



Yangery BESS

Noise Assessment

Yangery BESS Development Pty Ltd

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Prepared by:

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SLR Project No.: 640.031815.00001

2 December 2025

Revision: 1.0

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Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
1.0	2 December 2025	Benjamin French	Gustaf Reutersward	Gustaf Reutersward
0.1	25 November 2025	Benjamin French	Gustaf Reutersward	Gustaf Reutersward

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 Yangery BESS Development Pty Ltd (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.

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Executive Summary

This technical report is an attachment to the Yangery BESS Development Application submission on behalf of Yangery BESS Development Pty Ltd.

SLR Consulting Pty Ltd (SLR) was engaged by Yangery BESS Development Pty Ltd to provide a noise impact assessment of a proposed 120MW/480MWh Battery Energy Storage System (BESS), located at 689 Tower Hill Road, Yangery, Victoria.

The proposed site is located within farmland approximately 8 km northwest of the city of Warrnambool, Victoria.

The predicted noise levels were assessed against the various requirements of EPA Victoria (EP Act, EP Regulations, Noise Protocol, Low Frequency Noise Guidelines and General Environmental Duty).

Compliance with the Noise Protocol is expected at all sensitive receivers for all time periods for the proposed BESS with silencing treatment on the BESS batteries and inverters and designed noise walls. Cumulative noise of Project combined with the adjacent Koroit Zone Substation was also considered in the assessment.

Low frequency noise was assessed in accordance with the Low Frequency Guidelines and demonstrated that the risk of problematic low frequency noise at the closest receivers is low.

Accordingly, the Project meets the relevant Regulations and is not expected to have an unreasonable acoustic impact on the surrounding area.

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1.0 Introduction

Yangery BESS Development Pty Ltd is proposing to develop a 120 MW / 480 MWh Battery Energy Storage System (BESS) at 689 Tower Hill Road, Yangery, Victoria, (Lot 1\PS601769).

SLR Consulting Pty Ltd (SLR) has been engaged by Yangery BESS Development Pty Ltd to undertake a preliminary operational noise impact assessment for the Project.

2.0 Project Area

The proposed site is on rural Farming Zone (FZ) land approximately 8 km northwest of Warrnambool in the Warrnambool City Council local government area.

The Koroit Zone Substation adjoins the northwest boundary of the proposed site. The BESS area will be divided into two areas: north and south of the transmission lines bisecting the lot. **Figure 1** shows the proposed project layout plan.

The proposed BESS will have a power rating of 120 MW and storage capacity of 480 MWh (4 hour duration) and includes:

North Area:

- 72 x Wartsila Quantum 2 (or similar) containerised batteries
- 24 x SMA 4600 UP-S (or similar) Power Conversion Systems (PCS or Power Conversion Unit PCU) (each containing an inverter, a MV transformer and MV switchgear)
- Substation consisting of:
 - 1 x 120 MW HV Transformer
 - 1 x Harmonic filter

South Area:

- 60 x Wartsila Quantum 2 (or similar) containerised batteries
- 20 x SMA 4600 UP-S (or similar) PCS

Total equipment quantity:

- 132 x Wartsila Quantum 2 (or similar) containerised batteries
- 44 x SMA 4600 UP-S (or similar) PCS
- 1 x 120 MW HV Transformer
- 1 x Harmonic filter

Noise walls are also planned for the site:

North Area:

- A 7.5 m high wall runs around northern and eastern boundary the BESS area. A gap in the wall on the north boundary, close to the east corner has been provided for emergency access. Total wall length approximately 206 m.
- Two internal north-south walls, 5.5 m in height are situated between battery columns to provide additional shielding to the eastern receivers. The length of each internal wall is approximately 30 m.

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South Area:

- A 7.5 m high wall runs along the entire eastern and part of the northern boundary of the BESS area. Total length approximately 118 m.
- 6 m high walls run along the northern, eastern and part of the southern boundary. Combined length of the 6 m wall are approximately 151 m.

All walls have a minimum surface mass of 15 kg/m² and a weighted sound reduction index of Rw 30. The walls are also assumed to be acoustically absorptive (performance of the absorption is based on the Megasorber P50 or similar). The absorption coefficients of the walls as modelled are shown in **Table 4** in **Section 4.1**.

The proposed BESS layout is shown in **Figure 1**. Details of the noise walls are shown in **Figure 2**.

2.1 Noise Sensitive Receivers

There are 10 identified closest noise sensitive receivers closest to the project, one of which is project-involved (R1).

Table 1 summarizes the sensitive receivers and the distance to the boundary of the Project Site. The easting and northing coordinates reference to GDA2020 MGA Zone 54.

The proposed site and closest sensitive receivers are presented in **Figure 2**.

