

TECHNICAL MEMO

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To:	Equis	Date:	7 February 2024
Attention:	Gerrit Prent	Cross Reference:	
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From:	Oskar Wesley-Smith	No. Pages:	3
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Subject:	Response to DPI Agriculture Submission		

Marshall Day Acoustics Pty Ltd (MDA) has been assisting Equis Energy (Australia) Projects (Ngumi 4) Pty Ltd (Equis) with acoustic services related to the development of the Calala BESS (the Project), a battery energy storage system (BESS) proposed to be developed nearby to the township of Calala, NSW.

MDA have previously provided Equis with a noise and vibration assessment for submission alongside the Project Environmental Impact Statement (EIS) submission. This assessment has been documented in MDA document *Rp 001 20220648 – Calala BESS – Noise and Vibration Assessment* dated 30 May 2023 (the EIS report).

Subsequent to the submission of the EIS report to the NSW Department of Planning and Environment (DPE) for approval, MDA have been advised by Equis that in their response to the submission, the NSW Department of Primary Industries (DPI) Agriculture have raised concerns regarding the potential for noise impacts on the operation of the DPI Tamworth Agricultural Institute (TAI).

These concerns have been documented in a submission response identified as *OUT23/20408* and dated 13 December 2023. The specific noise related concerns raised in the submission response relate to the potential impacts of noise from the BESS on:

- Item 1 - Researchers undertaking field work (not operating machinery); and
- Item 2 - Livestock (sheep) grazing in the paddocks.

In response to these concerns, Equis have directed MDA to prepare a short-form technical memo. The purpose of this memo is to provide context to the existing assessment, as well as provide a high-level evaluation of the noise levels predicted at and within the boundary of the TAI site, based on the noise level predictions documented within the EIS report.

Item 1

Within the EIS report, noise associated with the operation of the Project has been assessed under the NSW EPA Noise Policy for Industry (NPfI), to align with the requirements of the project-specific Secretary's Environmental Assessment Requirements (SEARs).

Table 2.2 of the NPfI provides guidance regarding the categories of receivers to be considered as part of the noise assessment. Based on MDA's evaluation, the TAI does not fit directly within these categories. The use of the land for agricultural purposes is similar to the general use of a farm premises. Farms and their associated landholdings are not prescriptively identified in the NPfI.

With regards to non-residential receiver categories in the NPfI the TAI site could not be defined as a school classroom, hospital ward, place of worship or recreation area. The two remaining categories are 'Commercial premises' or 'Industrial premises' (with Commercial receivers having more stringent targets than Industrial), neither of which we believe are applicable. We note that MDA is not aware of any precedent for the application of a commercial premises receiver classification to a land use for agricultural research purposes.

Whilst we do not believe a Commercial receiver classification is appropriate, we have nonetheless carried out an alternative assessment on the hypothetical basis that the TAI site was a Commercial receiver, with workers active all over the site, including on the boundary to the BESS site. If the TAI site was classified as a commercial receiver, then an amenity noise level of 65 dB L_{Aeq} would apply at the boundary of the TAI property – as per Table 2.2 and Section 2.6 of the NPfI.

The current noise level predictions (documented in Appendix F of the EIS Report) at the western TAI boundary (nearest to the Project site) are below 65 dB L_{Aeq} . On this basis the amenity noise level for a commercial receiver would be achieved at the boundary and therefore throughout the TAI property.

The northeastern corner of the TAI site also includes occupied buildings and accommodation facilities. Equis have directed MDA to consider the predicted noise levels from the operation of the BESS, at the occupied building precinct and the accommodation facilities of the TAI.

A revised version of the predicted noise contours documented in Appendix F of the EIS report has been prepared to indicate the location of the TAI buildings in relation to the Project. This revised figure is shown in Figure 1.

As shown in Figure 1, the TAI buildings and associated accommodation buildings are located outside of the 35 dB L_{Aeq} contour, meaning that the predicted noise levels at these locations are below the minimum noise limit that could be applied under the NPfI, regardless of receiver classification.

Item 2

The requirements for the assessment of noise for the Project are outlined in the SEARs, which refers to the NPfI for the assessment of operational noise. The NPfI provides guidance for the application of noise limits to projects of an industrial nature, aimed at minimising noise impacts to humans. The NPfI does not address noise impacts to animals.

The response of animal species to noise is both variable and dependant on extensive ecological and biological factors. While MDA can establish predicted noise levels across the TAI site, consideration of the response of any animal species to these noise levels (including sheep) is outside the scope of the NPfI. Additionally, MDA are not presently aware of any current or planned guidelines regarding the prediction of noise impacts to sheep.

Figure 1: EIS report noise contours - including TAI buildings

