



DOC23/994263-4

Resource and Energy Assessments
Planning and Assessment Division
Department of Planning, Industry and Environment

Uploaded to the Major Projects Portal

Attention: Natasha Homsey

15 December 2023

Dear Ms Homsey

**EPA Advice on Environmental Impact Statement – Further Information Required –
Burrendong Wind Farm (SSD-8950984)**

Thank you for the request for advice from Public Authority Consultation (PAE- 64738216), requesting the review by the NSW Environment Protection Authority (EPA) of the Environmental Impact Statement (EIS) for the proposed Burrendong Wind Farm (Application SSD-8950984) located approximately 30km west of Mudgee in NSW, predominantly in the Yarrabin area, within the Dubbo Regional and Mid-Western Regional Local Government Areas (LGA).

The EPA has reviewed the following documents:

- *Burrendong Wind Farm Environmental Impact Statement* – Eco Logical Australia Pty Limited – dated November 2023 and associated appendices.

The EPA understands the proposal is to construct and operate up to 70 wind turbine generators with a capacity of approximately 400-500 megawatts. The project also includes the construction and operation of ancillary infrastructure, as well as temporary facilities including concrete (or asphalt) batching plants and rock crushing facilities.

Based on the information provided, the proposal is subject to 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 crushing, grinding or separating if it has a capacity to process more than 150 tonnes of material per day or 30,000 tonnes of material per year at clause 16 of Schedule 1 of the POEO Act and for Electricity generation – electricity works (wind farms) at clause 17 of Schedule 1 of the POEO Act.

The EPA has determined that further information is required to properly assess any recommended conditions and the requires information is outlined below:

Noise

The EPA has assessed the EIS along with the *Burrendong Wind Farm EIS Noise Assessment* (document no Rp 002 r02 20200219, dated 15 September 2023) (NVIA) and has determined that further information and clarification is needed.

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Windfarm Noise Criteria

Appendix G and H provide background noise levels and noise limits for day and night periods.

Wind Energy: Noise Assessment Bulletin (NSW Planning & Environment, 2016) requires that the noise limits are established based on a 24-hour period.

The EPA requests that operational noise limits for the windfarm are updated to reflect a 24-hour period rather than day/night, in line with the *Wind Energy: Noise Assessment Bulletin*.

Noise Prediction Method

The operational windfarm noise assessment has used corrections to ISO9613-2 based on guidance from *A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise* (UK Institute of Acoustics, 2013). The assessment deviated from the UK Institute of Acoustics guidance with reference to receiver height, modelling receivers at 1.5 metres above the ground rather than the recommended 4 metres. The EPA is aware that when using ISO9613-2, the influence of ground absorption is mostly dependent on the source and receiver regions, and reducing the receiver height would increase the influence of ground absorption on the predicted levels. Noting that the UK Institute of Acoustics guidance specifically recommends a 4-metre receiver height '*as it has the effect of reducing the potential over-sensitivity of the calculation to the receiver region ground factor compared to lower receiver heights*', the EPA is concerned that the presented levels may overpredict the influence of ground absorption.

The EPA requests that a sensitivity analysis of the modelled receiver height's impact on the predicted noise levels is provided to justify the use of 1.5 metre receiver heights.

Construction noise and vibration

The EPA notes that the Secretary's Environmental Assessment Requirements (SEARs) require that the EIS must assess construction noise impacts in line with the Interim Construction Noise Guideline (ICNG) (EPA, 2009), and develop a draft noise management plan where the assessment shows construction noise is likely to exceed applicable criteria. In Section 9.3 of the NVIA, construction noise impacts have been predicted with exceedances identified. However, no discussion of reasonable and feasible mitigation has been undertaken (as required by the ICNG) and no draft noise management plan has been provided, other than noting that it will be dealt with in the future as part of a Construction Noise and Vibration Management Plan.

The planning department may wish to request that an assessment of reasonable and feasible mitigation is presented, and a draft noise management plan prepared to satisfy the SEARs.

In Section 9.4 of the NVIA, no project-specific prediction of blasting and construction vibration impacts at sensitive receivers or discussion of reasonable and feasible mitigation has been provided.

The planning department may wish to request that any impacts associated with blasting (airblast overpressure and ground borne vibration) and construction vibration are identified, and reasonable and feasible mitigation is discussed where appropriate to satisfy the SEARs.

If you have any questions about this matter, please contact Isabella Rambaldini on (02) 6883 5358 or by email at info@epa.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to be 'S. Lund', with a stylized flourish at the end.

SIMON LUND
Unit Head
Regulatory Operations Regional