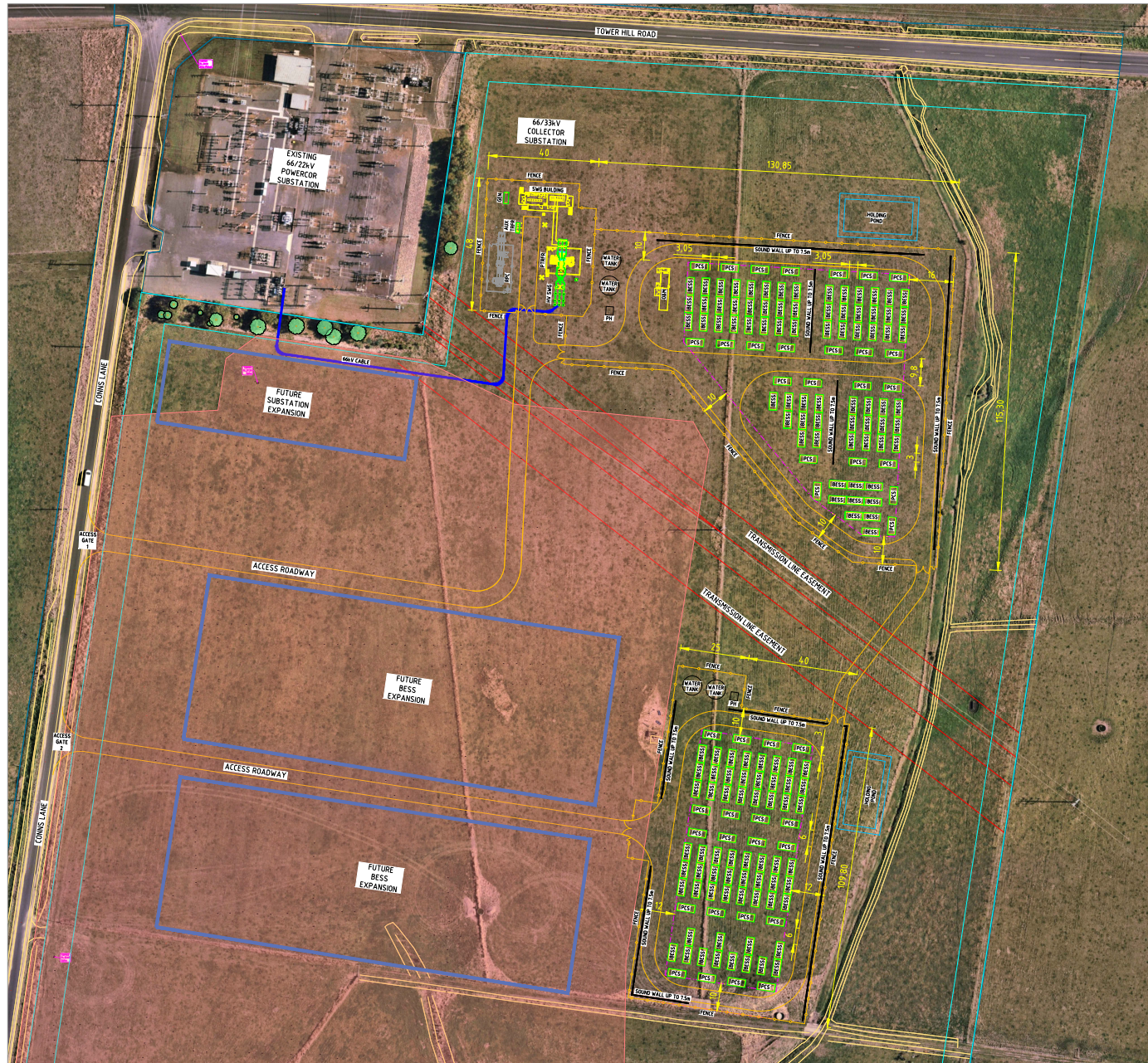
Table 1 Noise Sensitive Receivers

Receiver ID	Easting (m)	Northing (m)	Distance to Project Boundary (m)
R1 ¹	625501	5758029	320
R2	625461	5758286	260
R3	625729	5757847	580
R16	624836	5757578	560
R17	624829	5757482	480
R21	624791	5757897	310
R22	624774	5758302	270
R23	624424	5758280	620
R29	624969	5758494	490
R38	624560	5758364	230
Note 1: Project involved			

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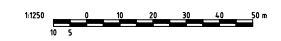
Figure 1: Proposed BESS Site Layout



