potential mine development.	Comment noted.
Mineral Exploration	2Heron5 2Heron10 2Heron11 2Heron12	Heron	Heron objects to the location of the proposed Jupiter Wind Farm at Boro over the medium term on the basis that it will encumber the exploration assessment and potential mine development of this area. The key relevant conclusions are provide below: · A number of the proposed wind turbines of the Jupiter Wind farm have the potential to significantly impact on the exploration activities of Heron at the Boro Prospect. · The staged approach to exploration also means that Heron can conduct the early stages over the next 12 -24 months to know whether an economic deposit is likely. · It would therefore assist Heron if there was no construction of the wind turbines in the Boro area of interest in the next 24 months so this scientific assessment can be effectively undertaken.	The project has a set life span and would not permanently sterilise the small deposits known as 'Mt Boro Mine' and the 'Great Boro Mine' or any adjacent properties. No turbines or other infrastructure associated with the Project are proposed to be located over the small deposits identified as the 'Mt Boro Mine' and the 'Great Boro Mine. These Mines as identified in Figure 1 of the submission by Department of Industries are located in crown land and in an area outside of the PA. Further, the proponent is not opposed to ongoing exploration by exploration titleholders subject to agreement on an access arrangement being reached. EPYC or the landholders have not been approached for access by the Heron or any previous title holders in the last 5 years. The proponent is not opposed to HERON using exploration EM techniques until such time as the project were to be fully constructed and commissioned (currently estimated at 18 months) after all required approvals to commence construction have been obtained) with other exploration continuing during the wind farm life in accordance with the terms of any access arrangement reached between the parties. Finally, the proponent notes that the operational Woodlawn Wind Farm is located in very close proximity to the Woodlawn Mine, evidencing that wind farms and the Woodlawn mine are able to successfully co-exist. EPYC is continuing further discussions with Herron with respect to the revised layout and potential measures which may be able to be implemented during construction of the Project to manage interactions should exploration proceed in this area.
Mineral Exploration	2Heron13	Heron	Go ahead of the Jupiter Wind Farm in its current proposed location will likely remove any potential social and economic benefit to the state and community that the resources within this exploration licence could provide.	The Project, and the renewable electricity it will generate, will bring significant social and economic benefits to the State and community. Please refer to Chapter 15 of the EIS (Socio-economic Issues).

Table B.9 – Special Interest Group Submissions and Responses (Monastery)

Category	ERM Ref No.	Subject	Issue Raised	Response
Visual and Noise	2Mon1	Monastery	Concerns regarding the disturbance of peace to members of the Coptic Orthodox community due to noise and visual impacts expected as a result of the proposed development.	A WTG Noise Impact Assessment was conducted in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV-GL in ANNEX E. These guidelines require the wind farm noise to be below a noise limit that is defined according to the existing background noise, which varies with wind speed. While there may be some audible wind turbine noise, it should be noted that applicable noise limits are designed to protect amenity and minimise sleep disturbance. The noise compliance limits for the wind farm have been derived from background noise measurements taken at the site; therefore the derived noise limits take into account the existing rural background noise environment. Additionally, a revised operational wind farm noise assessment has been carried out by DNV GL and determined that the revised project layout is compliant at all identified non host properties. It should be noted that the project design has been revised to remove and relocate WTG's which has reduced overall noise impacts In terms of visual amenity, following the revised layout 34 WTGs have been deleted from the project reducing the overall visual impact of the proposed project.

Annex C

Public Response to Submissions

Table C.1 – Public Submissions and Responses (Visual)

Category	Submission Reference no.	Issues Raised	Response
Inadequate Assessment	176173, 181298, 182274, 183118, 182161, 183351, 191930, 182831, 183280, 183717, 181502, 179040, 181840, 182945, 183793, 191027, 182875, 183098, 183280, 187562, 186076, 183717, 182995, 182082, 191019, 182853, 183321, 186138, 181116, 187562	No visual impact assessment of the project on any non-associated property outside 3kms. No dwellings beyond 5km were identified and no assessment was made from 10kms away which includes a view of 70 or more turbines. Inaccurate representation of the turbines on the landscape. Visual impacts to a property owner's home only were assessed and not to the entire land. Inaccurate depiction of landscape character and lack of consideration to the diversity in the built form found on site. There has been no consideration at all of sites where residents are entitled to build, but have not yet applied for the D/A. Questioning the viewpoint analysis and averaged ratings. Questioning the 2km threshold. The assessment does not consider Tarago Show Ground as a public viewpoint. Goulburn/Braidwood Rd has views of the tall wind turbines and should be labelled as a highly impacted public viewpoint. This assessment does not take any consideration of the proposed 33kV reticulation through and from the southern precinct. Whilst the EIS identifies underground cabling as preferred, the majority of references in the EIS are for construction of overhead poles and wires. Methodology including scale, matrices, distance ratings, viewpoint selection to be the front of the residence, subjective definition of the quantum of views, distance of view, period of view, magnitude of change.	The Secretary's Environmental Assessment Requirements (SEARs) dated 02 March 2016 required assessment of visual impact on dwellings up to 3km. The visual assessment has been carried out for existing or DA approved dwellings within 3km. EPYC has taken into consideration the properties where landholders have indicated plans for development even prior to having obtained a DA. In terms of the assessments undertaken, the location of a dwelling either for an existing dwelling or one with DA must be known. With respect to future developments, it is important to note that the considerations of visual amenity would be dependent on the landholder's view. In the future, those who wish to build new dwellings would be aware of the proposed wind farm and would be able to situate their dwellings to face the wind farm or away from it based on their preference. EPYC is aware of some residents that have already made this type of considerations. EPYC will endeavour to work with landholders where possible to achieve the best outcome for all involved. A detailed assessment was conducted for those who accepted that option. Others received a desktop assessment (assuming the worst case scenario) or were assessed from the road close to their property. Appendix A of the LCVIA includes a desktop or site-validated assessment of all existing and proposed approved dwellings within 3km offset of the JWF WTGs. During the desktop study, any dwelling noted with the potential for Moderate/High to High visual impacts was visited during an additional site visit to determine a site-validated visual impact rating, taking into account vegetation and built form. Refer also to the consultations that occurred with the community to determine Landscape Value and considered what is valuable to the community. Assessment assumes worst case scenario for all non-host dwellings. There are dwellings within 2km of a WTG with negligible impact and no impacts are anticipated on residents 5km away. The ZVI (a theoretical overview assuming a terrain free of structures) analysis shows the visual extent of WTGs past 5km. Visual impact has been assessed for the largest dimensions considered, however, the final WTGs selected may be smaller. In addition, the assessment considered traffic speed on roads. For example, the speed limit on Goulburn/Braidwood road is 100km per hour. Road rules would suggest that drivers would be concentrating on their driving for safety reasons. There are also existing screenings on parts of the road. Refer to 4.2 of the LCVIA (Visual Context) which assesses the visual impact according to several factors relevant to this submission including movement. It is important to note that the visual impact on the residence is not determined solely from the front of the residence and that dwelling orientation can affect ratings. There are many factors that contribute to the visual impact but material of the dwelling is not one of them for a wind farm development. It does not depend only on the distance to the turbine; it also depends on the number of viewers and the sensitivity of the view. Refer to 4.0 of the LCVIA (Visual Impact Assessment) which includes visual context and visual impact criteria. Viewpoints are carefully chosen according to a methodology detailed in Section 4.7 of the LCVIA (VIA Methodology) which includes *Visual Impact Assessment Criteria* (Table 4.6). Regarding the scale, there was no requirement to abide by a specific method in setting scales. The ratings are justified in the relevant methodology sections for visual impact and landscape character. The viewpoint analysis was conducted to represent an overall view of the site and included areas outside of the 3km (refer to viewpoint analysis 9, 13, 14, 15 and 17 as an example). Please note that the viewpoint analysis differs from a photomontage and further details on viewpoint photography can be found in Section 4.7.1 of the JWF EIS. For objections regarding the magnitude of change, refer to Chapter 3.0 of the LCVIA (Landscape Character Assessment) for a site analysis acknowledging the existing conditions of the landscape character. The landscape has been generally cleared for pasture and agricultural crop cultivation. Stands of remnant woodland occur within the wider context of a modified landscape which continues to be managed through a variety of farming activities. Even though the landscape features do not currently include wind turbines, they already have been altered and not left to remain in their natural existence. Refer to Table 4.6 - Visual Impact Assessment criteria for an explanation of the ratings of the magnitude of change. An independent visual impact assessment has been conducted as part of the RtS and PPR process. This new assessment was completed to review and revise the existing methodology, and adjust any ratings to be in line with the revised wind farm layout/design. Importantly, this new assessment accounts for the revised layout which incorporates a reduction in the total number of Wind Turbine Generators (WTG) from 88 to 54 (34 WTG have been removed), including the complete removal of the Southern Precinct previously identified in the EIS layout. The revised layout/design changes occurred primarily to minimise potential visual, noise, ecology and heritage impacts but are also expected to substantially reduce the anticipated impacts across all environmental factors.

Category	Submission Reference no.	Issues Raised	Response
		Unknown score determination and arbitrary results, missing validation of magnitude scales, viewer sensitivity, scale truncation and manufacturing a desired result, inadequate number of assessed residents and viewpoints. A desktop assessment does not sufficiently assess potential impacts associated with the proposed development.	
Viewpoint Selection	176208, 183321, 182161, 182831, 183426, 183280, 183717	Visual concerns from Mt fairy Viewpoint 14, biased selection of public viewpoints, insufficient definition of representative public viewpoints, roads improperly identified as lightly trafficked even though the area is a 60 minute drive from Canberra, inadequate viewpoints and failure to reflect the reality of the visual impact on the properties themselves.	The SEAR's require the identification of 'a zone of visual influence for the wind farm (no less than 10 km)'. Through a desktop analysis and site visit, a study area of approximately 12km offset from the PA was identified based on topography, receptor location and viewing distance. Refer to Section 4.3 (VIA Study Area) and to Section 4.4 (Zones of Visual Influence). ZVI diagrams are used to identify theoretical areas of the landscape from which a defined layout of WTGs could potentially be visible. This is a helpful tool for providing an overview as to the extent to which a wind farm may, or may not be visible from the surrounding area. Therefore, the proximity of the township to Canberra is irrelevant to the visual impact of Jupiter Wind Farm. Refer also to Section 4.6 of the LCVIA (Viewpoint Selection) and to Section 4.2 Visual Context - in particular 4.2.3 Viewer Movement which addresses the Visual Impact determined according to whether the viewer is stationary or moving which will justify that people commuting to Canberra will not experience high visual impact since dynamic views and visual impact are inversely proportional. The term rural refers more to the density of the town and addresses that the number of viewers who are going to see the wind farm from a highly visible location on a main road to be relatively low. Refer to Section 4.6 of the LCVIA - Viewpoint selection, photomontages PM8 are associated with Mt Fairy Rd, the nearest turbine is 10.6km away - refer to page 89 of JWF EIS.
General	182118, 182274, 182161, 183007, 183329, 182659, 187562, 181116, 176208, 181502, 182521, 183369, 183426, 183086, 183793, 178040, 178040, 183098, 183280, 183717, 184018, 176146, 176488, 176531, 176630, 176863, 176877, 176975, 176981, 176985, 177608, 177749, 178332, 178514, 178932, 178932, 178934, 178972, 178997, 179046, 179050, 179052, 179058, 179149, 179314, 179398, 179591, 179627, 179646, 179836, 180836, 180848, 180866, 180902, 181112, 181140, 181344, 181573, 181842, 182102, 182104, 182121, 182123, 182127, 182137, 182139, 182151, 182153, 182155, 182157, 182262, 182297, 182324, 182380, 182385, 182389, 182568, 182576, 182582, 182599, 182671, 182698, 182807, 182817, 182839, 182843, 182857, 182869, 182877, 182885,	JWF is proposed to be developed in a heavily dense residential area and will have visual impact on the townships, villages and residents of that district (including Tarago and Collector Village) and an overall impact on landscape character. Confidence in the community not being in favour of wind turbines being constructed in this area. No evidence of dense stands of tree planting, windbreaks and garden plantings. Visual vistas should be protected in rural areas such as those on coastal areas. Wind turbines are proposed to be located less than 3km from residences and will therefore have a severe visual impact. The uninterrupted view of the Great Dividing Range will be lost. Opposition to the height of the turbines and proximity of the project area to Canberra.	There is a recognised 'broad public interest in the establishment of viable renewable energy sources' which must be balanced against 'The geographically narrower' potential impacts of the Project (as was stated by Chief Justice Preston of the NSW Land and Environment Court in Taralga Landscape Guardians Inc. v Minister for Planning and RES Southern Cross Pty Ltd [2007] NSWLEC 59 (12 February 2007)). In that decision, Chief Justice Preston specifically noted that the public interest in "the adoption of alternative, more environmentally friendly, energy generation sources" outweighed the visual impacts of a wind farm "where there [was] no compelling reason why there should not be some turbines in [that] landscape." Whilst it is acknowledged that the Project will have an impact on visual amenity, this must be balanced against the public interest benefits which accrue from the development of renewable energy projects such as this Project. The area is Zoned Rural and the positive impact of wind farms on local villages, residents and localities should be noted. Service providers in Tarago will benefit from increased business due to the Jupiter wind farm development. Even now prior to any constructions, there is increased business in the area due to the activities related to this development. Neighbour benefit sharing program has been offered to all landowners with dwelling or DA for a dwelling within 3km. The locals with trade experience will have the opportunity to register their interest to participate in the construction where possible. Additionally there will be a Community Enhancement Fund established for community based projects as well as supporting other activities which will benefit the broader community. Hosts will benefit by drought proofing their land and using their income in the local community. Some have indicated already that they will be improving their properties through use of additional skilled work sourced locally. The revised layout in the PPR indicates the overall impact from the project has been reduced. In determination of turbine locations, care was taken to ensure that all neighbouring dwelling will be more than 1km from any turbine. Following the review of the submissions, comments and recommendations from governmental agencies, industry and public, the project layout was revised in order to reduce the overall impacts of the project, in particular, the visual impact. As a result of the changes implemented, the distances between turbines and most dwellings have also been increased. The removal of 34 WTG's (which included the Southern Precinct) as part of the revised layout/design is expected to significantly reduce the anticipated visual impacts experienced by nearby residents (including that associated with any night lighting that is required) and to minimise potential noise, ecology, and heritage impacts and other environmental factors. Mitigation measures are offered where possible to reduce visual impact and community consultations have occurred as part of a stakeholder engagement management plan in addition to voluntary landscaping offered to relevant landowners.

Category	Submission Reference no.	Issues Raised	Response
	182887, 182891, 182893, 182895, 182911, 182993, 182923, 183038, 183070, 183094, 183096, 183159, 183171, 183199, 183237, 183309, 183319, 183329, 183343, 183402, 183396, 183420, 183434, 183709, 183739, 183805, 183833, 183859, 183861, 183863, 183865, 183867, 184018, 184693, 186658, 190929, 190583, 191602, 191774, 191900, 185081, 183351, 182831, 183098, 183717, 182262, 182082, 181502, 183823, 181502, 176983, 179040, 181500	Regard has not been given to the concerns of the non-hosting landowners. Doubt in the relatively limited visual catchment. A new 33 kVA transmission line along Goulburn Road will have detrimental visual impact. Concern that the wind farm will deter future residential development in the area. Concern regarding Visual Impact and Noise implications of the Concrete Batching Plants (CBP's).	Following the release of the turbine layout, EPYC undertook extensive consultation with the community. Throughout the development process, EPYC representatives met with neighbouring residents taking their comments and concerns on board, and where practically and feasibly possible implemented adjustments to address issues raised.. It should be noted that Cloustons undertook the assessment as required originally by the DGRs and subsequently according to the revised SEARs. The EIS and associated technical studies were conducted and prepared for the Jupiter Wind Farm Project to achieve the requirements of the SEARs, March 2016 (SSD 13_6277), with regard to accepted methods, as per relevant agency/regulatory guidance and with due regard to applicable standards. It is important to note that of the 140 dwellings identified in the JWF EIS within 3km of the site, 81 of them have been assessed with moderate to negligible visual impact rating (assuming worst case scenario). Refer to Table 4.8 of the LCVIA. Of the eight public viewpoints assessed on two were deemed to have a significant impact and were rated at moderate/high. The remaining 6 ranged from low to Moderate. This is not a significant impact on the public domain. It is acknowledged that some dwellings (assuming worst case scenario) will experience an unmitigated significant impact of high or moderate/high. However in most cases, mitigation is a feasible option for reducing or eliminating visual concerns. The proposed wind farm development will only take up a relatively small viewing angle to the south from property 183007 location which has a partially obscured viewing by a hill with existing vegetation. Please refer to Figure 4.4 and 4.5 of the LCVIA contained within Annex F in the JWF EIS. Visual impact does not depend on only the height of the turbines but also on the number of viewers and landscape sensitivity. The fact that the site is an hour drive from Canberra does not increase visual impact. Refer to Sections 4.5 (Existing Visual Environment) and 4.8.1 (Representative Public Viewpoints) for additional clarification. Township of Tarago is more than 5km away from the site. Those within the project area are participants and in addition, EPYC has a generous voluntary Neighbour Benefit Sharing Program for the non-participating neighbours with a dwelling / DA for a dwelling within 3km of a turbine. Due to existing screening, dwelling location and orientation some of the dwellings on Tarago road will not be able to view turbines. Collector Village falls outside the study area for visual impact assessment (35km) As stated in the JWF EIS, the 33kv cabling is to be underground as preferred by RMS. Only in the event that underground cabling is not possible for technical reasons, there may be a need to go overhead. The substation will be located adjacent to the existing 330kv line. There will be a short connection form the substation to the existing 330kv line. The concrete batching plants are temporary structures. EPYC will comply with the conditions of consent regarding noise and construction hours.

Category	Submission Reference no.	Issues Raised	Response
Mitigation	182161, 182274, 179023 182274, 181502, 182118, 182278, 182584, 182863, 182947, 183007, 183118, 183351, 183337, 183369, 183793, 186138, 176146, 177711, 181675, 182157, 176875, 183867, 184031, 176875, 182086, 178040, 179023, 181116, 181510, 182989, 183379, 183098, 183280, 183717, 183729, 187562, 182161, 181116, 179040, 181838, 191027, 182881, 183098, 183717, 181500, 182855, 188793, 182955, 183092, 181438	High visual impact (including to that of elevated properties) is inadequately addressed and measures are ineffective. Unsuitable and ineffective mitigation measures without alternative mitigation being offered. Mitigation by screen planting would not suit this area and will also obscure views. The EIS is in contradictory to the 2011 Draft NSW Planning Guidelines as it does not locate turbines away from areas with high visibility and from local residents. Impacts on Roseview Road have not been addressed. Mitigation is not considered adequate, rendering the area unsuitable for a wind farm. No consideration and assessment has been done in regards to how and why residents use their land. Lack of consideration to the views from the entire property. Only a small percentage of households will benefit. Screen planting is inconvenient, costly and will increase fire risk. The time it takes for mitigation effects to take place has not been considered. There is no ongoing plan for maintenance of vegetation screening including the replacement of trees that are damaged in high winds. The mitigation measures do not address all 250 residences within 5km of the project. The mitigation measures will not decrease the impact of most of the properties with moderate/high or high rating. Existing screening vegetation within the curtilage should be ignored as a mitigation measure and topography should remain as the only mitigation factor within that curtilage. Confusion on who is responsible for mitigation measures. Uninformed of the measures taken to reassess the revised EIS as satisfactory. Concern that blade movement will be visible and unmitigated.	Consultation regarding mitigation measures has been ongoing as the project is evolving the consultation approach will also adapt to ensure that it is relevant to the latest layout. The main reason for the ongoing consultation is in response to comments and suggestions made by the community in terms continuing consultation after the EIS was on public so that they would have a chance to review it in full. More importantly, no mitigation measures can be finalized prior to obtaining the DA as there may be further changes to the project and the mitigations would need to be updated with considerations of the final layout and turbine locations. Following the review of the submissions, comments and recommendations from governmental agencies, industry and public, the project layout was revised in order to reduce the overall impacts of the project, in particular, the visual impact. As a result of the changes implemented, the distances between turbines and most dwellings have also been increased. This is also the case for the dwellings on Roseview Road. For latest visual assessment refer to the PPR. The Proponent recognises that some locations may experience visual impact, and through assessment of the mitigation feasibility which was part of the revised SEARs (March 2016), the proponent has been committed to working with the neighbours for addressing mitigation that is acceptable, feasible and effective. The mitigation measures assessment was aimed to demonstrate the effectiveness of vegetation screening as required by the revised SEARs, March 2016 (SSD 13_6277). The examples used are just indicative and not the final vegetation which may be planted as explained. Where mitigation is feasible and the landholder requests for this measure, the details will be agreed upon with the owner. In accordance with SEARs, vegetation screening was adopted by EPYC as an accepted form of mitigation and was offered by EPYC to all landowners within 3km along with an assessment of visual impacts from dwellings (not from the property). In offering this mitigation measure, the status of a property including existing vegetation and screening was noted in order to consider a true representation of the area. Visual mitigation consultation has been offered to those residences where their dwelling was identified in the EIS with high, mod/high, or moderate ratings. There were only 12 dwellings identified in the EIS where it was predicted that mitigation may have low effectiveness. Additionally, EPYC has in place a one-off visual impact mitigation measure payment for those eligible (with dwelling/with DA for a dwelling within 3km of a turbine) whose dwellings have been identified with a high or mod/high unmitigated visual rating ($5,000) and those dwellings with moderate visual ratings ($3,000). The landholders are then able to choose their preferred mitigation option that would suite their requirements. The visual impacts have been updated for the PPR following the revised layout. The area is predominantly zoned RU1 which is rural. Rural lands also include the non- hosting properties. These properties will benefit from the neighbour benefit sharing program (available to interested residents with a dwelling within 3km of a turbine), Community Enhancement Funds (CEF) as well as potential future trades required for construction and or operation of the wind farm. The number of dwellings within 5km is not a determinative factor of visual impact; the assessment assumes worst case scenario. A moderate visual impact rating is not considered significant.

Category	Submission Reference no.	Issues Raised	Response
Photomontage	182274, 182947, 176173, 183793, 176875, 181502, 179040, 182161, 191930, 182161, 182118, 177711, 187562, 176626, 176146, 183280, 179023	Photomontages are considered to be inaccurate and unrealistic, closest photomontage to a property should not be assumed as representative of the property, concern about image quality of Photomontages and size of prints required, methodology of photomontage development is questioned, photomontages are expected to be made for every resident, there are no photomontages of the new transmission line, bias decision in locating where the photos are taken from, there are no photomontages relating to the substation, absence of night photomontages, insufficient number of photomontages (39) to represent the visual impact on the 140 non-associated residences/Das within 3km boundary, images appear sketched and turbines blending in with the background, deciduous trees are not truly represented.	Photomontage and wireframe creation and accuracy is explained in Appendix B of the Landscape Character and Visual Impact Assessment report (LCVIA). Wireframe models have been produced to provide an indication of the positioning and scale of WTGs within a given view frame. They are created using a 3d model of the wind farm and terrain, overlaid on a site photo with a varying field of view. They provide a reliable representation with regards to WTG location and field of view.. Annex B also contains night photomontages. Photomontages developed for this assessment have been created by Fulcrum3D within the guidelines of the Draft NSW Planning Guidelines for Wind Farms (December 2011) and the Clean Energy Council Best Practice Guidelines (2013), as well as the Scottish Natural Heritage Visual Representation of Wind farms (2014). The process of creating a realistic photomontage of a wind farm begins with taking clear accurate photos. Weather conditions ideally need to be clear, and bearing and GPS co-ordinates are recorded. It is standard practice to show the full face of WTG blades to show more of the turbine. These will vary in rotation and angle depending on wind speed and direction. Whilst a photomontage can provide an image that illustrates a photo realistic representation of a wind farm in relation to its proposed location and scale relative to the surrounding landscape, it is acknowledged that a photomontage cannot fully represent a human view. Flat image do not allow the viewer to perceive any information relating to depth or distance. To gain the most perceptually accurate view of the photomontages, they will need to be printed and viewed at A1/A0 sized sheets and held at arm's length. The EIS was provided in low resolution (172Mb) and high resolution format (650Mb) to the Department. The montages in high resolution format are suitable to be printed on A0 without distortion. Each photomontage file was approximately 5-7Mb. For the CCC presentation in December 2016, the full resolution photomontages were made available on USB. The size of this file was approximately 24 gigabites. Where it was requested, an A1/A0 was printed for the landowner for their respective dwelling. DPE have limited capacity to upload high quality material on their website hence a lower resolution file was uploaded to keep with the Department's requirements. The reason for this is to facilitate the community's access to the files in a manner that even those with poor internet service are able to have the opportunity to view and download the files. However, it is important to mention that EPYC also provided DPE with a very high resolution copy on a USB which could be shared with those community members who requested it. The monitoring mast is visible in the high resolution montages. In the revised layout there are 31 landholders with 34 dwellings within 2km and 54 dwellings between 2 and 3km. For the assessments, all the originally identified properties (140) within 3km (whether they were dwellings or had a DA for a dwelling) were offered to participate in the assessment. Wireframes and montages were prepared for the properties where access was granted. If two viewpoints were very similar (same view as a neighbour for example) only one photomontage was prepared and included in the EIS. This was explained in advance to neighbouring landowners and some residents chose not to participate in the assessment process and hence did not grant access Image 4.1 and Image 4.2 show a typical substation and transmission line. However, it should be noted that the preferred option for transmission line for Jupiter is underground cabling. The substation will be screened as required.
Site Selection and development footprint	181502, 182161, 182659, 183426, 178040, 182831, 176965, 176146, 176208, 176531, 176877, 176909, 177299, 179044, 179046, 179054, 179582, 179638, 179657, 180996, 181082, 181140, 181573, 181677, 182127, 182399, 182615, 182698, 182877, 182911, 182951, 182957, 183096, 183327, 183420, 183434, 184031, 186658, 188030, 190929, 185081, 183337	Considerable doubt regarding: - the suitability of the location for another wind farm, - the likelihood of turbines dominating the landscape and altering its overall character, - the proximity of the turbines to households, - the proposed location of the wind farm (does not take advantage of the wind resources in the area and benefits of locating JWF in this area have not been detailed), - the development is considered to be too large for the local villages and townships, not to mention the farms and residences within the Project area, - the wind farm will render the area to be industrial.	Landscape character is dependent on topography, vegetation and land use. The land use defined for the site of Jupiter Wind Farm is Environmental Management (E3), Primary Production (RU1). Other uses of land within the vicinity of the PA are Rural Landscape (RU2), Village (RU5) and Transition (RU6) with Woodlawn and capital wind farms in the vicinity of this zoning also.. It is therefore incorrect to imply that all surrounding areas and the project areas are zoned 'rural residential' The land use definition will limit the extent of 'industrial' development; however, turbines are known to coexist with normal farm activities and draught proof the land. At times, the wind farms become a tourist attraction and boost the local economy further. Refer to Section 5.4 (Combined and Sequential Visibility) and Section 5.5 (Cumulative Visual Impact Summary) of the LCVIA. This LCVIA has determined that the JWF is unlikely to result in any significant combined or sequential cumulative visual impacts within the immediate study area resulting from associated views towards other wind farm developments within the study area. Wind farms are a permitted land use in RU1 zones and nearest Village is Tarago which is over 5km to the nearest WTG. Please refer to updated ZVI diagrams in the PPR. The ZVI diagram assumes bare terrain and does not allow for existing screening and built forms which may block views of WTGs. Nearest WTG is now over 5km away. The original layout released to the community had turbines located on this ridge. However during a site visit in October 2014 with OEH representatives, recommendations were made to remove the turbines from the ridge. The updated layout was then released again to the community in late 2014. In determination of turbine locations, care was taken to ensure that all neighbouring dwelling will be more than 1km from any turbine. All existing dwellings and those with DA and rights were considered during the assessment. Following the review of the submissions, comments and recommendations from governmental agencies, industry and public, the project layout was revised in order to further reduce the overall impacts of the project in particular, the visual impact. Subsequently, the southern section was removed from the project.

Category	Submission Reference no.	Issues Raised	Response
Experience of Consultants	182274, 179032, 179040, 181710, 179040, 179032, 181116	No formal qualification in regards to visual impact, expertise are in urban roads.	Consultation was undertaken by the proponent following the release of the original turbine layout, following the release of the revised SEARs and during the public exhibition of the EIS. Judgement as to the significance of the effects is arrived at by a process of reasoning, based upon analysis of the baseline conditions, identification of visual receptors (viewers of the scene) and assessment of their sensitivity, as well as the magnitude and nature of the changes that may result from any development. CLOUSTON Associates has developed a best practice methodology based on internationally recognised approaches and 20 years of experience in the field of visual assessment. There are several critical dimensions demonstrated through this assessment and evaluation: • ensuring all receptors (viewers) have been adequately identified, even at distance • comprehensive evaluation of context to determine visual catchment of site from these areas • being clear on and separately defining quantitative impacts (distance, magnitude, duration etc) as against qualitative impacts (viewer type and context of view) • providing a clear rationale for how impacts are compared and contrasted ensuring photomontages include views from highest potential impact locations, identified from analysis above. It is important to note that visual impact will remain completely subjective and depend on the persons view. An independent visual impact assessment has been conducted as part of the RtS and PPR process. This new assessment was completed to review and revise the existing methodology, and adjust any ratings to be in line with the PPR wind farm layout/design. Importantly, this new assessment accounts for the PPR layout which incorporates a reduction in the total number of Wind Turbine Generators (WTG) from 88 to 54 (34 WTG have been removed), including the complete removal of the Southern Precinct previously identified in the EIS layout. The revised layout/design changes occurred primarily to minimise potential visual, noise, ecology and heritage impacts but are also expected to substantially reduce the anticipated impacts across all environmental factors. Currently, EPYC has in place a one-off visual impact mitigation measure payment for those eligible (with dwelling/with DA within 3km of a turbine) whose dwellings have been identified with a high or mod/high unmitigated visual rating ($5,000) and those dwellings with moderate visual ratings ($3,000). The landholders are then able to choose their preferred mitigation option that would suite their requirements
Wireframes	181514, 182161, 176626, 183717	Wireframes are misleading, and the viewpoint angle of turbines is not accurate or consistent with that of corresponding photomontages.	Refer to Appendix B. 2 of the LCVIA (Wireframes): As with photomontages, the panoramic nature of the photograph gives the illusion that the turbines are at a greater distance than reality when printed at a small scale. Wireframe models have been produced to provide an indication of the positioning and scale of WTGs within a given view frame. They are created using a 3d model of the wind farm and terrain, overlaid on a site photo with a varying field of view. They provide a reliable representation with regards to WTG location and scale. Some wireframes were taken from a different viewpoint from the corresponding photomontage, which is why turbine location may differ in the two graphics. For the most accurate representation of visual impact they should be printed at A1 or A0 and held at arm's length. Each viewpoint is accompanied by a location map, photo of the current view and wireframe model of the Project to indicate the expected view when complete. For a detailed description of the assessment criteria and impact ratings used, refer Table 4.6 of the LCVIA.
Landscape Values	179032, 179040, 182161, 182989, 183379, 182995	Visual values of impacted individuals not taken into consideration, RMS citation is considered irrelevant, landscape character will be dominated by the wind farm.	Wind Farms and Landscape Values National Assessment Framework - NAF (June 2007) was adopted to conduct a landscape value assessment which includes scenic values, refer to Table 1.2 of the LCVIA (NAF Methodology). Also refer to Section 3.2 (Landscape Character Assessment Methodology) which addresses Landscape Sensitivity and includes the value placed on the landscape. It is also noted that community consultations occurred to determine landscape value of the participants and feasible mitigation measures offered accordingly. Visual Impact Rating as a Combination of Sensitivity and Magnitude is Table 4.4 of Section 4.7 VIA Methodology The EIA discusses Sensitivity as follows: Each visual receptor type has an inherent and varied sensitivity to change in the visual scene based on the personal context in which their view is being experienced. This sensitivity has a direct bearing on the perception of visual impact experienced by the receptor and qualifies the quantitative impacts. Number of viewers also has a bearing on sensitivity. Viewpoints have a varied number of potential receivers depending on whether the viewpoint is public or private, the popularity of the viewing location and its ease of accessibility. Views from public reserves and open space are often given the highest weighting due to the increased number of viewers affected. Therefore, the RMS citation refers visual values of people affected qualitatively and quantitatively. Judgement as to the significance of the effects is arrived at by a process of reasoning, based upon analysis of the baseline conditions, identification of visual receptors (viewers of the scene) and assessment of their sensitivity, as well as the magnitude and nature of the changes that may result from any development.

