Key Factors for Consideration

Impact to Consider	Description	Scale of Impact	Nature of Impact	Sensitivity of Environment	Notes / Comments
Access, Transport and Traffic	Access to and from the site, including an increase in localised traffic (during construction and operation of the wind farm).	While the impact of access caused by the ongoing operation of the wind farm will be low, equipment transport and vehicular access to and from the site will have a high impact on the local area. O Geographically the construction (and decommissioning) activities will have a regional wide impact, with particularly the equipment transport being perceived as a major disruptor. O Traffic due to the operation of the facility will have a localised impact only. Duration: O Construction activities (12-24 months); Ongoing throughout the expected operation life of the wind farm.	Direct impacts caused by the project.	The blade transport, new access points and roads will be planned, designed and undertaken in accordance with the relevant legislative requirements and guidelines, including: o Australian Road Restraint Guide o NHVR (OSOM), NHVAS Maintenance Management, NHVAS basic Fatigue Management – Part 3 (Austroads 2013) o Guide to Traffic Management – Part 3 (Austroads 2013) o Guide to Traffic Generating Developments V2.2 (RTA 2002) Value: o This will have economic value to society, through the upgrade of existing roads, access points and the internal wind farm road network. Vulnerability to change: o While the environment is vulnerable to the potential additional roads (mostly internal network, which includes the upgrade of existing gravel roads) and access points onto public roads, it is considered to be relatively minor in nature.	A detailed traffic and transport assessment is to be undertaken as part of the EIS. An updated blade transport study is also to be provided, to provide more information on the selected turbine model and blades.

Impact to Consider	Description	Scale of Impact	Nature of Impact	Sensitivity of Environment	Notes / Comments
Aviation	Potential aviation impacts and aviation safety, including impacts on any obstacle limitation surfaces, aviation activities and flight routes.	Minor Impact: o The Aviation Impact Assessment prepared as part of the Scoping Report confirmed that the proposed wind farm will not have a negative impact on any aviation activities, routes or airspace.	Possible indirect impacts on local aviation activities and routes.	The proposed wind turbines and their potential risks relating to aerial obstacles, wake turbulence and moving blades, will be planned and installed in accordance with the relevant legislative requirements and guidelines, including: o National Airports Safeguarding Framework (NASF); o Civil Aviation Advisory Publications (CAAP); o Civil Aviation Regulations (1988); o Wind Farms and Bush Fires Operations (2018).	A detailed Aviation Impact Assessment (AIA) has been prepared as part of the Scoping Report. Other than some outstanding comments from selected stakeholders, no further assessment will be required as part of the EIS. The EIS will discuss in more detail the AIA and recommendations resulting from the assessment.
		Geographically the wind farm: o Will not penetrate any OLS; o Will not impact on any aviation routes; o Is outside the clearance zone associated with aviation navigation aids and communication facilities.		Value: o The project and related impacts on aviation activities will not have any negative impact on economic-, social- or environmental-values of the local area.	
		Duration: Ongoing throughout the expected operational life of the Wind farm		Vulnerability to change: o From an aviation point of view, it is not expected that the project will result in the increased vulnerability of the environment.	
Biodiversity	Impacts to threatened species and ecological communities that may arise from the construction and operation of the project.	High Impact: The proposal turbines footprint, laydown area, access tracks, underground services, substations and ancillary infrastructure will have a high impact on the natural environment.	Direct impacts caused by the project and its infrastructure.	The proposed wind turbines and their potential risks relating to impacts on native species and communities, will be planned and installed in accordance with the relevant legislative requirements and guidelines, including: o Environmental Protections and Biodiversity Conservation Act 1999; o NSW Biodiversity Conservation Act 2016.	As part of the EIS, the following will form part of the assessment of biodiversity values on the site: o Prepare and submit a Biodiversity Development Assessment Report in accordance with the Biodiversity Assessment Method;