- NOTES**
1. ANY ELECTRONIC FILE IS PROVIDED WITHOUT WARRANTY AND SHOULD BE USED ONLY IN CONJUNCTION WITH THE SUPPLIED PDF/PAPER COPY OF THIS PLAN.
 2. NO BOUNDARY SURVEY HAS BEEN UNDERTAKEN. BOUNDARIES SHOWN ARE FROM KMZ FILE ONLY AND ARE SUBJECT TO CONFIRMATION BY BOUNDARY SURVEY.
 3. THE SURVEY HAS BEEN CONDUCTED USING AERIAL IMAGING. ACCURACY IS +/-50mm VERTICAL IN OPEN, HARD FLAT AREAS AND +/-150mm ON GROUND FEATURES IN OPEN, HARD FLAT AREAS.
 4. SERVICES SHOWN ARE INDICATIVE ONLY. POSITIONS ARE BASED ON SURFACE INDICATOR(S) LOCATED DURING FIELD SURVEY. CONFIRMATION OF THE EXACT POSITION SHOULD BE MADE TO THE RELEVANT AUTHORITIES PRIOR TO ANY EXCAVATION WORK. OTHER SERVICES MAY EXIST WHICH ARE NOT SHOWN.
 5. BUILDINGS HAVE BEEN PLOTTED FOR DIAGRAMMATIC PURPOSES ONLY.
 6. MAPPING SYSTEM IS MGA/2000-55 (ZONE 55, MGA 2020)
 7. THE FIRE HYDRANT SYSTEM TO BE CONFIRMED WITH THE PROGRESS OF THE DESIGN.
 8. REFER TO DRAWING EHV-YGB-EL-DR-0002 FOR OVERALL LAYOUT.
 9. FINAL FIRE SERVICE ARRANGEMENT TO BE CONFIRMED WITH THE PROGRESS OF DETAILED DESIGN WITH THE BELOW POTENTIAL ARRANGEMENT FOR WATER TANKS:
 - OPTION 1
 - A MINIMUM 576kl FIRE WATER SUPPLY, IN 2 INTERCONNECTED 288kl TANKS IN A SINGLE LOCATION, IN ACCORDANCE WITH AS2419.1 AND
 - A SINGLE FIRE HYDRANT SYSTEM IN ACCORDANCE WITH AS2419.1:2021 THE PROVIDES COVERAGE TO THE ENTIRETY OF BOTH NORTH AND SOUTH BESS AREAS.
 - OPTION 2
 - A MINIMUM 576kl FIRE WATER SUPPLY, ACROSS TWO MIN 288kl LOCATIONS (EG. 2x144kl INTERCONNECTED TANKS AT EACH OF THE NORTH AND SOUTH BESS AREAS) IN ACCORDANCE WITH AS2419.1:2021, ONE FOR EACH OF THE NORTH AND SOUTH BESS AREAS, PROVIDING FULL COVERAGE TO EACH AREA.

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- LEGEND**
- SWG BUILDING - DEMOUNTABLE BUILDING CONTAINING 33kV SWITCHGEAR & CONTROL EQUIPMENT
 - HV SWG - 66kV SWITCHGEAR
 - AUX TRFR - AUXILIARY TRANSFORMER
 - PTFR - 66/33kV POWER TRANSFORMER
 - GEN - DIESEL GENERATOR
 - RPC - 33kV REACTIVE POWER COMPENSATION EQUIPMENT
 - BESS - BATTERY ENERGY STORAGE SYSTEM
 - PCS - POWER MANAGEMENT SYSTEM
 - PH - PUMP HOUSE
 - O&M - OPERATIONS AND MAINTENANCE BUILDING
 - FENCE
 - ARTIFACT SCATTER
 - SOUND WALL UP TO 7m



DRAWING STATUS
PRELIMINARY ISSUE

No	DESCRIPTION	DRAWN	CHKD	APPRD	DATE	DESCRIPTION	DRAWING No.
REVISIONS							
REFERENCES							



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DRAWING TITLE
YANGERY BESS 120MW COLLECTOR STATION & BESS PROPOSED SITE PLAN

DESIGN	G.L.SMITH	DRAWN	G.L.SMITH	DATE	22/04/2025
AT SCALE	1:1250	CAD FILE	EHV-YGB-EL-DR-0001	FOLDER	YGB
DRAWING NUMBER	EHV-YGB-EL-DR-0001	SHEET NUMBER	1	OF	1
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Figure 2 BESS Detail Showing Noise Wall Locations



Figure 3 BESS Area and Noise Sensitive Receiver Location



3.0 Victorian Regulations – Project Criteria

3.1 General Environmental Duty

The general environmental duty (GED) is at the centre of the Environment Protection Act 2017 (EP Act), and it applies to all Victorians. GED states that a person who is engaging in an activity that may give rise to risks of harm to human health or the environment from pollution or waste must minimise those risks, so far as reasonably practicable.