Category	Submission Reference no.	Issues Raised	Response
Assessment rating/Methodology	179040, 182133, 181500, 182995, 182831, 183717, 179032, 183717, 182133, 182831, 183098, 182995, 182161, 182855, 182853, 183321, 181502	Context has been determined without consultation, matrices, distance ratings and thresholds are questioned, insufficient explanation of the criteria upon which the assessment has been made, measures are not considered to be objective, impact schema is considered to be inadequate and does not take into account sufficient distance to reduce visual impact in relation to the height of the turbines.	The key purpose of this Landscape Character and Visual Impact Assessment (LCVIA) is to assess the visual and landscape character impacts of the Project with regard to: • Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) • Secretary's Environmental Assessment Requirements (SEARs) dated 02 March 2016 This LCVIA addresses and responds to the Secretary's Environmental Assessment Requirements (SEARs) dated 02 March 2016, for the assessment of potential landscape and visual impacts. Refer to Section 1.1 Purpose of the Report. This LCVIA is consistent with the NAF and Draft NSW Planning Guidelines Wind Farms methodologies with additional regard for several best practice guidelines, including the: • National Wind Farm Development Guidelines (Public Consultation Draft V2.4 July 2010) • Auswind Best Practice Guidelines (December 2006) • Environmental Impact Assessment Practice Note: Guidelines for Landscape Character and Visual Impact Assessment (RMS March 2013). Refer also to Section 1.3 (Assessment Methodology). Please refer to updated VIA for updated assessment results as part of the revised layout included in the PPR. Context was determined by numerous site visits and photomontages developed by taking adequate photographs while determining their location using a GPS. The methodology used for the VI assessment and photomontages is a widely used one and is clearly outlined in Figure 1.1 of the visual assessment. Viewpoints are assessed quantitatively and qualitatively. Many factors are taken into consideration when conducting the VI assessment including distance, topography and vegetation. Consultation was undertaken on several days, the method of which for each dwelling is detailed in the annex of the EIA. The matrix used is obtained from RMS Guidelines for Landscape Character and Visual Impact Assessment and is also consistent with the National Wind Farm Guidelines. This matrix is one that is commonly used in the analysis of visual impacts of wind farms with turbines of similar height across NSW. The threshold distance does not always increase with the increase in height of the turbines. The overall visual impact of JWF is dependent on other factors - refer to Section 4.2 Visual Context for other requirements which are needed to be considered in determining an overall visual impact. Section 4.1 of the LCVIA (Distance and Wind Farm Visibility) refers to the consultants' approach to determining the contribution of distance to visual impact. Refer to Section 4.7 of the LCVIA (VIA Methodology) for information on how the assessment was conducted and includes Table 4.6 Visual Impact Assessment Criteria. The effect of distance on turbine visibility has been standardised to form a part of the quantitative factors in Table 4.6 and fit into the 4 ratings adopted for the sake of consistent assessment. Therefore the distance bands adopted in Table 4.1 to fall into five ratings have been quantified to fit into the four ratings adopted in Table 4.6 to assess visual impact. The character zone is for an overall site assessment. Many of the dwellings would have a moderate to negligible impact, hence an overall Moderate rating. Where access was granted site visits were undertaken to dwellings within 3km. If not, they were assessed from the road. If not possible then a worst case scenario was assumed. Now assuming worst case scenario of the 140 dwellings there was 81 dwellings had a moderate to negligible rating. This is a significant portion of the community within the 3km.
Consultation	181298, 182161, 183823, 187562, 179040, 182082, 181838, 187562, 183321, 181116, PDAW_160804_002	Concern that not all landowners have been advised of the impact introduced by the proposal, concern that there is a disconnection between the authors of the EIA and the developers, a holistic approach is not considered to have been adopted, consultations and responses are considered to be insufficient, request for more reasoning detailing mitigation approach, monetary amount and location of vegetation. Request for benefit sharing contract to be provided to objectors to make an informed decision.	Where visual impacts concerns are raised as part of consultation, Cloustons are required to concentrate their assessment on these areas. EPYC conducted the consultation. Cloustons assumed worst case scenario for all residential dwellings during their assessment. The consultation activities were undertaken specifically related to mitigation. During the period when the original layout (88WTG) was being considered, EPYC received three written requests from individuals within the community with respect to turbine adjustments. EPYC has accommodated each of these requests. Following the review of the submissions, further considerations have been made and the revised layout has now significantly reduced the real and perceived visual impacts of the project. EPYC has made every effort to consult and provide information where possible and advised submitters of the considerations for the benefit sharing programme. In addition to the efforts made for consultations as outlined in the EIS spreadsheet, newsletters were delivered to dwellings within 5km of the project area. Some residents did not respond to requests for consultations and chose not to attend Information Days held locally for the benefit of the community.

Category	Submission Reference no.	Issues Raised	Response
Commitment to guidelines of reports	179032, 183098, 182161, 181510, 179032, 182995	Concern that: - the analysis and conclusion of the report are based on a professional assessment of the anticipated impacts without the consultation of current and potential future viewers, - the LCVIA is inconsistent with the methodologies of the 2011 draft NSW Wind Farm Guidelines and the NAF which require the consideration of community and stakeholder landscape values and interests, - consultation was insufficient and the method of consultation was inadequate, - the VIA does not refer to published research on wind farm visibility.	The SEARs require that 'consideration of the feasibility and effectiveness of the proposed mitigation measures is undertaken for all non-associated residences within 3km of a proposed turbine where significant visual impacts are predicted'. Targeted site visits were however conducted by the authors of the EIA (with support of the Proponent) to assist in providing a detailed consideration of the feasibility and effectiveness of any proposed mitigation measures. This included consultation with all landowners of non-associated residences within 3km of a proposed turbine, where contact or access was possible and where significant visual impacts were predicted (Refer to Appendix A of the EIA- Detailed Assessment of Dwellings within 3km Offset of a Turbine). The purpose of these targeted site visits was to identify potential approaches to mitigate any adverse impacts, however all detailed consultation aspects including consideration of negotiated agreements, was undertaken by the Proponent. Even though Community consultation has not been carried out by the authors of this visual report, a comprehensive community and stakeholder engagement program was in place which was managed by the Proponent. This process of engagement has been undertaken in accordance with the Stakeholder and Community Engagement Strategy (the Strategy) developed for the Project. Section 7 of the EIS outlines the process of consultation and engagement the Proponent has undertaken with key stakeholders (including the local community and government), and highlights where key issues raised throughout the consultation process to date have been addressed in the remainder of the EIS, including visual aspects. The NSW Draft framework only applies to new wind farm proposal or modifications. It does not apply to Jupiter Wind Farm development. The bulletin does not apply to the Jupiter wind farm application. However landscape values are used in the NAF.
Alternate energy source	176208, 182121, 182611, 183211, 183309	Solar farms are considered to be less intrusive than Wind farms.	The area has good wind resource and access to high voltage transmission line, suggesting that a wind farm development is more viable than a solar farm.
Visual Impact on Southern Precinct	183863, 191930, 182133, 182863, 183351, 179588, 180157, 183426, 182133, 191019, 183351, 186138,	Visual impacts on southern precinct are not sufficiently mitigated.	Following the review of the submissions, comments and recommendations from governmental agencies, industry and public, the project layout was revised in order to reduce the overall impacts of the project in particular, the visual impact. As a result of the changes implemented, the Southern Precinct is no longer part of the project and overall the distances between turbines and most dwellings have also been increased and associated impacts are expected to be mitigated. The development footprint and the number of dwellings within 3km of the remaining turbines have been reduced significantly. The details can be found in the Preferred Projects Report (PPR).
Cumulative Impact	182161, 183833, 190929, 183823, 181840, 182584, 182141, 183477	Concern: - that the wind farm will become the prominent element and dominant feature and will increase the density of the wind farms in the area, - regarding general cumulative impact concerns, - regarding sequential cumulative visual impacts resulting from associated views towards Capital and Woodlawn wind farm developments within the study area.	Cumulative impacts are addressed in Annex F of the JWF EIS (LCVIA Report – in particular, Section 5.0) and summarised in Chapter 11.8 of the JWF EIS. Cumulative impacts are not a significant concern due to distances from existing projects and mostly obscured by the Mt. Fairy ridge. This LCVIA has determined in Sections 5.4 (Combined and Sequential Visibility) and 5.5 (Cumulative Visual Impact Summary) that the JWF is unlikely to result in any significant combined or sequential cumulative visual impacts within the immediate study area resulting from associated views towards other wind farm developments within the study area. Woodlawn and Capital Wind Farm are respectively, about 8km and 10km away. There are very few locations where Jupiter can be seen in conjunction with the other wind farms.
Night lighting	181502, 182161, 182853, 182947, 183321, 183351, 179023, 183098, 183280, 182118, 183321, 182955	Doubt that the use of radar activated lighting would likely diminish any night time visual impacts, introduction of artificial light to the area, concern regarding the number of turbines with flashing lights, concern regarding the impact of night lighting on landscape character and visual impact, effect of night lighting is not discussed in the EIS, dwellings with elevated views will have clear views of the turbine lights, concern that flashing lights will interrupt sleep.	The night time impacts are generally less severe than the day time impacts due to the reduced viewing duration and lack of visual context (i.e. the majority of view is obscured by darkness). To further reduce the perceived impact two options are considered: • the use of low intensity lighting will assist in reducing the level of impact experienced • the implementation of radar activated lighting would likely diminish any night time visual impacts to negligible. CASA has indicated that they would consider radar activated night lighting which would mean that the lights would only be on if a plane approaches towards the project area. The alternative is low intensity night lighting. The revised layout has a reduced number of turbines proposed for night lighting. Please refer to Annex F of the Jupiter Wind Farm (LCVIA), in particular, Section 4.12. Currently, EPYC has in place a one-off visual impact mitigation measure payment for those eligible (with dwelling/with DA within 3km of a turbine) whose dwellings have been identified with a high or mod/high unmitigated visual rating ($5,000) and those dwellings with moderate visual ratings ($3,000). The landholders are then able to choose their preferred mitigation option that would suite their requirements.

Category	Submission Reference no.	Issues Raised	Response
Inadequate assessment	191930	Throughout all of the material EPYC has failed to identify my dwelling and property as existing and as such has not adequately provided ANY mitigation strategies in regard to Shadow Flicker and Blade Glint that will affect me.	According to the Palerang council records, the property is identified as a non-habitable shed and is not subject to the same assessment requirements as that of a habitual dwelling.

Table C.2 – Public Submissions and Responses (Noise)

Category	Submission Reference no.	Issue Raised	Response
Audible noise	176146, 176626, 176863, 176981, 177608, 178514, 178934, 178972, 178997, 179023, 179052, 179149, 179314, 179582, 179584, 179627, 179646, 179811, 179836, 180848, 180902, 180996, 181082, 181573, 181112, 181134, 181140, 182121, 182123, 182127, 182157, 182171, 182173, 182175, 182177, 182297, 182305, 182380, 182385, 182389, 182399, 182599, 182807, 182839, 182843, 182849, 182869, 182911, 182923, 183038, 183096, 183171, 183231, 183233, 183237, 183329, 183402, 183396, 183420, 183434, 183833, 183863, 184693, 184808, 184641, 189107, 191035, 187634	Concern that Noise from wind farm would be heard day and night. Negative impact on property.	An Operational Wind Farm / WTG Noise Assessment was conducted in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. These non-host dwellings do not exceed the permitted noise levels. EPYC had provided two mitigation scenarios in the EIS for the relatively few dwellings with a minor noise exceedance. The revised layout is fully compliant with the required standards.
Compliance/Exceedance	183351, 183793, 187634, 187562, 182521, 183729, 183823	Separate noise forecasts / compliance levels for night and day are not considered. Concern that operation at noncompliant standards will occur with the permission of landholders. A request for a guarantee in no adverse effects and offensive noise. Confusion around the way in which the project will achieve compliance. Concern regarding breach of compliance during the construction phase as it is not clear how compliance will be monitored. The noise that is produced by these wind turbines far exceeds that of what anyone could consider ambient noise and is out of context to the region.	The noise assessment at the Jupiter site has been carried out in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. Compliance limits for the wind farm have been derived from background noise curves representing the background noise over a complete 24 hour period; in addition, the noise assessment report by DNV GL also includes an assessment of the variations in background noise levels. While the revised noise assessment indicates that the wind farm is compliant with noise limits at all identified non host properties, in the event that the operational wind farm noise is found to exceed the operational noise limits, there are a number of established mitigation and management options (e.g. noise reduced operation modes, turbine shut-down, physical barriers, etc) that can be used to control the wind turbine noise. These methods are detailed in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. The original EIS had some minor exceedances at certain wind speeds which were managed through mitigations scenarios. The revised layout is 100% compliant at all identified non host properties and noise management modes are no longer required. The revised wind farm layout, which has included the removal of 34 WTG's, will be fully complaint at all identified non host properties.. EPYC will comply with the Development Consent for permitted noise levels at nearby dwellings. Noise compliance during construction and operation will be managed through the Development Consent and Environment Protection Licence for the Project.
Construction	181502, 182947	Concern that building materials chosen for fire safety allow for easy penetration of noise, concerns regarding construction traffic and compression braking at access gate 1 near Roseview Road.	Construction material of dwellings is not an identified factor throughout the noise assessment. The background noise is measured and used to predict outside noise at relevant dwellings. A Construction Noise Management Plan will be prepared once the project has been approved (and prior to construction) which will outline mitigation measured utilised to reduce all noise-related impacts to nearby residents (if any).

Category	Submission Reference no.	Issue Raised	Response
Cumulative impacts	181298	Concern for the lack of evidence in the EIS for addressing potential cumulative impact of properties lying in proximity to multiple wind farms.	The DNV GL noise assessment includes the cumulative noise contributions from the Woodlawn and Capital 1 Wind Farms, and proposed Capital 2 Wind Farm wind farms have also been included in the noise assessment for the Project. In DNV GL's experience, wind farm operational sound levels at dwellings further than 5 km from operational wind farms will generally comply with noise limits.
General	182118, 182947, PDAW_160804_002, 181502	Concern that a big portion of the projects' noise compliance is dependent on adequate management. Impacts could be generated if works outside the standard hours of construction are left unmanaged, construction noise will temporarily be generated, mitigation will occur only according to what is practically achievable, night time impacts could be generated if left unmanaged, implementation of noise solution will only occur upon agreement with affected landholders. The operation of the substation in compliance with the INP is dependent on suitable substation design. Concern regarding any future subdivision and impact of adjacent Turbines.	The noise assessment at the Jupiter site has been carried out in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. The revised layout has been assessed to be compliant at all identified non host properties within 3km. It is also important to note that compliance testing of the operational noise of the wind farm is also normally carried out following construction of the wind farm. While the pre-construction assessment indicates that the wind farm will comply with noise limits, in the event that the operational wind farm noise is found to exceed the operational noise limits, there are a number of established mitigation and management options (e.g. noise reduced operation modes, turbine shut-down, physical barriers, etc) that can be used to control the wind turbine noise. These methods are detailed in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. Vibration impacts are anticipated during construction and will be localised. Operational WF does not generate vibration. Dwellings at 3km from a WTG comply with noise a requirement which suggests that any further dwelling will be compliant. In the event the landowner wishes to subdivide the property for future residential development consultation should occur with the proponent. EPYC will be happy to work with the owner to assist with planning for proposed dwelling locations to ensure that it complies with noise and shadow flicker standards. It should be noted that there are mitigation options available in the event any proposed dwelling locations are close to the project boundary.
Concerns of residents in proximity to the southern precinct	179588, 180157, 191930, 180157, 183351, 183426, 182817, 183351, 191930,	The noise impact of the wind farm will prevent the residents from having a sound sleep and will cause illnesses and discomfort to both humans and animals, concerns regarding future dwellings, concerns regarding cumulative impacts when considering noise generated from nearby traffic, concerns regarding construction noise and noise generated by additional traffic as a result of the development.	Southern Precinct is no longer part of the project and as such, all anticipated impacts are expected to be mitigated.
Health	182853, 182855, 182947, 182981, 183353, 183793, 182877, 183329, 182947, 191930	The noise impact of the wind farm will prevent sound sleep, will effect health, distract attention and will be irritating to people with poor or sensitive hearing. Concern that the noise impact of windfarms will lead to feelings of discomfort and illnesses, requesting validation that JWF will not potentially impact health, concern that the health impacts of wind turbines on residences at distances greater than 5km are being ignored.	A WTG noise impact assessment was conducted in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. The wind farm noise impact assessment prepared by DNV GL in ANNEX E includes an assessment of the operational wind farm noise for all identified dwellings up to 5 km from the wind farm. Beyond this distance, wind farm sound levels will be below noise limits, and generally by a significant margin, and therefore it is not anticipated that there will be any adverse health effects related to the wind farm noise at such distances. DNV GL is not aware of any peer-reviewed scientific papers or books that demonstrate a direct link between wind farm noise and adverse health effects. The revised project layout outlined as part of the JWF Response to Submissions and Preferred Project Report is expected to be 100% compliant at all identified non host properties. Additionally, the National Health and Medical Research Council (NHMRC) released a statement on 11/02/2015 (NHMRC Statement: Evidence on Wind Farms and Human Health) prepared on the advice of the Council of NHMRC with consideration of the comprehensive assessment of the evidence on wind farms and human health. After careful consideration and deliberation, NHMRC concludes that there is currently no consistent evidence that wind farms cause adverse health effects in humans.

Category	Submission Reference no.	Issue Raised	Response
Impacts	180157, 182118, 182945, 182947, 183007, 183086, 183329, 183426, 183793, 182141, 183477, 182817, 182877, 183280, 183823, 188793, 182875, 183329, 181840, 183337	Concern regarding the establishment of a permanent industrial development with ongoing, noisy, servicing, infrastructure activity, overruling all other forms of long established habitation of the area – in both human form, and flora and fauna form. Concern regarding the generation of unnatural noises, concern that the physical effects (vibrations and sounds) of wind farms is not clearly acknowledged and compensated for. Concern that the research used is deliberately in support of the wind farm, doubt in the method adopted to determine if JWF has acceptable noise impacts, concern that the common issue of noise produced by wind farms is being disregarded, concern that residents will be continuously impacted by the JWF regardless of whether they were inside with double glazed windows or spending time outside, concern regarding the noise impact of the proposed wind farm in relation to the proximity of the dwelling to the turbines. A heavily dense residential area is not suitable for a wind farm development. Assessments of noise were based on a number of different models as no specific model has yet been chosen. Noise information was based on manufacturer's data, not field tested in local conditions, concerns that impacts will be severe if WTGs are clustered and the dwelling is elevated, concerns that dwellings further away from the turbines than is prescribed to be affected by the noise will still be impacted, concern regarding vibration and noise.	A WTG noise impact assessment was conducted in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. The wind farm noise impact assessment prepared by DNV GL in ANNEX E included an assessment of the operational wind farm noise based on an indicative envelope of turbine noise levels, as the turbine used for the Project will be selected during the detailed design phase. However the turbine noise envelope is based on actual measurements of a typical turbine. If the turbine selected for the site has noise characteristics that fall within this envelope then the noise compliance results indicated in the DNV GL report will also apply to the selected turbine. If the noise performance of the turbine is substantially different then the wind farm noise can be re-assessed using the noise levels of the selected turbine to determine compliance. Furthermore the revised layout is 100% compliant at all identified non host properties and at all wind speeds. Noise being emitted from the operations at Jupiter Wind Farm are expected to be inaudible at a distance of 5kms DNV GL has carried out operational wind farm noise predictions using the ISO9613-2 noise model, which is an industry standard noise model. Within this model a ground absorption parameter of G = 0 has been assumed (i.e. "hard ground"), which assumes that the noise is reflected from ground surfaces. Research has shown that this modelling assumption is generally considered accurate in the case of noise propagation across concave topographical features or valleys, or potentially conservative for other topographical scenarios. Assuming "hard ground" for the noise modelling is recommended in the EPA SA Guidelines. Mitigation measures / recommendations outlined throughout the Wind Farm Noise Impact Assessment will be utilised to ensure noise levels are kept to a minimum where feasible. Vibration impacts are anticipated during construction and will be localised. Operational WF does not send vibration. Dwellings at 3km from a WTG comply with noise requirements. In 2016 the National Health and Medical Research Council (NHMRC) commissioned Flinders University of South Australia to undertake a study to investigate any links between wind farm noise (audible and inaudible) and adverse health effects. As the study is ongoing DNV GL cannot comment prior to its outcomes being released. However it is DNV GL's understanding that the motivation for this study is not driven by any previous peer-reviewed scientific studies demonstrating a direct connection between wind farms and adverse health effects. It is DNV GL's understanding that the current position of the NHMRC, in a statement released on 11/2/2015, is that 'there is currently no consistent evidence that wind farms cause adverse health effects in humans.'

Category	Submission Reference no.	Issue Raised	Response
Inadequate assessment	182161, 191550, 182981, 183353, 183729, 187562, 183351	Concern that a holistic approach was not adopted in undertaking the assessment. Concern that the analysis was rushed with an inconsistency in the process of analysing the data from the placement of recording instruments, assessment was conducted with constrained data. Background noise assessment is inadequate with ambiguity on what can really be considered as background noise. Two separate assessments for day and night noise impact was not conducted. The units of measurements are questioned; the EIS should include assessment of unweighted measurements of noise. Concern regarding the reasoning behind determining logger locations especially without a site visit to impacted areas and the assumption logger locations are representative of other locations neighbouring the project based on proximity, vegetation and general similarity of acoustic environments.	The on-site field work (including device installation) was managed and conducted by Steven De Luzuriaga (ERM, Acoustics Engineer) with remote guidance of Nathan Lynch (ERM, Principal Acoustics Engineer) and support from DNV GL. Steve is a qualified and experienced acoustician (Graduate Certificate of Architectural Science (Audio and Acoustics), University of Sydney, Australia, 2016) and Member, Australian Acoustical Society (MAAS) with seven years professional experience, four of which have been in acoustics. Nathan is a qualified and experienced acoustician (Master of Design Science (Audio & Acoustics) University of Sydney, Australia, 2007) and Member, Australian Acoustical Society (MAAS) with nine years professional experience all in acoustics. DNV GL advisor to the background noise monitoring team, noise assessment analyst, and report author was David Price, a qualified Senior Engineer employed by DNV GL, with experience in wind farm noise assessments spanning a period of over 15 years, and a Member of the Australian Acoustic Society (MAAS). As such all aspects of the wind farm noise assessment has been carried out by suitably qualified personnel, employed by independent expert consultancies. Noise logger locations were identified and utilized by qualified acousticians. Where the land owner accepted to participate the noise logging took place. Where access was not granted a similar or nearby location was selected. The background noise assessment at the Jupiter site has been carried out in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. the revised layout is 100% compliant at all identified non host properties. At each noise location the background noise has been measured using the A-weighted, L90, 10 minute noise descriptor which is the sound level that is exceeded 90% of the time within the period of measurement. The sound level of intermittent noise sources which are emitted for periods less than 90% of the period will therefore generally not define the recorded background noise levels. As a further step, DNV GL has checked the measured background data and filtered out invalid monitoring periods, erroneous data and unusual periods of high background noise. The quantification of the human perception of sound uses weighted scales, as human sensitivity to sound changes with frequency. The most commonly used weighting for environmental noise is the A-weighting scale (with units of dBA), and this is also generally used for measuring wind farm noise and other environmental noise sources. The A-weighting scale adjusts the sound power to reflect the greater human sensitivity to higher frequency noise, as higher frequencies tend to be subjectively perceived by the listener as more audible at lower levels of sound pressure. Using unweighted noise level measurements would not be appropriate as it does not adequately account for the human response to noise. In addition, the noise limits as defined in the relevant guidelines are also defined in A-weighted levels. In addition to A-weighted wind farm noise level predictions, the wind farm noise assessment by DNV GL in ANNEX E also includes a separate assessment of the low frequency noise of the wind farm, based on using C-weighted noise levels. Jupiter is governed by the NSW noise standards. We are not aware what noise regulations exist in Ireland including specific developer and residential noise levels. EPYC understand that NSW have extremely stringent noise standards when compared to other areas (A 35db or background + 5db for the permitted OUTSIDE Noise level from a WF). These standards have been successfully met as part of the noise impact assessment. The revised project layout outlined as part of the JWF Response to Submissions and Preferred Project Report is expected to be 100% compliant at all identified non host properties.

Category	Submission Reference no.	Issue Raised	Response
Infrasound	191774, 187634, 182121, 182123, 183345, 183833, 191774, 182885, 182911, 183231, 183233, 184808, 187634, 182875, 181500, 182082, 181502, 191930	Concern regarding the health impacts of infrasound emissions and lack of mitigation, doubt in the credibility of sound disturbance reports and research regarding noise impact of wind farms in comparison to environmental noise, concern in the inability to predict the amplitude modulation of JWF. Concern regarding the negative impacts of infrasound emitted by JWF on the health of farm animals (and domesticated animals) within proximity to the proposed development.	DNV GL is not aware of any peer-reviewed scientific studies that demonstrate a direct link between wind farm noise and adverse health effects, in humans or livestock, including from infrasound. After extensively reviewing the available peer-reviewed scientific evidence the National Health and Medical Research Council (NHMRC) released a statement on 11/2/2015 concluding that 'there is currently no consistent evidence that wind farms cause adverse health effects in humans.' As the propagation of Special Audible Characteristics are complex to model and generally are not a feature at well-designed modern wind farms, such features are not included in pre-construction modelling. However it is important to note that the SEARs and guidelines applicable to the Project have suitable provisions in place to monitor and manage instances of Special Audible Characteristics if these are found to be a feature at the site. For example adding a 5 dB penalty in post-construction noise compliance assessments if such characteristics are detected in the wind farm operational noise. Due to noise attenuation rates, at distances of 10 -20 km the noise level of the wind farm will be negligible compared to other existing environmental noise sources. It should be noted that a study carried out by Resonate Acoustics (an independent acoustics consultant not associated with the Project) in 2013 has shown that infrasound measured from WTGs is similar in magnitude to other sources of environmental noise. Many environmental noise sources have some frequencies in the infrasonic spectrum and this includes thunder, wind and ocean waves as examples. The loud component of thunder is from noise in the audible part of the spectrum. Generally speaking for infrasound to be harmful, its energy levels would need to be so significant that the sound in these frequencies would in fact become audible, which is not the case for wind farms. For example wind and ocean waves also produce infrasound and these natural phenomenon have not been linked to any adverse health effects in humans or livestock. Infrasound and Amplitude Modulation (AM) are two distinct phenomena. Infrasound is noise in frequencies below the normal threshold of hearing, whereas AM is caused typically due to the downwards movement of the blade that can cause an audible "swishing" sound.
Mitigation	182161	Physical barriers are an inadequate mitigation measure and incompatible with the nature of the area.	A WTG noise impact assessment was conducted in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. This noise assessment report also includes discussion of a number of noise management and mitigation contingency strategies that provide for additional noise attenuation should higher noise levels than those predicted in this assessment result following commissioning. However as the revised wind farm noise assessment indicates that the wind farm is compliant with noise limits at all identified non host properties, it is not anticipated that additional noise management strategies such as noise reduced modes of operation, turbine shut-down, or physical barriers will be required.
Modelling	181298, 182161, 183351, 191550, 181735	The noise impact modelling in this EIS stops at 5 kms and does not reflect the notion that noise will not consistently decline with distance from a wind farm. Concern that noise impacts cannot be modelled since wind farm noise cannot be predicted. Concern that cumulative impact has not been modelled. Concern regarding the reliance on ISO 9613-2 which is in relation to a flat terrain while the project area varies in topography. Concern that the selected models will exhibit tonal characteristics and the assessment done by DNV GL is not based on chosen turbine models.	A WTG noise impact assessment was conducted in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. Furthermore the revised layout is 100% compliant at all identified non host properties. The revised layout is compliant at all identified non host properties within 5km. It is expected that dwellings further than this distance will also be compliant. WTG selection will occur after project approval. The Development Consent and Environment Protection Licence will contain noise criteria for compliance. Regardless of WTG selection EPYC must comply with the noise approval conditions and criteria in the EPL. Noise modelling assumptions are listed in Section 6.5 in Annex E (Wind Farm Noise Assessment) of the JWF EIS. Figure 5.24 and Figure 5.27 contained errors in the graph only. This issue only affects the report plots; the correct limits have been applied in the assessment used to determine compliance. Basically the issue was caused when noise limit curves instead of background curves were pasted into the template we used to produce these plots. So in summary the error is cosmetic only and does not affect the outcomes of the assessment. A calendar year of measured data was used to produce the wind speed and direction frequency distributions provided in Appendix H of the DNV GL noise assessment report provided in ANNEX E, in order to ensure that this wind data was not biased seasonally. For the period of background noise measurements, a concurrent period of wind data from the site wind monitoring mast nearest each logger was used. In order to gain an understanding of the probability of meteorological conditions for enhanced noise propagation, an analysis

