

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-90045958
Project	Boorolong Wind Farm which includes: • the construction, operation and decommissioning of a wind farm with an estimated capacity of up to 426 megawatts (MW), up to 71 turbines with a maximum height of 270 m (to blade tip); and • battery energy storage system up to 150 MW / 600 MWh; and • ancillary infrastructure including substation(s), underground and overhead cabling, switchyard, private access roads and tracks, construction compounds, an operations and maintenance facility, meteorological monitoring masts, transmission lines and grid connection to the transmission network.
Location	Approximately 15 kilometres northwest of Armidale, within the Armidale Regional and Uralla Shire local government areas.
Proponent	Boorolong Wind Farm Pty Ltd (subsidiary of Squadron Energy Developments Pty Ltd)
Date of Issue	5 September 2025
General Requirements	The Environmental Impact Statement (EIS) must meet the minimum form and content requirements as prescribed by Part 8, Division 5 of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) and must have regard to the Department's: • State Significant Development (SSD) Guidelines; and • Renewable Energy Planning Framework, including the Wind Energy Guideline and its supporting Technical Supplement for Landscape Character and Visual Impact Assessment and Technical Supplement for Noise Assessment and the Benefit-Sharing 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 staging of the project or refurbishing of turbines over time; • all infrastructure and facilities, such as substations, transmission lines, construction compounds, concrete batching plants, internal access roads, and road upgrades (including any infrastructure that would be required for the project, but is the subject of a separate approvals process); • the Project Area (as per Table 1 of the SSD guidelines – preparing an environmental impact statement) and Development Footprint (disturbance area including but not limited to areas for infrastructure, road works, access tracks, defendable space, fencing and temporary laydown);

- o plans for any buildings; and
- high quality site plans and maps at an adequate scale with dimensions showing:
 - the location and dimensions of 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 project, including private receivers within the study area in accordance with the Wind Energy Guideline and supporting Technical Supplement for Landscape Character and Visual Impact Assessment;
 - 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 project;
 - 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;
- strategic justification of the suitability of the site with respect to:
 - the viability of the wind resources for the project including high quality maps showing the wind resource;
 - potential land use conflicts with existing and future surrounding land uses including rural villages, rural dwellings, subdivisions, land of high scenic value, conservation areas, strategic agricultural land, state forests, mineral and coal resources, triangulation stations, tourism facilities, existing or proposed wind farms; and
 - the capacity of the existing electricity transmission network to accommodate the development;
- a list of approvals that must be obtained before the development may commence;
- confirmation of whether the project is designated development in accordance with the Environmental Planning and Assessment Act 1979 (EP&A Act) and the EP&A Regulation
- consistency in information presented in the EIS and technical reports, including distances, development footprint, project design and infrastructure proposed, construction timeframes and receiver numbers;
- a model for community benefit-sharing, prepared in accordance with the Benefit-Sharing Guideline including the terms of the proposed voluntary planning agreement with the relevant local council/s;
- a risk assessment of the potential environmental impacts of the project, identifying the key issues for further assessment;
- an assessment of the likely impacts of the project 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 project using sufficient baseline data;
 - identification of proposed staging of the project (if proposed) including any site mobilisation or pre-construction works;
 - o an assessment of the likely impacts of all stages of the project (which is commensurate with the level of impact), including cumulative impacts of the site and existing or proposed developments in the region, in accordance with the Cumulative Impact Assessment Guideline (DPIE, 2022), taking into consideration relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice and including the Wind Energy Guideline;
 - a description of the measures that would be implemented to avoid, mitigate and/or offset the impacts of the project, including details of consultation with any affected non-associated landowners in relation

- to the development of mitigation measures and 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 impact;
- a consolidated summary of the proposed environmental management and monitoring measures, identifying all the commitments in the EIS;
- a detailed evaluation of the merits of the development as a whole having regard to:
 - the requirements in Section 4.15 of the EP&A Act, and how the principles of ecologically sustainable development have been incorporated in the design, construction and ongoing operations of the 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 project (and its key components) including design alternatives to avoid impacts to areas of biodiversity value, and areas of archaeological sensitivity, opportunities for shared infrastructure with proposed developments in the region and the consequences of not carrying out 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; and
- 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 EP&A Regulation); and
- a declaration from a Registered Environmental Assessment Practitioner that the EIS includes the information specified in the *Departments* Registered Environment 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 turbines, transmission lines, substations, and other ancillary infrastructure) in accordance with the Wind Energy Guideline and supporting Technical Supplement for Landscape Character and Visual Impact Assessment.