Under the Act, harm, in relation to human health or the environment, means an adverse effect on human health or the environment (of whatever degree or duration) and includes:

- an adverse effect on the amenity of a place or premises that unreasonably interferes with or is likely to unreasonably interfere with enjoyment of the place or premises; or
- a change to the condition of the environment to make it offensive to the senses of human beings; or
- anything prescribed to be harm for the purposes of the Act or the regulations; and
- Should consider potential cumulative effect of harm arising from an activity combined with harm arising from other activities or factors.

To determine what is (or was at a particular time) reasonably practicable in relation to the minimisation of risks of harm to human health and the environment, regard must be had to the following matters:

- the likelihood of those risks eventuating,
- the degree of harm that would result if those risks eventuated,
- what the person concerned knows, or ought reasonably to know, about the harm or risks of harm and any ways of eliminating or reducing those risks,
- the availability and suitability of ways to eliminate or reduce those risks,
- the cost of eliminating or reducing those risks.

In the assessment of noise impacts with reference to GED, consideration must first be given to eliminating risks so far as reasonably practicable, and then to reducing those risks so far as reasonably practicable.

3.2 Noise Criteria

Certain types of noise within Victoria are regulated. The following sections provide an overview of how regulated noise is assessed in Victoria.

3.2.1 EP Act 2017

The EP Act prescribes that a person must not, from a place or premises that are not residential premises—

- emit an unreasonable noise; or
- permit an unreasonable noise to be emitted

Unreasonable noise means noise that—

- is unreasonable having regard to the following—
 - its volume, intensity, or duration
 - its character

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- the time, place, and other circumstances in which it is emitted
- how often it is emitted
- any prescribed factors, or
- is prescribed to be unreasonable noise

For the purposes of the above definition, 'frequency spectrum' is a prescribed factor.

The EP Act prescribes that, noise emitted from commercial, industrial and trade premises is prescribed to be aggravated noise if:

- in the case of noise emitted during the day period, the effective noise level exceeds the lower of the following:
 - 75 dBA
 - the noise limit plus 15 dB, and
- in the case of noise emitted during the evening period, the effective noise level exceeds the lower of the following:
 - 70 dBA
 - the noise limit plus 15 dB, and
- in the case of noise emitted during the night period, the effective noise level exceeds the lower of the following—
 - 65 dBA
 - the noise limit plus 15 dB.

3.2.2 EP Regulations and Noise Protocol 2021

The Environmental Protection Regulations 2021 (EP Regulations) support the EP Act by providing clarity and further detail for duty holders on how to fulfil their obligations. Regulations are used to deal with matters in detail and may contain their own penalties for breaches.

In Victoria, noise emissions from commercial, industrial and trade premises are not permitted to be unreasonable or aggravated, and are subject to the provisions of the Regulations, and the *"Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues"*, EPA Publication 1826.5 September 2025 (the Noise Protocol).

The Noise Protocol presents the methodology for determining the noise limit (maximum allowable level of noise emitted from a premise) when measured in a noise sensitive area. Noise sensitive areas are defined in the Regulations as that part of the land within the boundary of a parcel of land that is within 10 m of the outside of the external walls of a place where people generally sleep (homes, dormitories, hotels, hospitals, correctional facilities etc.), schools (including childcare centres) and tourist establishments in rural areas (campgrounds, caravan parks, etc.).

Table 2 presents the assessment periods prescribed by the Regulations.

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Table 2 Definitions of Day, Evening and Night (Environmental Protection Regulations 2021)

Period	Day	Time
Day	Monday to Saturday (except public holidays)	7:00 am – 6:00 pm
Evening	Monday to Saturday Sunday and public holidays	6:00 pm – 10:00 pm 7:00 am – 10:00 pm
Night	Monday to Sunday	10:00 pm – 7:00 am

Rural Method – Noise Limits

Since all noise sensitive receivers are located outside of the Major Urban Area, the Rural Method is used to establish appropriate noise criteria for Yangery BESS.

The Noise Protocol noise limits for receivers in a rural environment normally takes into consideration the influence of zoning map categories (and changes in zoning categories), the distance between the zoning boundary and receiver (where different zones apply) as well as the background noise. However, there is a special consideration that applies for utilities.

Noise Limits in Rural Areas for Utilities

Section 2.6 of the Protocol defines the method for determining noise limits in rural areas for utilities, which include electricity infrastructure, which is an appropriate classification for the BESS facility.

Clause 31 states that if the utility is located in a Farming Zone (FZ) and the distance adjustment is 0 dB (receiver is also in FZ), then the distance-adjusted level for each period is:

- Day: 45 dBA
- Evening: 39 dBA
- Night: 34 dBA

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Since all sensitive receivers and the proposed site are located in a Farming Zone (FZ), the above levels are therefore the noise limits applicable for this project.