Category	Submission Reference no.	Issue Raised	Response
		Concern that there is no guarantee that dwellings which are not impacted under current assessment will remain as such with the choice of wind turbines. Worst case scenario not considered in modelling. Errors throughout Wind Farm Noise Impact Assessment (in particular, Figures 5.24 and 5.27). Questioning the data used to conduct the modelling.	has been performed in the DNV GL wind assessment report in ANNEX E to determine how the wind shear at the Project site varies throughout the year. DNV GL has assessed the variation of the power law wind shear exponent (alpha) over a one year period at the location of the site masts M1 (82 m), M2 (82 m), and M3 (108 m) for wind speeds above a cut-off of 3 m/s.
Monitoring	182611, 181500, 183351, 182161, 191550,181502, 183829	Background noise inadequately determined. Concerns regarding the legitimacy of noise monitoring and accuracy of noise levels during the monitory period. Doubt in the noise monitoring period defined. Concern regarding the measurement location and appropriateness of chosen receptors and lack of consideration for the varying topography of the area. Concerns regarding the time of year in which noise monitoring was undertaken. Insufficient number of sites to monitor the project area which resulted in an inadequate prediction. Concern that assignment of compliance limits is biased, with a questionable foundation, making it more difficult for the EPA to conduct a purely objective review. Concerns regarding the qualification of personnel conduction the noise impact and the equipment used. Questioning the truth behind the background noise.	The on-site field work (including device installation) was managed and conducted by Steven De Luzuriaga (ERM, Acoustics Engineer) with remote guidance of Nathan Lynch (ERM, Principal Acoustics Engineer) and support from DNV GL. Steve is a qualified and experienced acoustician (Graduate Certificate of Architectural Science (Audio and Acoustics), University of Sydney, Australia, 2016) and Member, Australian Acoustical Society (MAAS) with seven years professional experience, four of which have been in acoustics. Nathan is a qualified and experienced acoustician (Master of Design Science (Audio & Acoustics) University of Sydney, Australia, 2007) and Member, Australian Acoustical Society (MAAS) with nine years professional experience all in acoustics The background noise assessment at the Jupiter site has been carried out in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. Furthermore the revised layout is 100% compliant at all identified non host properties. It should be noted that for each logger location a multi-step process of filtering and checking the data has been carried out. At each noise location the background noise has been measured using the A-weighted, L90, 10 minute noise descriptor which is the sound level that is exceeded 90% of the time within the period of measurement. The sound level of intermittent noise sources which are emitted for periods less than 90% of the period will therefore generally not define the recorded background noise levels. As a further step, DNV GL has checked the measured background data and filtered out invalid monitoring periods, erroneous data and unusual periods of high background noise. A number of logger locations have been assumed to be representative of other residential locations neighbouring the Project, based on consideration of proximity, topography, vegetation, and general similarity of acoustic environments. Distance to a noise logger is not the only consideration when determining whether a logger is representative of a location without noise monitoring. The background noise assessment carried out by ERM and DNV GL has met requirements for each noise monitoring location, including the requirement that a minimum of 500 data points should be from the worst case wind direction or at least 6 weeks of monitoring should be undertaken. In order to maintain consistency with the background noise measurements, post-construction measurements confirming compliance are normally carried out at a similar time of year as the pre-construction measurements. The noise monitoring was carried out during the November / December period due to alignment with Project timeframes and significantly, it was anticipated that this period would not be affected by seasonal environmental background noise factors such as insect noise. Spot checks carried out by DNV GL listening to audio files recorded at the site simultaneously with the L90 background noise data confirmed this. As the background noise and its relationship to wind speeds will vary through the year, in the DNV GL noise assessment included in ANNEX E the effects of metrological conditions have been considered, including the influence of the wind regime, temperature effects and conditions for enhanced propagation through the year. The background noise levels calculated at a dwelling location is predominantly dependant on local environmental noise sources, surrounding vegetation and barrier obstacles, etc. The terrain at a particular dwelling location does however get taken into account in the ISO9613-2 noise model used to predict the wind farm noise. The background curve adopted consisted of the lowest background noise level at each integer hub height wind speed for the

Category	Submission Reference no.	Issue Raised	Response
			24 hour period. The noise loggers were situated further than a few metres from each dwelling location, in order to avoid increased noise levels due to noise reflecting surfaces (e.g. walls, etc), in accordance with the relevant SA EPA wind farm noise guidelines. In addition, the noise assessment report by DNV GL also includes an assessment of the variations in background noise levels in day and night periods. While the revised noise assessment indicates that the wind farm is compliant with noise limits at all identified non host properties, in the event that the operational wind farm noise is found to exceed the operational noise limits, there are a number of established mitigation and management options (e.g. noise reduced operation modes, turbine shut-down, physical barriers, etc) that can be used to control the wind turbine noise. These methods are detailed in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E.
Qualified	182268, 182278, 182268, 181372.	The qualification of the team involved in the data collection and analysis is questioned.	EPYC is not the customer in this report in Appendix E. The noise monitoring locations (i.e. dwelling) were selected and approved by DNV GL, with the actual noise monitoring device positions selected by ERM (the Customer) whilst on site. The actual device position was again guided by the technical requirements advised by DNV GL. The on-site field work was managed and conducted by Steven De Luzuriaga (ERM, Acoustics Engineer) with remote guidance of Nathan Lynch (ERM, Principal Acoustics Engineer) and support from DNV GL. Steve is a qualified and experienced acoustician (Graduate Certificate of Architectural Science (Audio and Acoustics), University of Sydney, Australia, 2016) and Member, Australian Acoustical Society (MAAS) with seven years professional experience, four of which have been in acoustics. Nathan is a qualified and experienced acoustician (Master of Design Science (Audio & Acoustics) University of Sydney, Australia, 2007) and Member, Australian Acoustical Society (MAAS) with nine years professional experience in a range of acoustic disciplines.
WTG's	188793, 182161	Concern regarding the increase height in the turbine producing increased noise impacts. Concern around the undetermined impact of turbines with a height of 110m and inaccurate modelling in relation to wind speed and turbine specifications.	As hub height wind speed measurements were not available during the period of background noise monitoring, measurements at masts of lower height were used. The wind speeds at hub height were then extrapolated from measurements at lower heights using the Power Law, as detailed in the DNV GL noise assessment report. This process is a fairly standard practice in wind farm noise assessments, as hub height wind speed measurements are not always available. In many Projects, by the time background noise measurements are undertaken, higher hub height turbines are usually available than those in existence at the time the wind development masts were originally installed. When extrapolating wind speeds from mast heights to hub heights using power law wind shear exponents, there is always an associated uncertainty. This uncertainty increases as the hub height increases relative to the monitoring mast. While the extrapolation distance from 82 m to 110 m is described in the report as "quite large", it should be noted that noise assessments are less sensitive to wind shear uncertainty than wind farm energy assessments. Without undertaking a detailed assessment to confirm, in the case of extrapolating from 82 m to 110 m the wind speed uncertainty in the hub height wind speeds is likely to be in the order of a couple of per cent, which is likely not sufficient to significantly change the compliance assessment results, particularly when balanced against other conservative elements in the assessment (e.g. assuming each dwelling is simultaneously downwind from each turbine).

Table C.3 – Public Submissions and Responses (Fire)

Category	Submission Reference no.	Issue Raised	Response
Bushfire	181502, 180662, 181298, 182161, 182481, 182584, 182855, 182929, 183005, 183007, 183221, 191930, 182141, 183477, 182741, 182881, 183461, 182110 , 187640, 185081, 183090,182155, 188030, 189107, 182521, 182863, 183090, 182947, 182157, 180868, 183007, 182710, PDAW_160804_002	Concern regarding a fire outbreak similar to the recent Currandooly Fire. Concern regarding a high bushfire risk in the area. Inadequate assessment of the bushfire risk. Concern that bushfire risk is underestimated with properties within 5kms dismissed lightly. Concern that the focus of the assessment is the wind farm and not the local community and that the objectives of the assessment are limited to construction, operation and maintenance of the Project. Plans to manage the bushfire in case it occurs are not realistic. Concern that industrial equipment will increase the bushfire in the area. Concern that adopting vegetation screening as a mitigation measure will increase bushfire risk in the area. Concern that NSW Rural Fire Service will not be able to effectively fight fire in case it occurs. Concern that the methodology adopted to assess bushfire risk is inadequate and should not consider only slope and fuel. Concern that numerous fire hazards are not considered in assessing bushfire risk. Concern for other species at risk in the case of a bushfire. Concern regarding the risk posed on the Southern Precinct of the development. Request for collaboration between wind farm operators and CFA to ensure that wind farm operators include the appropriate measures within their plans.	Lessons learned from the Currandooly fire will be considered or implemented for any future wind farm, not just Jupiter. EPYC commit to sharing these outcomes with the community once the facts are known and RFS consulted. NSW RFS have provided a formal response to the EIS on 6 March 2017 and did not raise any objections. All of their recommendations will be addressed within the Bushfire Management and Emergency Response Plan. In their formal submission, the RFS confirm that any firefighting operations in close proximity to wind turbines will be managed in the same way as any other potential hazard in accordance with Standard Operating Procedures. The bushfire assessment clearly states that some bushfire risk will remain (residual risk) and that the emergency plan will be developed in conjunction with relevant stakeholders, including local fire services, adjoining property owners and employees. The current RFS position in relation to windfarm development is that wind turbines are not expected to pose unacceptable risks (AFAC 2014). The installation of WTGs will remove the option of aerial suppression of fires over the wind farm itself. The nearest house is located over 800m from the WTG (participating landowner) and the windfarm would not limit aerial firefighting capabilities on other properties in the surrounding area. Access and suitably of wide fire breaks will reduce the likelihood of fire leaving the property and assist in control. The final location and design of these will be confirmed in consultation with the RFS. Southern Precinct is longer included in the Project Area and associated impacts are expected to be mitigated. Slope and fuel (vegetation) are two of the main elements affecting bushfire behaviour and have been used to prepare the Weighted Overlay Model. This approach follows the NSW RFS PBP guidelines. ERM also recognise that hot weather and wind are also important factors affecting both fire hazard and control. An analysis of the fire weather experienced in the locale and the surrounding region provides insight into bushfire behaviour potential. A Fire Danger Index (FDI) of 100 has been used to inform bushfire behaviour on the Study Area and the application of APZ around assets. In response to the public and agency submissions and in light of the updated fire history (refer Figure 1), the revised hazard modelling has increased the areas of grassland and pasture from 'low' (low-medium fuel quantity, fuel structure facilitates easier control) to 'medium' (medium level quantity, available to burn during average seasons, medium or high fire intensity expected) (refer Figure 2). The updated bushfire risk assessment shows that the windfarm will not result in any increase bushfire risk to that already present within the rural landscape. The Bushfire assessment makes specific reference to these hazards including: • Ignition creating activities such as welding should not be undertaken outside on days of total fire ban. • Maintain a 10 m wide fuel reduced zones around construction activities that may result in ignition of a fire ie welding • The proponent commits to consult with RFS in preparation of a fire management plan prior to construction and operation. • All site vehicles used during the construction phase will have diesel engines and will use the site access roads to minimise the likelihood of igniting dry grass.

Category	Submission Reference no.	Issue Raised	Response
			Use of insulating sleeves, bird deterrents and/or auto-reclose systems will also be considered in consultation with TransGrid. The location and design of screen planting used as a visual mitigation measure is site specific and requires detailed analysis of potential views and consultation with surrounding landowners during the detailed design phase. Planting vegetation would not provide effective mitigation in all circumstances and must be undertaken in accordance with the RFS Standards for Asset Protection Zones. EPYC has on offer a one off payment of $5,000 for any landowner with a mod/high or high visual impact rating. And any dwelling with a Moderate impact rating will receive $3,000 for mitigation. The landowner then may undertake their own alternate mitigation to suit their dwelling and their own personal requirements.
Consultation	182161, 182975, 183373	Local bushfire brigades were not consulted to gain a better understanding of local bushfire conditions and reassess the bushfire risks. Seeking advice from local government areas is not sufficient and formal advice from NSW Rural Fire Service Head Office should be sought.	Consultation with the local RFS is considered important in understanding the local fire history and experience under local conditions. Formal advice was sought from the NSW RFS and their response to the EIS was received on 6 March 2017. The NSW RFS did not raise any objections. All of their recommendations will be addressed within the Bushfire Management and Emergency Response Plan. In response to the public and agency submissions and in light of the updated fire history (refer Figure 1), the revised hazard modelling has increased the areas of grassland and pasture from 'low' (low-medium fuel quantity, fuel structure facilitates easier control) to 'medium' (medium level quantity, available to burn during average seasons, medium or high fire intensity expected) (refer Figure 2). The updated bushfire risk assessment shows that the windfarm will not result in any increase bushfire risk to that already present within the rural landscape.
EIS	183005, 183221, 182110, 187640, 182110, 184358	Lack of source for reference to the recent grass fire north-west of Tarago. Doubt in accuracy of the assessment considering that information was taken from third parties. Description of the landscape is misleading and the word 'cleared' is lightly used in the context of a fire risk assessment as it implies a lack of fuel. Concern that the EIS concludes a low bushfire hazard when there are a large number of residents in the vicinity and previous bushfires have occurred in the area. Bushfire Hazard Classes areas of grassland and pasture are shown as 'low' Bushfire Hazard Class even though they are common contributors to bushfires. Concern that consultation with the former Palerang Local Government Area (Lake George office) Fire Control Centre was inadequate. A recent GIPAA request has revealed that this consultation or meeting has no RFS documentation.	This fire was located north east of Tarago and reported on the Goulburn post website. The description of a cleared landscape dominated by rolling hills where the majority of native vegetation has been partially or fully cleared for grazing and cropping activities is not considered to be misleading. The woodland and forest vegetation within the Study Area is typically fragmented and patchy with the largest stands often occurring on ridges and slopes, most likely due to landscape modification by preferential clearance of the flatter, more fertile areas for agricultural pasture development. As stated previously, it is recognised that the project area is located within a bushfire prone area and lessons learned from the Currandooley fire will be implemented. EPYC commit to sharing these outcomes with the community once the facts are known and RFS consulted. In response to the public and agency submissions and in light of the updated fire history (refer Figure 1), the revised hazard modelling has increased the areas of grassland and pasture from 'low' (low-medium fuel quantity, fuel structure facilitates easier control) to 'medium' (medium level quantity, available to burn during average seasons, medium or high fire intensity expected) (refer Figure 2). The updated bushfire risk assessment shows that the windfarm will not result in any increase bushfire risk to that already present within the rural landscape. Rolling hills is a landform description and does not indicate or infer vegetation type.

Category	Submission Reference no.	Issue Raised	Response
			ERM note that the use of the word 'cleared' may be misinterpreted in the context of a fire risk assessment. Consultation with the former Palerang Local Government Area (Lake George office) Fire Control Centre was undertaken on Tuesday 6 January 2015 to discuss initial assessment and management recommendations. This was an informal consultation only. Formal advice was sought from the NSW RFS and their response to the EIS was received on 6 March 2017. The NSW RFS did not raise any objections. All of their recommendations will be addressed within the Bushfire Management and Emergency Response Plan. In their formal submission, the RFS confirm that any firefighting operations in close proximity to wind turbines will be managed in the same way as any other potential hazard in accordance with Standard Operating Procedures. Details of the internal road and APZ network will be finalised in consultation with RFS based on their operational requirements.
Impacts	182161	Concerns regarding potential impacts to additional utilities (eg Electricity, Gas, Water).	This is not a requirement under the SEARs. During Detailed design and following project approval any infrastructure such as power poles or telephone lines will be considered where required and in consultation with the relevant agencies and landowners.
Inadequate assessment	182481, 182110,, 183221, 180868, 182161, 183007, 182710	There are seven state significant developments adjacent or short distance from the project area which already constitute and cause bush fire risks to the local community and which have not been considered in the assessment. Incomplete assessment of Fire Management and Emergency Response Plan and concern that the public will not be appropriately consulted. Lack of commitment in the mitigation measures and working procedures. Concern that the development will be approved prior to a proper assessment for bushfire risk. EPYC should provide a map in their Bushfire Hazard Risk Submission in relation to aerial support required in the case of fire so that the Department of Planning can clearly see the level of risk for this area. Doubt in the expertise of Ms. Joanne Woodhouse in relation to fire risk assessment or experience in relation to bushfires or grassfires. The assessment is not specific to the project area and does not consider recent fires in the area. Inadequate description of the area's landscape has led to a misleading assessment of the risk. Increase in average temperatures due to climate change is not considered. False claim in relation to improved access to the site.	Adjacent to the project area means adjoining, next to, neighbouring etc. the mentioned developments are not adjacent to the project area. In response to the submissions and in light of the updated fire history, the revised risk assessment and modelling has increased the areas of grassland and pasture from 'low' (low-medium fuel quantity, fuel structure facilitates easier control) to 'medium' (medium level quantity, available to burn during average seasons, medium or high fire intensity expected). The detailed prevention, management and mitigation measures will be addressed within the Bushfire Management and Emergency Response Plan. Such management plans occur post project approval and will include consultation with adjoining property owners. Topography (slope) and fuel (vegetation) are two of the main elements affecting bushfire behaviour and have been used to prepare the Weighted Overlay Model. This approach follows the current NSW RFS Planning for Bushfire Protection guidelines (NSW RFS 2010). ERM also recognise that hot weather and wind are important factors affecting both ignition and control. An analysis of the fire weather experienced in the locale and the surrounding region provides insight into bushfire behaviour potential. A Fire Danger Index (FDI) of 100 has been used to inform bushfire behaviour on the windfarm site and the application of APZ around assets. It is recognised that the project area is located within a bushfire prone area and the bushfire assessment clearly states that some bushfire risk will remain (residual risk). The current RFS position in relation to windfarm development is that wind turbines are not expected to pose unacceptable risks (AFAC 2014). EPYC commit to implement of the management measures in the EIS. Even with the implementation of the Bushfire Management and Emergency Response Plan, some bushfire risk will remain. The Bushfire History Map has been updated in response to the submissions and as a result of the updated project design.

Category	Submission Reference no.	Issue Raised	Response
			Joanne is experienced in bush fire hazard assessments and bush fire management plans. All ERM deliverables are technically reviewed by experienced practitioners and go through quality assurance review prior to submission.
Vegetation	182161, 191930, 176146, 182086, 182578, 183861, 191668, 181500, 180662, 182710. 182161	No consideration on the impact the vegetation screening presents in relation to usage of the dam for aerial firefighting activities. EPYC does not offer alternatives to vegetation screening. Vegetation is not an adequate fire mitigation measure in the Southern Precinct.	The location and design of screen planting used as a visual mitigation measure is site specific and requires detailed analysis of potential views and consultation with surrounding landowners during the detailed design phase. Planting vegetation would not provide effective mitigation in all circumstances and must be undertaken in accordance with the RFS Standards for Asset Protection Zones. If vegetation screening is not sought after by the land owner or they already have any asset protection zones in place that may be impacted by the plantings, EPYC would be able to provide a one off payment of $5,000 for any landowner with a mod/high or high visual impact rating. And any dwelling with a Moderate impact rating will receive $3,000 for mitigation. The landowner then may undertake their own alternate mitigation to suit their dwelling and their own personal requirements. Southern Precinct is longer included in the Project Area and associated impacts are expected to be mitigated. Jupiter wind farm would not prevent any aerial firefighting on adjacent properties.

Table C.4 – Public Submissions and Responses (Health)

Category	Submission Reference no.	Issue Raised	Response
Adverse health	176146, 176537, 176965, 177608,, 177749, 178934, 178997, 179052, 179058, 179314, 179627, 179657, 179811, 180431, 181573, 182123, 182127, 182149, 182157, 182324, 182497, 182580, 182611, 182671, 182857, 182885, 182887, 182891, 182893, 182911, 182923, 182951, 183088, 183092, 183094, 183233, 183319, 183327, 183329, 183343, 183345, 183882, 191035, 190583, 191774, 182521, 183329, 180310, 182947, 190313, 185081, 183005, 183793, 179588, 179588, 180157, 181502, 182955, 191019, 188793, 183823, 191930, 183086, 181500, 181710, 186138, 191930 (part a), 181840, 182907, 191930 (part b)	Wind farms cause /May cause adverse health effects. It is yet to be proven what affect the proposed huge turbines will have on the health of the nearby community. Concern regarding the novelty of the research regarding the long term effect of wind farms on the health of humans, in particular children and developing foetuses. Concern that the development will compromise what allows a rural environment to be a healthy environment to work in, especially with regards to noise pollution, dust pollution and artificial light. The NHMRC has said that there is no evidence that wind turbine noise affects health. But there is also a lack of scientific evidence to prove that wind farm operations do not create health impacts. Lifestyle changes introduced by the wind farm might cause depression and anxiety. Concern that the department is not taking into consideration the health impact caused by the particular size of the proposed turbines and that a decision is made before research is complete. The EIS does not take into account all contributing factors when assessing the impact of the wind farm on health.	The National Health and Medical Research Council (NHMRC) Statement: Evidence on Wind Farms and Human Health was released on Wednesday, 11 February 2015. The Statement was prepared on the advice of the Council of NHMRC with consideration of the comprehensive assessment of the evidence on wind farms and human health. It provides advice to the community and to policy makers on this issue. After careful consideration and deliberation, NHMRC concluded that there is currently no consistent evidence that wind farms cause adverse health effects in humans. Given the limitations of the existing evidence and continuing concerns expressed by some members of the community, NHMRC considers that further high quality research on the possible health effects of wind farms is required. However, it is beyond the scope of the Environmental Impact Statement to research, examine, evaluate or determine health effects associated with wind farms, if any. With regards to noise (a common factor perceived to be associated with health impacts) the NHMRC Statement: Evidence on Wind Farms and Human Health concluded two key features: 1) that "there is no direct evidence that exposure to wind farm noise affects physical or mental health"; and 2) more specifically, they stated that, "while exposure to environmental noise is associated with health effects, these effects occur at much higher levels of noise than are likely to be perceived by people living in close proximity to wind farms in Australia". The statements provided by the NHMRC were based of scientific evidence, which was independently reviewed by two separate scientific communities. The outcomes of the reviews were considered to inform the development of the Information Paper on the evidence on wind farms and human health. Furthermore, the EIS was prepared based on information available at the time; it is not the purpose of an EIS (for a wind farm or any other development) to speculate on potential changes in scientific opinion or new environmental risks that were unknown at the time the EIS was prepared. The EIS and associated technical studies were conducted and prepared for the Jupiter Wind Farm Project to achieve the requirements of the SEARs, March 2016 (SSD 13_6277), with regard to accepted methods, as per relevant agency/regulatory guidance and with due regard to applicable standards. We note that the revised wind farm layout/design incorporates a reduction in the total number of Wind Turbine Generators (WTG) from 88 to 54 (34 WTG have been removed), including the complete removal of the Southern Precinct as was previously identified in the EIS layout. The revised layout/design changes occurred primarily to minimise potential visual, noise, ecology and heritage impacts but are also expected to substantially reduce the anticipated impacts across all environmental factors. Noise: A WTG Noise Impact Assessment was conducted in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV-GL in ANNEX E of the EIS. Furthermore, the revised layout/design changes occurred to minimise potential noise impacts (amongst other things). The revised layout/design is expected to be compliant with the applicable noise limits at all identified non-involved (host) properties and substantially reduce the anticipated impacts across all environmental factors. Pollution: A Construction Environmental Management Plan will be prepared post approval prior to construction which will identify potential issues relating to dust emissions, and outline mitigation measures responsible for suppressing dust and other contaminants. Additionally, the CEMP will provide details specific to ensuring that contaminants remain on

Category	Submission Reference no.	Issue Raised	Response
			site, and are not transported via vehicular movements through mitigation measures including vehicle wash stations, sediment fencing and stabilized entry/exit points etc. Lighting: Construction-related lighting will only be required during the construction phase of the project. Additionally, most works will be completed during day-time hours suggesting that artificial lighting will not be necessary. Night-lighting will involve the installation of small red lights on the WTG's to protect the surrounding aerial environment (other planes etc.). The use of low intensity lighting is expected to minimise impacts. The removal of 34 WTG's (including the Southern Precinct) as part of the revised layout/design is expected to significantly reduce the anticipated visual impacts experienced by nearby residents, including that associated with any night lighting that is required. It is also beyond the scope of the EIS (and the RtS report) to influence opinions already formed by State or Federal Government, or associated entities e.g. the NSW Department of Planning and Environment (DPE) and the Planning Assessment Commission (PAC).
Adverse health	179588, 180157	Health impacts on residents of the Southern Precinct.	Resident is identified as living within close proximity to the Southern Precinct of the Project, which has now been removed as part of the revised layout/design.
Infrasound	181500, 181710, 191930, 181840, 191930 (part b)	Infrasound will cause discomfort and impact health.	The NHMRC Statement: Evidence on Wind Farms and Human Health states that "There is no direct evidence that considered the possible effects on health of infrasound or low frequency noise from wind farms. Exposure to infrasound and low-frequency noise in a laboratory setting has few, if any, effects on body functions. However, this exposure did not replicate all of the characteristics of wind farm noise as it has generally been at much higher levels and of short duration. Although individuals may perceive aspects of wind farm noise at greater distances, it is unlikely that it will be disturbing at distances of more than 1,500 metres. Noise from wind farms, including its content of low-frequency noise and infrasound, is similar to noise from many other natural and human-made sources." These acoustical features were also addressed in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV-GL in ANNEX E of the EIS.
PTSD	181500	A component of the appeal of off grid, isolated living was to combat my husbands' PTSD triggers, suffered as a result of 25 years of military service to Australia. There is a significant concern with the turbines, particularly as their constant blade movement is likely to catch peripheral vision, stimulating the fight or flight response exacerbated by PTSD, thus resulting in constantly elevated levels of alertness.	Please refer to response to submissions 176146 - 182947, 190313, 181502 and 181500 for response to PTSD.
Sleep disturbance	183392, 186658, 191035, 183793, 191930 (part a), 181840	Concern WTGs may disrupt sleep.	A WTG noise impact assessment was conducted in accordance with the SEARs, March 2016 (SSD 13_6277) and specified guidelines as stated in the Jupiter Wind Farm, Wind Farm Noise Impact Assessment prepared by DNV GL in ANNEX E. The wind farm noise impact assessment prepared by DNV GL in ANNEX E includes an assessment of the operational wind farm noise for all identified dwellings up to 5 km from the wind farm. Beyond this distance, wind farm sound levels will be below noise limits, and generally by a significant margin, and therefore it is not anticipated that there will be any adverse health effects related to the wind farm noise at such distances. The revised project layout outlined as part of the JWF Response to Submissions and Preferred Project Report is expected to be 100% compliant at all identified non host properties.

Category	Submission Reference no.	Issue Raised	Response
Stress	178332, 183233, 178997, 179050, 182907, 182853	Stress experienced by the community during the EIS process of the proposed development. Mental health is not seriously considered in the EIS.	The submission has however been provided to EPYC for consideration as part of the broader community consultation strategy and its implementation.
Vibration	181840	Concern regarding the vibrations generated by the wind farm which may lead to discomfort.	Vibration impacts have the potential to occur during construction, as noted in the Jupiter Wind Farm, Supplementary Acoustics Assessment prepared by ERM. However vibration impacts during operation of the wind farm are not anticipated. Therefore, vibration impacts are not assessed in the EIS. This is consistent with other EIS and associated technical studies conducted for other wind farms in NSW and more broadly in Australia.

Table C.5 –Public Submissions and Responses (Economic)

Category	Submission Reference no.	Issue Raised	Response
Benefit Sharing	178932, 181063, 176975, 182993, 182947, 182274, 178332, 176208, 176965, 183863, 191027, 182947	Exaggerated claims for benefits to the community. Insufficient benefit sharing amount. Inadequacy of EPYC offers for the shared benefit scheme. The benefit sharing purpose remains questionable as EPYC stated this is not a payment to compensate noise or visual impact caused by the wind farm. Concern that the landowners would be signing their rights away. Details of the benefit sharing program were not shared with community members during the community meetings and the CCC meetings. Concerns that non-host landowners will only impacted by their proximity to the development and will not be benefiting. Some community members felt rushed in needing to make a decision regarding signing up for the benefit sharing program.	Benefits to the community include but not limited to: - - Drought proof land for farmers. - Neighbour Benefit Sharing Program (NBSP)offered to all neighbours with a dwelling or DA for a dwelling within 3km. - Community Enhancement Fund (CEF) to assist with: - Local projects. - Education and mobile phone and internet improvements. - Local jobs during construction. Compensation occurs to those that are significantly impacted. EPYC held benefit sharing workshops In May 2017 and everyone within 3km was invited. The purpose of the workshops was to introduce the details of the updated NBSP and mitigation measure component. EPYC requested expressions of interest from the eligible landowners for considerations in the NBSP and has extended the period several times based on requests from the community.
community benefit	176208, 176965, 183863, 182161, 182979, 183375, 182118, 183280, 181840, 182807, 182891, 182893, 182855	Concern that owners in the vicinity of the development receive no benefit. Concern that the community is only offered monetary benefits with disregard to the mobile reception issue or without guarantee that the developer will invest in social infrastructure. Confusion on whether there will be a Community Enhancement Fund. Concern for the devaluation of property as a result of the development. Confusion regarding the difference in the amount offered to different people and therefore why the benefit was not shared equally. Even if the dwellings differ in distance and view to turbines, a difference in monetary sum offered can be perceived as compensation.	The benefits to the local community include additional income streams for host-land holders, Neighbour Benefit Sharing Program (NBSP), and the Community Enhancement Fund (CEF). The voluntary NBSP will comprise agreements made with neighbours that will enable the non-involved landholder to benefit financially from the Project throughout its operational life. The CEF will provide direct contributions to the local community for educational purposes as well as community based project throughout the operational life of the Project. EPYCs preliminary environmental assessment dated November 2013 advised that EPYC would seek neighbour/benefit sharing agreements with neighbours within 2km. This has been extended to 3km in 2016/17. EPYC acknowledge that it is a long term project and therefore proposed the voluntary NBSP to the neighbours (with a dwelling or DA for a dwelling within 1-3km) There will be a CEF but it is not a requirement that this is finalised during the assessment phase of the project. CEF details will be negotiated with council and finalised once both parties have come to an agreement. In addition a community enhancement fund will be established in consultation with both GMC and QPRC to benefit the greater community. Mobile reception was a key issue raised by the community during the one to one consultation. As part of the community enhancement fund this is the first issue that should be addressed for the community. EPYC has had many discussions with internet service providers and Telstra regarding this issue. There are further consultations to be held with the relevant authorities. The Benefit sharing details and calculation were discussed with those who attended the workshop. In summary Dwellings within 3km are allocated a base rate of $2,500 p.a. Dwellings between 1-2km of a WTG will also receive an annual payment sum per constructed turbine within 2km of their dwelling. Where visual impact are rated as moderate to high a one off mitigation fee is payable.

