

1 December 2022

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Lal Lal Wind Farms Nom Co Pty Limited ACN 625 768 774
al Lal Wind Farms Partnership
c/- Res Australia Pty Limited
Suite 4, Level 1
760 Pacific Highway
Chatswood NSW 2067

Attention: Andrew Polimeni

Dear Andrew

Elaine Wind Farm - Noise compliance

SLR Consulting (SLR) has been engaged by Lal Lal Wind Farms Nom Co Pty to provide a summary of **pre-construction noise prediction**, post construction noise monitoring and compliance assessment undertaken by SLR for Elaine Wind Farm which is relevant to the property located at 308 Elaine-Mount Mercer Road, Elaine from which noise complaints have been received.

In all **pre-construction** and post construction noise assessment reports this property is referred to as receptor J14aa.

1 Pre-construction

Condition 23 of the Planning Permit (ref: Planning Permit No. PL-SP/05/0461-2 amended 12 April 2022) defines the operational noise limits based on the New Zealand Standard NZS 6808 as follows:

23. Except as provided below in this condition, the operation of the wind energy facility must comply with New Zealand Standard 6808:2010, Acoustics – Wind Farm Noise (the Standard) as modified by this condition to the satisfaction of the Minister for Planning.

In determining compliance the following requirements apply:

- a) The operator must ensure that at any wind speed, wind farm sound levels, determined in accordance with the Standard at noise sensitive locations (as defined in the Standard) do not exceed a noise limit of 40dB LA90,10min or background (LA90,10min) plus 5dB, whichever is greater.
- b) Compliance must be assessed separately for all-time and night time. For the purpose of this requirement, night time is defined as 10.00pm to 7.00am, and
- c) Where special audible characteristics, including tonality, impulsive sound or excessive amplitude modulation occur, the measured noise level with the identified special audible characteristics will be modified by applying a penalty of up to + 6 dB L90 in accordance with section 5.4 of the Standard.

Any dwelling on the subject land may be exempt from this condition. This exemption will be given effect through an agreement with the landowner and must be registered on title, unless varied through the written consent of the Minister for Planning. Such dwellings will be known as host dwellings.

1.1 Noise Compliance Test Plan

The Noise Compliance Test Plan (NCTP) (which forms Endorsed Condition 24 and 25 of the Planning Permit) produced by Marshall Day Acoustics (report ref: 003 R03 20170649) provides a predicted noise contour for Elaine Wind Farm as per **Figure 1**. It is clear that receptor J14aa is predicted to be at a wind farm noise level of below 35 dBA, noting that the prediction has assumed worst case down-wind noise propagation and WTG noise directivity, although it is not clear if the model assumed the as built layout or WTG model. Subsequent noise modelling for the 'as built' layout was completed and the relevant result presented in **Section 1.2**.

The NCTP nominates reference receptors surrounding the wind farm for which NZS6808:2010 noise limits are determined based on background noise monitoring. The reference receptors were selected as they represent the closest residence to WTGs and have the highest predicted noise level, with the rationale being that if the wind farm is determined to be noise compliant at the reference receptors then other receptors further from the wind farm and at a lower wind farm noise level would also be compliant. The relevant reference location to receptor J14aa is K15aa.

Pre-construction baseline noise monitoring was completed by SLR at location K15aa in approximately October 2018 and the relevant noise limits determined.

3 Summary

On the basis of:

1. The Pre-Construction Noise Assessment predictions of wind farm noise,
2. The complaints based interim compliance monitoring result during early wind farm operation,
3. The Stage 1 compliance monitoring for Elaine Wind Farm, specifically the result for reference receptor K15aa,

all indications are that the wind farm noise level at receptor J14aa is compliant with the noise limits of NZS6808:2010.

Notwithstanding the above, the actual WTG contributed noise level at J14aa could be confirmed with:

- On / Off testing at specific targeted wind conditions.
- Extrapolated predicted noise to J14aa based upon the determined WTG noise level at a closer intermediate monitoring location.

SLR is developing a specific On / Off Test Plan which is to be implemented during the course of future compliance monitoring campaigns to facilitate the above. I understand that On / Off testing has been offered to residents of receptor J14aa.

I trust that this is sufficient for your current purposes, feel free to contact me should you require any further explanation.

Yours sincerely



GUSTAF REUTERSWARD

B.E. MECH. (HONS) M.A.A.S.
TECHNICAL DIRECTOR ACOSUTICS

Checked/
Authorised by: AM

LAL LAL WIND FARM COMPLIANCE

Baseline Noise Monitoring

Prepared for:

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Suite 4, Level 1
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BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Lal Lal Wind Farms Nom Co Pty Limited ACN 625 768 774 (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
640.11872-R01-v1.1	16 February 2021	Minh Nguyen	Gustaf Reutersward	Gustaf Reutersward
640.11872-R01-v1.0	11 February 2021	Minh Nguyen	Gustaf Reutersward	Gustaf Reutersward

3 2019 Noise Survey Details

Baseline noise monitoring campaigns in 2019 have been conducted at receiver K15aa in accordance with the following:

- The planning permit for the Lal Lal Wind Farm (Planning Permit No. PL-SP/05/0461/A amended April 2018).
- New Zealand Standard 6808:2010 Acoustics – Wind farm noise (NZS 6808:2010), as referenced in the planning permit.

The location of the 2019 noise surveys as well as the previous two 2017 surveys at receiver K15aa are shown in Figure 2.

Figure 2 Monitoring locations at K15aa



LAL LAL WIND FARM - ELAINE

Post-construction Noise Assessment

Prepared for:

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Reference	Date	Prepared	Checked	Authorised
640.11872-R04-v1.7	27 June 2022	Gustaf Reutersward	Aaron McKenzie	Gustaf Reutersward
640.11872-R04-v1.6	23 June 2022	Gustaf Reutersward	Aaron McKenzie	Gustaf Reutersward
640.11872-R04-v1.5	23 March 2022	Gustaf Reutersward	Aaron McKenzie	Gustaf Reutersward
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