

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act* 1979 Part 8 of the *Environmental Planning and Assessment Regulation* 2021

Application Number	SSD-70640221	
Project	 Koorakee Energy Park, which includes the construction, operation and decommissioning of: a wind farm with an estimated capacity of 1 gigawatt (GW), up to 167 turbines and a maximum height of 270 metres (to blade tip); a solar photovoltaic energy generating facility with an estimated capacity of 1 GW; battery energy storage system up to 1 GW / 12 GWh; and ancillary infrastructure including operation and maintenance compounds, internal roads, underground and overhead electricity cabling, substations, switching stations and grid connection to the transmission network. 	
Location	Approximately 70 km south-east of Mildura, and 12 km north-east of Euston in the Balranald Shire local government area	
Proponent	Koorakee Energy Park Pty Ltd	
Date of Issue	27/05/2024	
General Requirements	 27/05/2024 The Environmental Impact Statement (EIS) must meet the minimum form and content requirements as prescribed by Part 8 of the Environmental Planning and Assessment Regulation 2021 (the Regulation) and must have regard to the State Significant Development Guidelines, the NSW Wind Energy Framework, and the Large-Scale Solar Energy Guideline (2022) (Solar Guideline). In particular, the EIS must include: a stand-alone executive summary; a full description of the development, including: details of construction, operation and decommissioning, including any proposed staging of the development or refurbishing the project components over time; all infrastructure and facilities, such as substations, transmission lines battery energy storage system, construction compounds, concrete batching plants, internal access roads, and road upgrades (including any infrastructure that would be required for the development, but the subject of a separate approvals process); plans for any buildings; all infrastructure facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process); 	

- the location and dimensions of all project components including coordinates in latitude / longitude and maximum AHD heights of the turbines;
- existing infrastructure, land use, and environmental features in the vicinity of the development, including nearby residences and approved residential developments or subdivisions within 5 km of a proposed turbine, and any other existing, approved or proposed wind and solar farms in the region; and
- the development corridor that has been assessed, including any allowance for micro-siting of turbines and identification of the key environmental constraints that have been considered in the design of the development;
- consolidated list and GIS data of coordinates of wind turbines, project infrastructure and relevant receivers and distances to potentially impacted receivers; and
- details of the progressive rehabilitation of the site;
- demonstrate the suitability of the site and viability of the wind resources for the project and include high quality maps showing the wind resource;
- a list of any approvals that must be obtained before the development may commence;
- the terms of any proposed voluntary planning agreement with the relevant local council;
- a risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment;
- an assessment of the likely impacts of the development on the environment and any other significant issues identified in this risk assessment, focusing on the specific issues identified below, including:
 - a description of the existing environment likely to be affected by the development using sufficient baseline data;
 - an assessment of the likely impacts of all stages of the development (which is commensurate with the level of impact), including the cumulative impacts of the site and existing or proposed developments in the region in accordance with the *Cumulative Impact Assessment Guideline* (DPIE), taking into consideration any relevant State and Commonwealth legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice and including the Solar Guideline and the *NSW Wind Energy Guideline for State Significant Wind Energy Development* (2016);
 - a description of the measures that would be implemented to avoid, mitigate and/or offset residual impacts of the development and the likely effectiveness of these measures, including details of consultation with any affected non-associated landowners in relation to the development of mitigation measures, and any negotiated agreements with these landowners; and
 - a description of the measures that would be implemented to monitor and report on the environmental performance of the development, including adaptive management strategies and contingency measures to address residual impacts;
 - a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS;

a detailed evaluation of the merits of the pro	oject as a whole having regard to:
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0	the requirem	nents in Secti	on 4.1	5 of tl	ne <i>Environme</i> l	ntal	Planni	ing and
	Assessment	Act 1979 (EP	&A Act	i), and l	how the princip	oles	of ecol	ogically
	sustainable	development	have	been	incorporated	in	the	design,
	construction	and ongoing o	peratio	ns of th	e development	;		

 the environmental, economic and social costs and benefits of the development, having regard to the predicted electricity demand in NSW and the National Electricity Market, NSW's Climate Change Policy Framework, NSW's Net Zero Plan Stage 1: 2020 – 2030 and the greenhouse gas savings of the development;

 feasible alternatives to the development (and its key components) including siting and project design alternatives to avoid impacts to areas of biodiversity value, indirect impacts to any nearby national parks or nature reserves and archaeological sensitivity, opportunities for shared infrastructure with proposed developments in the region and the consequences of not carrying out the development;

 the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses, including National Parks, and Willandra Lakes Region World Heritage Area and the capacity of the electricity transmission network to accommodate the development; and

a detailed consideration of the capability of the project to the security and reliability of the electricity system in the National Electricity Market, having regard to local system conditions and the Department's guidance on the matter.