Category	Submission Reference no.	Issue Raised	Response
			Projects of this scale are required to be assessed and constructed within specified timeframes to ensure their viability. Community interactions are a part of the project and are required to be undertaken by specified dates to ensure the project application progresses.
Economic	180848, 176208, 182987, 183377, 191019, 183280, 178942, 182466, 181840, 183086, 178942, 182696, 182466, 182118, 178942, 182853, 182118, 188793, 183280	Concerns that financial loss will result from the loss of regional farms servicing areas such as Canberra and the loss of regional tourism to one of the oldest established country areas. Production of electricity is reliant on government contributions. The local community will not benefit on the long term and is perceived to increase power costs on consumers in NSW. The jobs provided are not necessarily offered to people from the local community. Economic benefits of the wind farm are not made clear to the community. Economic benefits would be concentrated during the construction period and will not be relevant to the local community. Local benefits would be minor. Concerns that the development is not the best use of agricultural land within and in proximity to the proposed Project Area. Doubt that the area is suitable and viable for the development of wind farms. Concern regarding the impact of purchasing the wind turbines from overseas will have on local manufacturers. Concerns regarding the potential hindrance of residential development in the area that is perceived to have a better economic benefit on the local community than a wind farm would or hindrance of investment in the area. With no more grid based electricity required, this expensive, intermittent power will, by Government decree, replace cheap reliable fossil fuelled electricity. No justification as to why the proposal is significant to the State of NSW in comparison to the existing conditions and lifestyle in the area. The Applicant fails to provide evidence to justify how it determined these figures of yearly expenditure generated by the project in the local and regional area. The Applicant also states that economic benefit is provided to the community by the payments to land owners hosting the wind turbines. Where these land owners live in communities other than Tarago and surrounding areas, no local benefit to the community will be gained. The National Electricity Market as a whole, and NSW in particular, do not require any more grid based electrical capacity for the foreseeable future. Jobs in the grid based sector will be lost to compensate and more. There is no demand for Jupiter Wind Farm: - The pipeline of NSW renewable energy projects exceeds that needed for NSW to meet its share of the Commonwealth Renewable Energy Target; - Electricity needs are already met; and The Commonwealth target would be overachieved without the use of land in NSW for wind farms.	The existing agricultural activities occurring within the PA will be able to coexist with the Project and the proposed infrastructure. The Project will result in direct economic benefit to the community through additional income streams for host-land holders, Neighbour Benefit Sharing Plan, and the CEF. Wind farms to do not rely on or receive government contributions. The Renewable Energy target is there to encourage investment in renewable energy to assist in mitigation against CO2 emissions and climate change. The justification for the Project, including an assessment of the positive and negative impacts has been provided in the EIS. In addition the Project design has been revised in response to the submissions and further reduced potential impacts. The site selection process is outlined in Chapter 5.3 and the site is located within P4 of the NSW government renewable energy precinct as shown in figure 2.2. EPYC has undertaken due diligence into the viability of the project and is proceeding with the application. The WTGs will be purchased overseas as there are no manufacturers within Australia at this time. The 2016 report released by Australian Energy Market Operator Limited highlights that underlying demand is predicted to continue to increase, and this, along with further withdrawals of coal-fired generation, needs to be met through increased future generation capacity. It is acknowledged that additional intermittent generation alone may not materially improve reliability of the system, however investment in new, cost effective renewable sources, such as wind energy, is an important component in increasing electricity supply in response to increasing demand, whilst reducing GHG emissions. Page 15.14 reference is noted as SKM (2012) Wind Farm Investment, Employment and Carbon Abatement in Australia. SKM provided estimates per 50MW. This was increased for Jupiter to 350MW for the exhibited project and would be 240MW for the revised project (up to 54 WTGs), but remain estimates. Local expertise will be utilised where possible as this will reduce cost for developer and contractor and more importantly benefit the local trades. The nearest businesses are Tarago petrol station and Tarago loaded dog hotel. These have already benefited from EPYC and its contractors. The estimates are for local / regional areas. If the services are not available locally then a regional area such as Goulburn, Braidwood, and Bungendore could also benefit. The 21 million is a total economic benefit and not specifically around the project area. The project has been deemed to be a State Significant Development as it satisfies various criteria specified under the SSD definition. Developments that are deemed to have State significance may be due to their size, economic value or potential impacts. The SSD definition of the project does not negate nor should it be compared with the significance of the existing use, lifestyle, wellbeing or standards of living of the community the subject of the proposal.

Category	Submission Reference no.	Issue Raised	Response
		Loss of economic opportunity -- Concern that people will lose interest in residing and investing in the area and the local community will therefore stop gaining business. An economic analysis detailing negative impacts on the community is requested. Assertion of the economic benefits to the region both during construction and during operation of the Project. Concerns regarding the probability of the proposed wind farm development.	The generated expenditure has been extrapolated from the figures presented in the Clean Energy Council publication 'Wind farm investment, employment and carbon abatement in Australia' dated 2012. The benefits to the local community include additional income streams for host-land holders, Neighbour Benefit Sharing Plan, and the CEF. The voluntary benefit sharing plan will comprise agreements made with neighbours that will enable the non-involved landholder to benefit financially from the Project throughout its operational life. The CEF will provide direct contributions to the local community throughout the operational life of the Project. The 2016 report released by Australian Energy Market Operator Limited highlights that underlying demand is predicted to continue to increase, and this, along with further withdrawals of coal-fired generation, needs to be met through increased future generation capacity. It is acknowledged that additional intermittent generation alone may not materially improve reliability of the system, however investment in new, cost effective renewable sources, such as wind energy, is an important component in increasing electricity supply in response to increasing demand, whilst reducing GHG emissions. A review of available literature, including the recent Urbis (2016) investigation undertaken in support of release of the new draft Wind Energy Planning Framework by DP&E, did not find a correlation between declining property values in properties in proximity to wind farm developments, which has been supported by a statement made by the DP&E in the Secretary's Environmental Assessment Report for the proposed Yass Valley Wind Farm, which states that: "The Department acknowledges that, in relation to impacts on land values, the NSW Valuer-General commissioned a report on the impacts of wind farms on land values in Australia. The report states as its principal finding, based on analysis of previous studies and its own investigations, that the majority of wind farms erected in Australia appear to have had no quantifiable effect on land values." In addition the site selection process is outlined in Chapter 5.3 and the site is located within P4 of the NSW government renewable energy precinct as shown in figure 2.2. Finally, the existing agricultural activities occurring within the PA will be able to coexist with the Project and the proposed infrastructure. Justification for the Project is provided in Chapter 2 of the EIS and Chapter 6 of this Report.
Employment	183280, 182161, 176208, 177608 , 181840, 179582, 182945, 182483, 182947, 182987, 183377, 178942	Concern that services required during the construction phase cannot be provided by local personnel. Concern that the developer does not guarantee a specified number of full time employees from within 5kms of the area are employed. Concern that substantial employment opportunities are only generated during the construction phase. The few generated employment opportunities would compensate for the amount of people driven away as a result of this proposal.	Employment of locally skilled tradespersons is dependent on a number of factors including the availability of skillset, availability of labour, and labour rates. To our knowledge there are local skilled suppliers/tradespersons available. EPYC has maintained an EOI spreadsheet for employment opportunities since 2013. Following project approval there will be further advertising for local trades, expertise, service providers to register their interest. Once the local expertise is utilised and exhausted then trades located in the regional areas will be sourced.

Category	Submission Reference no.	Issue Raised	Response
Generation capacity	187562, 182161, 183280	Doubt that JWF will be able to generate power for 150,000 homes since power generation is reliant on wind. No alternative is provided to these homes in the case that the wind turbines fail to generate electricity. EPYC must identify the implications of imbalances in the electricity generation market between synchronous and asynchronous generation capacity. The Jupiter Wind Farm proposal must identify how it will affect the balance, and the cumulative effect of approved and existing asynchronous generation in the region. Doubt in the high demand in renewable energy and therefore the need for JWF especially since wind generation currently requires 100 per cent back up through fossil fuel power sources. Even assuming that the project is fully operational by 2020 it will not make a significant contribution to meeting the RET target. It is estimated to generate 1100GWh which is 0.3 per cent of the RET.	The power generated by the Jupiter Wind Farm will go to the electricity grid. Failure of the WTGs will not have a direct impact on the houses that rely on the grid for their power supply. The EIS has been prepared to address potential impacts associated with the Project, and the broader issue and debate around synchronous and asynchronous generation is outside the scope of the Project. The 2016 report released by Australian Energy Market Operator Limited highlights that underlying demand is predicted to continue to increase, and this, along with further withdrawals of coal-fired generation, needs to be met through increased future generation capacity. It is acknowledged that additional intermittent generation alone may not materially improve reliability of the system, however investment in new, cost effective renewable sources, such as wind energy, is an important component in increasing electricity supply in response to increasing demand, whilst reducing GHG emissions. The correct figure for the exhibited project was 3.3% which was considered a significant contribution from a single project. The revised project would generate up to 754GWh annually which would comprise 2.3% contribution to meeting the RET.
Generation capacity	182521	Additionally, there is also an argument of efficiency and effectiveness of wind turbines, or should I say lack thereof. Many desires to claim that wind turbines reduce our carbon emissions and are a `greener' source of power, however, in order for this to be true, power from wind turbines must completely replace that of other power sources such as our countries current base load of coal and gas. Unfortunately, this is not possible as it is well known that wind power requires 100% back up from other reliable power producing sources to account for when the wind is not blowing.	Comment noted.
Green House Gases	182118, 183280	Doubt that the calculation of Green House Gases displaced considered what is generated through the manufacture of the turbines and supporting infrastructure, transport of materials and construction staff, installation, operation, maintenance and decommissioning and disposal of the turbines and supporting infrastructure. The GHG are assumed to be overstated in the EIS.	As outlined in Section 2.3.1 of the EIS, the estimate of 0.9Mt of GHG savings was derived by using the NSW Department of Environment and Heritage (OEH) Wind Farm Greenhouse Gas Savings Tool (WFGGT). This level of detail is outside the scope of the EIS and what was required to address the SEARs. The greenhouse gas assessment as required by the SEARs was limited to 'demonstrate quantified and substantiated greenhouse gas benefits', which are outlined in the EIS.
procurement	188793	Questioning whether the turbines are manufactured with Australian steel.	Procurement of materials will be undertaken during the construction phase. A number of factors will be considered as part of the procurement of the WTGs, including manufacturing time, cost, availability, and reliability. Preference will be made for Australian goods and services if they satisfy procurement criteria.
Project layout	183280, 183729	Concerns regarding the efficiency of the design of the layout of the layout of the WTGs proposed for the JWF. Question regarding the number of proposed site entrances with regards to the proposed development.	Turbine spacing is as per manufacturer recommendation. The revised predicted noise emissions, visual and biodiversity assessments based on the revised project layout are provided in this Response to Submissions report. The EIS proposed 3 entrances to the wind farms and some rural road crossings. At no point did it have 11 site entrances. The revised Project is comprised of the installation of up to 54 WTGs. The proposal now only has 2 main entrances of Braidwood Goulburn Road and 2 crossings at Boro Road.

Category	Submission Reference no.	Issue Raised	Response
Project operations	178942	By the time Jupiter's turbines are operating (if ever) all new wind farms will be remotely monitored, most likely off-shore. POOF. There goes another 3 or 4 local operations FTEs (remember, local monitoring was going to be take place from an "on-site control room", as we were advised above, therefore staffed 24/7) If I know this, so does ERM. So for not factoring this in they are being knowingly misleading again. That, I believe, is an offence. Who knows what the local and regional operations number will be? I will say a maximum of 10.	Based on our current estimates we envisage there will be 32 FTE jobs generated during the operational activities.
Property Value	176146, 176965, 177322,, 177324, 177462, 177608, 177711, 177749, 178949, 178972, 178995, 179023, 179028, 179050, 179054, 179058, 179149, 179582, 179627, 179646, 179657, 179836, 180431, 180848, 180866, 181082, 181112, 181134, 181573, 182086, 182121, 182123, 182127, 182129, 182131, 182157, 182171, 182175, 182177, 182262, 182297, 182305, 182324, 182380, 182389, 182568, 182599, 182611, 182671, 182698, 182839, 182869, 182885, 182887, 182891, 182893, 182895, 182923, 183088, 183092, 183094, 183140, 183171, 183231, 183309, 183343, 183345, 183402, 183396, 183420, 183434, 183709, 183739, 183805, 183863, 183882, 184744, 184808, 188030, 190929, 191035, 191774, 191900, 185081, 182875, 182521, 183793, 181047, 181840, 182161, 183426, 187562, 182945, 183086, 181500, 183351, 182584, 181710, 182947, 182863, 179588, 180157, 182082, 180157, 181502, 182161, 182979, 183375, 182659, 182118, 182741, 191039, 182141, 183477	Concern regarding property devaluation of lifestyle properties and of property values. There is the concern that the security of a lender under an existing loan arrangement could require renegotiation of the loan to the detriment of the land owner. Expectation for EPYC to collaborate with lending institutions to discuss property values and encumbrances on properties as a result of the project. Concern that the loss in property value will drive people away from the area. Concern that banks will no longer risk to secure against a property that they will not be able to sell in the future due the wind farm development. Concern that properties will be more difficult to sell. It is considered that the Department of Planning & Environment has failed to adequately consider property devaluation. Concern that no compensation will be offered to cover the loss in property value. Concern that EPYC is basing its conclusion on the assumption that the area is a rural area when many community members consider it to be a residential area. Concern that a decrease in property value will lead to a decrease in council rates. Concern that the amenity of homes will be compromised as a result of this development and the value of the property will therefore depreciate. The wind farm will depreciate financial and personal investments put into properties.	A review of available literature, including the recent Urbis (2016) investigation undertaken in support of release of the new draft Wind Energy Planning Framework by DP&E, did not find a correlation between declining property values in properties in proximity to wind farm developments, which has been supported by a statement made by the DP&E in the Secretary's Environmental Assessment Report for the proposed Yass Valley Wind Farm, which states that: "The Department acknowledges that, in relation to impacts on land values, the NSW Valuer-General commissioned a report on the impacts of wind farms on land values in Australia. The report states as its principal finding, based on analysis of previous studies and its own investigations, that the majority of wind farms erected in Australia appear to have had no quantifiable effect on land values."

Category	Submission Reference no.	Issue Raised	Response
Impacts	PDAW_160804_002	The Nash Family contends that the project will impair the value of their property in so far as it is likely to impede further development. Specifically residential development of the property will be impeded on either of two bases: Impairment of value will follow from the development more probably than not frustrating the potential for subdivision as set out in Objection 2. For this reason it can be reasonably anticipated that our clients are unlikely to enjoy the realisation potential available to them if the property was not affected by its immediate proximity to the windfarm. We contend that increasingly the detriment to neighbouring but non-host properties is recognised and the EIS fails to acknowledge the impact described.	It should be noted that the nearest WTGs to Mr Nash's property have been removed. EPYC will be happy to work with the owner to discuss subdivision options to ensure any real or perceived environmental impacts are minimised to the extent practicable.

Table C.6 – Public Submissions and Responses (Zoning (LEP))

Category	Submission Reference no.	Issue Raised	Response
Location/ Site Selection	191914, 176630, 176875, 176909, 177453, 177711, 178997, 179638, 180832, 181082, 181140, 181406, 181466, 181675, 182121, 182123, 182127, 182149, 182173, 182175, 182177, 182405, 182582, 182671, 183239, 183697, 182659, 183793, 183221, 182945, 183351, 181710, 183793, 181502, 182979, 183375, 178267, 182659, 185267, 183793, 183807, 179588, 180310, 183817, 182161, 182663, 188793, 183007, 191019, 181512	Wind farm is not in the right place. My submission is based on the premise that not all localities are suitable for wind farm development. Concerns regarding the appropriateness of the location selected for the wind turbines. Concerns regarding the nature of the proposal and its incompatibility with the lifestyle of the residents in this area and that not all the residents use farming as their primary source of income. The construction of a wind farm in a growing rural residential area within close proximity to a capital city is not a compatible land use and should not be approved. The development is considered to be irrelevant to the local area's needs as residents rely on their individual solar panels to generate electricity. It is recommended to remove the development to a location where it will not impact in any way, the health, scenic value, property value, bushfire risk, of/to the residents, a wind farm is not in keeping with the aesthetic of the habitants and the dominant trend of land use. Poor description of the area to justify the locality of the wind farm. Concern regarding the wind farm area comprising of separate locations. Confusion regarding rural residential development not being permitted in the project area. Concern that the JWF proposal is to be located in a high rural residential areas which is not in accordance with the Palerang local council provisions. Concerns regarding the proposal seeking to rezone the land.	The area is identified as part of the Renewable Energy Precinct. Wind turbines can only be installed in selected areas where appropriate wind potential exists, which is not the case for every community. The site selection process is outlined in Chapter 5.3 of the EIS and the site is located within P4 of the NSW government renewable energy precinct as shown in Figure 2.2. The site has been selected based a number of factors, including wind data, nearby connection and density. The EIS has been prepared to address the Secretary's Environmental Assessment Requirements and has presented potential impacts associated with both construction and operation phases of the Project. Commitments will be made by EPYC to ensure potential impacts are managed appropriately, including potential impacts to the safety of residents, visitors and livestock in and adjacent to the PA. Whilst it is acknowledged that not all residents use farming as their main income stream it is can be argued that their land is used for farming on a smaller scale. Future dwellings in this area will be on a minimum of 40ha for QPRC and 80ha for GMC. This is classified as Rural and not rural residential. Interconnection is along Crown Road and nearby road reserves. Area is Rural and zoned accordingly. Whilst it is acknowledged that not all neighbours use farming as their main income stream it can be argued that their land is used for farming on a smaller scale. Future dwellings in this area will be on a minimum of 40ha for QPRC and 80ha for GMC. This is classified as Rural and not rural residential. The village of Lake Bathurst and localities of Mayfield, Boro, Mount Fairy and Manar are located in the broader region with a combined population of less than 3,000 (2011 census data). The rural nature of the site is consistent with the low population of these localities. Area is incorrectly being described as Rural residential. The area is Rural and zoned RU1 or E3. Tarago is just within 5km to the nearest WTG and zoned RU5. This is a rural village. The proposal does not seek to rezone any land. The lots surrounding the development within the GMC zoning have a minimum lot size of 100ha and do not support rural residential zoning. The former Palerang area land is zoned RU1 with minimum lot size of 40ha. The draft Palerang rural lands study identified land in mount fairy either side of the railway line as future potential rural residential development. Hence the lots surrounding the project area are classified as rural and not rural residential land. Future rural residential areas will be Zoned RU4 (Palerang rural lands discussion paper 2016). There are some isolated lots surrounding the project area that will fit into the description of rural residential land. However the area is zoned RU1 and these properties are a small minority. Wind farms and rural lifestyle blocks do coexist and have in the past. The project area and its immediate surrounds is zoned Rural RU1. Wind farms are a permitted land use in RU1 zoning.

Category	Submission Reference no.	Issue Raised	Response
Proximity to residents	176587, 176593, 178739, 176531, 176628, 176630, 176863, 176909, 176965, 177299, 177311, 177462, 177608 177711, 178922, 178932, 179023, 179028, 179127, 179149, 179582, 179657, 179811, 181140, 181466, 182155, 181675, 181842, 182086, 182157, 182399, 182556, 182578, 182671, 182698, 182817, 182839, 182877, 182911, 183096, 183239, 183329, 183420, 183434, 183679, 183697, 183739, 183805, 183861, 184641, 188030, 191035, 191668, 191774, 183426, 178949, 181675, 182887, 182891, 182893, 182895, 182951, 183088, 183335, 182945, 178666, 182875, 188793, 183007	Concerns regarding the site being too close to Tarago, within a rural residential and highly populated area and in close proximity to houses. Concerns regarding the development being in proximity to 63 dwellings within 2kms and in excess of 263 within 5kms.	The nearest turbine is approximately 5km to Tarago township and is considered an appropriate distance away from the major township. Not all dwellings within 5km have direct views of WTGs. NSW legislation classifies "rural residential land" as: (a) is the site of a dwelling, and (b) is not less than 2 hectares and not more than 40 hectares in area, and (c) is either: (i) not zoned or otherwise designated for use under an environmental planning instrument, or (ii) zoned or otherwise designated for use under such an instrument for non-urban purposes, and (d) does not have a significant and substantial commercial purpose or character. The lots surrounding the development within the GMC zoning have a minimum lot size of 100ha and do not satisfy the rural residential zoning criteria. The former Palerang area land is zoned RU1 with minimum lot size of 40ha. The draft Palerang rural lands study identified land in Mount Fairy either side of the railway line as future potential rural residential development. Hence the lots surrounding the project area are classified as rural and not rural residential land. Future rural residential areas will be Zoned RU4. (Rural Living in Palerang, April 2016 - A Discussion Paper to guide the Palerang Council Rural Strategy) There are some isolated lots surrounding the project area that will fit into the description of rural residential land. However the area is zoned RU1 and these properties are a small minority. The village of Lake Bathurst and localities of Mayfield, Boro, Mount Fairy and Manar are located in the broader region with a combined population of less than 3,000 (2011 census data). There was approximately 24km between the two furthest turbines. The project area with a 3km buffer covers over 20,000 ha. This is bigger than the size of Queanbeyan which has a population of over 37,000. Accordingly, we do not consider the district to be a highly populated area. Additionally with the removal of the Southern Precinct and 34 WTG's from the Project overall, the number of nearby affected residents has significantly reduced.
Inadequate assessment	185267, 183807, 182161, 182979, 183375, 182659, 191019, 182118, 181512, 181840, 183280, 191019	Concern that the PA has been identified to be predominantly used for commercial grazing with isolated lots used for personal cropping when around 250 residences, schools and facilities are located within 3-5km boundary of the proposed development. Land use of the PA is understood to be Rural Residential. Inadequate description of the use and size of the associated land for the proposed wind farm. The proposal will not be consistent with the settlement pattern of the area being a RU4 – Rural Small Holdings- Zone and the potential expansion of the area was not taken into account. The project is inconsistent with the objectives of the relevant LEP. EPYC and ERM are dismissive of the nature of the region, and consider the rural residential / lifestyle nature inconsequential.	The term Project Area (PA) refers to the area in which EPYC has applied to develop the Project. The PA encompasses the parcels of land associated with the Development Footprint, as shown in Figure 1-2 (EIS). The PA does not include the 3-5km buffer around the site. Project Alternatives and site selection process is addressed in Chapter 5 of the EIS. In the “Draft Palerang Rural Lands Strategy 2016-2036”, Future Rural Residential land is identified in Mount Fairy near Tarago Road and either side of the railway line. If this took place it would be more than 5km from the nearest WTG. It is also proposed to be zoned RU5. Rural residential land is not Zoned RU1. In addition, the 1-5km boundary in QPRC is all zoned RU1 with the exception of Jamaleopa which is zoned E4 (this is over 3km to the nearest WTG at the nearest point) and Scotts Nature reserve which is zoned E1 which is adjacent to the PA. There is no Zoned rural residential land adjacent to the PA. Under NSW legislation and council zoning the area is Rural and zoned RU1 or

Category	Submission Reference no.	Issue Raised	Response
		The proposal is inconsistent with the objectives set out in the LEP Regarding the Proposed Development's fit with those Objectives: 1. It does not maintain and enhance the natural resource base, nor is it a primary industrial production activity that can do so. 2. It does not offer a primary industry diversification with systems that are appropriate for the area. 3. It increases agricultural fragmentation rather than minimising it. 4. it amplifies conflict between land uses within the zone, 5. It has a long-term adverse impact on the natural environment on, above and below the ground. 6. It is reasonable to project that the Proposed Development will directly and indirectly increase demands for public services including but not limited to, road maintenance, fire services, community health services, and policing. The size of some properties has been miscalculated with some of them being under 40ha. Inadequate level of consultation with landholders to conduct the assessment and insufficient mitigation measures offered. Concerns that the proposal does not comply with Palerang DCP 2015 requirements regarding vegetation removal. The EIS does not consider any other sites so the community cannot place any value on claims that this is a suitable site for a wind farm with 88 WTGs.	E3. Rural lifestyle is not defined under NSW legislation.. Future "rural residential potential is identified in figure 4.11. There are a very few selected properties. PA is being confused with its surrounds. Properties within the PA are all host landholders and the land is used for grazing. The surrounding area is of similar land use but on a smaller scale. Barnet and Mulloon residents near the PA area zoned RU1. Tables 6.3 and 6.4 outline how the project is consistent with the objectives of the relative LEP. Where it is not consistent then EPYC propose mitigation or offset as required by the authorities. In addition, the project has been revised in response to the submissions and the number of WTGs has been reduced to a maximum of 54. Consideration of the consistency of the Project with the objectives of the PLEP is outlined in Table 6.3. RU4 Rural Small holdings fits into the category of rural residential land. Mount Fairy falls within QPRC land. A future rural residential land portion has been identified near the railway line. Here views of Capital wind farm would occur. Jupiter will have limited to negligible visibility. The GMC land adjoin QPRC in Mount Fairy is zoned RU2. This is not rural residential land. There are very few isolated lots within 3km that do fall under the 40ha minimum lot size. Some properties can be classified as Small lot agriculture. However they are zoned RU1 which is Rural Primary production. The Landscape and Visual Impact Assessment report (Annex F to the EIS) addresses visual impacts on all dwellings and provides feasibility of mitigation for impacted dwellings. The EIS also contains Annex A which details the consultation undertaken as part of the assessment. The PDCP has no specific controls relating to wind farm developments. The QPRC adopted Rural Land Study does not overrule legislated zoning. The project area and adjacent lands in QPRC is zoned RU1 and is rural.
Impacts	183337, 183817, 182278, 182659, 191019, 182881, 183461, 182831, 181840, 191930	Concerns regarding the proposal impacting the aesthetic character of the local landscape. Concern regarding the impact that wind farms would have on communities as the Sydney-Canberra Regional Strategy 2006-2031 highlights wind farms to be incompatible with rural lifestyles. As noted above, however, much of the land use in the QPRC LGA cannot be generally classified as broad-acre agriculture. Concern that the development has not specifically stated the way in which it has planned to minimise the impact on the natural environment as management measures have not been verified. Concern regarding the DP&E potentially dismissing of equitable rights. Location the proposed Jupiter wind farm will highly impact the residents of an area of the Southern Highlands of NSW.	Terms including aesthetics and industrial character are seen as subjective. Industrial areas are not tourist attractions. However WTGs are found to be tourist attractions. Of the 140 dwellings within 3km 81 of them have been assessed as moderate to negligible impact (assuming worst case scenario). A range of measures have been proposed to mitigate impact of landholders proximate to the Project. These commitments are outlined in the RtS and will be included as relevant as conditions of consent. Area is incorrectly being described as Rural residential. The area is Rural and zoned RU1 or E3 and the proposal is in accordance with the provisions of this zone. The Sydney-Canberra Regional Strategy 2006-2031 is addressed in Section 6.6.6. of the EIS.

Category	Submission Reference no.	Issue Raised	Response
		The proposal is in breach of the objectives of the Gouldburn Mulwaree LGA as its proposed location dos not allow it to comply with the corresponding local policies. The proposal hinders the development of an affordable rural lifestyle and is not consistent with the provisions of its zones. Concerns regarding the impact of the development on the Southern Precinct. Concerns regarding the lack of consideration of the GMLEP objectives.	Conditions of consent would include specific mitigation requirements to neighbouring residences. Visual impact mitigation is applied to dwellings within 4km of a wind farm as per recent conditions of consent for similar developments. DP&E normally addresses equitable rights through conditions of consent. A review of the objectives of Goulburn Mulwaree LEP 2009 in relation to the RU1 Primary Production and E3 Environmental Management Zones was presented in Table 6.4 of the EIS. The Project has been revised to further reduce potential impact on environmental and social values including biodiversity, visual and noise and the impacts are considered to be acceptable. The updated Project is considered to be consistent with the objectives of the E3 zone of the GMLEP. Consideration of the consistency of the Project with the objectives of the GMLEP RU1 and E3 zones are detailed in Table 6.4 of the EIS Wind farms are a permissible land use on RU1 zone. If the area is classified as rural residential it would not be zoned RU1 or E3 with minimum lot size of 100ha. In addition as per Palerang RLS Figure 4.12 potential areas for rural residential property are not mapped within the project area. The nearest potential rural residential development is in Mt Fairy along Tarago Road and either side of the railway line. This is approximately 5km to the nearest WTG and behind the Mount Fairy ridge line. The Southern Precinct (where this property is located) has been removed from the revised Project.
Future growth	183351, 182483, 183007, 191039	Concern regarding lack of consideration to future dwellings. The development is in conflict with the potential to utilise the land for residential growth. Concern regarding impact on Residents the impact on people living in the area. Concern regarding the proposal not being in line with the future vision of the area, particularly in term of residential growth and local planning objectives. Concerns regarding the proposal hindering growth in Tarago with respect to community growth and growth in infrastructure and services. The proposal will hinder the development of rural lifestyle opportunities in proximity to Canberra.	Future rural residential land in the former Palerang "rural lands study" are identified either side of the railway line in Mount Fairy. This area will have limited to negligible views of the Wind Farm due to the large Mount Fairy Hill. EPYC have been in contact with Councils to obtain a list of DA's in their planning system. Future dwellings in this area will be on a minimum of 40ha for QPRC and 80ha for GMC. If the project is approved any future dwelling construction and orientation should consider the proposal. Future owners can orient their dwelling in full view of WTGs or with an obscured or limited view of WTGs, depending on their preference. Tarago is approximately 5km to the nearest WTG. Development still occurs in Tarago regardless of its proximity to Capital WF. Rural residential under legislation is defined as land between 2ha and 40ha. GMC LEP has a minimum 80Ha limit therefore not supporting a rural residential development. The area surrounding the PA is zoned E3 and RU1. Section 4.5.8 of the EIS considers future rural residential development in the region. All adjacent non host dwellings are Zoned RU1 under PLEP and RU1 or E3 in GMC LEP. Figure 4.11 identifies zoning applicable to properties within 100km to Canberra. Figure 4.12 identifies future rural residential land in QPRC.
Rural Lands Strategy	191019	Concerns that the EIS will not consider the adopted RLS and any relevant amendments. Concerns regarding the misconception of the actual land use of the area in relation to its prescribed zoning.	The EIS was submitted when the RLS was in Draft. The Preferred Project chapter will address the adopted RLS. The PA and the main land holders use their properties for cattle, sheep etc. This is a rural zone where wind farms are permitted. Future rural residential in QPRC has been identified in the RLS at Mount Fairy near the railway line. The Mount Fairy Hill will obscure views of the Project.

Category	Submission Reference no.	Issue Raised	Response
Consultation	183007, 181512	Landholders located up to 5km of the proposed wind farm site are not in favour of the proposal. Confusion around the zoning of the land and not being consulted regarding its residential nature.	That is a misleading statement. Not all dwellings are impacted by the Project and not everyone is against it. Zoning is set by the councils and is enforced for specific reasons based on the nature of an area. The project is not in a rural residential area. The area is classified as rural.
Subdivision	PDAW_160804_002	Our client contends that the consent for subdivision on land adjacent to the Nash Properties being Lot 2 DP 1026850 will be severely compromised by the proposed windfarm. Our client understands that the development consent is on foot for an 11 Lot subdivision further reinforcing the points made in objection to that the highest and best use for land in the vicinity of the proposed site is small scale holdings for farm purposes with an increased area of housing density as is found on the margins of the project.	Lot 2 DP 1026850 is part of the project area and development consent for proposed wind farm has been provided to the department of planning.
Land use	PDAW_160804_002	The unprecedented density of turbines within the northern precinct of the proposed windfarm effectively creates a commercial industrial complex that will be perceived visually as both dense at ground level and having significant elevation at a proposed turbine height of 173 metres. The unprecedented cluster density creates a significant departure from the rural/residential character of adjacent land use and clearly sets up conflict sharply at odds with the expressed purposes of Palerang Local Environmental Plan 2014 which includes as its objects – “To minimise conflict between land uses within this zone and uses within adjoining zones.” In the submission of our clients there can be no sharper conflict than of the type which will be manifest as between a commercial industrial use and rural/residential use given the heavy density cluster elements as described.	Existing land use will continue as is. The Proposed wind farm will be an addition to the land and grazing and agriculture will continue as before similar to other wind farm developments. Palerang LEP zoning is RU1 where wind farm are a permitted land use.
Planning	183329, 191039	The minimum requirements of the current guidelines have not been met or addressed sufficiently.	The EIS was prepared to satisfy the Secretary's Environmental Assessment Requirements and was deemed by the Department of Planning and Environment to be adequate in its assessment of the requirements prior to being placed on public exhibition. The RtS has been prepared with consideration to the current draft guidelines for Responding to Submissions reports.

