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Dominic Crinion
Director Infrastructure Management
Planning and Assessment Division
Department of Planning, Industry and Environment

Uploaded to the Major Projects Portal

EPA Advice on Environmental Impact Statement Thunderbolt Wind Farm

Dear Mr Crinion

Thank you for the request for advice from Public Authority Consultation (PAE-41587252), requesting the review by the NSW Environment Protection Authority (EPA) of the Environmental Impact Statement (EIS) for the proposed Thunderbolt Wind Farm (Application SSD-10807896) on the New England Highway, Kentucky NSW.

The EPA has reviewed the following documents:

- *Neoen Thunderbolt Energy Hub - Stage 1 Environmental Impact Statement* (final version) – Umwelt 3 March 2022 (the EIS); and
- *Appendix 10 Thunderbolt Energy Hub – Stage 1 Noise and Vibration Assessment* (S6576.1C10) Sonus February 2022.

The EPA understand the proposal is for the construction and operation of 32 wind turbine generators with a capacity of approximately 192 megawatts. The project also includes the construction and operation of associated infrastructure including operation and maintenance buildings, roads, civil works and infrastructure (including one new substation and switching station) required to connect to the electricity transmission network.

Based on the information provided, the proposal will require an environment protection licence for scheduled development work under section 47 of the *Protection of the Environment Operations Act 1997* (POEO Act) and under section 48 of the POEO Act for the scheduled activity Electricity generation – electricity works (wind farms) at clause 17 of Schedule 1 of the POEO Act.

All aggregate for the project will be sourced from external suppliers. The proposed volumes have not been provided. Any site providing more than 30,000 tonnes per year of material must hold an environment protection licence.

The EIS provides the information requested in the EPA's advice (DOC20/976732-6) dated 4 December 2020 regarding the draft Secretary's Environmental Assessment Requirements.

The EPA recommends that the following issues be addressed by including the conditions in Attachment A.

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Construction Noise

Section 6.2 of the Noise and Vibration Assessment identified that both a mobile crushing and screening plant, and concrete batching plants may operate during the construction phase of the project. Potential locations have been identified. The mobile crushing screen may require an Environment Protection Licence depending on the volume of material to be crushed.

The batching plant is proposed to be operated in the early morning which is during the night period prescribed by the *Noise Policy for Industry*. No justification is provided for out of standard hours works in the Noise and Vibration Assessment. The EPA has recommended conditions to address this matter.

Operational Noise

The assessment is based on representative contemporary wind turbine generators with a 170m hub height, with final turbine selection to be made during the detailed design process. Having regard to this, the EPA has recommended further noise assessment prior to construction following detailed design and final turbine selection.

Water Quality

The site of the proposed wind farm is in steep country with shallow erodible soils. The EPA has recommended conditions to ensure the management of erosion and sediment. The EPA has also recommended standard conditions related to bunding and spill containment and management.

If you have any questions about this request, please contact Damien Rose on (02) 9995 5586 or via email at environmentprotection.planning@epa.nsw.gov.au .

Yours sincerely

MITCHELL BENNETT
Unit Head – Statutory Planning

Attachment A - Recommended Conditions – Thunderbolt Wind Farm

a. Noise

Operational Noise

1. The proponent must satisfy the noise criteria stipulated in the 'Wind Energy: Noise Assessment Bulletin – For State significant wind energy development, NSW Government 2016' (Planning Bulletin), meaning:

“The predicted equivalent noise level (LAeq,10 minute) determined in accordance with ‘Wind farms – environmental noise guidelines, SA Environmental Protection Authority, (2009)’, adjusted for tonality and low frequency noise in accordance with the Planning Bulletin, should not exceed 35 dB(A) or the background noise (LA90(10 minute)) by more than 5 dB(A), whichever is the greater, at all relevant receivers for wind speed from cut-in to rated power of the wind turbine generator and each integer wind speed in between.”
2. Ancillary plant and equipment (including the switching station, substation and transmission lines) must not exceed a level of Leq,15minutes 35dB(A) at any residence not associated with the development.
3. The proponent must submit a revised noise impact assessment, before construction commences, to the Planning Secretary for approval based on detailed design and final turbine selection demonstrating that the criteria in the Planning Bulletin can be met. The details of any 'curtailment' or requirements for turbines to operate in low noise mode (if required) must be fully presented in the revised noise impact assessment.

