

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979* Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

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| Application Number | SSD-10807896 |
| Project Name | Thunderbolt Energy Hub Wind Farm, which includes: <ul style="list-style-type: none"> the construction, operation and decommissioning of a wind farm with an estimated capacity of 380 megawatts (MW), a maximum of 70 turbines and a maximum height of 250 metres (to blade tip); and ancillary infrastructure including access tracks, road upgrades, underground and overhead electricity cabling, substations, transmission lines and grid connection to the TransGrid transmission network. |
| Location | Approximately 40 km north east of Tamworth in Tamworth Regional, Uralla Shire and Walcha Shire local government areas |
| Applicant | Neoen Australia Pty Ltd |
| Date of Issue | 16/12/2020 |
| General Requirements | <p>The environmental impact statement (EIS) must comply with the requirements of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> (the EP&A Regulation).</p> <p>In particular, the EIS must include:</p> <ul style="list-style-type: none"> a stand-alone executive summary; a full description of the development, including: <ul style="list-style-type: none"> details of construction, operation and decommissioning, including any proposed staging of the development 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 development, but the subject of a separate approvals process); plans for any buildings; site plans and maps at an adequate scale with dimensions showing: <ul style="list-style-type: none"> 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 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; details of the progressive rehabilitation of the site; |

- 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;
- an assessment of the likely impacts of the development on the environment, 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 (including the cumulative impacts of the development with existing and proposed developments in the New England region, including the Thunderbolt Energy Hub more broadly, New England Solar Farm and the proposed Salisbury Solar Farm and Winterbourne Wind Farm), taking into consideration any relevant State and Commonwealth legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice and including 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; and
- the reasons why the development should be approved having regard to:
 - relevant matters for consideration under the *Environmental Planning and Assessment Act 1979* (EP&A Act), including the objects of the Act, and how the principles of ecologically sustainable development have been incorporated in the design, construction and ongoing operations of the development;
 - an evaluation of the merits of the project as a whole, having regard to the requirements in Section 4.15 of the EP&A Act;
 - 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;
 - 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;
 - the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses, including rural villages, rural dwellings, subdivisions, land of high scenic value, conservation areas (including National Parks, State Parks and Reserves), strategic agricultural land, state forests, mineral and coal resources, triangulation stations, tourism facilities, existing or proposed wind farms, and the capacity of the

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| | <p>existing electricity transmission network to accommodate the development; and</p> <ul style="list-style-type: none"> - feasible alternatives to the development (and its key components), including the consequences of not carrying out the development. <p>The EIS must also be accompanied by a report from a suitably qualified person providing:</p> <ul style="list-style-type: none"> • a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; and • certification that the information provided is accurate at the date of preparation. <p>The development application must be accompanied by the consent in writing of the owner/s of the land (as required in clause 49(1)(b) of the Regulation).</p> |
| Key issues | <p>The EIS must address the following specific issues for the wind farm and associated infrastructure:</p> <p>Landscape and Visual – the EIS must include a detailed assessment of the visual impacts of all components of the project (including turbines, transmission lines, substations, and any other ancillary infrastructure and (if required) night lighting) in accordance with the <i>NSW Wind Energy: Visual Assessment Bulletin</i> (DPE, 2016), including detailed consideration of potential visual impacts on local residences.</p> <p>Noise and Vibration – the EIS must:</p> <ul style="list-style-type: none"> • assess wind turbine noise in accordance with the <i>NSW Wind Energy: Noise Assessment Bulletin</i> (EPA/DPE, 2016); • assess noise generated by ancillary infrastructure in accordance with the <i>NSW Noise Policy for Industry</i> (EPA, 2017); • assess construction noise under the <i>Interim Construction Noise Guideline</i> (DECC, 2009); and • assess traffic noise under the <i>NSW Road Noise Policy</i> (DECCW, 2011); and • assess vibration under the <i>Assessing Vibration: A Technical Guideline</i> (DECC, 2006). <p>Biodiversity – the EIS must:</p> <ul style="list-style-type: none"> • assess biodiversity values and the likely biodiversity impacts of the development, including impacts associated with transport route road upgrades, in accordance with the <i>Biodiversity Conservation Act 2016</i> (NSW) (BC Act), including a detailed description of the proposed regime for minimising, managing and reporting on the biodiversity impacts of the development over time, and a strategy to offset any residual impacts of the development in accordance with the BC Act; • assess 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 impacts on listed aquatic threatened species, populations or ecological communities and a description of the measures to minimise and rehabilitate impacts. <p>Traffic and Transport – the EIS must:</p> |