Table C.7 – Public Submissions and Responses (EMI / EMF)

Category	Submission Reference no.	Issue Raised	Response
Consultants Experience and logistics	182108	Concerns from the community relating to the experience of the independent EMI/EMF consultant. Confirmation of logistical details and minor errors throughout the EMI/EMF impact assessment. Clarification of statement made throughout EMI / EMF Impact Assessment.	DNV GL has extensive experience in conducting EMI assessments for proposed wind farm developments in several jurisdictions across Australia. Prior to acquisition by Germanischer Lloyd (GL) of Germany in 2009 and the merger of DNV and GL in 2013, this work was performed under the trading name of Garrad Hassan Pacific, the local arm of the leading wind energy consultancy Garrad Hassan. Australian wind farms for which DNV GL has recently conducted EMI assessments or provided advice include Ararat Wind Farm, Berrybank Wind Farm, Biala Wind Farm, Coopers Gap Wind Farm, Crookwell 2 and Crookwell 3 Wind Farms, Dundonnell Wind Farm, Hawkesdale Wind Farm, Hornsdale Wind Farm, Ryan Corner Wind Farm, and Stockyard Hill Wind Farm. DNV GL staff have also provided expert witness evidence regarding EMI at planning hearings for multiple wind farms, and have participated in community open days and consultation meetings to provide information on potential EMI impacts. DNV_GL was engaged by ERM to prepare a technical assessment addressing potential impacts associated with EMI and EMF. ERM was engaged by EPYC and reviews of the report were undertaken by both ERM and EPYC. The changes made to the assessment report in August 2016 (from issue D to issue E) based on input from ERM were cosmetic only, and included formatting changes, inserting subheadings in the Executive Summary, and clarifications of references to the SEARs and former Palerang Council. No changes were made to the assessment methodology, results, or conclusions. The only changes made in September 2016 (from issue E to issue F) were to correct the site area quoted in the report, reissue the report as “Final”, and update the date and issue number accordingly. DNV GL endeavours to ensure its reports are written in a manner that can be understood by those who do not necessarily hold detailed technical knowledge of the content. However, there is a risk that people without knowledge of specific technical details of the report contents may misinterpret the information presented in the report, and the disclaimer is intended to reduce the risk of any such misinterpretation. These reports have been released in the public domain by ERM and therefore are available for review by third parties (such as the general public, DPE or other organisations), however DNV GL does not accept any liability to those parties. The comment in the executive summary of the EMI/EMF Assessment which states that "EMF and EMR strengths are likely to be within limits imposed by applicable guidelines and no adverse impacts are expected" is based on the discussion provided in section 5 of the EMI/EMF Assessment, which considers typical mechanisms by which EMF and EMR are generated, turbine and wind farm design features which act to mitigate EMF and EMR, observations from operating wind turbines in the literature, and standards that turbines typically need to comply with to ensure EMF and EMR regarding electromagnetic compatibility (EMC).

Category	Submission Reference no.	Issue Raised	Response
Emergency Services	182108, 186138, 181480	Misleading claims are made in the EIS including “No direct interference to [emergency] services has been determined” Failure to include any modelling of disruption to reception of other important services including emergency services, CB radio, mobile phone, wireless internet and radio broadcasting.	The potential impact to some emergency services operations, such as fixed point-to-point links, can be assessed qualitatively. In many cases, however, assessment of the potential EMI impacts cannot be performed qualitatively, either because the necessary information is not publicly-available or because the theoretical models are not sufficiently accurate or reliable. Modelling of impacts of wind turbines on to point-to-area or base-to-mobile-station style transmissions such as land mobile systems used by emergency services is challenging, and so it is necessary to rely on feedback obtained from consultation with the service operators. The assessment of potential interference to emergency services has considered feedback received from Fire and Rescue NSW, St John Ambulance, the Wamboin Rural Fire Brigade, and the NSW Rural Fire Service. None of these operators expressed any concern about the potential for the wind farm to cause interference to their assets and operations. Feedback from the NSW RFS was received late and unintentionally omitted from the report, but stated that “We are pleased to advise that our study shows that your proposed Jupiter Wind Farm is not expected to have any detrimental impact on the existing RFS radio services in the area.” The NSW Telco Authority, who are responsible for managing the Government Radio Network for emergency service organisations and other government agencies, was provided with a copy of the final EMI assessment report and confirmed that “There are no Government Radio Network (GRN) sites or other agency links that we are aware of crossing the wind farm project area, based on the information in the proposed EIS”. The EMI assessment has been conducted on the basis of publicly-available information regarding services in the project area, methodologies outlined in the relevant planning guidelines, various standard industry practices, and the results of external studies. The potential impact to some services, such as fixed point-to-point links, satellite television and internet signals, and terrestrial television broadcasts, can be assessed qualitatively. In many cases, however, assessment of the potential EMI impacts cannot be performed qualitatively, either because the necessary information is not publicly-available or because the theoretical models are not sufficiently accurate or reliable. Modelling of impacts of wind turbines on point-to-area or base-to-mobile-station style transmissions such as mobile phone services and television and radio broadcasts is challenging, and a review of the relevant literature suggests that there is no standard industry practice for assessing the potential impacts to these services. In these cases, it is often necessary to rely on feedback obtained from consultation with the service operators. These operators will have a more extensive understanding of their communications assets and services, and the likelihood that they will be subject to interference. A significant number of wind farms are now operational in Australia, so many service operators may also have experience with how their assets and services perform in the presence of a wind farm. The consultation process is intended to draw upon this knowledge to develop a joint assessment of the potential for impact, as recommended in the Draft National Wind Farm Development Guidelines. It should be noted that detailed assessments will be undertaken if the project is approved, and prior to construction and operation of the wind farm.

Category	Submission Reference no.	Issue Raised	Response
Inadequate TV impact assessment	183351	Inadequate information provided regarding potential impacts to TV reception as a result of the proposed development.	The potential impact to satellite television and internet signals has been assessed by modelling the direct lines-of-sight from 20 satellites that may provide television and internet services to the east coast of Australia to dwellings in the vicinity of the wind farm. Exclusion zones were then created around each of the turbine locations, taking into account the maximum turbine rotor diameter and tip height. Based on this modelling, turbines at the wind farm were not found to intercept signals from any satellites that commonly provide television and internet services in Australia. DNV GL is not aware of any cases of turbulence from wind farms affecting satellite signals.
Inadequate Consultation	182971, 183355, 182108, 182971,	Inadequate consultation with local Internet Service Providers (and mobile service providers).	The consultation letters sent to Telstra, Optus, and Vodafone asked them to provide feedback on potential impacts to all their services arising from the proposed wind farm development. Beyond the feedback recorded in the EMI assessment report, no concerns were raised by either Telstra or Optus in regard to any of their services. Although it is theoretically possible for interference to occur in areas of marginal coverage where the signal passes through the wind farm, DNV GL has consulted with Telstra, Optus, and Vodafone in regards to potential interference to mobile phone signals for multiple wind farm sites across Australia and no concerns have been raised to date. Additionally, DNV GL has been provided with the response from TransGrid, which states that they do not have concerns regarding potential impacts to their link.
Reception	179830, 181573, 182127, 182161, 182556, 182560, 182807, 182887, 182891, 182893, 182895, 183420, 191668, 191774, 181480, 183280	Concerns that mobile reception (and ability to access the internet) will be badly affected by the Jupiter Wind farm.	Although it is theoretically possible for interference to mobile phone signals to occur in areas of marginal coverage where the signal passes through the wind farm, there is no strong evidence in the literature of impact to mobile phone signals. Additionally, DNV GL has consulted with Telstra, Optus, and Vodafone in regards to potential interference to mobile phone signals for multiple wind farm sites across Australia and no concerns have been raised to date.
Inadequate Mitigation Measures	182161, 182108, 181298, 181480, 186138, 180125, 182108, 182875	Inadequate mitigation measures provided throughout the EMI/EMF Impact Assessment.	It is acknowledged that the suggested mitigation options may not be suitable in all situations. In some cases, it may be possible to achieve better signal strength by moving only a short distance within the dwelling. In situations where the signal strength is more broadly affected, other mitigation options may be available to improve the mobile phone coverage in that area, such as the installation of new mobile communications infrastructure. Regarding television reception, following development consent, EPYC will commit to undertaking TV signal strength assessment at all the required dwellings. Where required, mitigation measures will be implemented as required to improve/restore TV signal if found to be affected by Project. Mitigation process will be committed to in a statement of commitments as part of the response to submissions, and will also be included as relevant in the Development Consent.
Radio Broadcasting	181480, 179830, 182887, 182891, 182893, 182895, 191774, 182108	Impacts to radio broadcasting services (AM, FM etc.) as a result of the proposed development. Inadequate information relating to Digital Radio Broadcasting in areas across Australia.	Interference to CB radio from the wind farm is considered unlikely. Generally interference to CB radio signals would only be expected in close proximity to turbines, or where the signal passes through the wind farm and is intercepted by a turbine. Relocating away from the location of a turbine, or such that the signal can pass through the wind farm unobstructed, should be sufficient to mitigate any interference. Interference to FM radio signals caused by reflection or scattering of radio waves is typically only experienced within several tens of metres of a wind turbine. It is unlikely that any permanent FM radio receivers will be located sufficiently close to the wind farm to be affected by this type of interference.

Category	Submission Reference no.	Issue Raised	Response
			The UK telecommunications regulator [Ofcom] states that "In contrast [to FM signals], the signal format used for DAB digital radio is designed to offer high levels of robustness in difficult conditions and it is not materially affected by reflections. FM and DAB reception can be affected where a structure blocks signals and both may cease to function if signals are reduced below a certain threshold". DNV GL has therefore concluded that DAB signals are not affected by reflection or scattering from physical structures in the same way as FM signals, and so digital radio broadcasts are generally not susceptible to interference from wind farm developments. However, interference may be experienced if the line-of-sight between a DAB transmitter and a radio receiver is blocked by a wind turbine. Interference to AM radio signals is only expected in very close proximity to turbine locations. Digital radio services have been offered in Canberra on a trial basis only since July 2010. The DAB+ signal is being broadcast at low power during the trial period, and the services are subject to occasional interruptions and changes in signal power as a result of testing. The prospect of permanent digital radio services in Canberra was not announced until December 2016, and a permanent service is not expected to be introduced until later this year. The ABC digital radio coverage maps referred to in the report therefore correctly show that there is no permanent digital radio service currently available in the area around the wind farm.
Southern Precinct	191930, 183351	Impacts to areas located within close proximity to the proposed Southern Precinct	Resident locations are identified as within close proximity to the Southern Precinct of the project, which has now been removed as part of the updated project layout. All associated impacts relating to EMI / EMF are expected to be substantially reduced for this landowner as a result of the removal of the Southern Precinct. Additionally, Council has confirmed this is a non-habitable shed, and as such is not subject to the same considerations as a habitual shed.
TV	181298, 182161, 182584, 182863, 183351, 182121, 182123, 182127, 182380, 182556, 182560, 182807, 182887, 182891, 182893, 182895, 183420, 191668, 191774, 182108, 182875, 183280	Interference with Television reception as a result of the proposed development. Inadequate TV-related mitigation strategies.	There is potential for wind turbines at the project to cause interference to digital television signals, particularly in areas where the signal strength is already marginal. The EMI assessment has identified 119 dwellings with the potential to experience interference to television signals broadcast from the Canberra transmitter. Digital television coverage maps reviewed as part of the assessment suggest that signal coverage from the Canberra transmitter is variable in the area around the project, with some areas receiving no coverage. Therefore, it is possible that some residents will experience interference to digital television signals. Modelling of impacts to point-to-area or base-to-mobile-station style transmissions such as television broadcasts is particularly difficult, and a review of the relevant literature suggests that there is no standard industry practice for assessing the potential impacts to these services. Studies have shown that, when compared to empirical data, none of the detailed theoretical scattering models proposed provide an accurate or realistic estimation of signal scattering from wind turbines. The simplified 'keyhole' approach used by DNV GL to identify dwellings that are most likely to experience potential interference to television signals is an established method that does not rely on detailed modelling of signal scatter. Rather, it highlights the region around each turbine

Category	Submission Reference no.	Issue Raised	Response
			where signal scattering is likely to be an issue. In areas with good signal strength, this simplified approach may be conservative. However, interference may also be experienced outside the potential interference zones in areas where the signal coverage is marginal. Given the difficulties associated with predicting impacts to television signals in areas of poor coverage, it is generally standard practice to undertake a base-line study of pre-construction signal strengths after development consent to help understand the existing television reception and identify any impacts once the wind farm is operational. Following development consent, EPYC will commit to undertaking TV signal strength assessment at all the required dwellings. Where required, mitigation measures will be implemented as required to improve/restore TV signal if found to be affected by Project.
Wireless Internet	182380, 182671, 191774, 181480	Concerns Wifi disruptions and impacts to wireless internet. Concerns regarding impacts to potential NBN services.	This section of the report (Section 6.11 of Annex K - EMI/EMF Assessment Report) is the conclusion to the findings related to wireless internet. DNV GL has attempted to contact all operators of services and infrastructure that may be impacted by the proposed wind farm, as detailed in the EMI assessment report. The consultation process undertaken by DNV GL involves identifying the appropriate contact people in each organisation, and then sending consultation letters that contain information about the proposed wind farm and identified communication assets and request feedback regarding any potential impacts to the operators' assets and services. We typically attempt to follow up on the consultation letters if responses are not received in a reasonable period of time. In some cases, however, despite our best efforts, we are unable elicit a response before the final issue of the report is released. In the case of the service operated by YLess4U it is not possible to determine impacts without a response from the operator as the locations of Customers using the service are not known. Standard Wi-Fi routers used in home networking applications typically have ranges of approximately 45 m indoors and 90 m outdoors. Wi-Fi signal strength may be attenuated by physical obstructions such as walls or furniture. While a wind turbine could theoretically present a physical obstruction to a Wi-Fi signal, all of the proposed turbine locations are more than 600 m from the nearest dwelling so it is highly unlikely that a turbine at the wind farm would be located between a domestic Wi-Fi router and a user of the Wi-Fi signal. Wi-Fi signals may also be susceptible to interference from household appliances such as cordless phones and microwave ovens that operate at the same frequency as the router (either 2.4 GHz or 5 GHz). It is likely that any electromagnetic radiation emitted by the turbines at this frequency will be sufficiently attenuated by distance and obstructions that it will have no impact on Wi-Fi signals within dwellings. It is understood that NBN Co typically takes wind farms into account when determining signal coverage and service availability, and is likely to offer the Sky Muster satellite service to customers in areas that may be affected by the wind farm. Considering the elevation angle of the Sky Muster satellites at the wind farm site, it is unlikely that the project will interfere with the NBN satellite service.

Table C.8 – Public Submissions and Responses (Traffic)

Category	Submission Reference no.	Issue Raised	Response
School bus routes	178267, 182161, 182947, 183351, 176983, 179115, 183823, 183329, 181838	The school bus route is not addressed in the EIS and concerns regarding this issue have been dismissed. Traffic generated by the school bus stops is not considered. Bus services operating in the vicinity have not been identified and considered. Public Transport Routes does not consider the section of the Kings Highway that will be used to access the southern precinct of wind turbines. Children safety concern during school bus pickup times. The EPYC submission does not sufficiently cover the impact and degradation of the current infrastructure and roads.	An updated Transport Impact Assessment has been prepared as part of the Jupiter Wind Farm Response to Submissions and Preferred Project Report, which provides additional information relating to school bus routes that were missed during the initial Transport Assessment as part of the EIS in addition to updated information relating to traffic volumes and generation estimates and provide a response to any potential impacts. The Transport Impact Assessment Report includes updated information relating to current school bus services. A curfew for construction vehicles (RAV's and/or Heavy Vehicles) could be implemented during school bus operating times. Any such measures would be detailed as part of the Construction Traffic Management Plan (please refer to Section 2.4 of the Updated TIM located within Annex G of this report). The Southern Precinct has been removed as part of the updated project design and all associated transport impacts are expected to be mitigated accordingly. A curfew for construction vehicles (RAV's and/or Heavy Vehicles) could be implemented during school bus operating times. Any such measures would be detailed as part of the Construction Traffic Management Plan.
Impacts	178267, 182161, 179115, 180157, 183823, 182521, 182947, 183426, 191930, 176615, 178934, 179657, 180848, 182086, 183171, 176983 , 182987, 183377, 182875, 182829, 182881, 183461, 191019, 181838	Turning trucks will impose safety risks, especially on children waiting for the bus off Roseview Road Congestion on Access Gate 1. Noise pollution caused by compression breaking. Increased traffic and congestion will impose on the quiet lifestyle of the area. Dismissed the increase of traffic related to operations on Lower Boro Road in the Transport Assessment prepared by GTA. Concern regarding the impact of traffic on the vegetation and environment of Mulloon/Manar Road. Concerns regarding the traffic impacts of the southern part of the precinct including Manar Road. Concern regarding short and long term impacts resulting from the construction of the turbines including an increase in traffic hazards. Concerns regarding impacts in the event of decommissioning. The wind farms and associated mitigation measures will be distracting to motorists. The suggestion to reduce traffic speed limits on roads to accommodate for the entrance of the wind farm is not considered fair to motorists who find convenience in the speed limit.	Access Gate 1 is located approximately 1.6km south of Roseview Road and as such, turning movements into and out of the access will not have a direct impact on the operation of Roseview Road or its intersection with Braidwood Road. Furthermore, Access Gate 1 will have its own additional lane for construction vehicles to take prior to accessing the site. Additionally, a Construction Traffic Management Plan will be prepared prior to construction which will be used to manage local traffic impacts. Adequate capacity will continue to exist at the Braidwood Road / Roseview Road intersection during the construction of the wind farm project. Adequate vehicle and pedestrian sight distance is provided at the Braidwood Road / Roseview Road intersection. A curfew for construction vehicles (RAV's and/or Heavy Vehicles) could be implemented during school bus operating times. Any such measures would be detailed as part of the Construction Traffic Management Plan. The Southern Precinct has been removed as part of the updated project design and all associated transport impacts are expected to be mitigated accordingly. Only road crossings are proposed for Boro Road. As per traffic assessment Lower Boro Road carries low traffic volumes and only serves the local residents along Boro Road and access roads like Lilyvale Road. Following project approval and detailed design stage a traffic management plan will be prepared to reduce any anticipated project impacts. In the event of decommissioning, an additional traffic management plan (Decommissioning Traffic Management Plan) will need to be prepared prior to decommissioning works taking place. This is anticipated to occur 20-30 years after project commissioning. A dilapidation survey will be prepared prior to construction that will assess the quality of the roads and the potential need for road upgrades. With the removal of 34 WTG's from the project design, a significant reduction in haulage vehicle movement is expected, which will assist in the reduction on traffic and transport related impacts associated with the project.

Category	Submission Reference no.	Issue Raised	Response
			Large sections of Goulburn / Braidwood road has vegetation screening which already obscure views of the project area. Existing roadside vegetation is expected to screen views of WTGs. The WTGs will not impact the available sight distance at the Hazeldell Road / Braidwood Road intersection.
inadequate assessment	182118, 182161, 191930, 176983, 182829, 182521, 181838	Concerns that the EIS is not based on determined data and only on hypothetical scenarios regarding traffic movement. Details behind determining the definition of trafficked roads is not provided. EPYC has provided details of the transport management plan between the main Precincts and local towns. However, it does not adequately address traffic and transport assessment information for the Southern Precinct development particularly where the internal access road crossed the gazetted public road (Manar Road) to ensure the safety of the community. The EIS fails to identify how the dirt access roads are going to be maintained to a safe and acceptable level and fails to adequately identify up front how EPYC plans to build, manage and maintain internal access roads. Necessary road upgrade and/or maintenance contributions to the relevant Council to address impacts on the local road network have not been addressed. Doubt in the accuracy of estimated traffic generated, ambiguity on the relevance of the wind farms the assessment relied on for traffic estimates. Insufficient assessment regarding the impact of turbine 17 on traffic conditions. Concern regarding the safety issues of new intersections and doubt that some roads will not be used for construction traffic. Concern regarding the layout of the wind farm to cover three distinct sections, each only connectable via a state road. The Transport Impact Assessment section of the EIS does not address this issue in any detail. The central access point will also intersect with the 33kv transmission line. This issue was not addressed in the EIS. Lack of a risk assessment, identified risks in the report are outdated and do not consider the new volume of traffic on roads, especially the main intersection in Tarago, since the last assessment. Feasibility of road design is not convincing. The sample size used for data collection is far too small to provide accurate information. Questioning the determination of site distances.	At this stage, the specific source(s) of construction material have not been confirmed and would be controlled by the successful contractor. As such, the specific routes that heavy haulage vehicles will use cannot be confirmed. A Construction Traffic Management Plan, including heavy vehicle routes, will be prepared prior to construction to manage potential construction impacts, including road safety. Light vehicles during construction and operation will use Lower Boro Road to access the operations building. The Transport Impact Assessment details the estimated traffic volumes on each of the surrounding roads. Mulloon/Manar Road had a proposed crossing, however, the Southern Precinct has been removed as part of the updated project design and all associated transport impacts are expected to be mitigated accordingly. The maintenance of utilised roads is internal to the project area and such details will occur following project approval and be included in the project design. GTA consulted with both councils and have agreed surveys/reporting regarding the impacts on the local road network would occur after project approval. Dilapidation surveys will be completed before and after construction along transport routes, and will be used to advise the requirement of road upgrades. The traffic generation estimates for the project are based on traffic generation assessments for other Wind Farm projects. The projects which the traffic generation rates are based on are provided in the Transport Impact Assessment. Reference to the Gullen Range Wind Farm traffic and transport assessment report (dated March 2008 and prepared by Rodger Ubrihien - Bega Duo Designs) indicates that that project (84WTGs) would generate up to a maximum 296 vehicle movements per day. Turbine 17 has been removed from the project design. The connectivity of the different sections has been addressed in the throughout Annex H (Transport Impact Assessment) of the EIS and impacts in relation to the sections of the wind farm have been mitigated by removing the Southern Precinct of the wind farm. RMS has advised their preference is underground and it will be done so accordingly. In the event this is not possible for any reason then it may be above ground. This will be confirmed as part of detailed design and following project approval. Road design will be done according to engineers specifications in consultation with RMS. The provided sight distance at the two access points to Braidwood Road exceeds the Safe Intersection Sight Distance (SISD) requirements set out in the Austroads Design Guide. The provision of the SISD allows a vehicle on the main road to come to a complete stop prior to the access should there be a need to.

Category	Submission Reference no.	Issue Raised	Response
Lower Boro Road	182161, 188793, 176983	Lack of consideration of the use of Lower Boro Road to access the control building in the EIS submission and lack of justification as to why no works are proposed for Lower Boro Road. Risk hazards associated with turning onto Boro Road are not considered. Traffic impact and mitigation is not considered for the operational phase. Deterioration of Lower Boro Road due to an increase of traffic as a result of the proposed development.	With regards to the Transport Impact Assessment (Annex H of the Jupiter Wind Farm EIS), access roads servicing the Northern Precinct will cross over Lower Boro Road, however vehicles will not utilize Lower Boro Road to access the site. Vehicles accessing the site will do so via Braidwood / Goulburn Roads (Kings Highway will no longer be utilized to access the Southern Precinct as it no longer exists as part of the updated project design) and will not be required to travel along the lower order local road network, and as a result, no upgrades or maintenance will be required for lower order local roads (with the exception of the crossing points of the local roads). With regards to the operational phase of the project, traffic impacts are expected to be minimal, and limited to service vehicles only (utilities or similar, which would have minimal impact on the current state of the road network). The traffic on Lower Boro Road will continue to have priority over cross traffic throughout construction and operation phases. An updated Transport Impact Assessment has been prepared as part of the Jupiter Wind Farm Response to Submissions and Preferred Project Report, which provides additional information relating to traffic generation. Construction and Operational Traffic Management Plans will be prepared during construction of the Jupiter Wind Farm which will include measures to mitigate any anticipated impacts, and additional assessment if necessary, including road safety at the Lower Boro Road crossings. Dilapidation surveys will be completed before and after construction along transport routes, and will be used to advise the requirement of road upgrades.
Increased vehicle traffic	182161, 183402, 183426, 176146, 177462 5, 177518 , 178514, 179627, 180832, 181082, 182086, 182157, 182556, 182560, 182887, 182891, 182893, 182895, 182911, 183329, 183709, 183739, 183805, 183859, 182875, 183817, 182987, 183377, 182141, 183477, 182829	The traffic volumes provided by GTA Consultants is two years out of date. Concern for traffic along Manar Road. Increased vehicle traffic on unsuitable roads. Concerns regarding Increased heavy vehicle traffic on Goulburn/Braidwood Road, Mt Fairy Rd and Kings Highway particularly as several school bus trips also use this road. Cause more accidents due to construction. Decommissioning will cause traffic volumes significantly in excess of those nominated for construction.	An updated Transport Impact Assessment report has been prepared as part of the Jupiter Wind Farm Response to Submissions and Preferred Project Report, which addresses issues relating to potential impacts to school bus routes. The Council traffic data has been requested. Due to the revised layout/changes, the Southern Precinct is no longer part of the proposed project. During the detailed design, suitable project information and data should be available to reliably assess the structural integrity of any applicable roads and bridges, and define the need and location of dilapidation survey of existing roads. The surrounding road network currently operates with a Level of Service C or better. Whilst increased traffic is anticipated during construction, the surrounding road network is anticipated to continue to operate with a Level of Service C or better. The project will generate traffic onto the surrounding road network during construction. However, the post development traffic volumes will continue to be within acceptable capacity thresholds. Once, the specific source(s) of construction material are confirmed and controlled by the successful contractor, a detailed Construction Traffic Management Plan would be prepared for the haulage of the over dimensioned and/or over massed components and consider aspects of the construction traffic and speeds, and provide measure to assist in the management of associated impacts. This will also take into account any private bus routes, along with an updated Transport Impact Assessment as part of the Response to Submissions and Preferred Project Report and will mitigate traffic impacts and maintain safety along each road.

Category	Submission Reference no.	Issue Raised	Response
			In the event of decommissioning, a separate Decommissioning Traffic Management Plan will need to be prepared prior to decommissioning works taking place to assist in the management of traffic and transport related issues and impacts.
Lower Boro Road	182161	Concerns regarding maintenance of Lower Boro Road with regards to the potential increase in traffic as a result of the proposed development.	Updated traffic volume counts have been sourced from Council for Lower Boro Road (2015) and from RMS for Kings Highway (2017). The updated Transport Impact Assessment Report (Annex G of the RTS / PPR)) has been updated to reflect the most recent traffic data available. The updated analysis indicates that the post development traffic volumes will continue to be within acceptable capacity thresholds. The operational daily traffic volumes on Lower Boro Road are predicted to be in the order of 125vpd. This traffic volume is less than the threshold for when the carriageway should be sealed based on recommendations by ARRB.
Damaged roads	179050, 179054, 179627, 182121, 182123 ,182521, 182829, 182987, 183377, 181298	Concern regarding damage to local roads. Roads around the proposed central entranceway is in poor condition.	Dilapidation surveys will be completed before and after construction along transport routes, and will be used to advise the requirement of road upgrades. A Construction Traffic Management Plan, including Traffic Control Plans, will be prepared prior to construction to manage potential construction impacts, including road safety. During operation traffic impacts would be minimal and limited to service vehicles (utilities or similar). With the removal of 34 WTG's from the project design, a significant reduction in haulage vehicle movement is expected, which will assist in the reduction on traffic and transport related impacts associated with the project. Additionally, the Kings Highway will no longer be utilized as a result of the removal of the Southern Precinct from the updated project design.
Alternative roads	182987, 183377	Alternative roads were suggested to avoid the Goulburn township all together.	The preferred traffic route was identified in consultation with RMS and both Councils. The identified traffic route is consistent with those adopted for the other nearby completed Wind Farm projects. The potential route identified in the submission would have a number of construction and approval issues, including grade differences and creating an additional access to a classified road.