Construction Noise and Vibration

4. Hours of Construction

All construction work at the premises must be conducted between 7am and 6pm Monday to Friday and between 8am and 1pm Saturdays and at no time on Sundays and public holidays.

Exceptions to construction hours - The following activities may be carried out outside the recommended construction hours:

- a) construction that causes $L_{Aeq(15minute)}$ noise levels that are:
 - i. no more than 5dB above Rating Background Level at any residence in accordance with the *Interim Construction Noise Guideline* (DECC, 2009); and
 - ii. no more than the Noise Management Levels specified in Table 3 of the *Interim Construction Noise Guideline* (DECC, 2009) at other sensitive land uses; or
- b) for the delivery of materials required by the police or other authorities for safety reasons; or
- c) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; or
- d) as approved through the process outlined in "Variation of construction hours" of this approval.

Variation of construction hours - The hours of construction activities specified under "Exceptions to construction hours" d) of this approval may be varied with the prior written approval of the Secretary. Any request to alter the hours of construction shall be:

- a) considered on a case-by-case or activity-specific basis
- b) accompanied by details of the nature and justification for activities to be conducted during the varied construction hours
- c) accompanied by written evidence that appropriate consultation with potentially affected sensitive receivers and notification of relevant Council(s) (and other relevant agencies) has been and will be undertaken
- d) all feasible and reasonable noise mitigation measures have been put in place

- e) accompanied by a noise impact assessment consistent with the requirements of the *Interim Construction Noise Guideline* (DECCW, 2009).
5. All feasible and reasonable noise mitigation measures must be applied for construction activities to seek to achieve the Noise Management Levels (NML) outlined in the *Interim Construction Noise Guideline* (ICNG – DECC, 2009).
 6. The proponent must prepare a Construction Noise and Vibration Management Plan for approval by the Secretary that describes how construction noise impacts will be minimised to the extent practicable. The plan should include a noise impact assessment that identifies and assesses noise impacts from the proposed location of construction compounds, internal haul roads, wind turbine generators [construction sites], concrete batching plants and mobile crushing and screening plants and the feasible and reasonable noise mitigation measures that will be applied to reduce construction noise impacts to the extent practicable.
 7. If blasting is required for any reason during the construction or operational stage of the proposed development, blast impacts must comply with the guidelines and criteria contained in '*Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration*' (ANZEC, 1990).

b. Water Quality

8. Erosion and Sediment Control - The proponent must prepare and implement a Site Water Management Plan and ESCP prior to commencement of construction of surface facilities or operations in accordance with:
 - o *Managing Urban Stormwater: Soils and Construction Volume 1*;
 - o *Managing Urban Stormwater: Soils and Construction: Volume 2C Unsealed Roads* (DECC, 2008) for erosion and sediment control of on-site roads and waterway crossings (guidance is also provided in the field guide *Erosion and sediment control on unsealed roads* available on the Office of Environment and Heritage stormwater website); and
 - o *Managing Urban Stormwater: Soils and Construction: Volume 2A Installation of Services* (DECC 2008) for erosion and sediment control during the installation of the access tracks and cabling.
9. Concrete batching plants must be fully bunded with any contaminated water to be reused in the process.
10. Storage of dangerous or hazardous goods - The applicant must store and handle all dangerous or hazardous materials on site in accordance with *AS1940-2004: The Storage and Handling of flammable and combustible liquids*, or its latest version
11. The proponent must minimise any spills of hazardous materials or hydrocarbons and clean up any spills as soon as possible after the spill occurs.

c. Air Quality

12. All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.

d. Waste

13. The applicant must:
 - a) Minimise the waste generated by the development;
 - b) Classify all waste generated on site in accordance with the EPA's *Waste Classification Guidelines 2014*;
 - c) Store and handle all waste generated on site in accordance with its classification;
 - d) Not receive or dispose of any waste onsite; and
 - e) Ensure all waste is disposed of at appropriately licensed waste facilities.