3.2.3 Cumulative Noise Impacts

Regulation 119 of the EP Regulations states that the noise contributions from all commercial industrial and trade premises must not exceed the noise limit for a noise sensitive area. Therefore noise from all commercial and industrial operations are required to cumulatively comply with the identified noise limits.

Guidance is provided in the EPA 2021 Publication 1997 June 2021 *Technical Guide – Measuring and analysing Industry noise and music noise*. The guidance provided in Section 3.3.1 is as follows:

Proposed new industry or extension of existing premises in rural areas

In rural areas, new industry plant or operations should be designed so that their emissions are less than the noise limits. Circumstances for which the equal sharing principle applies for new industry developments include:



- Where there is existing industry impacting on noise sensitive areas
- Sites where there are multiple small commercial, industrial or trade premises.

The contribution of the proposed development should then be abated to meet, for each period of the day, a level set below the relevant noise limit by $10 \times \text{Log}(10)$ decibels, where N is the total number of existing and likely contribution industrial plant installations.

The Koroit Zone Substation has been identified as the only existing industry in the area. The substation is not considered to be a dominant source. Instead of reducing the project noise limit by 3 dB (e.g. $10 \times \text{Log}(2)$), noise emissions from the Koroit Zone Substation were modelled together with the noise from the project.

3.2.4 Low Frequency Noise Guidelines

EPA Publication 1996 “Noise guidelines: Assessing low frequency noise” (LFNG) provides guidance for acoustic consultants and other qualified professionals who assess low frequency noise (10Hz – 160Hz).

Frequency spectrum is a prescribed factor under the EP Act and subordinate legislation. The assessment of frequency spectrum applies to noise from commercial, industrial and trade premises only.

Low frequency noise emitted from commercial, industrial and trade premises should be assessed by comparing its frequency spectrum to the relevant threshold levels. Specifically, Z-frequency weighted (unweighted or linear) measurements in one-third octave bands from 10 Hz to 160 Hz are compared with low frequency threshold levels.

The threshold levels are not set limits. Rather, they are levels that indicate a potential risk of problematic low frequency noise. The disturbance from low frequency noise depends on the:

- noise level,
- characteristics that can increase annoyance with the noise, for example, tonality, frequency modulation,
- baseline noise levels in the absence of the noise of concern.

Table 3 details the outdoor low frequency noise threshold levels, which would apply for levels measured outdoors and based on the assumed façade noise reductions given in Downey and Parnell (2017).

Table 3 Outdoor Low Frequency Noise Threshold Levels

Outdoor 1/3 Octave Low Frequency Noise Threshold Levels													
Freq, Hz	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160
Leq, dB	92	89	86	77	69	61	54	50	50	48	48	46	44

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4.0 Noise Assessment

A 3D noise model was constructed within the modelling software SoundPLAN 8.2 to predict noise levels at the nearby sensitive receivers.

Noise modelling was conducted using the algorithms of ISO 9613-2¹, which predicts the A-weighted sound pressure levels under meteorological conditions favourable to propagation from sources of known sound power levels. This enhanced propagation is equivalent to downwind propagation or a moderate ground-based temperature inversion. The model also includes attenuation due to air absorption, ground attenuation and shielding.

4.1 General Modelling Assumptions

The following general assumptions are made based on best-practice modelling methods to suit the project:

- A reflection-order of three (3).
- Source heights were set according to the source item.
- Receivers are in the acoustic free field, 1.5 m above ground level.
- All equipment is assumed to be in operation for the entire 30-minute assessment period.
- All noise walls were acoustically absorptive. With absorption coefficients shown in **Table 4**.

Table 4 Noise Wall Absorption Coefficients

Frequency, Hz	100	125	160	200	250	315	400	500	630	800	1k	1.25k	1.6k	2k	2.5k	3.15k	4k	5k
Absorption Coefficient	0.16	0.23	0.44	0.66	0.81	1	1	1	1	1	1	1	1	0.96	0.94	0.88	0.93	0.95

- Ground topography was sourced from publicly available 5 meter resolution digital elevation data from the VIC Government.
- The project site was modelled with 0.2 m resolution elevation data, provided by the client.
- Since the northern BESS area is on a relatively sloped natural ground surface, both BESS areas were modelled as flat level pads. The northern pad is modeled at RL 25, the southern area at RL 22.
- Ground acoustic hardness is modelled by a single number parameter between 0 (hard – reflective) and 1 (soft – absorptive). The Koroit Zone Substation, BESS substation and BESS areas were modelled as hard ground, all other ground surfaces were modelled with a ground absorption parameter of 0.6, which is suitable for rural farmland.

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¹ ISO 9613-2:1996 *Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation*



4.2 Noise Sources

All equipment items are assumed to be in operation for the entirety of a 30-minute assessment period. Noise emissions of the BESS equipment are typically dominated by cooling noise sources, which can be variable depending on the percentage of maximum power (charge/discharge) and the subsequent temperatures, both ambient and that being generated by the equipment.