Table C.9 – Public Submissions and Responses (Aviation)

Category	Submission Reference no.	Issues Raised	Response
Aerial Firefighting	177311, 177462 5, 177584, 177711, 178742, 178997, 179050, 179058,, 179149, 179471, 179584, 180431, 180558, 180626, 180848, 180866, 180996, 181063, 181112, 181573, 182104, 182127, 182131, 182155, 182157, 182171, 182173, 182175, 182177, 182297, 182305, 182324, 182380, 182399, 182570 (70), 182671, 182698, 182817, 182869, 182887, 182891, 182893, 182895, 182911, 182923, 182993, 183088, 183094, 183096, 183159, 183171, 183211, 183231, 183325, 183329, 183335, 183420, 183739, 183805, 183833, 183839, 188030, 191035, 185081, 183090, 183007, 182110 , 181500, 182741, 181710, 183823, 183373, 182975, 182875, 191027, 183426, 183221, 183086, 183005, 182947, 182931, 182929, 182855, 182521, 182161, 182082, 181840, 181502, 180868, 180310, 179588, 187640, 183817, 183337, 180662, 183829.	Increased hazard and risk to aerial firefighting and the overall reduction in the ability to utilize aerial firefighting services with the inclusion of WTG's throughout the area, with regards to "Southern Belle" aerial firefighting incident on Lower Boro Road.	Two Development Assessment and Planning Officers from the NSW Rural Fire Service (RFS) were consulted on the JWF Project. These officers advised that wind farms are considered to be an advantage to RFS operations because they generally require a cleared area, a water supply and provide improved access to the project area. When conducting aerial firefighting operations it is the responsibility of the operators to determine hazards in their areas of operation. However, the local fire authorities should have this information as a part of their bush fire management plan. NSW RFS has worked with other fire fighting agencies in the Australian and New Zealand National Council for Fire and Emergency Services (AFAC) in developing a national position on wind farms and bush fires. AFAC developed the Wind Farms and Bushfires Operations Position and requires the following: Aerial firefighting operations will treat turbine towers similar to other tall obstacles. Pilots and Air Operations Managers will assess these risks as part of routine procedures. Risks due to wake turbulence and the moving blades should also be considered. Wind turbines are not expected to pose unacceptable risks. Wind farms are not expected to adversely affect fire behaviour in their vicinity. Local wind speeds and direction are already highly variable across landscapes affected by turbulence from ridge lines, tall trees and buildings. Liaison with wind farm operators and energy industry representatives during and after bushfires should aim to ensure minimal disruption to generation capacity and rapid resumption of essential services to the community. EPYC has contacted the NSW RFS regarding the recent Boro fire and the more recent Currandooly Fire. Their position on wind farms has not changed. In the NSW RFS Submission they were favourable of the access tracks and requested certain dimensions to allow their fire trucks to adequately access areas of the wind farm.
Aerial Agriculture	191930	Aerial agriculture aircraft operations and the views of the Aerial Agriculture Association of Australia (AAAA).	Aerial Agriculture response: The Aerial Agriculture Association of Australia (AAAA) has developed National Windfarm Operating Protocols (adopted May 2014). These protocols note that some wind farm proposals may be approved in areas where aerial application takes place. In those circumstances, AAAA has developed the national operational protocols to support a consistent approach to aerial application where windfarms are in the operational vicinity. The AAAA was consulted during the preparation of the aviation impact assessment. The consultation of the EIS provided opportunities built awareness of the proposed JWF and opportunity for aerial agriculture operators to comment. The use of helicopters enables aerial application operations to be conducted in closer proximity to obstacles than would be possible with fixed wing aircraft due to their greater manoeuvrability. Pilots conducting low level operations under the visual flight rules (VFR) are expected to possess an adequate level of understanding of the effects of mechanical turbulence caused by wind farms to maintain an acceptable level of safety. *The AAAA National Windfarm Operating Protocols does state:* *At the development stage, AAAA remains strongly opposed to all windfarms that are proposed to be built on agricultural land or land that is likely to be affected by bushfire. These areas are of critical safety importance to legitimate and legal low-level operations, such as those encountered during crop protection, pasture fertilisation or firebombing operations.* Following on from this statement, the AAAA also states: *However, AAAA realises that some wind farm proposals may be approved in areas where aerial application takes place. In those circumstances, AAAA has developed the national operational protocols to support a consistent approach to aerial application where windfarms are in the operational vicinity.* For additional information, please refer to the above 'Aerial firefighting' response.
ALA's	177252, 178125	Inadequate assessment relating to ALA's.	With respect to aircraft taking off or landing from an aerodrome, based on the guidance provided in NASF Guideline D, it can be concluded that there are no aircraft landing areas (ALAs) located in such a position that aircraft taking off or landing may be affected by wake turbulence caused by the Project wind turbines. Figure 5 is an OzRunways aircraft navigation map (extracted 28 April 2016) and shows that no ALAs (as represented by highlighted symbols) are located within the Project Area, noting the closest identified ALA is approximately 12 km from the Project Area boundary. As per EIS: There are a number of uncertified/unregistered airfields located within 30 NM of the proposed wind farm. Bungendore, Currandooly, Gundaroo and Braidwood airfields are located within this area. These airfields do not have instrument procedures, and as such do not have any OLS (obstacle limitation surface) or PANSOPS (Procedures for Air Navigation Services – Operations) surfaces. These airfields are sufficiently distant from the proposed wind farm that take-off and landing operations are not affected. None of these airfields have permanent lighting and would not normally

Category	Submission Reference no.	Issues Raised	Response
			be used in night flying operations. Other unregistered/uncertified private airstrips and landing grounds may be located within 30 NM of the wind farm area, none of which have an OLS and are not noted in aeronautical charts or documents for the region. Pilots operating at such airstrips retain sole responsibility for ensuring that they are aware of the conditions on and surrounding these landing sites. A wind farm layout is first compiled and then an assessment is done as is additional consultation. EPYC released the first turbine layout in September 2014. Only ONE WTG Was proposed turbine at RED HILL. Community Consultation followed in October 2014. EPYC was made aware of this landing strip at Kallbili by the owner. Hence the red hill turbine was removed. The 16D calculation is 2016m. The submitter has advised that the two landing strips are 2.5km and 2.8km to the nearest WTG.
Emergency Landing	183086	Availability of emergency landing fields and roads with the inclusion of WTG's.	The use of emergency landing fields and roads are at the discretion of the pilot in command according to the individual circumstances.
Impacts to surrounding airstrips	182741, 191019	The proposed windfarm will pose an unacceptable hazard to safe flying throughout locally-owned airstrips within the project locality.	Without specific knowledge of the aerodrome in question, it is not possible to provide a detailed response to the issues regarding "take-off to the south east". The effect of wind turbine wake turbulence was assessed in the Aeronautical Impact Assessment. National Airport Safeguarding Framework Guideline D suggests that that wind turbines may create turbulence that is noticeable up to 16 rotor diameters from the turbine. Given that the maximum diameter of the WTG models under consideration is 126 m, the distance at 16 diameters (16D) is 2016 m (1.09 nm) downstream from the wind turbine. The highest turbine in the revised layout is WTG40, at 729 m AHD site elevation + 173 m turbine height = 902 m AHD (2,959 ft AMSL). The minimum vertical separation required above the ground or obstacles is 500 ft. That leaves 3,000 ft between 3,500 ft and 6,500 ft AMSL available for the operation of recreational (and other) aircraft. This volume of airspace is satisfactory for the needs of its users. The term 'aircraft landing area' (ALA) remains in force within Australian's aviation regulatory framework. CASA has published recommended practices in its Civil Aviation Advisory Publication (CAAP) 92-1(1) Guidelines for aeroplane landing areas. The purpose of the CAAP 92-1(1) guidance is described as follows: *These guidelines set out factors that may be used to determine the suitability of a place for the landing and taking-off of aeroplanes. Experience has shown that, in most cases, application of these guidelines will enable a take-off or landing to be completed safely, provided that the pilot in command:* *a. has sound piloting skills; and* *b. displays sound airmanship.* The revised project design will include the removal of turbines 17, 60, 62 and 67, which will significantly reduce the aviation impacts outlined throughout the submission. Additionally, turbines 68 and 73 will be relocated (within 100m). The amended project design and layout will be sufficient in ensuring that flight paths remain safe and that any interference will be mitigated where feasible.
Southern Precinct	191930, 183351	Aviation-related impacts to areas located within the proximity of the Southern Precinct.	The Southern Precinct has been removed from the final project layout and as a result, all aviation-related impacts to landowners within the vicinity are expected to be mitigated. Refer to Aerial firefighting response for issues related to aerial firefighting.

Table C.10 – Public Submissions and Responses (Decommissioning)

Category	Submission Reference no.	Issue Raised	Response
Decommissioning assurance and funding	183817, 182937, 182161, 182973, 183365	Concern that it is the responsibility of the host land owner to ensure that their contracts include decommissioning conditions. Ambiguity regarding decommission assurance and restoration of the environment. Request for EPYC must establish a decommissioning fund prior to any construction activities. Concern that the decommissioning fund does not consider highest cost scenario. Concern that money that has been put aside for decommissioning may be utilised to pay off creditors for the project as licensing fees are not considered. Confusion regarding when the decommissioning fund will be established. Vague measures concerning the review and top up of the fund in the case of a decrease identified at the 5 year review. And no plans considered to be implemented in the case of not being able to rectify a shortage in the fund. The EIS does not propose a consent condition ensures the necessary funds are available and committed when decommissioning is necessary. A decommissioning bond is an inadequate way of dealing with decommissioning funding. Concern that the Department does not have the capacity and ability to accurately estimating the true net cost of decommissioning, 25 or 30 years in the future, and then enforcing provision of those funds. Fear of EYPC becoming insolvent by the end of the life of the project and the cost falling on the landholder. Request for decommissioning funding to be guaranteed by an investment grade corporate entity, with conditions that ensure the obligation remains with an investment grade corporate entity until discharged.	As stated, a fund to cover the costs of decommissioning the Project infrastructure and rehabilitating the Project Area will be established during operation and prior to decommissioning of the wind farm. The size of the decommissioning fund will be based on the estimated cost of decommissioning and the value of the WTGs and associated infrastructure at the time of the fund's establishment. The amount set aside for the decommissioning fund will have consideration for two cost scenarios (re-uses of WTG or scrap metal as described in the plan) and will be first estimated prior to commencement of construction of the Project, and then during detailed design when turbine make and capacity is known. These funds may be held by a legal firm or an authorised appointed trustee corporation. The estimated decommissioning costs will be re-evaluated every five years with each review of this plan (refer to Chapter 7 of the plan) and prior to decommissioning. The rehabilitation and monitoring of the Project decommissioning is the responsibility of the Proponent (EPYC), or any subsequent owners of the wind farm. Section 4.1 of the Preliminary Decommissioning and Rehabilitation Plan provides insight into the primary objectives identified throughout the rehabilitation and monitoring program, which include 'return disturbed areas back to its pre-construction conditions and contours'. We note that the Preferred Project Report (PPR) wind farm layout/design incorporates a reduction in the total number of Wind Turbine Generators (WTG) from 88 to 54 (34 WTG have been removed), including the complete removal of the Southern Precinct as was previously identified in the EIS layout. These PPR layout/design changes occurred primarily to minimise potential visual, noise, ecology and heritage impacts. They are also expected to substantially reduce the anticipated impacts across all environmental factors, including those potentially associated with decommissioning and rehabilitation required in the future. It is beyond the scope of the EIS (and the RtS report) to provide any commentary regarding State or Federal Government commitments or views, or those associated with other relevant entities e.g. the NSW Department of Planning and Environment (DPE) and the Planning Assessment Commission (PAC). With regards to the review, the plan will be updated following project approval and prior to construction of the Project. This review will account for the detailed design of the wind farm (to the extent possible at the time) and will incorporate the features identified throughout the Department of Primary Industries submissions, as requested or required. The review features and objectives of Chapter 7 of the EIS, Annex O, Preliminary Decommissioning and Rehabilitation Plan will be achieved for this purpose. This revision will account for further clarity and detail regarding the timing of the funds initial estimated value, timing of the funds establishment, the nature of the fund and the responsibility of the fund, to the extent possible at the time. Although these features are mentioned in Section 7.1 of the EIS plan, additional detail will be provided and evaluated further during all subsequent reviews of the plan.

Table C.11 – Public Submissions and Responses (Community Consultation)

Category	Submission Reference no.	Issue Raised	Response
Poor quality consultation / lack of consultation	182161, 181840, 187562, 182855, 183254, 177322, 178932, 179046, 180832, 182385, 182389, 183199, 183402, 183396, 183434, 183833, 184031, 179149, 182907, 187632, 183793, 182947, 182863, 182161, 183007, 179384, 182881, 183461, 191930, 177608, 182155, 179384, 179115, 187632, 187632, 187632, 191344, 183351, 183817, 180157, 187554, 191019, 182118, 183729, 183793, 182947, 179384, 183254	The (Draft) NSW Windfarm Guidelines identify the need to establish the CCC very early in the process. EPYC made no attempt to ensure the CCC was established until June 2014, over three years after they started undertaking activities in the area. The committee did not hold its first meeting until August 2015, three years after knowledge of the proposed wind farm was in the local community. Community members were not notified of the Community Consultative Committee (CCC). EPYC evade questions instead of responding to them, many raised issues were unaddressed, the CCC meeting minutes were not always updated on time. A full list of WTG locations was not released to the public, Photomontages provided to neighbours were of low quality. EPYC was not timely in providing responses. One of the significant "consultation methods" utilised by EPYC was bullying. EPYC was only cooperative in person. Community members perceived EPYC's consultation strategy to be one way. Some landowners felt excluded from the consultation process when they were not provided with the information regarding mitigation measures. Concern regarding EPYC's privacy policies. Consultation conducted is not in line with CEC Guidelines. EPYC questioning community consultation methods adopted by CCC, was considered offensive. Concern that not all landholders have been contacted including those within the 5km buffer. Consultation and mitigation were insufficient and inadequate and not genuine. Concern that residents who are not equipped with the ability to respond using technology are unable to voice their opinions. Concern regarding reluctance to engage in communications other than meeting in person or over the phone. Failure to undertake consultation as described within the PEA. Efforts to hold a meeting in the presence of EPYC were dismissed. CCC is not considered a successful part of EPYC's community consultation. EPYC did not respond to the department's direction to improve consultation. EPYC did not share sections of the EIS.	The project was made official after receiving its DGR in January 2014. Prior to this date the project is officially not recognised and hence, there are no requirements for a CCC to be formed. After the DGR was received consultations with the department was undertaken regarding CCC. Given that the guidelines were draft, there were a number of factors that was taken into considerations by the Department as well as the proponent. The CCC formation and selection process was undertaken under the guidance and direction of the Department. EOI for CCC were provided at the info day on 14 -June-2014 as requested by DPE. The CCC formation and selection process was undertaken by the Department. The proponent acknowledges that the CCC meetings were not always updated exactly 28 days after the meeting was held because the minutes were prepared by the independent chair and they needed to be provided to EPYC before they were able to upload them to the website for the public access. This would have been the case for the councils who also made the minutes available on their websites. Where it was not possible to have the minute's endorsed by the chair and the committee, a draft version of the minutes were made available online. Similarly, the draft version was also provided by the chair. For the purpose of clarity and to protect the community as a whole form misinformation from some community members, EPYC decided to provide the relevant information when it was believed to be in the final stages rather than through its iterative process which would have led to misinterpretations and confusion. Similarly, when appropriate, information was provided to the CCC, although EPYC is not aware if this information were shared with other community members. EPYC has completed a genuine and comprehensive consultation effort for this project. Consultation activities for each landowner have been documented and are available if required. EPYC has endeavoured to reach everyone within 3km even though originally the DGRs specified a 2km radius. In an effort to consult and hear all concerns and comments, EPYC attended to meetings requested by some residents who were living further than 2km, some as far as 10km away from the site. Numerous newsletters and advertisements have been hand delivered by EPYC to mailboxes in the area since 2014. All newsletters and adverts had the contact details of EPYC and everyone should have been able to contact EPYC if they wanted further consultation. There were a few land owners whom could not be reached as they are living off site and had no mail boxes, therefore where alternative correspondence addresses were not available, EPYC attached all correspondences including newsletters delivered to their front gate. Councils were contacted early on to obtain the relevant information for communications with these owners, but due to privacy issues, the councils were unable to assist. It should be noted that during the preparation of the EIS, Goulburn Mulwaree council assisted by forwarding the updated information to these residents that EPYC was unable to reach. The brief summary of all of consultations are listed in the EIS in the Jupiter Wind Farm landholder consultation log within Annex C (consultation material). Specific

		Concern regarding consultation in relation to decommissioning. Concern that Charlie Prell, someone who is generally in favour of wind turbines, was not satisfied by the consultation undertaken. EPYC is not perceived to have earned a "Social Licence to Operate".	details and notes from these meeting are also available if required. With respect to the Tarago residents, they have been kept informed via mail drop offs for newsletters and information days. This is also outlined in the CCC minutes from Meetings 3 and 4, where one of the two councils sent letters on our behalf. The objectives of the PEA have been met since the community have been regularly informed through newsletters, information days, and one-on-one consultations where appropriate. EPYC provided project related information to the community when this information was assessed and considered at a stage ready for public release. Where no letter box and contact number was available, correspondences were attached to the gate which also contained contact details of the project team for the resident's ease of reference. Through the submissions, some of the contact details of those who had previously been unavailable were identified and EPYC will use details to contact the landholders for further consultation in the process. In some instances, when contact with the landowner could not be made, USBs were left with neighbours to be passed on to relevant neighbouring landowners. EPYC has been willing to meet with concerned landowners for attending pre-arranged meetings. Consultation effort on part of EPYC has been extensive and genuine and attended many meetings after hours to accommodate the residents who work in nearby towns or Canberra. Some meetings started at 7 pm and 8 pm in the evening at the request of the residents. Communities concerns raised during the formal consultation process in October 2014 are listed in Section 7.3 of the EIS (Table 7.6). These were addressed in their relevant chapters and Annex where applicable. Concerns addressed include fire, property values and noise. Other concerns such as mobile coverage are raised in CCC meetings and form part of a community enhancement fund and not part of the EIS. The full list of WTG coordinates was made public during the October 2015 CCC meeting. It was released as the WTG list was considered final. It was important to provide the latest information to the community and not every iterative work that is normally part of the process. This was important to avoid confusion and unnecessary concerns. Following release of the first turbine layout consultation was undertaken to get feedback from the community. It is impossible and unrealistic to assess and categorize impacts (real or perceived) and consult on this with the community if the turbine layout is not yet released. After the first EIS, DPE requested from EPYC to assess the feasibility of mitigation for those with significant visual impact. Although this is normally carried out following the receipt of DA, EPYC undertook this activity as per instructions from DPE. The vegetation screening was used as an example to demonstrate the feasibility of mitigation. It should be noted that as part of the consultation regarding the neighbouring benefit sharing, EPYC made available an offer for those dwellings identified to have high or moderate high visual assessment as a one-off payment of $5000. The PPR clearly shows that the revised layout has reduced the overall impacts of the project and proximity to dwellings. It is important to clarify that the Department did not advise EPYC to improve

			consultation. The Department had concern for those who have not been sufficiently consulted with potential significant visual impacts. As explained above, this consultation is normally undertaken with the residents once the information is public (EIS) and the landowner has had an opportunity to review the EIS prior to discussing any concerns with the proponent. With respect to Charlie Prell's submission, it should be noted that Mr Prell is not fully across all the consultations undertaken with the community and therefore not in a position to make that judgement. The voluntary benefit sharing program was offered even to landholders who did not yet have a house built on their property or a DA. With respect to the Benefit Sharing contracts, these were not emailed (Prior to public release of EIS) and were not posted to the residents. There were some misleading information circulating in the area and EPYC felt it was important to provide the contracts after meeting the interested residents face to face and having a genuine discussion about the project, processes and the agreement. During a conversation with the Wind farm commissioner, he also agreed with this approach. Those who did meet with EPYC and had genuine discussions received the draft contract. Following the release of EIS the landowners received requested information via email and were never excluded from any conversations with the community.
Community alienation/divide/ social isolation	179384, 182907, 182875, 191344, 182945, 182947, 182741, 182141, 183477, 181840, 183007, 176208, 176537, 180431, 181573, 181717, 182127, 182380, 182671, 182951, 183231, 183396, 188030, 181840	Concern that only landholders within 2 km of a proposed turbine in accordance with the NSW Draft Planning Guidelines for Wind Farms were consulted, dismissing the impacted community living further away. The development is causing a community divide between hosts and non-hosts landowners. Winners and losers are perceived to be formed with the host landowners and the wind farm proponents being the winners and the landowners affected by the wind farms while not being compensated being the losers. The rejection letter regarding the initial EIS was not shared with the community until after a great deal of effort was put in to retrieve it. A copy of the benefit sharing contract was not shared and concern regarding the condition which does not allow the signer to complain about the wind farm in the future. Proposing a wind farm is not in accordance with "Sydney-Canberra Regional Strategy 2006-2031", which aims to minimise the spread of rural residential development because a wind farm will divide the community resulting in social isolation for members of the community.	Community consultation is a very important to EPYC. To be open and up front with the community, in 2012 EPYC posted 184 information packs and introductory letters to the surrounding community advising that their interest in investigation the potential for a wind farm in this area. Through this initial correspondence further contacts were made locally and through word of mouth more residents contacted EPYC. Some were interested to participate in the project, some had questions and concerns, and a small number of residents indicated that they are not interested form the get go. Due to the positive feedback received initially, a number of wind monitoring masts were installed in late 2012 and early 2013 and investigation of the site officially begun after receiving the DGR from the government. Info day advertisements in newspaper and newsletter invites were sent out to properties within 5km. Formal one-on-one consultation targeted everyone within 3km regardless of the requirement being to consult landowners within 2km. EPYC always delivered the same message/information to all residents for accuracy and consistency purposes. Since 2012 EPYC has continued to consult and communicate with the neighbours, to provide them with the relevant information and address their concerns and queries. Following feedback received from the community the benefit sharing for the neighbours was established in order to avoid Winners and Losers as some referred to it. The generous benefit sharing plan will be for the life of the project where agreements are reached with the neighbouring owners. The agreement for NBSP was not provided to anyone before genuine discussions with them. The NBSP was updated after the EIS exhibition to include residents with dwellings or a DA for a dwelling within 3km. This is a clear demonstration that EPYC aims to include more people from the community in the benefit sharing program to ensure that they also share the benefit form this State Significant Development in form of a monetary benefit for the life of the project as would the hosts. The strategy highlights social isolation as a risk when there is unplanned rural residential development and the breakup of agricultural land. Putting in place strategies, including State Environmental Planning Policy (Rural Lands) 2008,

			which recognise the value of rural landscapes, agricultural lands and protecting the land resources for primary industries is critical to the economic future of the Region. "Sydney-Canberra Regional Strategy 2006-2031". This is due to unplanned rural residential development not SSD development such as mining or wind farms. The area is zoned for rural not rural residential development. The nearest rural residential development is located near the railway line in Mount fairy. This would have limited to negligible views of the proposal.
Southern Precinct	191930, 183867,	Failure to discuss impacts and provide adequate risk mitigation solutions from living so close to the development, in particular in close proximity to the Southern Precinct.	The revised Project layout includes the removal of the entire Southern Precinct from the Project, suggesting that any associated impacts will be removed.
Failure to negotiate	182161	EPYC mitigation measures are not open for discussion and there is no room for negotiation	The landowner was offered $5,500 per annum. The landowners counter offer/request was in excess of $18,000 p.a. EPYC advised the landowner that the pool of funding for the NBSP was to include all neighbours with a dwelling or DA for a dwelling within 2km (as per EIS). Hence, their request was not in line with the overall NBSP for the community as a whole.
Failure to provide information	182161, 181838, 182853, 183823, 182161, 187562, 187632, 183351, 180157, 187554, 182965, 183361, 191019, 182118, 187562, 183831, 181116	The Landowners were not properly notified by EPYC of the advertising period. Landowners were always the ones to initiate consultation. Information pack was not received, EPYC was not transparent and efficient in their responses especially to community representatives. Lawyers were engaged to communicate with the landowner. Failure to provide a copy of their 'benefit sharing' agreement. Not all the information was readily available during consultation. EPYC was not readily providing information requested by CCC. Project Website not regularly updated. Doubt in the full disclosure of data used in the EIS. Not mentioning The Neighbour Benefit Sharing Programme (NBSP) in the EIS. The Neighbour Benefit Sharing Programme (NBSP) is a voluntary offer from EPYC. There are no requirement to include any details of negotiations in the EIS.	Landowners adjacent to the project area would have received formal notification by the department of Planning as the EIS exhibition is a process managed by DPE. The EIS was on exhibition for 3 months. An extensive and comprehensive consultation has been undertaken by EPYC to date. Of course where residents had some concerns or required further clarifications on any aspect of the process, they were able to contact EPYC. EPYC acknowledge some initial info packs (2012) were returned as they did not reach their destination. There has been significant effort made since 2012 for consultations with the residents in the vicinity of the proposed project and beyond where required. Lawyers were engaged to communicate with one (1) landowner after false allegations were made against the proponent and shared with others in the community. For the purpose of clarity and to protect the community as a whole form misinformation from some community members, EPYC decided to provide the relevant information when it was believed to be in the final stages rather than through its iterative process which would have led to misinterpretations and confusion. Similarly, when appropriate, information was provided to the CCC, although EPYC is not aware if this information were shared with other community members. The website was updated with the CCC minutes and for any important milestone. During the development process and prior to the EIS there are not many details that could be shared publically. Information sessions, newsletters, CCC minutes, important dates for consultations, these were updated as required throughout the process to date. The neighbouring benefit sharing was explained in the EIS and it is an initiative from EPYC in response to addressing community feedback received during the extensive consultations effort undertaken in the area.
false information	182161, 179384	Concern regarding consultation with dwellings within 2kms of WTGs before WTG locations were made available. Ambiguity on consultants engaged until the release of the EIS.	Please refer to the Communication and consultation log for dwellings within 3km. EPYC met with anyone who requested a meeting. Following release of the first WTG layout in September 2014 a formal one-on-one consultation was undertaken with the community. Landowners did meet with EPYC and there was no formal layout prior to this date. List of consultants was provided to the CCC in October 2015, unfortunately EPYC has no evidence that the CCC members actually shared this information with the rest of the community as a whole.

Impacts	183793, 181298, 187554, 183831, 182831, 182274, 176593, 176615, 176630, 179582, 186138	Request for an explanation on the impacts that JWF will have on its residents. Concern regarding the impacts of the development on a residential area. Concern regarding potential interference matters not being addressed by EPYC. Concern that the impact on over 250 dwellings would be within 5 kms of the wind farm have not been addressed including the impacts on the residents of Tarago. Development perceived to be a dangerous distraction along Kings Highway especially due to potential shadow flicker on kings highway. Local community's views on landscape and visual impacts were not considered. The development is in close proximity to communities. Concerns of the property owners regarding visual amenity have been ignored during meetings and therefore the accuracy of Annex F of the EIS is questioned.	Please refer to the JWF EIS for an explanation of potential impacts to landowners. Community engagement for their views on landscape values is step 1 b in a four step process. (NAF) Following release of the turbine layout in September 2014 EPYC took extensive consultation with any one whom wanted to meet with us and also discussed visual concerns with non-associated neighbours. EPYC endeavoured to reach everyone within 3km. Through distribution of newsletters and information sessions invitations, all EPYC contact details were made available to the community for any further queries. EPYC has accommodated specific concerns raised by some community members during genuine discussions about turbine placements and where feasible and technically possible, the project was amended accordingly. Generally speaking, landscape values in the area are typical of the Southern Tablelands. The consultant must assume residents highly value their landscape and conduct an assessment accordingly. Regardless of their view. The visual assessment assumed worst case scenario and is a conservative assessment. An Environmental impact assessment was conducted for the proposed project and the local dwellings in the vicinity of the project. Some dwellings will experience a visual impact. In part, this is subjective and in most cases the impact is manageable. All other environmental impacts on non-host dwellings are well within the guidelines. The number of receivers is not a determining factor of a SSD development. In addition, the number of dwellings within 5km of a proposal is irrelevant. The number of dwellings that would be impacted by a proposal where no form of mitigation is possible is more relevant. EPYC has undertaken a number of discussions with various stakeholders in order to determine potential measures for improving the mobile reception in the area as it has been established that it is currently very poor. The preliminary consultations have identified a number of options which will need to be further investigated as the project progresses. There are no shadow flicker impacts on Kings Highway. The nearest WTG to Kings Highway is approximately 5km away. The site selection process is clearly outlined in Chapter 5.3 and the site is located within P4 of the NSW Government Renewable Energy Precinct as shown in Figure 2.2. Please note that the area is classified as rural and not rural residential.

Table C.12 – Public Submissions and Responses (Biodiversity)

Category	Submission Reference no.	Issue Raised	Response
Impacts to birds and bats	182161, 182521, 191930, 181138, 183398, 182863, 182927, 182141, 183477, 183418,	Concerns relating to potential impacts to birds and bats as a result of the proposed development. Including inadequate regard for temperature impacts on migratory bird species.	Refer to response to submission reference no. 1OEH23 (Government submissions spreadsheet) for additional information relating to the Eastern Bentwing Bat and potential impacts as a result of the proposed development. In addition, a Bird and Bat Adaptive Management Plan (BBAMP) will be prepared in consultation with OEH, which will include 12 months pre-construction surveys for birds and bats. Refer to response to submission reference no. 1OEH24 (Government submissions spreadsheet) for treatment of survey effort during extreme weather events.
Clearing of potential habitat	182149, 182155, 182671, 182893, 187562, 182615, 182817, 182849, 182887, 182891, 182923, 183199, 183420	Concern for biodiversity destruction and impacts to flora and fauna required for the installation of the wind turbines, in an area that has had its fair share of biodiversity destruction.	Turbine micro-siting and detailed fauna assessments (Refer to Annex D of the EIS) have been undertaken to ensure that the removal of vegetation does not significantly impact habitat utilisation by fauna. Additionally, with the removal of 34 WTGs from the overall project, it is expected that impacts to biodiversity are greatly decreased to a manageable level.
Frogs	PDAW_160804_002	Impacts to areas of potential frog habitat as a result of the proposed development.	A reduction in the PA as a result of the updated project design, including the removal of 34 WTG's (notably the closest WTG's from the landowners property, including T16, T2, T23, T33, T42, T77 and T79) is expected to reduce impacts to biodiversity (including potential frog habitat).
Impacts to Diamond Firetail & Scarlet Robin	182863	Impacts to threatened species (in particular, Diamond Firetail & Scarlet Robin) as a result of the proposed development.	Both species are unlikely to be affected by clearing of small areas of vegetation proposed for the Project, and are considered to be at low risk of WTG collision, as they generally fly below RSA height. With regards to the Diamond Firetail, the species was recorded in open habitats and the amount of vegetation clearance is likely to be negligible for this species. The risk of mortality due to vehicle strike will be managed through introducing speed limits for Project vehicles in and around the PA. Therefore, the Project is unlikely to have a significant impact on the species. In addition the Southern Precinct is no longer part of the project.
Glossy Black Cockatoo	176640, 176965, 177584, 179149, 180866, 181134, 182877, 182957, 183096, 183231, 183311, 183331, 179588, 180157, 180310, 181840, 182118, 182161, 182817, 182927, 182945, 182947, 182955, 183337, 183807, 179092, 182963, 183371, 183280, 187562	Concerns for Glossy black cockatoo habitat loss and blade strike.	There is very limited clearing within GBC habitat. Never the less following project construction is completed the areas will be surveyed and any impacted areas will be offset according to BBAM. See response to submissions reference no. 1OEH15 (Government submissions spreadsheet) for measures to mitigate impacts to GBC.
Impacts to other birds of interest	176640, 177584, 178997, 179050, 179584, 179657, 180866, 180902, 182157, 182173, 182177, 182305, 182385, 182399, 182997, 183311, 183331, 183392, 182161	Concerns for birds of prey such as Wedgetail eagle, Falcons, Harriers, Hawks, Kites and owls have been observed in the area. Concerns for blade strike and habitat loss.	Please refer to attachment 2 (Amended seven part tests - Government submissions spreadsheet) for raptor assessment of significance (or seven-part test) and the reduction in anticipated impacts as a result of the updated project design. Additionally, a Bird and Bat Adaptive Management Plan (BBAMP) will be prepared in consultation with OEH, which will include a 12 months pre-construction surveys for birds and bats to assist in the management of species of interest during construction and operation of the proposed development.
Impacts to ecological areas	180431, 183839, 181136, 180127, 182927,	Concerns regarding impact on Scotts nature reserve, Kalbilli and other areas of ecological value within close proximity to the proposed Southern Precinct.	The Biodiversity Impact Assessment (Annex D of the JWF EIS) has considered the potential flora and fauna impacts (including the assessment of flight paths) of the Project in the context of the landscape features of the development footprint and surrounding area. In response to submissions EPYC has reduced the development footprint in many areas including reducing the density of WTGs in that area. After construction a final survey is done for the development footprint. Any offset requirements will be calculated based on as built surveyed tracks and hardstand areas. Additionally, the updated project design includes the removal of the entire Southern Precinct (and removal of 34 WTG's), which is expected to substantially reduce anticipated impacts to biodiversity throughout the PA.
Impacts to farm animals	182947, 182274	Concerns for animals kept on properties that may be impacted by noise and other aspect of the wind farm.	With the removal of 34 WTG's and as part of the updated project design (and the removal of the entire Southern Precinct), it is expected that any impacts to domesticated/farm animals will be substantially reduced. Additionally with regards to the updated wind farm noise impact assessment, noise limits are compliant at all non-associated landowners within 3kms, suggesting that audible noise experienced on propertied within this distance will be minimal, and will comply with the stringent Draft Wind Farm Noise Guidelines.
Inadequate Assessment	191930, 183807	Inadequate assessment of native endangered flora and fauna throughout the PA and surrounding areas.	Refer to JWF EIS for assessment and consideration of threatened species and related biodiversity impacts associated with the project. Additionally the Southern Precinct has been removed as part of the updated project design and anticipated impacts are expected to be mitigated.

