DIRECTORS
C.R. Andrews L.S., B.App.Sc.(Math), B.Surv., QSSA
A.R. Bell BRTP (Hons), BBST (Surv), M.P.I.A., MDIA
B.W. Bell BRTP, M.P.I.A., CPP, MDIA
A.J. Campbell L.S., B.Surv., Grad.Dip.Surv.Prac., QSSA
I.K. Smith L.S., B.App.Sc.(Surv.), Grad.Dip.Surv.Prac., Grad.Dip.Hum.(Geog), QSSA

ASSOCIATES
P.A. Barnes BRUP, M.P.I.A.
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C.B. Page BRUP, M.P.I.A.

www.mursurv.com info@mursurv.com

MURRAY & ASSOCIATES
SURVEYORS & TOWN PLANNERS
ESTABLISHED 1946

Murray & Associates (Qld) Pty Ltd ACN 075 543 154 ABN 81 075 543 154

04 June 2024

Department of State Development,
Infrastructure, Local Government
and Planning.

Attention: Office of Coordinator-General

Dear Sir/Madam,

REQUEST TO CHANGE AN EXISTING SDA APPROVAL (MINOR CHANGE) – AP2023/004 PURSUANT TO SECTION 84F OF THE STATE DEVELOPMENT AND PUBLIC WORKS ORGANISATION ACT 1971

Property Description:	Lot 2 on SP132603
Property Address:	24 Vantassel Street, Stuart Qld 4811
Development Type:	MCU- High Impact Industry (Renewable Energy Facility)
Local Government:	Townsville Regional Council
SDA Reference:	AP2023/004
Our Reference:	100933
Applicant:	LMS Energy Pty Ltd

1.0 PREAMBLE

On behalf of LMS Energy Pty Ptd and with reference to the abovementioned SDA Approval, we hereby request to change the existing approval pursuant to Section 84F of the State Development and Public Works Organisation Act 1971.

This application provides a detailed overview of the 'proposed change' and clearly demonstrates compliance with the minor change criteria set out in State Development and Public Works Organisation Act 1971.

Although technically not required, the Signed Consent of the owner is included as **Appendix I** of this lodgement material.

In accordance with the Change Application for an SDA Approval Advisory Note Fact Sheet, the applicable assessment fee for a Minor Change application is 25% of the full application for the use. The assessment fee for the original application was $6,000.00. As such, the applicable fee for this Minor Change application is **$1,500.00** and will be paid by the Applicant once an invoice is generated.

2.0 OVERVIEW OF 'PROPOSED CHANGE'

The original application was approved by the Coordinator-General on the 2nd January 2024. The Approved Conditions and Plans are included as **Appendix C** & **D** of this lodgement material for reference. The proposed minor change remains generally in accordance with the development as approved.

Proposed Change:

The proposed changes subject to this application are summarised as follows.

Relocation of Facility:

As detailed within he figures below, the facility is proposed to be shifted 14m west of the approved location. The purpose of the minor re-location is to achieve an increased setback to both the property boundary and railway corridor. The facility is proposed to be outside of the railway corridor and as such, has removed any interest in the proposal from Queensland Rail. This in turn will permit the removal of the development conditions that are in relation to interests of Queensland Rail (see **Section 4** of this Report). Furthermore, the slight relocation will facilitate a straight alignment for the high voltage connection to the existing overhead infrastructure.

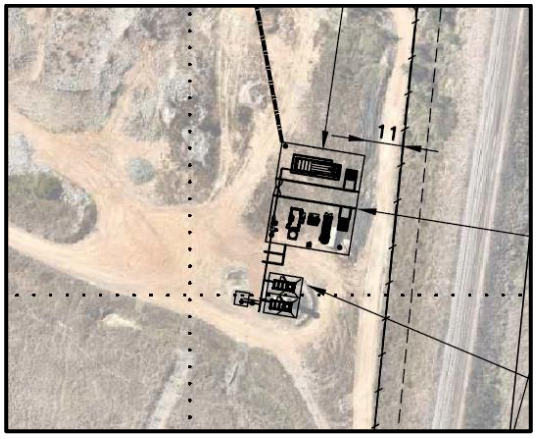


Figure 1: Approved Location

Figure 2: Proposed Location

Addition of Second Generator:

As detailed within the Amended Power Station Site Layout Plan included as **Appendix F** of the lodgement material, a second power generator is proposed (originally only a single generator was approved). This will increase the output capacity of the facility from 1.1MW to 2.2MW. Please note, the development footprint (30m x 25m) remains un-changed, with the provision of the additional generator facilitated through internal re-configuration.