- assess the construction, operational and decommissioning traffic impacts of the development on the local and State road network (including New England Highway, Kentucky Road, Noalimba Avenue, Oxley Highway, Wollun Woolbrook Road, Old Wollun Road, Traceys Road, Reeves Road, Westvale road, Gunnalong road, Pine Creek road, Walcha Stock Route Road, Borgers Road Rimbanda road and any other roads proposed to be used);
- provide details of the peak and average traffic volumes (including light, heavy and over-mass / over-dimensional vehicles) and transport and haulage routes during construction, operation and decommissioning, including traffic associated with sourcing raw materials (water, sand and gravel);
- assess 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;
- assess 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; and
- provide 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.

Hazards and Risks – the EIS must include 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;
 - 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;
- *Bushfire* - identify potential hazards and risks associated with bushfires / use of bushfire prone land, including the risks that a wind farm would cause bush fire and any potential impacts on the aerial fighting of bushfires and demonstrate compliance with *Planning for Bush Fire Protection 2019*; and
- *Blade Throw* – assess blade throw risks.

Heritage – the EIS must:

- assess 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);
- provide 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); and
- assess the impact to historic heritage having regard to the *NSW Heritage Manual*.

Water and Soils – the EIS must:

- 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;
- assess potential impacts on the quantity and quality of surface and groundwater resources, including impacts on other water users and watercourses, including Namoi, Gwydir and Mcleay catchment areas, Pine Creek, Carlisles Gully, Spring Creek, Looanga Creek, Kentucky Creek, which traverse the site.
- 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
- describe the measures to minimise surface and groundwater impacts, including how works on steep gradient land or erodible soil types would be managed and any contingency requirements to address residual impacts.

Waste – the EIS must 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.

Social & Economic – the EIS must include an assessment of the social and economic impacts and benefits of the project for the region and the State as a whole, including consideration of any increase in demand for community infrastructure services, assessment of impact on agricultural resources and agricultural production on the site and region.

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| Plans and Documents | <p>The EIS must include all relevant plans, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents.</p> <p>In addition, the EIS must include high quality files of maps and figures of the subject site, proposal and proposed road upgrades.</p> |
| Consultation | <p>During the preparation of the EIS, you must:</p> <ul style="list-style-type: none"> • consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, affected landowners, exploration licence holders, quarry operators and mineral title holders. • establish a Community Consultative Committee for the project in accordance with the <i>Community Consultative Committee Guidelines for State Significant Projects</i>, and consult with the committee during the preparation of the EIS, and • carry out detailed consultation with the following: <ul style="list-style-type: none"> - Tamworth Regional Council; - Uralla Shire Council; - Walcha Shire Council; - DPIE's Biodiversity, Conservation and Science Directorate; - Department of Premier and Cabinet - Heritage - DPIE Water Group; - WaterNSW; - Environment Protection Authority; - Crown Lands; - Regional NSW – Mining, Exploration & Geoscience (MEG); - Department of Primary Industries – Agriculture and Fisheries divisions; - John Holland Rail; - Transport for New South Wales; - TransGrid; - Department of Finance, Services and Innovation – Telco Authority; - North West and Northern Tablelands Local Land Services; - Fire & Rescue NSW; - NSW Rural Fire Service; - Commonwealth Department of Defence; - Civil Aviation Safety Authority; and - Airservices Australia. <p>The EIS must include a description of what consultation was carried out during the preparation of the EIS, identify the issues raised during this consultation, and explain how these issues have been addressed in the EIS.</p> |
| Further consultation after 2 years | <p>If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Planning Secretary in relation to the preparation of the EIS.</p> |
| References | <p>The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. A list of some of the legislation, policies and guidelines that may be relevant to the assessment of the project can be found at:</p> <ul style="list-style-type: none"> • https://www.planningportal.nsw.gov.au/major-projects/assessment/policies-and-guidelines; and • http://www.environment.gov.au/epbc/publications#assessments |