Impact to Consider	Description	Scale of Impact	Nature of Impact	Sensitivity of Environment	Notes / Comments
		Geographical the proposed construction will have a localised impact on the biodiversity on site. This is expected to be limited to within the site boundary.		Value: o The assessment of the proposed works will be of high environmental value, particularly relating to the potential impacts on existing fauna and flora.	 Prepare a detailed assessment of Matters of National Environmental Significance; Conduct detailed habitat and native vegetation
		 Duration: The highest level of impact will take place during the construction phase (12-24 months); Ongoing environmental monitoring are however be recommended. 		Vulnerability to change: o Considering the scale and nature of the proposed impacts, it is expected that the environmental would be highly vulnerable to change. It is however expected that these impacts could be mitigate and managed to minimise the long term impacts on the natural environment.	mapping; o Undertake largeted seasonal fauna and flora surveys.
Bushfire	The site is located on bushfire prone land. The project will need to consider the possible impacts of the proposed wind farm on the natural environment and the potential to cause and be impacted by bushfires.	Moderate Impact: The general landscape within the Project site itself is largely cleared of dense vegetation and consists mostly of agricultural landscape with small remnant woodland and derived grasslands. It is noted that the risk of the windfarm itself causing a bushfire due to its operation is minimal.	the Project site se vegetation and landscape with derived Movever, severity and extent would be dependent on a range of external variables to the site and the works proposed. Movever, severity and extent would be dependent on a range of external variables to the site and the works proposed. Movever, severity and extent would be dependent on a range of external variables to the site and the works proposed. Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the relevant legislative reguidelines, including: Movever, severity and extent the	O NSW Rural Fire Service Guidelines - Planning for Bushfire Protection 2019	O A detailed Bushfire management plan and risk assessment will be prepared as part of the EIS.
		Geographical extent: o The Project site is recognised as being bushfire prone land and, while relatively cleared of vegetation, the site is surrounded by steep, vegetated areas within the Abercrombie National Park, Wiarborough Nature Reserve and the Blue Mountains National Park. o Geographically the proposed will have a localised impact for the immediate surroundings. However, the spread could become broader depending on vegetation density and severity of bushfires experienced.		Value: o Located within a more rural environment, not likely to impact as many urban areas if a bushfire was to occur.	1

Impact to Consider	Description	Scale of Impact	Nature of Impact	Sensitivity of Environment	Notes / Comments
		Duration: The site will be subject to bushfire hazards throughout the whole lifespan of the project and beyond construction works. Ongoing environmental monitoring are recommended.		Vulnerability to change: o Given the sites location and remoteness, the sites vulnerability would be subject to the amount of vegetation surrounding and the available corridors to which the fire would be able to travel.	
Cumulative Impacts	The project has the potential to generate cumulative impacts due to its location and proximity to other similar existing and planned renewable energy projects.	It is expected that the project will have a relatively low degree of cumulative impacts, particularly taking into account the longer-term cumulative impacts and also the short-term cumulative impacts.	Direct impacts caused by the project and its infrastructure. There will also be some degree of cumulative impacts as a result of the project in relation to other similar projects in the area.	The proposed wind turbines and the potential cumulative impacts will be assessed in accordance with the relevant legislative requirements and guidelines, including: o DPIE Cumulative Impact Assessment Guidelines for State Significant Projects (2021); o State Significant Development Guideless (SSD Guides) and Appendix A – Preparing a Scoping Report.	A high-level Cumulative Impact Assessment (CIA) has been prepared as part of the Scoping Report. A detailed CIA will be undertaken as part of the EIS.
		Geographically it is expected that some of the turbines would be visible up to 10-15km from the site.		Value: o The assessment of the cumulative impacts will be of social value to society, as it will include community value, landscape and amenity.	
		Duration: o Ongoing throughout the expected operational life of the Wind farm.		Vulnerability to change: o Considering the scale and nature of the proposed impacts, it is expected that the local area would be highly vulnerable to change. It is however expected that the proposal would not have any significant cumulative impacts considering the location and context of other similar planned developments.	