Sound power levels (SWL) and quantities of noise producing equipment are shown in **Table 5**.

The current preferred original equipment manufacturer (OEM) is Wartsila Quantum 2 batteries integrated with SMA inverters. The 1/3 octave frequency spectra and sound power levels of the batteries and inverters were provided by the respective OEMs.

The Quantum 2 battery containers and SMA 4600 UP-S inverters incorporate silencing treatment. All plant is assumed to be operating at 100% load for the duration of the assessment as a worst-case scenario.

The proposed substation consists of a 120 MVA high voltage transformer and harmonic filter. The harmonic filter sound power level is based on SLR field measurements of similar equipment.

The adjacent Koroit Zone Substation was modelled with three 13.5 MVA high voltage transformers.

The high voltage transformers sound power levels are based on empirical formula, taken from AS 60076.10:2009 reduced maximum levels.

Table 5 Equipment Sound Power Levels – BESS & HV Transformer

Qty	Item	Sound Power Level (SWL), per unit $L_{eq\ 15\ min, dBA}$
132	Battery Container Wartsila Quantum 2 @ 100% with silencing treatment	76
44	Inverter SMA 4600 UP-S @ 100% with silencing treatment	85
1	120 MVA High Voltage Transformer	87 ¹
1	Harmonic Filter	65
3	13.5 MVA High Voltage Transformers	74 ²
Notes:		
1: Based on AS 60076.10:2009 reduced maximum (120 MVA rating).		
2: Based on AS 60076.10:2009 reduced maximum (13.5 MVA rating).		

4.2.1 Noise Characteristics

The Noise Protocol contains provisions for adjustments for undesirable noise characteristics such as tonality, impulsiveness and intermittency. If one or more of these characteristics are present at the receiver, then an adjustment is applied to the overall level.

The following outlines the noise characteristics and discusses whether the adjustments are relevant to this assessment.

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Tonality

The predicted noise levels from the BESS were reviewed for tonality, analysis of the received spectra indicated the potential presence of minor tonality. Therefore, a 2 dB adjustment has been applied to the assessed noise levels to account for the potential of this undesirable characteristic.

Impulsiveness

The impulsiveness characteristic refers to a dominant sudden pressure peak, or series of peaks, or a single burst with multiple pressure peaks whose amplitude decays with time or a sequence of bursts. Noise due to cooling the BESS is not considered impulsive in nature.

Intermittency

Intermittency is present when the noise increases in level rapidly, and by at least 5 dB, on at least two occasions during a 30 minute period and maintains the higher level for at least one-minute.

The cooling fans are expected to cycle up and down as required to cool the batteries and power electronics. However the duty cycle period typically exceeds 30 minutes and is not considered intermittent. Therefore, no characteristic adjustments have been applied to the following results.

5.0 Assessment Results

The predicted noise levels at the identified representative sensitive receivers were assessed against the most stringent night-time criteria. The predicted noise levels presented in **Table 6** accounts for noise emissions from the BESS operations.

The BESS operations demonstrate compliance with the most stringent night-time criteria at all assessed receivers. A 1 dB compliance margin is achieved at the most impacted receivers; R2 to the east and R38 to the north. Note that this is the worst-case scenario with the batteries and inverter operating at 100% capacity during the night period.