Estimated Development Cost and Employment

- Provide the estimated development cost (EDC) of the development prepared in accordance with the relevant planning circular using the Standard Form of EDC Report.
- Provide an estimate of the retained and new jobs that would be created during the construction and operational phases of the development, including details of the methodology to determine the figures provided.

The development application must be accompanied by:

- the consent of the owner/s of the land (as required in Section 23(1) of the Regulation); and
- a declaration from a Registered Environmental Assessment Practitioner that the EIS includes the information specified in the Department's *Registered Environmental Assessment Practitioner Guidelines*.

Key issues	The EIS must address the following specific matters:		
	Landscape and Visual – including:		
	 a detailed assessment of the visual impacts of all components of the project(including wind turbines, solar panels, transmission lines, substations, battery storage and any other ancillary infrastructure and (if required) night lighting) in accordance with: the Solar Guideline and the Technical Supplement – Landscape and Visual Impact Assessment (for solar farm component); and the NSW Wind Energy: Visual Assessment Bulletin (DPE, 2016) (for wind farm component), including detailed consideration of the: 		

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- potential visual impacts on local residences, (including approved developments, lodged development applications and dwelling entitlements);
- cumulative impacts including with the other SSD projects;
- consideration of the project design to avoid or mitigate and/or manage potential visual impacts; and
- amenity values of scenic or significant vistas and road corridors in the public domain.

Glint and Glare – provide a glint and glare assessment for the solar farm component prepared in accordance with the Solar Guideline.

Noise and Vibration - including:

- an assessment of wind turbine noise in accordance with the NSW Wind Energy: Noise Assessment Bulletin (EPA/DPE, 2016);
- an assessment of noise generated by the battery component, solar component and ancillary infrastructure in accordance with the NSW Noise Policy for Industry (EPA, 2017);
- an assessment of construction noise under the Interim Construction Noise Guideline (DECC, 2009);
- an assessment of traffic noise under the NSW Road Noise Policy (DECCW, 2011);
- an assessment of vibration under the Assessing Vibration: A Technical Guideline (DECC, 2006); and
- an assessment of the cumulative noise impacts (considering other developments in the area).

Biodiversity – including:

- an assessment of the biodiversity values and the likely biodiversity impacts of the project in accordance with Section 7.9 of the *Biodiversity Conservation Act 2016* (NSW), the Biodiversity Assessment Method (BAM) and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must:
 - be prepared using the approved BDAR template;
 - document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the BAM;
 - o assess impacts associated with transport route road upgrades; and
 - any indirect impacts to nearby conservation areas and nature reserves;
- an assessment of the impact of the project on birds and bats from blade strikes, low air pressure zones at the blade tips (barotrauma), and alteration to movement patterns resulting from the turbines and considering cumulative effects of other wind farms in the vicinity;
- an assessment of the likely direct and indirect impacts on listed aquatic threatened species, populations or ecological communities, scheduled under the *Fisheries Management Act 1994*, and a description of the measures to minimise and rehabilitate impacts;
- a cumulative impact assessment of biodiversity values in the region from nearby developments; and
- if an offset is required, details of the measures proposed to address the offset

obligation.

Heritage - including:

- an assessment of the impact to Aboriginal cultural heritage items (archaeological and cultural) in accordance with the *Guide to Investigating*, *Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, 2011) and the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010), including results of archaeological test excavations (if required);
- evidence of consultation with Aboriginal communities in determining and assessing impacts, developing options and selecting options and mitigation measures (including the final proposed measures), having regard to the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010);
- an assessment of the impacts on the listed heritage values of the Willandra Lakes Region World Heritage Area; and
- an assessment of the impacts to historic heritage having regard to the NSW Heritage Manual.