Impact to Consider	Description	Scale of Impact	Nature of Impact	Sensitivity of Environment	Notes / Comments
Engineering Hazards	Engineering hazards that might have a potential impact includes: o blade throw; o shadow flicker; o hazardous & offensive developments	Minor Impact: It is expected that the potential engineering hazards would have minimal impact on the surrounding environment and nearby dwellings. Geographical extent: Would impact the immediate surroundings to the wind farm. Duration: Ongoing throughout the expected operational life of the Wind farm.	Any engineering hazards will have a direct impact on the locality and its surrounds, including nearby dwellings. o Potential hazards relating to blade throw will considered as part of the EIS. o Impacts relating to light flicker caused by the rotating blades might impact nearby residents and localised traffic. o Hazardous and offensive developments includes the storage of dangerous goods on the site.	The proposed wind turbines and the potential engineering hazards will be assessed in relation relevant requirements and legislation which includes: o State Environmental Planning Policy No. 33 – Hazardous and Offensive Development; o NSW Wind Energy: Visual Assessment Bulletin 2016; o NSW Wind Energy Guide 2016. Value: o The project and related impacts on aviation activities will not have any negative impact on economic-, social- or environmental-values of the local area. Vulnerability to change: o Considering the scale and nature of the proposed impacts, it is expected that the environmental would be highly vulnerable to change. It is however expected that these listed engineering hazards and the associated impacts could be mitigate and managed to minimise the long term impact.	 A detailed SEPP 33 Assessment Report has been prepared as part of the Scoping report and will be included and discussed in more detail as part of the EIS. A detailed shadow flicker assessment will be undertaken as part of the EIS process. The need to undertake a Blade Throw Assessment will be considered prior to the submission of the EIS.
Health Impacts	Perception and concerns that the wind farm might have adverse health impacts, caused mainly by low frequency noise, shadow flicker and magnetic fields.	Minor Impact: o It is expected that the wind farm will cause no adverse health impacts. Health effects caused by wind farms have been extensively reviewed over the past 30 years	Health impacts (if any) caused by the wind farm will be deemed to be perceived impacts. This is due to the different perceptions by various people and groups.	The proposed wind turbines and the potential health impacts will be considered in relation relevant requirements and legislation which includes: International Commission on Non-Ionising Radiation Protection (ICNIRP) standards; NSW Wind Energy: Visual Assessment Bulletin 2016; NSW Wind Energy Guide 2016.	A health Impact Assessment will be prepared as part of the EIS.

Impact to Consider	Description	Scale of Impact	Nature of Impact	Sensitivity of Environment	Notes / Comments
		Geographical extent: o Would impact the immediate surroundings to the wind farm.		Value: o The assessment of the listed health impacts will be of social value to society, as it will include community value, landscape and amenity.	
		Duration: Ongoing throughout the expected operational life of the Wind farm.		Vulnerability to change: Considering the scale and nature of the proposed impacts, it is expected that the environmental would be highly vulnerable to change. It is however expected that the mentioned perceived health associated impacts could be managed or eliminated entirely.	
Heritage Items	Possible impacts on any heritage items, which includes Aboriginal heritage sites. The information provided thus far is based off information gather from a Heritage Assessment and preliminary Aboriginal heritage survey for Aboriginal Cultural Heritage.	Moderate Impact: The site currently contains both Aboriginal Heritage and Non-Aboriginal Heritage items. The site layout was carefully designed taking into account any possible heritage items.	Change to a natural landscape can encourage the formation of new environmental processes within that area. As such over time the changed landscape of the project site may result in changed environmental conditions contributing to possible decline in the preservation of heritage items. This would need to be monitored for the duration of the proposed work and ongoing for the time of the project.	Existing regulations and guidance: o Investigations to be undertaken in accordance with all NSW legislation and relevant guidelines including; - Guide to Investigating, Assessing and Reporting on Aboriginal cultural heritage in NSW (OEH 2011) - Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010) - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010)	A Heritage Assessment report will be prepared to assess the site and will accompany the EIS. This comprehensive investigation, to include; Pedestrian field survey, Consultation with Aboriginal stakeholders, Sensitivity mapping, Archaeological test excavation (as required)