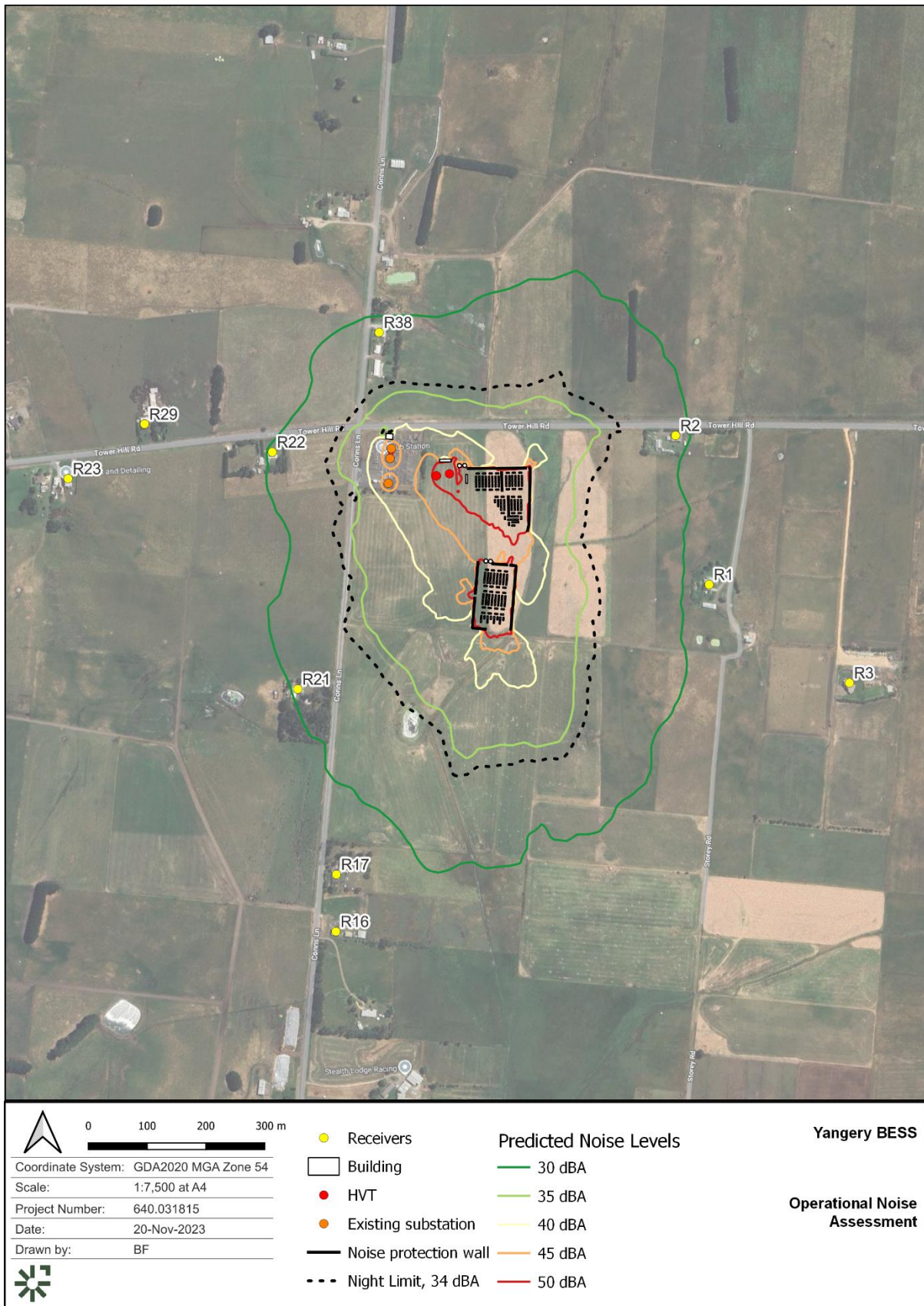
The noise contour plot of the predicted noise levels, excluding the 2 dB tonal character adjustment, is shown in **Figure 4**.

Table 6 Predicted Noise Levels from BESS Operations

Receiver	Predicted Noise Level, dBA	Characteristic Adjustments ¹ , dBA	Effective Noise Level, dBA	Night Noise Limit, dBA	Compliance Margin Night
R1 ²	29	+2	31	34	3
R2	31	+2	33	34	1
R3	24	+2	26	34	8
R16	26	+2	28	34	6
R17	28	+2	30	34	4
R21	30	+2	32	34	2
R22	30	+2	32	34	2
R23	22	+2	24	34	10
R29	25	+2	27	34	7
R38	31	+2	33	34	1
Notes					
1: Tonality adjustment: + 2 dB, 2: R1 is project involved					



Figure 4 Operational Noise Contours



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5.1 Low Frequency Noise

Low Frequency Noise contains significant acoustic energy in one third octave band ranging from 10 Hz to 160 Hz. The OEM provided noise spectra for their units between 50 Hz and 10 kHz.

The Noise Guidelines: *Assessing Low Frequency Noise* (Publication 1996 June 2021) adopts a low frequency threshold level as a screening tool to identify the potential risk of problematic low frequency noise. Notwithstanding the incomplete supplier data and limitations of modelling low frequency noise with ISO9613 algorithm, exceedances of the frequency bands between 50 and 160 Hz were not observed at any assessed receiver (as shown in **Table 7**). It is unlikely that the project presents a risk of problematic low frequency noise.

Table 7 Low Frequency Noise Assessment Results

Receiver	1/3 Octave Centre Frequency					
	50 Hz	63 Hz	80 Hz	100 Hz	125Hz	160Hz
LFN Threshold	50	50	48	48	46	44
R1 ¹	40	39	36	33	28	26
R2	40	40	37	34	30	27
R3	35	35	32	28	23	21
R16	37	37	34	29	25	22
R17	38	38	35	31	26	24
R21	39	39	36	33	28	26
R22	39	39	36	33	29	27
R23	34	33	30	26	22	20
R29	35	35	32	28	24	22
R38	39	39	37	33	30	27
Notes						
1: R1 is project involved						

6.0 Conclusions

This Noise Impact Assessment was prepared to support a Planning Application for the Yangery BESS. This report presents applicable noise criteria, assessment methodology, and results to demonstrate the compliance with the noise limits as proscribed by the Noise Protocol.