Traffic and Transport – including:

- an assessment of the construction, operational and decommissioning traffic impacts of the development on the local and State road network;
- details of the peak and average traffic volumes (including light, heavy and over-mass / over-dimensional vehicles/ heavy vehicles requiring escort and construction worker transportation) and transport and haulage routes during construction, operation and decommissioning, including traffic associated with sourcing raw materials (water, sand and gravel);
- an assessment of the potential traffic impacts of the project on road network function including intersection performance, site access arrangements, site access and haulage routes, and road safety, including school bus routes and school zones;
- an assessment of the capacity of the existing road network to accommodate the type and volume of traffic generated by the project (including over-mass / over-dimensional traffic haulage routes from port) during construction, operation and decommissioning;
- an assessment of the likely transport impacts to the site access and haulage routes, site access point, any rail safety issues, any Crown Land, particularly in relation to the capacity and conditions of the roads and use of rail level crossings (and rail safety assessment if required), and impacts to rail underbridges and overbridges;
- a cumulative impact assessment of traffic from nearby developments; and
- details of measures to mitigate and / or manage potential impacts including a schedule of all required road upgrades (including resulting from over mass / over dimensional traffic haulage routes), road maintenance contributions, and any other traffic control measures, developed in consultation with the relevant road and / or rail authority.

Water and Soils – including:

a site water balance for the development, quantify water demand, identify water sources (surface and groundwater), including any licensing

requirements, and determine whether an adequate and secure water supply is available for the development;

- an assessment of the likely impacts of the development (including flooding and flood modelling) on surface water and groundwater resources traversing the site and surrounding watercourses (including their Strahler Stream Order), drainage channels, wetlands, riparian land, farm dams, groundwater dependent ecosystems and acid sulfate soils, related infrastructure, adjacent licensed water users and basic landholder rights, and measures proposed to monitor, reduce and mitigate these impacts;
- where the project involves works within 40 metres of the high bank of any river, lake or wetlands (collectively waterfront land), identify likely impacts to the waterfront land, and how the activities are to be designed and implemented in accordance with the DPI *Guidelines for Controlled Activities on Waterfront Land* (2018) and (if necessary) *Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings* (DPI, 2003); and *Policy & Guidelines for Fish Habitat Conservation & Management* (DPI, 2013); and
- a description of the measures to minimise surface and groundwater impacts, including how works on erodible soil types would be managed and any contingency requirements to address residual impacts in accordance with the *Managing Urban Stormwater: Soils and Construction* series of guidelines.

Air Quality – including

- an assessment of risks of dust generation and propose mitigation measures designed in accordance with the Approved Methods and Guidelines for the Modelling and Assessment of Air Pollutants in New South Wales (DECC, 2005);
- demonstrate how the development minimises greenhouse gas emissions (reflecting the Government's goal of net zero emissions by 2050).

Land – including:

- a detailed justification of the suitability of the site and that the site can accommodate the proposed development having regard to its potential environmental impacts, land contamination, permissibility, strategic context and existing site constraints;
- an assessment of the potential impacts of the development on existing land uses on the site and adjacent land, including:
 - flood prone land, agricultural land, irrigated landsCrown lands, travelling stock routes, mining, quarries, mineral or petroleum rights;
 - a soil survey to determine the soil characteristics and consider the potential for salinity, acid sulfate soils, and erosion to occur; and
 - o a cumulative impact assessment of nearby developments;
- an assessment of the compatibility of the development with existing land uses, during construction, operation and after decommissioning, including:
 - consideration of the zoning provisions applying to the land, including subdivision (if required);
 - completion of a Land Use Conflict Risk Assessment in accordance with the Department of Industry's Land Use Conflict Risk Assessment Guide; and
 - assessment of impact on agricultural resources and agricultural production on the site and region, in accordance with the Solar Guideline.

Hazards and Risks – including an assessment of the following:

Aviation Safety:

- assess the impact of the development under the National Airports Safeguarding Framework Guideline D: Managing Wind Turbine Risk to Aircraft;
- provide associated height and co-ordinates for each turbine assessed;
- assess potential impacts on aviation safety, including cumulative effects of wind farms in the vicinity, potential wake / turbulence issues, the need for aviation hazard lighting, considering, defined air traffic routes, aircraft operating heights, approach / departure procedures, radar interference, communication systems, navigation aids;
- identify aerodromes within 30 km of the turbines and consider the impact to nearby aerodromes and aircraft landing areas;
- \circ $\;$ address impacts on obstacle limitation surfaces; and
- assess the impact of the turbines on the safe and efficient aerial application of agricultural fertilisers and pesticides in the vicinity of the turbines and transmission line;
- Telecommunications identify possible effects on telecommunications systems, assess impacts and mitigation measures including undertaking a detailed assessment to examine the potential impacts as well as analysis and agreement on the implementation of suitable options to avoid potential disruptions to radio communication services, which may include the installation and maintenance of alternative sites;
- Health –consider and document any health issues having regard to the latest advice of the National Health and Medical Research Council, and identify potential hazards and risks associated with electric and magnetic fields (EMF) and demonstrate the application of the principles of prudent avoidance, including an assessment against the International Commission on Non-Ionizing Radiation Protection (ICNIRP) Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields;
- Bushfire:
 - assess potential hazards and risks associated with bushfires / use of bushfire prone land, including the risk of the project causing bush/grass fires;
 - identify measures to prevent a fire occurring within the site from developing into a bushfire;
 - consider any potential impacts of the on the aerial fighting of bushfires; and
 - o demonstrate compliance with *Planning for Bush Fire Protection 2019*;
- Battery Energy Storage System -
 - a Preliminary Hazard Analysis (PHA), prepared in accordance with the Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis' and Multi-level Risk Assessment (DoP, 2011). The PHA must consider all recent standards and codes and verify separation distances to onsite and off-site receptors to prevent fire propagation and compliance with Hazardous Industry Advisory Paper No. 4, 'Risk Criteria for Land Use Safety Planning (DoP, 2011) and include the key design parameters identified in the PHA within the project description;
- Dangerous Goods a preliminary risk screening completed in accordance

	 with the <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i>; Blade Throw – assess blade throw risks, including consideration of of associated dwellings, non-associated dwellings and battery energy storage facilities. Social Impact – including an assessment of the social impacts in accordance with the <i>Social Impact Assessment Guideline</i> (DPE) and <i>SIA Guideline - Technical Supplement</i> (DPE) including consideration of any increase in demand for community infrastructure services and consideration of construction workforce accommodation. Economic – including any benefits of the economic impacts or benefits of the project for the region and the State as a whole, and provide details of any proposed voluntary benefit sharing programs. Waste –including: identify, quantify, and classify the likely waste streams to be generated during construction and operation, and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste and an assessment
	 of sewage (if required); and provide a waste management plan prepared in accordance with the Solar Guideline.
Plans and Documents	The EIS must include all relevant plans, diagrams and relevant documentation required under Part 3 of the EP&A Regulation. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include high quality files of maps and figures of the subject site, proposal, and proposed road upgrades.
Legislation, Policies & Guidelines	 The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, a list of some of the legislation, policies and guidelines that may be relevant to the assessment of the project can be found at: <u>https://www.planning.nsw.gov.au/Policy-and-Legislation/Planning-reforms/Rapid-Assessment-Framework/Improving-assessment-guidance</u> <u>https://www.planningportal.nsw.gov.au/major-projects/assessment/policies-and-d-guidelines;</u> and <u>https://www.dcceew.gov.au/environment/epbc/publications#assessments.</u>
Engagement	 During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, affected landowners. The EIS must: detail how engagement undertaken was consistent with the Undertaking engagement Guide: Guidance for State Significant Projects (DPHI); and describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided. In particular you must consult with:

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	 the relevant local, State or Commonwealth Government authorities, service providers, community groups, affected landowners, exploration licence holders, quarry operators, mineral title holders and irrigation channel owners; and carry out detailed consultation with the following:
	 Balranald Shire Council NSW Aboriginal Land Council Heritage NSW Heritage Council of NSW NSW Local Land Services NSW DCCEEW - Heritage NSW Group NSW DCCEEW - Biodiversity Conservation and Science Group NSW DCCEEW - Water Group NSW DCCEEW - Natural Resource Access Regulator Environment Protection Authority Crown Lands Regional NSW – Mining, Exploration & Geoscience Department of Primary Industries - Agriculture division Department of Primary Industries – Fisheries division Transport for New South Wales Transgrid Energy Corporation of NSW (EnergyCo) NSW Telco Authority Fire & Rescue NSW NSW Rural Fire Service Commonwealth Department of Defence Civil Aviation Safety Authority Airservices Australia Murray-Darling Basin Authority Willandra Lakes World Heritage Committee
Expiry Date	If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, your SEARs will expire. If an extension to these SEARs will be required, please consult with the Planning Secretary 3 months prior to the expiry date.