Impact to Consider	Description	Scale of Impact	Nature of Impact	Sensitivity of Environment	Notes / Comments
		Geographical extent The proposal could impact heritage items within the site boundary. Aboriginal Sites; a total of 26 registered Aboriginal sites were identified within the total search area, including 17 within the Project Area. Non-Aboriginal Sites; two of the heritage sites were surveyed during the preliminary site survey, including 'Mingary Park Airfield' and 'Quobleigh basalt chimney and plantings'		Value to society: The sites identified as Heritage items are important to the culture and history of the area. These would be highly valued contributing to the culture of the area.	
		Duration: o Initial construction works will be the most likely to impact any heritage sites.		Vulnerability to change: O When considering the extent of the works to be undertaken, a number of heritage sites are included on the defined project site. It is expected that increased use of the area may increase the vulnerability of the heritage items.	
Noise impacts	Noise generated by construction activities and during the operation of the wind farm is likely to impact on nearby sensitive receivers. An assessment of the	High Impact: A draft noise assessment was prepared and identified that there some nearby dwellings might be impacted. If any exceedances, these impacts will be considered to have a high impact on sensitive residential uses or dwellings.	Any potential noise disturbances would directly impact the residents within the immediate area.	Existing regulations and guidance: NSW Wind Energy: Noise Assessment Bulletin 2016 Protection of the Environment Operations Act 1997 South Australian guide – Wind farms – environmental noise guidelines (SA 2009)	The wind farm operational noise impacts on nearby receptors have been assessed as part of the scoping report. A detailed noise assessment will be

Impact to Consider	Description	Scale of Impact	Nature of Impact	Sensitivity of Environment	Notes / Comments
	potential noise levels needs to be undertaken. As part of the scoping analysis of the sile, a draft noise assessment report has been prepared by SLR Consulting. The noise assessment has been carried out for all dwellings within 10 kilometres of a turbine under the South Australia Environmental Protection Authority's noise guidelines, which have been adopted by the NSW Government.	undertaken to assess the impact of noise generating from the wind turbines.		 Value to society Noise generated by the wind farm might have a social impact on the nearby residents, such as impacts on recreation, lifestyle and liability. It may also have environmental impact on the surrounds, which could include impacts on the natural environment. Vulnerability to change: Considering the scale and nature of the proposed impacts, it is expected that the environmental would be highly vulnerable to change. It is however expected that the mentioned perceived increase in noise and other associated impacts could be managed and is likely not to have a negative impact on the environment an any nearby sensitive receivers. 	underlaken as part of the EIS.
Operational	The ongoing operation of the wind farm 9expected to be between 20-30 years) might have an impact through continues traffic to the wind farm, maintenance activities which could include additional dust and noise, and ongoing visual impact and potential engineering hazards.	 Impacts associated with ongoing operation of the wind farm would be minimised by the effective management of these activities and risks. It is therefore expected that it will have a minor impact. 	Impacts could be: o directly caused by the wind farm as a result of the operation of the facility, or o indirectly caused through delayed findings and change of use/activities directly adjacent.	 State Significant Development Guideless (SSD Guides) and Appendix A – Preparing a Scoping Report. NSW Wind Energy Guide 2016. State Environmental Planning Policy No. 33 – Hazardous and Offensive Development Waste regulations in NSW – Environment Protection Authority New South Wales. Value: The ongoing operation and any maintenance activities will have economic value to society, through the continued provision of clean renewable energy. 	Any requirements relating to management plans will be confirmed during the EIS stage.