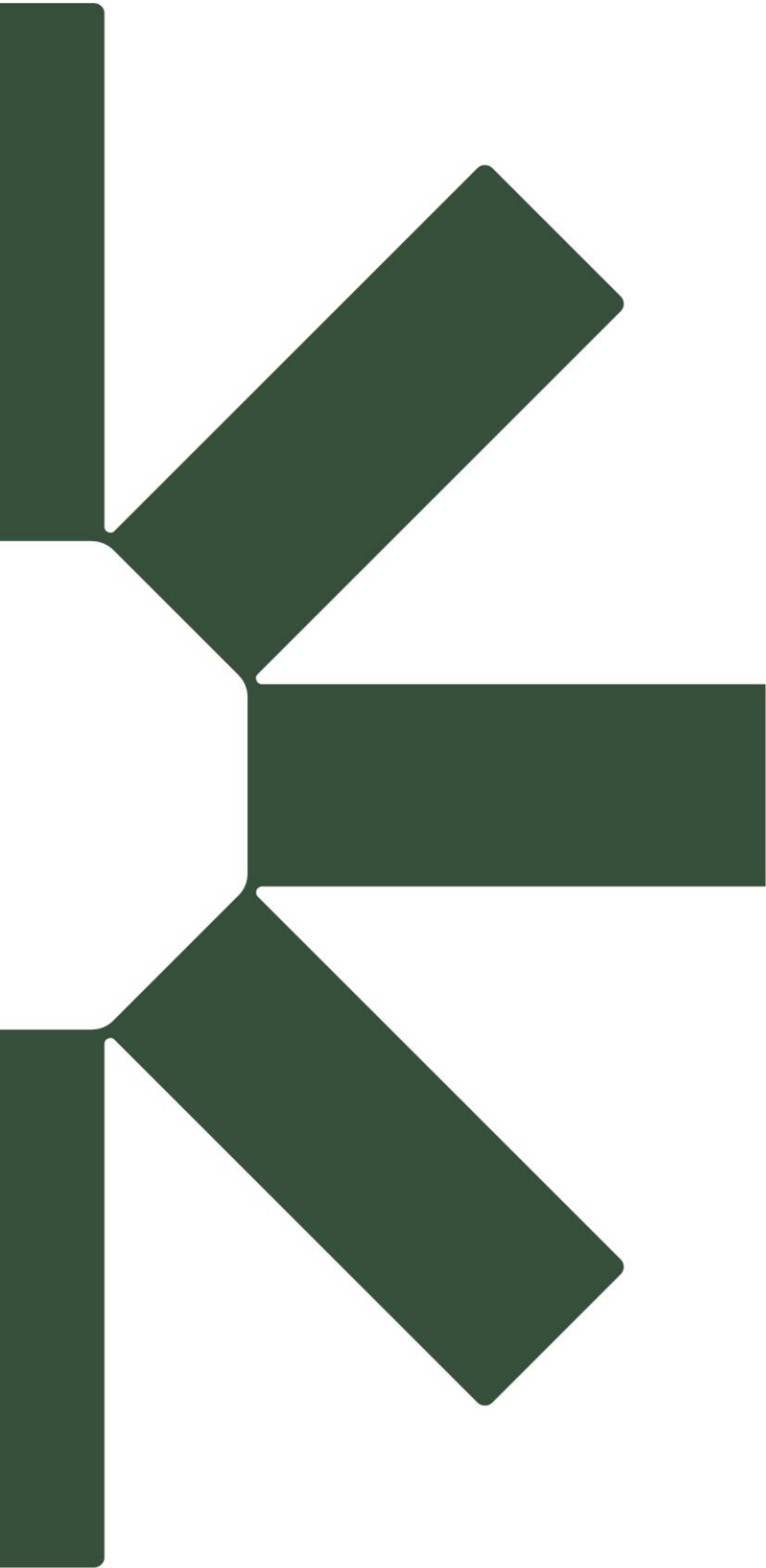
Cumulative noise was considered from the project together with the existing Koroit Zone Substation. Compliance with the FZ Utilities noise limits is predicted at all receivers during all periods.

Silencing treatment for the battery containers and inverters and with noise walls ranging from 6 m to 7.5 m in height on the BESS boundaries, with and 5.5 m internal walls in the northern BESS area were applied to control noise emissions to the closest noise sensitive receivers.

Low frequency noise was assessed in accordance with the LFNG and demonstrated that the risk of problematic low frequency noise at the closest receivers is low.

The Project is predicted to meet the relevant noise criteria and legislation at all times for all assessed receivers.





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