Category	Submission Reference no.	Issue Raised	Response
Inadequate assessment (literature review)	182161	Failure to consider all nearby wind farms (and other developments) during cumulative impact assessment. Failure to identify (and assess) threatened frog species throughout EIS literature review.	The EA (ERM 2016) used all data available by licence agreement with OEH via the NSW Wildlife Atlas (BioNET) for a search area of 10km around the (former) Project Area. Licenced users of BioNET lodge records of species sightings back into the database. Consideration of impacts associated with other regional wind farms has been considered as part of the cumulative impact assessment (refer to response to submission reference no. 1OEH30 - Government submissions spread sheet). The revised project layout avoids Boro Creek and as a result, is expected to avoid impacting species of frog within the PA and surrounding area.
Inadequate consideration of specific flora species	182927	Inaccurate estimation of specific flora species distribution throughout the vicinity of the PA.	Vegetation has been mapped across the Project Area based on extensive site traverse and quantitative data collection, assigning vegetation types to the NSW OEH's database of Plant Community Types (PCTs). Patches of dense Casuarina/Allocasuarina may not have been mapped specifically as a discrete vegetation type, however, would have been noted as occurring as features of more broad or overarching PCTs and their presence has been discussed with regard to fauna species which may use them (such as the Glossy Black-cockatoo).
Incorrect information	182161, 181138, 182863	Incorrect or inaccurate information provided throughout sections of the EIS document with regards to the Eastern Bentwing-bat and specific survey efforts.	For additional information regarding the Eastern Bentwing-bat, please refer to the response to 1OEH23 (Government submissions spreadsheet) submission. Additionally, eight songmeters were deployed at ground level during March 2015. Units were deployed to detect any possible migration of Eastern Bentwing-bats. The timing of deployment was specifically directed by OEH. Other Songmeter data were available from wind mast mounted units for approximately a year (ceasing on 26/3/15) and therefore all three were in place for 12.5 months. The date written as ceasing at 26/5/17 is a typographical error, so too is the inconsistency in representing the months of deployment. The three periods shown in Table 4.3 were weeks in which data were downloaded, however the units remained in place, recording bat calls during the intervening periods. Comparisons of detected call numbers relative to other wind farms contain too many variables to allow meaningful comparisons. The data collected (consistent with agreed effort with OEH) indicates that no large migratory pulse passes through the project area, and that more Eastern Bentwing-bats were recorded at ground level than on the mast-mounted units (at 50m above ground level). The response claims the most direct migration route is along the watercourse (although unreferenced). The project layout avoids Boro Creek. Should the species migrate along the creek then they will be well separated from any wind turbines. Refer to Section 4.2 of the EA (ERM 2016). Extensive liaison was undertaken with OEH regarding survey effort and completed survey effort was consistent with recommendations from OEH.
Methodology	182161, 180127, 180157	Inadequate flora and fauna survey methodology.	Refer to JWF EIS Section 4 for methodology and relevant background searches to ensure all potential threatened species were considered as part of the EIS. Closest WTG to the property boundary (182161) is over 1.3km away. It should be noted that this boundary is heavily vegetated which would screen any view to WTGs.
Noxious weeds	182161	Disregard for introduced flora in the vicinity of the PA (in particular, noxious weeds).	Weed management including control of any introduced weed species to be included as part of the CEMP.
Wildlife corridor	183351, 183709, 183793, 182863, 183817, 183829, 183831	Potential impacts to local native threatened and non-threatened flora and fauna, in particular impacts to wildlife corridors and the ability of corridors to be utilized by fauna. Impacts to wildlife corridors within close proximity to the proposed Southern Precinct.	EPYC have committed to reducing the number of WTGs from 87 to 54 and relocating a number of others. With the removal of 34 WTGs and the relocation of 14 WTGs from the proposed project design, it expected that the overall impacts to biodiversity (in particular, habitat loss/degradation) will be greatly reduced. Refer to response to submission reference no. 1OEH2 (Government submissions spreadsheet) regarding footprint reductions since the public exhibition. Turbine micro-siting and detailed fauna assessments (Refer to Annex D of the EIS) have been undertaken to ensure that the removal of vegetation does not significantly impact habitat utilisation by fauna. Additionally, with the removal of 34 WTGs from the overall project, it is expected that impacts to biodiversity are greatly reduced. The updated project design includes the removal of the entire Southern Precinct (and removal of 34 WTG's), which is expected to substantially reduce anticipated impacts to biodiversity throughout the PA (in particular, the reduction in the potential utilization of wildlife corridors by fauna).

Table C.13 – Public Submissions and Responses (Soil and Water)

Category	Submission Reference no.	Issue Raised	Response
Aquifer interruption	182405, 182817	Interference with underground aquifers and dispensable clay as a result of inadequate turbine siting, resulting in potential impacts to Spring Creek (and other nearby waterways).	The Southern Precinct has been removed as part of the updated project design and as such, impacts to areas within the proximity of the Southern Precinct (including Spring Creek) are expected to be mitigated. Additionally, management measures identified to reduce the risk of erosion within the PA are identified throughout the Soil and Water assessment prepared as part of the JWF EIS.
Soil & Water	182121, 182123	Impacts to soil and groundwater during construction of the proposed development and the potential to disrupt local water supply.	Groundwater issues are considered negligible given the positioning of the turbines at higher elevations. The ratio of area occupied by turbine and that that remains undisturbed is not considered to have a significant effect on the recharging of groundwater systems.
Hydrometeorology	191035	Potential impacts to local hydrometeorology as a result of large scale wind farm developments.	Hydrometeorology was not required to be assessed under the Secretary's Environmental Assessment Requirements (SEARs) issued by the NSW Department of Planning and Environment.
Soil Erosion	178997, 182173, 182305, 182817, 182869, 183211, 183709, 182521, 182161, 179092	Concern for soil erosion. Sediment from Access track preparation, concrete batching plants will flow into the creeks.	Erosion and sediment control measures are provided in the Soil and Water Assessment prepared as part of the JWF EIS. Additionally, A Construction Soil and Water Management Plan will be developed prior to construction and following approval of the EIS, as is standard practice for this type of development. The management measures outlined in the assessment report will be included in the assessment. The CSWMP will outline monitoring requirements.
Soil Quality	187562	Inadequate description of local soil characteristics and conditions within the PA and surrounding areas.	Soil quality characteristics as relevant to soil and water assessment provided in the soil and water assessment report. A large number of turbines and associated access track has been removed from the proposal so the disturbance footprint has been reduced. For additional information, please refer to Special interest group response with respect to Wayne cook attachment.
Increased Turbidity	PDAW_160804_002	Impacts to local dams due to increased turbidity as a result of the development.	The removal of nearby WTG's as a result of the updated project design will result in a substantial reduction in anticipated hydrological impacts to dams and other waterways.
Wayne Cook	2WCEC1, 2WCEC2, 2WCEC3, 2WCEC4, 2WCEC5, 2WCEC6 2WCEC7, 2WCEC8, 2WCEC9, 2WCEC10, 2WCEC11,WCEC12 2WCEC13, 2WCEC14, 2WCEC15, 2WCEC16, 2WCEC17, 2WCEC18, 2WCEC19, 2WCEC20, 2WCEC21, 2WCEC22, 2WCEC23, 2WCEC24, 2WCEC25, 2WCEC26, 2WCEC27, 2WCEC28, 2WCEC29, 2WCEC30, 2WCEC31, 2WCEC32, 2WCEC33, 2WCEC34, 2WCEC35	Concerns regarding: • soil and water impacts sections of the statement; • erosion hazard of soils in the project area; • Soil landscapes within PA and surrounding area; • Mitigation measures; • Revised Universal Soil Loss Equation; • SEAR's; and • Impacts to Groundwater	The erosion hazard identified for specific areas of the PA is described below: Lower Boro - erodibility for non-concentrated and concentrated flow is moderate to high (highest K-factor is 0.037). Sight Hill - erodibility for non-concentrated and concentrated flows is ranges from moderate to high (highest K-factor is 0.057) Duckfield Hut - erodibility for non-concentrated flows and concentrated flows is high to very high (highest K-factor is 0.056). Morass - erodibility for non-concentrated flows and concentrated flows is moderate through to very high with varying K-factors (highest K-factor is 0.046). ERM utilised a conservative K-factor across the site of 0.05 in calculation of erosion hazard for pad sites using the Revised Universal Soil Loss Equation (RUSLE). The RUSLE utilises the soil erodibility (K factor) along with other factors affecting the erosion hazard including topography (Slope Length/gradient factor - LS factor), rainfall erosivity (R-factor) and Land use (Cover - C factor and Erosion Control Practice Factor - P-factor). The results of RUSLE are then compared to Table 4.2 – (Soil Loss Classes) of the 'Blue Book' (Landcom, 2004) to provide an erosion hazard against the RUSLE calculated soil loss (tonnes/ha/year). Landcom (2004) outlines limitations of RUSLE, but ultimately concludes - 'despite these matters [limitations of RUSLE], the RUSLE has its benefits and should be applied at all urban development sites, even at a cursory level' and it is the expected approach on all such assessment reports. According to this calculation the highest erosion hazard was low to moderate. With the implementation of erosion and sediment controls and limited time of disturbance due to construction, the erosion hazard for pad sites was considered low. ERM notes that existing erosion control works are present on the site and avoidance to these structures should be avoided where possible. Mitigation measures for construction (both for turbine pads and watercourse crossings) have been provided. The reduction in proposed turbine numbers and thus reduction in associated tracks and cable trenches will further reduce limited impacts posed by the project. From the eight potential turbines identified in Figure 7 of Wayne Cooks report that drain to the Nash family property the following have been removed from the proposal, T77, T42, T21, T25 and

			T23. Turbines T49, T5 and T1 remain within the catchment draining to the Nash property, and will be managed in accordance with the mitigation measures proposed in the assessment report. As stated by Wayne Cook above and Landcom (2004) the RUSLE is limited in that 'it does not adequately take into account soil dispersibility in the assessment of K-factor'. This also does not include assessment of sodicity. As stated by Landcom (2004) 'despite these matters [limitations of RUSLE], the RUSLE has its benefits and should be applied at all urban development sites, even at a cursory level' . Landcom (2004) further states 'Arguably, the K-factor is the least accurate component of the RUSLE. It has special weaknesses on soils that are strongly stabilised by iron and on those that are highly dispersible.[4] The problem of strongly stabilised soils can be addressed by ensuring that a chemical dispersion agent (e.g. Calgon) is not used before particle size analysis, i.e. dispersion is achieved only through mechanical means. However, there is very little data to show the effect of soil dispersion on the K-factor. Nevertheless, it is suggested that the K-factor be increased by 20 percent for all Emerson Aggregate Class 1 and 2 soils. No further advice can be given at this time.' RUSLE was used as it is the best approach currently available. Table 4.2 provides a comparison of calculated soil loss and the corresponding erosion hazard. The effects of the project on groundwater recharge is negligible given the limited footprint of the disturbed area within the Project Area. as stated in report, the construction of pads in higher elevations will avoid interactions with groundwater aquifers. The assessment report states that groundwater extraction and pumping from rivers have not been assessed as potential water supply for the project.

Table C.14 – Public Submissions and Responses (Specific)

Category	Submission Reference no.	Issues Raised	Response
Alternative Energy	180157, 182161, 182973, 183365, 182118, 181840, 182536, 191027, 182947, 183280	Inadequate consideration of alternative sources of energy which may be better suited to the proposed area. Inadequate justification of site suitability regarding wind resource.	The site selection process and project alternatives are outlined in Section 5 of the Jupiter Wind Farm EIS. The area selected is within the NSW Government Renewable Energy Precinct (P4) and has an active 330kv Transmission line for connection. In addition please also refer to http://nationalmap.gov.au/renewables/ and add the NSW wind data at 100m and 150m averages. You can then zoom into the project area and view the wind resource The site has been identified to contain a suitable wind resource and large landholdings interested in hosting WTGs. Furthermore, wind turbines can coexist easily with current farming practices throughout the land, which will create a much smaller footprint on the land. EPYC has advised that other forms of wind capture are not suitable for commercial purposes. They do not provide the same amount of energy generation as the current proposal.
Benefit Sharing	191774, 183086, 183733,	Lack of information regarding EPYC's "voluntary benefit sharing scheme".	The voluntary Neighbour Benefit Sharing Program (NBSP) will comprise agreements made with neighbours that will enable the non-involved landholder to benefit financially from the Project throughout its operational life. EPYC have extended the benefit sharing program to include all landowners with a dwelling or a DA for a dwelling within 3kms of the project.
Community Engagement	184031, 181500, 183793, 181502	Concerns regarding the comprehensiveness of the proponent's information being provided to the community, and the lack of information provided regarding the Community Enhancement Fund.	Jupiter has committed to a Community Enhancement Fund that will assist the community by providing funding for local projects, as well as providing assistance to areas of the local community (including Tarago Men's Shed and Tarago School). Additionally, all information provided by the proponent EPYC regarding project area and project description on the project website is accurate.
Consultation	181838, 183007, 182863, 181838	Concerns regarding lack of negotiation and effectively consultation undertaken by the proponent with members of the community.	The proponent has undertaken consultation in regards to the requirement stated throughout the SEAR's. Please refer to Chapter 4 of this report for additional information regarding methods of consultation before, during and prior to EIS exhibition. The proponent has adequately negotiated (where feasible) mitigation measures with landowners experiencing impacts as a result of the project, and has offered to provide landowners with the resources necessary to undertake their own mitigation measures.
Energy	181524, 181677, 182969, 183363, 182161, 183733, 183434, 191774, 183817, 182955, 183007, 183005	Concerns that wind farms produce intermittent power. Concerns regarding impacts to energy security and increase to electricity prices as a result of the proposed development. Concerns relating to efficiency of the wind farm in terms of generation capacity.	The Australian Wind Energy Forecasting System (AWEFS) was established in response to the growth in intermittent generation in the NEM, and the increasing impact this growth was having on NEM forecasting processes. The system aims to provide better forecasts that will drive improved efficiency of overall NEM dispatch and pricing, and permit better network stability and security management. The implementation project had two broad objectives: Facilitating the operation of the market through more accurate wind generation forecasts. Facilitating research to improve the quality and dimension of the forecast over time to accommodate other renewable types such as solar. (Sourced from AEMO Website https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/Solar-and-wind-energy-forecasting). AEMO manages the National Electricity Market (NEM) and is responsible for national electricity transmission planning and security of the national electricity grid. Grid stability is assessed through a separate process with the Network Service Provider and the AEMO. The fundamental principle in every assessment performed by the AEMO is to demonstrate that the new generator will not have a detrimental impact on power system security and quality of supply to other network users. AEMO coordinates supply from all sources into the grid and is able to plan ahead for wind generation and solar generation into the grid in conjunction with other generators. Renewable developments, including wind farms, do not drive up electricity prices. Electricity prices are influenced by a number of factors. Retail electricity prices have increased due to significant increases in wholesale market prices. Wind and Solar generation are the cheapest sources of electricity. Adding these resources to the system will reduce the electricity prices. The capacity of any project is based on their resource and other technical factors. One such factor is the turbine type and suitability of the turbine for the site. Turbine technology improves rapidly; therefore it is not a like comparison between different projects when one was commissioned quite a few years ago.

Category	Submission Reference no.	Issues Raised	Response
DPE	181510, 187562, 183793, 183817, 182983, 183381, 183078, 182955	The community have expressed concerns regarding the decisions of the Department (and other approving authorities) in determining the development as SSD, are concerned as to how the project made it to this stage of the application, and will continue to object the project until such time as the DPE has provided evidence that the project will not have significantly impacts on the community and the environment.	With regards to the current stage of the application, the impact assessment for the Project has been undertaken in accordance with the requirements of the State Significant Development assessment pathway. The next phase of the process is to issue the RtS and Preferred Project Report to Department of Planning and Environment to make an assessment on whether the project should proceed. With regards to anticipated impacts We note that the revised wind farm layout/design incorporates a reduction in the total number of Wind Turbine Generators (WTG) from 88 to 54 (34 WTG have been removed), including the complete removal of the Southern Precinct as was previously identified in the EIS layout. The revised layout/design changes occurred primarily to minimise potential visual, noise, ecology and heritage impacts but are also expected to substantially reduce the anticipated impacts across all environmental factors. The National Health and Medical Research Council (NHMRC) Statement: Evidence on Wind Farms and Human Health was released on Wednesday, 11 February 2015. The Statement was prepared on the advice of the Council of NHMRC with consideration of the comprehensive assessment of the evidence on wind farms and human health. It provides advice to the community and to policy makers on this issue. After careful consideration and deliberation, NHMRC concluded that there is currently no consistent evidence that wind farms cause adverse health effects in humans. Given the limitations of the existing evidence and continuing concerns expressed by some members of the community, NHMRC considers that further high quality research on the possible health effects of wind farms is required. However, it is beyond the scope of the Environmental Impact Statement to research, examine, evaluate or determine health effects associated with wind farms, if any. With regards to noise (a common factor perceived to be associated with health impacts) the NHMRC Statement: Evidence on Wind Farms and Human Health concluded two key features: 1) that “there is no direct evidence that exposure to wind farm noise affects physical or mental health”; and 2) more specifically, they stated that, “while exposure to environmental noise is associated with health effects, these effects occur at much higher levels of noise than are likely to be perceived by people living in close proximity to wind farms in Australia”.
Dwellings	181298, 183351	Misidentification of dwellings as ‘sheds’ subjecting them to different assessment and the dwellings missed during the assessment process.	A review of dwelling locations and status was conducted by the proponent for the RtS and PPR report. The structures are confirmed to be sheds, and are not dwellings, and are not subject to the same assessment as residential/habitable properties. A comprehensive list of dwellings was supplied by the proponent to ERM for use in the JWF EIS. The list was thoroughly checked by ERM data management consultants before use to ensure that all potentially affected dwellings were identified and consulted accordingly.
EIS	182161, 182536,	Inadequate consideration of alternative approaches and minor errors identified throughout the EIS document.	The EIS has adequately considered alternative options, including the ‘Do Nothing’ approach. Please refer to Project Benefits in the Executive Summary E.4 of the EIS Main Report for justification.
Financial	183086, 183729, 181717, 183337	Concerns regarding ownership of the company, funding and future liability. Concerns regarding investment in JWF (in particular, issues relating to foreign investment). Concerns regarding subsidising and other ‘hidden costs’ associated with the project.	Wind farm developments are investment intensive until the projects are approved and operational. This is a common process for larger scale developments such as wind farms. It enables shareholders and investors to invest in the Jupiter Wind Farm and not in EPYC. JWFPL is a 100% subsidiary of EPYC and an Australian registered company with Australian employees. Overseas shareholders investing money in Australia. The Department of Industry (NSW Trade and Investment) make it a priority to attract investment in Australia. The Project will assist in the creation of local jobs, local and regional businesses benefit, along with state benefits. Additionally Wind farms to do not rely on or receive government contributions, suggesting that taxpayers will not be funding the project.
GHG	182118	Inadequate regard for GHG emissions created during the operational phase of the proposed project.	During the production of electricity the actual project (Wind turbines) will create 100% renewable energy with 0 emissions. This is occurs when the wind is blowing. Fossil fuel power plants need to burn coal to make steam to generate electricity. The vehicles used for human transportation are not considered in GHG of electricity generation.

Category	Submission Reference no.	Issues Raised	Response
Impacts	191019, 183392, 183351, 182483, 182947, 182278, 181298, 183793, 183529, 181140, 181502, 183793, 181840	Concerns regarding anticipated environmental impacts (in particular, noise and sleep disturbance) to local landowners as a result of the construction and operation of the proposed development, and that the EIS has not adequately addressed stated impacts. Concerns regarding the assessment and management of impacts post-approval. Concerns regarding cumulative impacts as a result of the project in conjunction with nearby wind farm developments. Future impacts post-approval of the project and other anticipated Jupiter projects.	The EIS and associated technical studies were conducted and prepared for the Jupiter Wind Farm Project to achieve the requirements of the SEARs, March 2016 (SSD 13_6277), with regard to accepted methods, as per relevant agency/regulatory guidance and with due regard to applicable standards. We note that the PPR wind farm layout/design incorporates a reduction in the total number of Wind Turbine Generators (WTG) from 88 to 54 (34 WTG have been removed), including the complete removal of the Southern Precinct as was previously identified in the EIS layout. These PPR layout/design changes occurred primarily to minimise potential visual, noise, ecology and heritage impacts but are also expected to substantially reduce the anticipated impacts across all environmental factors. All the relevant noise assessment information including the substation noise is provided in the relevant chapters of the EIS. The substation will be on a private property and all the necessary protocols will be determined as part of the detailed design and management plans following approval. This will include design of substation, building and drainage. These will be prepared in consultation with the relevant authorities and the local councils. It is important to note that the submitter is the owner of a vacant lot (Lot 9 DP 754867) which does not have a dwelling entitlement. EPYC had submitted several complaint noise scenarios for the proposed WTG layout in the EIS. The revised layout is fully compliant for noise and no mitigation scenario would be required. Following approval and during detailed design phase (once the WTG type has been chosen) an updated noise assessment is provided to DPE and EPA. Blade throw risk is assessed in Jupiter Wind Farm, Blade Throw Risk Report included as Annex M of the EIS. Fire risk is assessed in the Jupiter Wind Farm, Bushfire Risk and Hazard Assessment Report included as Annex N of the EIS. Conditions of consent will specify approval criteria for environmental concerns. The final project layout will require updated assessments to ensure compliance with the conditions of consent. Chapter 17 of the EIS discusses the potential cumulative impacts arising from the Project and outlines the required mitigation measures to manage any adverse cumulative impacts. Figure 17.1 of the EIS shows existing and proposed wind farms in the region and Table 17.1 itemises those in the region, which informed the assessment of cumulative impacts. It is acknowledged that some proponents have sought approval for bigger blades or bigger turbines. However in all cases a modification was submitted as part of the DA. Any modifications would require updated assessments to ensure they still comply with the conditions of consent. Jupiter 2 or 3 are not currently part of the development and certainly not enough land has been studied to suggest extensions to the project.
Inadequate Assessment	183793, 183426, 181281, 183254, 183793, 181298, 182947, 179026, 183280, 182933, 191039	Inadequate assessment of residential properties, and failure to follow Draft Guidelines. Inadequate assessment of proposed location; comments suggesting alternative locations and sources of energy which should be instead proposed. Inadequate consultation with council with respect to dwelling locations etc. Inadequate regard for the interest of the public.	The Jupiter Wind Farm EIS was conducted in accordance with the SEARs received from the Secretary of the Department of Planning on 2nd March 2016 (SSD 13_6277). To generate a similar capacity to the proposed wind farm, a solar farm would have a much greater footprint in the area. Given that the areas are mostly used for grazing, a solar farm would not be as suitable as a wind farm which could co-exist with normal faming activities with much less footprint. Another consideration is the average annual daily exposure of different areas that needs to be considered. As stated in Section 4.5.9 of the JWF EIS, both the former Palerang and Goulburn Mulwaree Council were consulted to determine the location of any approved but not constructed dwellings or subdivisions within and in close proximity to the PA. It is normal procedure to check council DAs to consider any new building approvals in the EIS. This has informed the reviewed dwellings listed prepared by EPYC for use in the RtS report. Any additional requirements are considered beyond the scope of the EIS. NSW Government and many countries have committed to 100% renewable energy by 2050. This should be done in a staged approach and renewable energy will continue to increase. It is considered in the interest of the public to reduce the overall impacts to the environment to ensure the reduction in GHG's which contribute to climate change impacts.
Project Area and Design	182663, 183807, 180962, 179068, 180962, 179068, 182278, 183793, 178749, 182947, 182161	Inaccurate definition and analysis of the proposed 'Project Area'. Concerns regarding the proposed Wind Farm design, layout and turbine spacing and selection. Queries regarding location and length of transmission line, and the presence of meteorological monitoring masts.	The term Project Area (PA) refers to the area in which EPYC has applied to develop the Project. The PA encompasses the parcels of land associated with the Development Footprint, as shown in Figure 1-2 of the JWF EIS. The development has been based of the requirements outlined throughout the NSW wind Energy Handbook. The NSW Wind Energy Handbook presents best practice procedures which was finalised in 2002 (15 years ago). Technology has advanced substantially since then. There are many factors that determine a final WTG layout. Turbine dimensions and terrain wind resource are all contributing factors. It is important to also note that the assessment considers the largest dimension turbines. If a smaller turbine blade is used turbine spacing changes. Turbine spacing was used as per manufacturer recommendations. Commercial flexibility and the ability to select a specific turbine during detailed design of the wind farm is an important feature to the Project, as it is with other projects developments. If a specific make and model is named in the EIS then a commitment to use that particular model may be inadvertently committed to. Hence an envelope of turbines is selected so that it keeps options

Category	Submission Reference no.	Issues Raised	Response
			open to select the most suitable turbine type for the site following project approval. In the JWF EIS the area for the transmission line is shown and all the relevant maps indicate the route. For clarity, the transmission line distance in the EIS is 15km. However the transmission distance required for the revised layout is approximately 6.5km. The connection between the turbines will be underground and adjacent to the access tracks. There are currently three meteorological monitoring masts located within the PA. These masts may be replaced with 3-4 permanent monitoring masts during Project construction as these will assist in verifying the performance of the WTGs during operation of the Project. The location of the monitoring mast required post construction will be determined by the turbine manufacturer and in reference to the turbine locations to assist in verifying the performance of the turbines during operation of the Project.
Southern Precinct	191019, 180157, 183793	Inadequate regard for the major Eastern Gas Distribution pipeline located within proximity to the Southern Precinct. Inaccurate interpretation of Tarago / Mulloon area within proximity to the Southern Precinct.	The EIS adequately covers the Mulloon Area. Additionally the Southern Precinct is no longer part of the project and all associated impacts are expected to be substantially reduced, if not entirely removed.
WTG's	182161, 183807, 178749, 180413	Concerns regarding WTG selection, location and micro-siting.	WTG selection will occur after project approval. Micrositing may occur if Geotechnical investigations show exact coordinates not suitable for construction. Results of this will also determine foundation design as per engineer's requirements. Conditions of consent will have compliance levels that must be adhered to. Hence any changes with micro siting must still comply with the approval conditions. Conditions of consent will also specify noise limit criteria used for compliance. Regardless of selected turbines EPYC must comply with these noise limits. The Project will only be commissioned if the noise limits are complied with. The location of the WTG's has been subject (but not limited) to OEH requirements, both after and prior to EIS exhibition in order to reduce impacts to potential areas of biodiversity and heritage significance (along with potential impacts to other environmental factors). As such, amendments have been made to the project design, including the reduction in the number of WTG's to 54 from 88. It should be noted that WTG's will not be located on areas outside the proposed PA.

Table C.15 – Public Submissions and Responses (Blade Throw)

Category	Submission Reference no.	Issues Raised	Response
Inadequate Assessment	181452, 183351	Inadequate Blade throw assessment undertaken as part of the JWF EIS. Issues relating to the form of assessment undertaken (literature review instead of site-specific assessment).	A site-specific blade throw risk calculation has not been conducted for the proposed Jupiter Wind Farm. Rather, the risk of blade throw has been addressed based on a review of literature and guidelines that have been used to describe or assess this risk in other jurisdictions around the world. This review has established typical blade throw risks in the vicinity of a wind turbine. Although it is possible to quantify the risk of blade through a site-specific blade throw analysis, such analyses have not typically been conducted for sites in Australia because wind farms are generally installed in rural areas and are located a significant distance from population centres, which further reduces potential blade throw risks. The turbine configurations under consideration for the Jupiter Wind Farm have a rated power of up to 4.5 MW and a maximum rotor radius of 63 m. Although an increase in blade length will increase the blade tip speed for the same rotational speed, wind turbine rotational speeds typically decrease with increasing blade length and modern turbines tend to have similar blade tip speeds regardless of the turbine dimensions. Therefore, the increased hub heights and rotor diameters seen in modern wind turbine designs will not necessarily correspond to a greater potential blade throw distance. The peer-reviewed study quoted in the blade throw assessment modelled the maximum blade throw distances for turbines ranging from 0.66 MW to 3.0 MW, with rotor radii ranging from 23.5 m to 45.0 m and rated speeds of 28.5 RPM to 16.1 RPM. This study concluded that the blade fragment velocity is the primary driver behind the maximum throw distance, and that setback distances based on the velocity of the minimum size fragment of concern would offer more effective protection than those based on turbine dimensions. In the 2014 revision of the Dutch Wind Turbine Risk Zoning Handbook, theoretical blade throw distances are given for generic modern wind turbines ranging from 1 MW to 5 MW, with rotor radii ranging from 31.5 m to 70.5 m and rated speeds of 24 RPM to 13 RPM. Although the maximum overall throw distance is attributed to the 5 MW turbine, the predicted throw distances are significantly more sensitive to the operating conditions, and hence the rotational speed, than to the blade length. Moreover, the predicted maximum throw distances of 214 m at rated rotor speed or 602 m under overspeed conditions for a 5 MW Class I turbine are comparable to the maximum throw distances quoted in the blade throw assessment for smaller turbine designs. As part of the wind farm development process, it is usual to conduct a site conditions assessment and to assess the suitability of the proposed turbine against those conditions. If the turbulence levels at the site are considered to be above the design limits for the turbine, actions are taken to mitigate the turbulence. Mitigation options may include adjusting the turbine layout at the site, or implementing wind sector management strategies. A project will typically not be financed and developed unless the chosen turbine is considered suitable for the site and all parties are confident that it will meet its intended design life. The revised layout for the Jupiter Wind Farm consists of 54 turbines. Based on the analysis performed by Cotton, the cumulative probability of blade failure per annum over a 54 turbine wind farm is 1-(1-0.001)^54 = 0.053 incidents per year, or 1 incident every 18 years across the entire wind farm. The likelihood of a turbine blade failure resulting in property damage, injury, or death is determined by the probability of a failure occurring that causes a blade or part of the blade to detach from the turbine, combined with the probability of a blade fragment actually hitting property or a person in the surrounding area, and is therefore very low.
Setbacks	183351	Setbacks should be based on the largest of potential setbacks for all potential risks associated with the wind turbine operation.	Although maximum theoretical blade throw distances may be similar to setbacks established for noise or other impacts, it is not necessary for setbacks to be established based on maximum theoretical blade throw distances, as the risk of such events occurring is very low. Setbacks should be established based on the probabilities of impacts occurring, and acceptable levels of risk. Increasing setback distances to account for potential maximum blade throw and ice throw distances would reduce the risk of impacts from these events. However, if the risk associated with such events is already very low, and below acceptable risk levels, creating or increasing setback distances may not be necessary. Additionally, it is not expected that restrictions on land use would be required to mitigate the already low risks of blade throw incidents.