Tract

Impact to Consider	Description	Scale of Impact	Nature of Impact	Sensitivity of Environment	Notes / Comments
Social	Possible social impacts as		Social aspect of the	Vulnerability to change: O While the environment is vulnerable to the potential direct and indirect impacts, it is considered to have a relatively low risk of occurring and if so, will most likely be minor in nature. As an initial preliminary assessment, a Phase 1	A Phase 1 Social Impact
Impacts	a result of the proposed development could include: o Impacts on social infrastructure; o Psychological impacts on people; o Perceived impacts to land values and existing land uses; o Construction and operation noise; o Visual impacts o Perceived health impacts.	The chosen location of the project has been assessed and deemed the most appropriate place to construct the wind farm. The scale and extent of the project would see many residents being impacted for various reasons over varying time frames. It is expected however that the project would have only a moderate social impact, if any. Geographical extent: Geographically, the impact of this project would vary based on an individual's values. As such individuals with an environmental conservation orientation may not live within the area but are still aware of the project.	proposed works would have an array of impacts which will impact individuals differently based on their varying perspectives. These could include: O Way of life O Community accessibility O Health and wellbeing O Livelihoods O Surrounds and land uses.	Social Impact Assessment (SIA) was prepared. The assessment provides sufficient understanding of the Project's potential social impacts and the means by which these social impacts will be identified, assessed, and managed. Existing regulations and guidelines include: DPIE Draft Social Impact Assessment Guideline (2021). State Significant Development Guideless (SSD Guides) and Appendix A – Preparing a Scoping Report. Value to society: Most likely there would be a significant impact to the changed use of the landscape for the surrounding community. These would range from change in land values to impacts to existing agricultural practices. The project could be of value to society through: - Economic value (electricity supply, job creation) - Social value (community value and perception, landscape, and lifestyle changes).	Assessment has been prepared as part of the Scoping Report. A detailed SIA will be undertaken as part of the EIS.

Impact to Consider	Description	Scale of Impact	Nature of Impact	Sensitivity of Environment	Notes / Comments
		Duration: The impacts to the social scope will occur at all stages of the Projects time frame. Primarily, these social impacts will occur during the construction and operation phase of the project.		Vulnerability to change: Considering the scale and nature of the proposed impacts, it is expected that the environmental would be highly vulnerable to change. It is however expected that the mentioned perceived social impacts, such as noise, visual, livelihoods, and other associated impacts, could be effectively managed and mitigated.	
	Potential visual impacts as a result of the proposed wind farm, including: o Public viewpoints; o Scenic quality of the locality; o Visual impact on sensitive receivers; o Community values.	The wind turbines will be visible from further than 10km. The size and location of the turbines will result in the wind farm likely having a high visual	 The wind farm would have potential visual impacts on both involved and non-involved dwellings. Visual impact could negatively influence the existing landscape character, including heritage sites, national parks and public viewpoints. 	A PVIA was undertaken as part of the scoping report to assess the visual impacts of the proposed wind turbines and associated buildings/infrastructure. Existing regulations and guidance uses to prepare the assessment include: Wind Energy: Visual Assessment Bulletin, December 2016. The potential scale of these impacts should be assessed through: The application of preliminary visual assessment tools Preparation of a preliminary zone of visual influence Identification of key viewpoints and sensitive locations.	A Phase 1 Visual Impact Assessment will be undertaken as part of the EIS.

Impact to Consider	Description	Scale of Impact	Nature of Impact	Sensitivity of Environment	Notes / Comments
		Geographical extent: As highlighted in the Preliminary Visual Impact Assessment (PVIA) prepared as part of the scoping report, at certain locations the wind turbines would be visible as far as 10km, or even further. E impacts would therefore stretch beyond the locality and needs to be assessed further.		Value to society: Most likely there would be a significant impact to the changed use of the landscape for the surrounding community. These would range from change in land values to impacts to existing agricultural practices. The project could be of value to society through: - Economic value (electricity supply, job creation) - Social value (community value and perception, landscape, and lifestyle changes).	
		Duration: Ongoing trough the expected operational life of the Wind farm.		Vulnerability to change: Considering the scale and nature of the proposed impacts, it is expected that the environmental would be highly vulnerable to change. It is however expected that the mentioned perceived visual impacts could be effectively managed and mitigated. The benefits of the wind farm could also in a way offset any of the negative visual impacts it may cause.	