Noise and Vibration - including:

- an assessment of the wind turbine noise in accordance with the Wind Energy Guideline, including the supporting Technical Supplement for Noise Assessment;
- an assessment of the noise generated by ancillary infrastructure in accordance with the NSW Noise Policy for Industry (EPA, 2017);

- assessment of the construction noise under the Interim Construction Noise Guideline (DECC, 2009);
- assessment of the traffic noise under the NSW Road Noise Policy (DECCW, 2011);
- an assessment of vibration under the Assessing Vibration: A Technical Guideline (DECC, 2006); and
- 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:
 - o 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;
 - assess any indirect impacts on any nearby national parks, nature reserves (including Boorolong Nature Reserve, Bulagaranda (Mount Yarrowyck) Aboriginal Area and Duval Nature Reserve) and State forest; and
 - be finalised by an accredited assessor as BAM-compliant within 14 days of submission;
- 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;
- an assessment of the impacts of the project on birds and bats, including blade strike, low air pressure zones at the blade tips (barotrauma), alteration to movement patterns, and cumulative impacts of other wind farms in the vicinity;
- 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 Aboriginal Cultural Heritage Assessment Report (ACHAR) prepared 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), identifying, describing and assessing any impacts to Aboriginal cultural heritage sites or values associated with the site (including impacts from any proposed earth works, construction works and road upgrades), including results of archaeological test excavations (where required), undertaken in accordance with the relevant standards and requirements;
- evidence of adequate consultation with Aboriginal communities in determining and assessing impacts, identifying and selecting options for avoidance of Aboriginal cultural heritage and identifying appropriate mitigation measures (including the final proposed measures), having regard to the Aboriginal Cultural Heritage Consultation Requirements for Proponent (DECCW, 2010) including the consultation process outlined within; and
- an assessment of the impacts to historic heritage having regard to the Guidelines for preparing a statement of heritage impact (DPE, 2023).

Traffic and Transport – including

- an assessment of the peak and average traffic generation, including light vehicles (including shuttle buses), heavy vehicles, heavy vehicles requiring escort, high risk heavy vehicles requiring escort (noting Table 1 in TfNSW Fact Sheet – Transport Management Plans for Over Size and/or Overmass Movements in NSW) and construction worker transportation;
- an assessment of the likely transport impacts of the project, particularly in relation to the capacity and condition of public roads (including site access(es)), road safety, intersection performance and impacts to rail infrastructure (with consideration of rail safety);
- a concept level route analysis for heavy vehicles requiring escort and highrisk heavy vehicles requiring escort;
- a cumulative traffic impact assessment of traffic from nearby developments;
- details of measures to mitigate and/or manage potential impacts (including consulting with the relevant road authorities, as required) including:
 - a schedule of required road upgrades (including resulting from heavy vehicle and heavy vehicles requiring escort and high-risk heavy vehicles requiring escort haulage routes where relevant);
 - strategic concept designs of proposed road upgrades (including the site access point(s)) prepared in accordance with <u>TfNSW's Strategic-Design-requirements-for-DA-Factsheet.pdf</u> (where relevant); and
 - road maintenance, and any other traffic control measures.

Water and Soils - including:

- an assessment of the likely impacts of the project on:
 - surrounding watercourses (including their Strahler Stream Order), groundwater resources and surface water movements;
 - hydrology (including flooding and flood modelling) and any changes to overland flows and flood risk, having regard to adopted flood studies, the potential effects of climate change, and the relevant provisions of the NSW Flood Risk Management Manual;
 - groundwater (if extraction or interference is proposed), changes to groundwater levels on-site or off-site; and
 - drainage channels, wetlands, riparian land, farm dams, groundwater dependent ecosystems and acid sulfate soils, related infrastructure, adjacent licensed water users and basic landholder rights;
- detail of design solutions, water management and operational procedures to manage impacts and measures proposed to monitor, reduce and mitigate these impacts, having regard to the Wind Energy Guideline
- a site water balance for the project;
- details of water requirements and supply arrangements for construction and operation (including consultation with suppliers);
- 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;
- 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); Policy & Guidelines for Fish Habitat Conservation & Management (DPI, 2013); and
- where the project has the potential to alter flood behaviour, affect flood risk to the existing community or expose its users to flood risk, prepare a flood impact and risk assessment (FIRA) in accordance with the Flood Impact and Risk Assessment – Flood Risk Management Guide LU01. Where

required, detailed design solutions and operational procedures to mitigate flood risk where required.

Air Quality – including:

- an assessment of risks of dust generation and proposed mitigation measures; and
- an assessment of the likely greenhouse gas impacts of the project, including
 measures to minimise emissions, having regard to the targets set in the
 Climate Change (Net Zero Future) Act 2023, and in accordance with the
 EPA's NSW Guide for Large Emitters if required if emissions trigger the
 threshold as a large emitter.