Category	Submission Reference no.	Issues Raised	Response
Risk	185764	Risks related to blade throw with regards to potential impacts to neighbouring properties.	Changes were made to the Jupiter blade throw assessment report, to improve the consistency of language throughout the document. The change does not reflect a perceived difference between the assessment of risk associated with the Jupiter project compared to the Biala project. It is acknowledged that the risk of a blade throw event occurring, and the area potentially affected, will be larger for the Jupiter project due to the increased number of turbines. However the risk at a given distance from a turbine is expected to be similar for both projects, as the risk reduces rapidly as distance from a turbine increases, and consequently not all turbines in the project contribute to the risk of blade throw occurring at a given location. The likelihood of a blade throw incident occurring at the proposed Jupiter Wind Farm is in the order of 10-3 to 10-4 incidents per turbine per year (1 incident per 1000 to 10,000 years per turbine), however the risk of a blade fragment being thrown onto a neighbouring property is significantly lower, as the risk of a blade throw even occurring needs to be combined with the probability of a fragment landing at a specific location or in a specific area. There are many examples of physical intrusion that can happen across property boundaries, and a distinction can be made between wilful trespass (such as the examples given in the submission) and accidental trespass (such as a neighbour's tree falling due to weather conditions, a vehicle accident, or a turbine blade throw event). It is not expected that the intention of the Guidelines is to restrict all possible impacts across property boundaries, particularly where those impacts have low probability of occurring and are not caused by negligence or a deliberate act.
WTG's	185764	Statement provided from within the 'Vestas Mechanical Operating & Maintenance Manual for V90-3.0 MW turbines' .	The advice given in wind turbine operating and maintenance manuals is expected to be intended for people who are continually working in close proximity to turbines. Consequently, the cumulative risk of injury being caused by a blade throw event is greater for those people. For a person who spends relatively short periods of time in close proximity to a turbine, the risk of being hit by a blade fragment thrown from the turbine is substantially lower. The Dutch Wind Turbine Risk Zoning Handbook suggests that the annual probability of an individual being hit and killed by a blade fragment thrown from a 5 MW IEC Class I turbine with a hub height of 120 m is 10-5 (1-in-100,000) at a distance of 71 m, and 10-6 (1-in-1 million) at a distance of 214 m. A study performed by MMI Engineering Ltd on behalf of the UK Health and Safety Executive estimated the overall annual risk of being killed by a blade or blade fragment at a distance of twice the turbine hub height as 10-8 (or 1-in-100 million), which is comparable to the annual risk of fatality due to an aircraft accident (likelihood of 1.6×10-8 or 1-in-62.5 million assuming two flights per year) or being struck by lightning (likelihood of 5.35×10-8 or 1-in-18.7 million). In Australia, the risk of death to those working in agriculture is typically approximately 1.5×10-4 (or 1-in-6,667) [Safe Work Australia, 2003], while the risk of death on Australian roads is approximately 0.5×10-4 (1-in-20,000) [Bureau of Infrastructure, Transport and Regional Economics, 2016]. The likelihoods of injury due to a blade throw event can therefore be considered small, particularly when compared to the likelihood of accidents occurring during many everyday activities, and are within the levels of risk typically deemed acceptable by society.
Ice Throw	191930	Potential risk and impacts associated with ice thrown from WTG's.	DNV GL is not aware of any instances of turbine blade icing occurring at an Australian wind farm. The conditions required for icing to occur are not prevalent, and icing of anemometers at wind monitoring masts is not typically observed in this region. It is therefore considered that the risk of turbine blade icing and ice throw is low. Additionally, it is noted that the landowners property exists in proximity to the Southern Precinct, which has been removed as part of the updated project design.
Southern Precinct	183392	Risk of blade throw onto properties located within proximity to the proposed Southern Precinct.	The likelihood of a blade throw incident occurring at the proposed Jupiter Wind Farm is in the order of 10-3 to 10-4 incidents per turbine per year (1 incident per 1000 to 10,000 years per turbine), however the risk of a blade fragment being thrown onto a neighbouring property is significantly lower, as the risk of a blade throw even occurring needs to be combined with the probability of a fragment landing at a specific location or in a specific area. There are many examples of physical intrusion that can happen across property boundaries, and a distinction can be made between wilful trespass (such as the examples given in the submission) and accidental trespass (such as a neighbour's tree falling due to weather conditions, a vehicle accident, or a turbine blade throw event). It is not expected that the intention of the Guidelines is to restrict all possible impacts across property boundaries, particularly where those impacts have low probability of occurring and are not caused by negligence or a deliberate act. Additionally, it is noted that the landowners property exists in proximity to the Southern Precinct, which has been removed as part of the updated project design.
SEAR's	185764	Inclusion of Blade Throw assessment within SEAR's.	In most jurisdictions, blade throw is typically only considered a material risk when turbines are installed in close proximity to areas where people or critical infrastructure are permanently located. This is not usually an issue in Australia because wind farms are generally installed in rural areas and are located a significant distance from population centres. Nevertheless, it is reasonable that the risks of blade throw should be assessed regardless of the wind farm location.

Table C.16 – Public Submissions and Responses (Shadow Flicker)

Category	Submission Reference no.	Issues Raised	Response
Health Impacts	182955	Presence of shadow flicker having potential to impact health of nearby residents.	Shadow flicker caused by wind turbines is generally not considered to have an impact on human health. Peer-reviewed research, including that conducted by the National Health and Medical Research Council (NHMRC), indicates that there is no scientific evidence linking shadow flicker with adverse health effects. DNV GL is not aware of any studies showing that wind turbine shadow flicker has the potential to cause or exacerbate migraines, but acknowledges that many factors may trigger migraines and that different people are sensitive to different triggers. The likely level of shadow flicker impact at a dwelling generally depends on its location relative to the wind farm. Although shadow flicker can theoretically extend over many kilometres, the intensity of the shadow decreases with distance. For dwellings located more than 1260 m from turbines, it is expected that the shadow flicker will be diffused to the extent that any variation in light levels will not be sufficient to cause annoyance
Visual Impacts	183321	Impacts associated with night lighting and shadow flicker.	Night Lighting impacts are addressed in section 7.3 of Chapter 7 of this report. With regards to shadow flicker impacts: Table 4 in the Shadow Flicker Assessment Report shows that only 23 dwellings within a 10 rotor diameters, or 1260 m, of the turbines are expected to experience any shadow flicker, and most of these are not expected to experience shadow flicker above the applicable limits. It is also likely that this number will be reduced by the removal of turbines in the revised project layout. Although shadow flicker can theoretically extend over many kilometres, the intensity of the shadow decreases with distance. For dwellings located more than 1260 m from turbines, it is expected that the shadow flicker will be diffused to the extent that any variation in light levels will not be sufficient to cause annoyance.
Impacts to areas of archaeological significance	191930, 191930	Concerns regarding potential impacts to areas of archaeological and cultural significant within the locality of the Southern Precinct.	The updated layout does not include the southern cluster of turbines due to the removal of the Southern Precinct from the updated project layout.
Increased presence of shadows and associated impacts to landowners	181438, 184808	Concerns regarding shadow of turbines in the morning/afternoon. All year round.	A Shadow Flicker Assessment was conducted by DNV_GL as part of the Jupiter Wind Farm EIS and is available for review in ANNEX L of the EIS. This is also summarised in Chapter 16.4 of the EIS document. There were no shadow flicker exceedances at dwelling locations for non-host properties. Shadow flicker can be mitigated through a number of measures, including the installation of screening structures or vegetation and the use of turbine control strategies. The annual shadow flicker durations to a distance of 10 rotor diameters, or 1260 m, from the turbines are shown in Figures 4 to 7 of the Shadow Flicker Assessment Report. Mount Fairy Road lies in the northwest of the area shown on these maps, and is approximately 1.2 km from the nearest turbine at the point where it intersects with Braidwood Road. It is possible that dwellings near this intersection may experience shadow flicker impacts. However, although shadow flicker can theoretically extend over many kilometres, the intensity of the shadow decreases with distance. Since most dwellings along Mount Fairy Road, particularly those near the Tarago Road entry point, are more than 1260 m from turbines, it is expected that the shadow flicker at those dwellings will be diffused to the extent that any variation in light levels will not be sufficient to cause annoyance. The viewpoint 14 is representative of the area. If a detailed assessment from a dwelling in this area is completed a moderate/low rating is predicted. This is not a significant impact. According to the relevant guidelines, some level of shadow flicker is acceptable at dwellings in the vicinity of a wind farm. If the shadow flicker experienced at a dwelling is below the specified limits, there is no need to implement mitigation strategies. For dwellings that are sufficiently far from the turbines, it is expected that the shadow flicker will be diffused to the extent that any variation in light levels will not be sufficient to cause annoyance.
Southern Precinct	179588	Impacts associated to property within vicinity of Southern Precinct.	The Southern Precinct has been removed as part of the updated project design and as such, all impacts are expected to be mitigated.
Lack of Consultation	187562	Lack of consultation with landowners regarding impacts and mitigation measures.	Extensive opportunities were provided for the local residents to make contact with EPYC for any concerns. In addition to the comprehensive consultation during and post the preparation of the EIS (refer to the consultation log provided in the EIS)some residents chose not to participate in the planned consultation activities. With respect to the concern about shadow flicker it should be noted that there will be no shadow flicker exceedances associated with the resident's dwelling.
Post-Approval	183351	Addressing anticipated environmental impacts once the project has been approved.	Following approval and during detailed design phase updated noise, shadow flicker etc. are recalculated to ensure compliance. The conditions of consent will also list permissible conditions/rating which must be complied with.

Table C.17 – Public Submissions and Responses (Heritage)

Category	Submission Reference no.	Issues Raised	Response
Inadequate Assessment	183337	The level of Aboriginal heritage assessment is inadequate and the WIS is missing an Aboriginal Cultural Heritage Management Plan.	ERM recognise that several crests and flat or gently sloping landforms, slightly elevated and adjacent to drainage lines within the PA would have been attractive camping locations (refer to Addendum). These mapped areas have been identified based on their relatively undisturbed ground within archaeologically sensitive landforms close to water and are identified as having moderate potential to reveal Aboriginal cultural heritage. Where disturbance to these areas cannot be avoided a program of subsurface testing has been recommended and will be undertaken during the detailed design phase of the Project, during which the final locations of Project infrastructure components and ground disturbance activities will be confirmed. A detailed Aboriginal Cultural Heritage Management Plan (ACHMP) will be prepared and implemented to manage subsurface testing activities and the Aboriginal heritage values within the PA. This ACHMP will include strategies to manage any Aboriginal heritage sites identified during future survey work and will be prepared with due consideration to the legislative requirements.
Impacts to areas of archaeological significance	191930, 191930	Concerns regarding potential impacts to areas of archaeological and cultural significant within the locality of the Southern Precinct.	The updated layout does not include the southern cluster of turbines due to the removal of the Southern Precinct from the updated project layout.

Annex D

Community Consultation Log

Dwelling ID (* DA Approved or under construction)	Class *Following Revised Layout*	MGA55 Easting	MGA55 Northing	Nearest WTG *As per EIS*	Distance to Nearest WTG *as per EIS* (metres, m)	Nearest WTG *Following Revised Layout*	Final Distance to Nearest WTG *Following Revised Layout* (metres, m)	Communication Method October 2016 to Dec 2016 visual-benefit sharing consultation Email P=Phone M= Met face to face L= letter/post NL= News letter T= Text	Communication Method Jan 2017 to June 2017 visual-benefit sharing consultation E = Email P=Phone M= Met face to face L= letter/post NL= News letter T=Text	July 2017 to Aug 2017 visual-benefit sharing consultation E = Email P=Phone M= Met face to face M*=Meeting cancelled L= letter/post NL= News letter T=Text NL* = Newsletter emailed NL**=Newsletter mailed NL***=Newsletter mailed to both owners
J16	Dwelling 1 - 2km	743867	6104375	68	1097	68	1111	N/A	P,P,M,L	NL,P
J208	Dwelling 1 - 2km	745869	6099526	85	1079	86	1185	E,E,E,E,P,E,E,E,M,NL	E,P,E,E,E,E,M,E,E,E,E,P,P,E,E,E,P,T,P,E,E,E,E,E,P,E,P,P	E,E,E,P,E,E,E,P,E,E,E,*M,E,E,E,NL,NL*,T,E,E,E,T,T,T
J138	Dwelling 1 - 2km	742295	6107519	73	1182	73	1271	NL	E,L,L,P,P,P,P	NL,NL*
J145	Dwelling 1 - 2km	745726	6105138	32	1262	4	1345	M,NL	M	P,M,NL,P
J439-(J87)	Dwelling 1 - 2km	742702	6105043	87	1353	87	1353	M,NL	E,P	NL*,E,E,E
J40	Dwelling 1 - 2km	744089	6104771	87	1335	68	1407	E,E,E,NL	E,P,P,P,E,E,E,E,P,P,P,E,E	NL,NL*,E,E,E,E,M
J217	Dwelling 1 - 2km	745680	6099319	85	1353	86	1416	N/A	E,P,P,E	NL*,E,P,P
J392-(J189)	Dwelling 1 - 2km	742308	6107841	73	1327	73	1417	NL	L,L	NL
J162_DA_Approved	Dwelling 1 - 2km	748557	6101408	14	1169	39	1453	N/A	E,E,E,E,E	NL*,NL**,E,E
J146	Dwelling 1 - 2km	746184	6104994	32	1078	6	1457	N/A	P,P,L,P	NL**
J76	Dwelling 1 - 2km	745945	6110174	78	1225	76	1515	N/A	P,P,P,P,T,M,M,E,E, P,E,M	NL*,E,P,E,P,E
J216	Dwelling 1 - 2km	744854	6099403	60	1079	37	1525	NL	E,M, P,P,E	NL,NL*,E,E,E
J20	Dwelling 1 - 2km	742740	6102263	67	1316	9	1546	NL	T,T,T,P	NL
J3	Dwelling 1 - 2km	745692	6110374	81	1351	1	1591	P,E,NL	E,P,E,E,E,M,E,E,E, E,E,P,P,E,P,E,E,E,E,	E,T,E,E,E,E,E,E,NL,NL*,E,E,E,E,P,E,E,E
J76b*	Dwelling 1 - 2km	745980	6110265	78	1323	76	1599	Refer to J76	Refer to J76	Refer to J76
J174A	Dwelling 1 - 2km	748193	6102321	54	1186	83	1607	NL	N/A	NL**
J226	Dwelling 1 - 2km	745401	6099419	85	1443	37	1609	NL	E,P,P,P,P: New Owner : P,M,E	E,P,P,T,NL,NL*P,T,E,P
J144	Dwelling 1 - 2km	746494	6104799	32	1159	6	1630	E,E	E,E,E,E	NL*,E,E,E
J141	Dwelling 1 - 2km	746551	6103871	20	1285	72	1677	NL	P,SOLD,P,P	NL
J148	Dwelling 1 - 2km	746014	6104219	20	1410	28	1690	NL	E,P	NL*,NL**,E
J85	Dwelling 1 - 2km	742574	6102275	67	1479	9	1699	NL	P,P	NL,NL**
J152	Dwelling 1 - 2km	746501	6110413	78	1701	76	1744	NL	Visited property and left a business card	NL
J174B	Dwelling 1 - 2km	748387	6102234	54	1362	83	1787	Refer 174A	Refer 174A	Refer 174A
J428-(J75A)	Dwelling 1 - 2km	742333	6104756	87	1816	87	1816	E	E,M,L,P	NL,NL*E
J142	Dwelling 1 - 2km	746010	6104388	20	1577	28	1845	NL	E,P,P,E,E,E,E,E,E,E,M,E,E,P,P,E,E,E,M	NL,E,E
J235	Dwelling 1 - 2km	745302	6099055	60	1632	86	1858	NL	P,P,P,P	P,M,NL,P,P,P,P,P
J230A	Dwelling 1 - 2km	747497	6110096	76	1886	76	1886	NL	N/A	NL
J428-(J75B)	Dwelling 1 - 2km	742283	6104697	87	1893	87	1893	N/A	N/A	Refer J75A
J153	Dwelling 1 - 2km	746929	6110488	76	1926	76	1926	NL	E,P, P,P,P	NL***,NL,E
J269	Dwelling 1 - 2km	746899	6097757	45	1435	86	1963	NL	E,P,M,M,P,P	NL,NL*,E,E
J147	Dwelling 1 - 2km	746447	6104325	20	1632	28	1991	NL	L,P	NL
J230B	Dwelling 1 - 2km	747576	6110176	76	1998	76	1998	Refer to 230A	Refer to 230A	Refer to 230A
J5	Dwelling 1 - 2km	742375	6102772	67	1853	2	2000	E,E,NL,E	L,L,E	NL,NL***,E
J234A	Dwelling 2 - 3km	747774	6103681	82	1710	83	2013	E,E,E,E	E,E,E,E,E,E,E,E,E,E	NL*,NL**E,E,E,E,E,E
J116B	Dwelling 2 - 3km	742116	6101885	67	1883	9	2017	Refer to J116	Refer to J116	Refer to J116
J199	Dwelling 2 - 3km	746012	6097947	86	2044	86	2044	NL	N/A	NL
J234B	Dwelling 2 - 3km	747601	6103861	82	1735	83	2074	Refer J234A	Refer J234A	Refer J234A
J116A	Dwelling 2 - 3km	742069	6102101	67	1942	9	2111	Refer to J116	Refer to J116	Refer to J116
J243	Dwelling 2 - 3km	745411	6098303	86	2155	86	2155	NL	E,P,P,T,T,T,T,T,T,M, P,P,P,E,P,E,E,E,P,E,E,E	P,P,T,T,T,P,M,E,NL,NL*,NL**,E,E,L,E,P
J139_DA	Dwelling 2 - 3km	741292	6107157	N/A	N/A	73	2172	NL		NL,P
J243a	Dwelling 2 - 3km	745358	6098308	60	2126	86	2192	Refer to J243A	Refer to J243A	Refer to J243A
J221	Dwelling 2 - 3km	747589	6110421	76	2194	76	2194	NL	E,P,E,E,E,P,E,M,E,E	NL,NL*,E,E
J247	Dwelling 1 - 2km	745265	6098403	60	1992	86	2206	NL	T,L,L,P,P	NL,P,T
J181	Dwelling 1 - 2km	742108	6102518	67	1996	9	2225	NL	L,L,P	NL,NL*,E,E
J97A	Dwelling 2 - 3km	741336	6105789	44	2221	44	2247	NL	E,E,E,E,E,E,E	NL,NL*,NL**,E,E,E,E,E,M
J325	Dwelling 2 - 3km	748072	6110022	76	2265	76	2265	NL	P	NL
J257	Dwelling 1 - 2km	741556	6110433	25	1684	50	2269	NL,	E,L,L, P,P	NL,NL*,E,P,E,E
J60	Dwelling 1 - 2km	744900	6111980	42	1926	49	2301	N/A	P,P,E,E,E	NL*,E,E
J186	Dwelling 2 - 3km	742063	6102778	67	2134	2	2309	NL	P,P,P	NL
J186a	Dwelling 2 - 3km	742040	6102828	67	2177	2	2340	Refer J186	Refer J186	Refer J186
J97C	Dwelling 2 - 3km	741204	6105879	44	2327	44	2349	Please refer to J97A	Please refer to J97A	Please refer to J97A
J26	Dwelling 2 - 3km	741183	6107638	73	2277	73	2363	NL	E,P,P,E	NL,NL*,E
J437-(J134)	Dwelling 1 - 2km	741536	6110624	25	1715	50	2386	NL	E,L,L,P	NL,NL*
J244	Dwelling 2 - 3km	747474	6110737	76	2390	76	2390	NL	E,P,P	NL,E,E
J190	Dwelling 2 - 3km	748027	6103988	82	2107	83	2410	NL	P,L,P,P,P	NL
J127	Dwelling 2 - 3km	741047	6106970	73	2344	73	2419	NL	L	NL
J155	Dwelling 2 - 3km	746531	6111097	78	2306	76	2426	NL	N/A	E,E,M*, NL,E,E,E,E,E
J259	Dwelling 2 - 3km	748543	6109461	76	2427	76	2427	NL	E,E,E	NL,NL*,E
J43	Dwelling 2 - 3km	741925	6103019	67	2367	2	2491	NL	E	NL,NL*,E
J130	Dwelling 1 - 2km	741215	6110328	16	1972	50	2527	E,E,E,E,E,E,E,NL	E,E,E,E,E,E,E	NL,NL*E,E,E,P
J441(J242)	Dwelling 2 - 3km	748511	6103740	54	2233	83	2551	NL	P,M,M,P,P,P	NL
J101	Dwelling 2 - 3km	741845	6103423	68	2519	68	2552	NL	E,P	NL,NL*,E
J46	Dwelling 2 - 3km	741729	6102476	67	2347	9	2554	NL	N/A	NL,NL*,E
J258	Dwelling 2 - 3km	748378	6110125	76	2574	76	2574	NL	N/A	NL
J435_DA	Dwelling 2 - 3km	741072	6110105	N/A	N/A	50	2576	E,E,NL	E,E,E,E,E,E,E,E,E,E,E,E,E,E,E,E,E,E,P,P	E,P,E,PNL,NL*,NL*,E,P
J239	Dwelling 2 - 3km	747310	6111056	76	2597	76	2597	NL	P,L,P,P,M	NL
J91	Dwelling 2 - 3km	740881	6108236	79	2476	22	2597	NL	P,P,P,M,P,P	NL,P,P
J135	Dwelling 2 - 3km	741319	6110706	25	1941	50	2613	NL	E,E,E,E,P,P	NL*,NL**,E,E,E,E
J185	Dwelling 2 - 3km	741591	6100736	17	2092	9	2632	NL	P,P	NL
J154_DA approved	Dwelling 2 - 3km	747123	6111182	76	2645	76	2645	NL	E,M,L,M, P,P,E,M	E,P,M,NL*,NL,T,E,P,M
J126B	Dwelling 2 - 3km	741615	6111462	25	1927	49	2688	Refer to 126	Refer to 126	Refer to 126
J19	Dwelling 2 - 3km	740894	6109882	16	2209	50	2696	NL	E,L,L,P	NL,NL*,E
J15	Dwelling 2 - 3km	741405	6101319	17	2621	9	2704	NL	L ,P,E,P	NL,P,P
J261	Dwelling 2 - 3km	748934	6109094	76	2722	76	2722	NL	E,P,P	NL,NL*,E
J260	Dwelling 2 - 3km	748830	6109539	76	2724	76	2724	NL	E,P	NL,NL*,E
J191	Dwelling 2 - 3km	746118	6096795	45	2672	45	2768	NL	E,P	NL,NL*
J431	Dwelling 2 - 3km	746287	6111475	N/A	N/A	1	2773	M,NL	P,P	NL,P
J178	Dwelling 2 - 3km	742061	6099366	17	1177	40	2799	NL	L	NL
J188	Dwelling 2 - 3km	741550	6102968	67	2680	2	2847	NL	P	NL

J246	Dwelling 2 - 3km	750199	6102261	14	2785	39	2862	NL	E,P,P,E,E,E,E,P	NL,NL*
J339	Dwelling 2 - 3km	748099	6110871	76	2865	76	2865	NL	L,P,E	NL***,NL,E
J157	Dwelling 2 - 3km	741685	6111844	25	2104	49	2868	NL	L	NL
J10	Dwelling 2 - 3km	740571	6109368	16	2555	22	2873	E,E,NL	E,L,L,E,E,E,P,P,L	NL,NL*,E,P,E
J396-(J205)	Dwelling 2 - 3km	750518	6102128	14	2933	39	2963	NL	N/A	NL
J58B	Dwelling 2 - 3km	741388	6103527	68	2978	68	3012	E,E,NL	L,L, E,E,P	NL,NL*,E,E,E,E
J184	Dwelling 2 - 3km	741451	6100095	17	1900	9	3013	NL	E,E	NL,NL*
J196	Dwelling 2 - 3km	749286	6103448	54	2642	83	3024	NL	P,P,L,P,P,P,M,P,P,P	NL
J429_DA approved	Dwelling 2 - 3km	749464	6106005	32	2763	6	3051	NL	N/A	NL
J272	Dwelling 2 - 3km	740583	6110244	16	2565	50	3090	NL	E,E,P,E,M,E,P,E,E,E,E,E,P	NL,NL*,E
J23	Dwelling 3 - 4km	741018	6101963	67	2982	9	3113	NL	E,P,P,P	NL
J93	Dwelling 3 - 4km	740797	6110817	25	2474	50	3119	NL	E,E,E	NL,NL*,E,E,E
J156	Dwelling 3 - 4km	741703	6112262	25	2394	49	3149	NL	E,P,P,L,E,M,P	NL,E
J391	Dwelling 3 - 4km	749662	6102960	54	2775	83	3187	NL,E	E,E,E,P,P,P,P,M	NL,NL*
J180	Dwelling 3 - 4km	740996	6100757	17	2596	9	3200	NL	E,E,P,P,M,E,E	E,E,NL,NL*
J33_DAA*	Dwelling 3 - 4km	740791	6110997	25	2514	50	3215	NL	E,P,L,L,P,P	NL,NL*,E
J193	Dwelling 3 - 4km	749399	6103723	54	2888	83	3258	NL	P	NL
J65	Dwelling 3 - 4km	740496	6110573	16	2731	50	3285	NL	E	NL*,NL**,E
J440(J182)	Dwelling 3 - 4km	741088	6100167	17	2266	9	3307	NL	E,P,E,E,E	NL,NL*
J425	Dwelling 3 - 4km	741737	6098901	17	1593	40	3337	NL	L	NL
J214	Dwelling 3 - 4km	749543	6103681	54	2984	83	3361	NL	P,P,P	NL
J424	Dwelling 3 - 4km	745980	6110265	17	1715	40	3436	NL	E,L	NL,NL*,E
J198	Dwelling 3 - 4km	741265	6112270	25	2702	49	3465	NL	P	NL
J116	Dwelling 3 - 4km	740672	6100974	17	2986	9	3474	NL	P,L,L,P	NL,P,P
J126	Dwelling 3 - 4km	740993	6111981	25	2732	49	3495	NL	E,LL,P,P,P	NL,NL*,E
J394	Dwelling 3 - 4km	740575	6111681	25	2945	49	3692	NL	E,P	NL
J158	Dwelling 3 - 4km	741673	6112940	25	2962	49	3694	NL	P,M,P,T,P,P,E,E,E,P,P,E	NL,NL*
J422	Dwelling 3 - 4km	741808	6110265	17	1846	40	3708	NL	L,P,P,P,T,T, P	NL,P
J423	Dwelling 4 - 5km	741244	6098128	17	2386	40	4213	NL	E,T,L	NL,NL*
J438(J83A)	Dwelling 4 - 5km	742663	6096728	17	2775	40	4562	N/A	N/A	N/A
J416-(J83)	Dwelling 4 - 5km	742930	6096592	17	2867	40	4599	NL	L	NL**
J117-(J24C)	Dwelling 5 - 6km	742146	6095797	18	3073	40	5621	Refer 117(24A)	Refer 117(24A)	Refer 117(24A)
J117-(J24B)	Dwelling 5 - 6km	742025	6095719	18	2961	40	5740	Refer 117(24A)	Refer 117(24A)	Refer 117(24A)
J107	Dwelling 6 - 7km	740958	6095052	18	2159	40	6142	NL	P,L,P	NL**
J129A	Dwelling 6 - 7km	743758	6094060	19	2826	45	6380	NL	E,E,E,E,P,M,P,P	NL,NL*
J129B	Dwelling 6 - 7km	743973	6093846	19	2903	45	6408	Refer J129A	Refer J129A	Refer J129A
J117-(J24A)	Dwelling 6 - 7km	741257	6095174	18	2279	40	6568	NL	E,L	NL**
J31	Dwelling 7 - 8km	739764	6095613	61	2977	40	7053	NL	L,P,P	NL
J229	Dwelling 9 - 10km	743290	6090453	19	2786	45	9622	NL	E,E,E,P,E,E,E,E,M,E,E,E	P,NL,E
J389	Dwelling 9 - 10km	738200	6093403	15	2304	40	9752	NL	P	NL
J237	Dwelling 9 - 10km	741499	6091426	19	1079	45	9850		E,L,P,P	NL*
J213	Dwelling 9 - 10km	738312	6093187	15	2137	40	9851	NL	P,P,P	NL
J275	Dwelling 9 - 10km	737992	6093419	15	2507	40	9872	NL	E,E,P,P,M	NL*,NL**
J275a	Dwelling 9 - 10km	737976	6093431	15	2526	40	9874	Refer to J275	Refer to J275	Refer to J275
J224	Dwelling 9 - 10km	738743	6092769	36	1644	40	9935	NL	E,P,P,P	NL,NL*
J388_DAA*	Dwelling 9 - 10km	737837	6093453	15	2666	40	9947	NL	N/A	NL
J94	Dwelling > 10km	737890	6093189	15	2549	40	10114	NL	N/A	NL**
J88	Dwelling > 10km	738838	6092449	36	1489	40	10148	NL	P,P	NL
J115	Dwelling > 10km	738440	6092661	36	1914	40	10197	NL	E,P,P	NL,NL*
J218_TBB*	Dwelling > 10km	741974	6090465	29	2071	45	10313	N/A	E, P, E,P,P,P, P,P	P,NL*
J218A	Dwelling > 10km	741992	6090396	29	2041	45	10359	Refer J218_TBB*	Refer J218_TBB*	Refer J218_TBB*
J105	Dwelling > 10km	738940	6092132	36	1391	40	10362	NL	E,L, ,P	E,P,E,NL*,NL**
J241	Dwelling > 10km	739229	6091823	36	1193	40	10482	NL	P,M,M	NL**
J70	Dwelling > 10km	739472	6091650	36	1072	40	10518	NL	E,P,M,M,P	NL,NL*
J120	Dwelling > 10km	738906	6091824	36	1494	40	10643	NL	E,P,P,M	NL,NL*
J393-(J92)	Dwelling > 10km	738904	6091486	36	1636	40	10935	NL	E,E,E,E,E,E,P,M,E,E,M,M,E,P,P	NL*,NL**
J39	Dwelling > 10km	738244	6091869	36	2122	40	10959	N/A	P,P	NL
J227	Dwelling > 10km	741806	6089667	29	1508	45	11066	N/A	E,P	NL*,NL**
J51	Dwelling > 10km	737495	6092032	36	2839	40	11265	NL	N/A	NL
J323	Dwelling > 10km	743150	6087949	29	2985	45	11930	NL	P,P,P	NL
J197	Dwelling > 10km	738848	6090268	35	1130	40	12032	NL	P,P,P,P,P,P	NL
J194	Dwelling > 10km	740800	6087598	47	1491	45	13349	NL	E,P,P,L ,P,P	NL*,NL**
J255	Dwelling > 10km	741085	6090116	35	1149	68	13689	NL	E,L,P,P,E,E	NL**
J97B	Dwelling > 10km	737487	6086813	62	2837	40	15731	Please refer to J97A	Please refer to J97A	Please refer to J97A