Land – including:

- a detailed justification of the suitability of the site and that the site can accommodate the project, having regard to its potential environmental impacts, permissibility, strategic context, existing site constraints, opportunities for shared infrastructure with proposed developments in the region and the consequences of not carrying out the development;
- an assessment of the potential impacts of the project on existing land uses on the site and adjacent land, including:
 - o flood prone land, agricultural land, irrigated lands, Crown lands, travelling stock routes, mining, quarries, mineral or petroleum rights;
 - a soil survey to determine the soil characteristics and consider the potential for erosion to occur;
 - o a cumulative impact assessment of nearby developments;
 - the development potential of that land, in accordance with the Wind Energy Guideline;
 - the impact of the project on nearby nature reserves, (including Boorolong Nature Reserve, Bulagaranda (Mount Yarrowyck) Aboriginal Area and Duval Nature Reserve) and other lands reserved under the National Parks and Wildlife Act 1974, having regard to the Development adjacent to National Parks and Wildlife Services Lands – Guidelines for consent and planning authorities (NPWS, 2020);
- an assessment of the compatibility of the project 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
 - o assessment of impact on agricultural resources and agricultural production on the site and region.

Hazards and Risks – including:

- Aviation Safety
 - prepare an aviation impact assessment in accordance with Appendix A of the Wind Energy Guideline and the National Airports Safeguarding Framework Guideline D: Managing Wind Turbine Risk to Aircraft; and
 - assess the impact of the turbines on the safe and efficient aerial application of agricultural fertilisers and pesticides and emergency helicopter access (if required) 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 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 Nonlonizing 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;
 - o identify measures to prevent a fire occurring within the site from developing into a bushfire;
 - consider any potential impacts of the project on the aerial fighting of bushfires; and
 - 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 the Department's 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. The PHA must consider the effect of bushfires on batteries or other components of the BESS.
- Dangerous Goods a preliminary risk screening completed in accordance with the Department's Hazardous and Offensive Development Application Guidelines 'Applying SEPP 33' and the State Environmental Planning Policy (Resilience and Hazards) 2021;
- Blade Throw assess blade throw and ice throw risks, including consideration of associated dwellings, non-associated dwellings, sensitive uses and neighbouring infrastructure; and
- Contamination a preliminary investigation into potential contamination across the site, in accordance with the State Environment Planning Policy (Resilience and Hazards) 2021 (as required).

Social Impact – including an assessment of the social impacts in accordance with the *Social Impact Assessment Guideline* (DPE) and *SIA Guideline* – *Technical Supplement* (DPE) and consideration of construction workforce accommodation.

Economic and Benefit-Sharing – including:

- any economic impacts and benefits of the project for the region and the State as a whole, including a consideration of any increase in demand for community infrastructure services;
- details of how the construction workforce will be managed to minimise local impact, including a consideration of the construction workforce accommodation; and
- details of proposed benefit sharing arrangements, in accordance with the Benefit-Sharing Guideline.

Waste – identify, quantify and classify the likely waste streams to be generated throughout all stages of the project, and describe the measures to be implemented to reduce waste generation, manage, reuse, recycle and safety dispose of this waste and an assessment of sewerage (if required).

Plans and Documents

The EIS must include all relevant plans, diagrams and relevant documentation required under Part 3 of the 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.

Legislations, Policies and 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:

- https://www.planning.nsw.gov.au/policy-and-legislation/renewableenergy/renewable-energy-planning-framework
- https://www.planning.nsw.gov.au/Policy-and-Legislation/Planningreforms/Rapid-Assessment-Framework/Improvingassessment-guidance
- https://www.planningportal.nsw.gov.au/majorprojects/assessment/policiesand-guidelines; and
- https://www.dcceew.gov.au/environment/epbc/publications#assessments

Engagement

During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, infrastructure and service providers, community groups and affected landowners.

The EIS must:

- detail how engagement undertaken was consistent with the Undertaking Engagement Guide: Guidance for State Significant Projects (DPIE, 2021); and
- describe the consultation process and the issues raised, and identify where
 the design of the project 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:

- 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:
 - o Armidale Regional Council
 - o Uralla Shire Council
 - NSW Aboriginal Land Council
 - NSW DCCEEW Conservation Programs, Heritage and Regulation Group
 - National Parks and Wildlife Service
 - Bulagaranda (Mt Yarrowyck) Board of Management
 - o Heritage NSW
 - NSW Local Land Services
 - NSW DCCEEW Water Group
 - o NSW DCCEEW Natural Resource Access Regulator
 - WaterNSW
 - Environment Protection Authority
 - o Crown Lands
 - Regional NSW Mining, Exploration & Geoscience
 - Transport for New South Wales
 - Transgrid

	DPIRD – NSW Resources
	DPIRD – Agriculture division
	 DPIRD – Fisheries division
	NSW Telco Authority
	○ Fire & Rescue NSW
	NSW Rural Fire Service
	 Commonwealth Department of Defence
	Civil Aviation Safety Authority
	Airservices Australia
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.