As a result of the increased output capacity, the original Air Quality Assessment and Noice Impact Assessment has been amended and updated and are included as **Appendix G & H**. The proposal still achieves compliance with the relevant Australian Standards in terms of Air Quality and Noise Impact.

3.0 COMPLIANCE WITH CRITERIA FOR A 'MINOR CHANGE'

*Generally, a minor change to an SDA approval is when, in the Coordinator-General's opinion, the change does **not** substantially alter the original SDA approval in a way that would:*

- *result in a substantially different development, for example:*
  - *involve a use that is different to the approved use or*

Comment:

The proposed Minor Change does not introduce a new land use. The proposed use remains as approved.

  - *result in different or additional impacts that have not been assessed as part of the process to gain the original SDA approval*

Comment:

The proposed Minor Change does not introduce additional impacts that have not been assessed as part of the original SDA Approval. The development footprint remains un-changed and the location is generally in accordance with the original approval when considering the scale of the subject site. As a result of the increased output capacity, the original Air Quality Assessment and Noice Impact Assessment has been amended and updated and are included as **Appendix G & H**. The proposal still achieves compliance with the relevant Australian Standards in terms of Air Quality and Noise Impact.

- *cause (had the proposed change been assessed as part of the SDA application process to gain the original SDA approval):*
  - *the Coordinator-General or a referral entity to request additional information about the change*

Comment:

The proposed Minor Change would not trigger a requirement for additional information to be requested by the Coordinator-General or referral entity. All impacts have been assessed and addressed as part of the original development approval and the minor change does not introduce any additional impacts for consideration.

  - *a referral entity to make or alter a referral entity submission about the change*

Comment:

As per the above, all impacts have been assessed and addressed as part of the original development approval and the minor change does not introduce any additional impacts for consideration for a referral agency.

  - *a person to make or alter a submission about the change or*

Comment:

The original application was not required to be publicly notified. Regardless, the proposed Minor Change doesn't not introduce the potential for persons to lodge a submission in relation to the change.

- *substantially alters any other matter of the original SDA approval.*

Comment:

The proposal does not subrationally alter any component or matter assessed as part of the original SDA application and approval.

4.0 CHANGES TO CONDITIONS OF APPROVAL & APPROVED PLANS

CONDITION 8.4 – HAZARDOUS MATERIAL

Condition 8.4:

~~*(a) Amend and finalise the Emergency Response Plan Draft – For Development Approval, prepared by LMS Energy, dated 18/09/2023, report reference 40041-RG-030, revision A to address the following, amongst other relevant considerations for the railway corridor:*~~

- ~~*Update the contact list in Section 2 to include the 24/7 emergency contact details for Queensland Rail (1800 079 303 – Network Control) and require the immediate notification of any situation so that rail operations can be appropriately managed.*~~
- ~~*Establish the emergency response procedure for the railway corridor to be applied during incidents/emergencies in agreement with the railway manager (Queensland Rail).*~~

~~*(b) Amend and finalise the Safety Management Plan Draft – For Development Approval, prepared by LMS Energy dated. 18/09/2023, document reference 40041-RG-031, revision A to address the requirements of condition 2 and condition 3 (a), amongst other relevant considerations for the railway corridor, in agreement with the railway manager (Queensland Rail).*~~

~~*(c) Provide the amended and finalised Emergency Response Plan and Safety Management Plan to the Program Delivery and Operations Unit, North Queensland Region within the Department of Transport and Main Roads (North.Queensland.IDAS@tmr.qld.gov.au) and the Office of the Coordinator General (SDAinfor@Coordinatorgeneral.qld.gov.au).*~~

~~*(d) The operation of the development must be in accordance with the amended and finalised Emergency Response Plan and Safety Management Plan required in condition parts (a) and (b) and of this condition.*~~

Comment:
As the amended Power Station Location Plan (**Appendix E)** the proposed facility has been shifted 14m west to achieve a minimum 25m setback to the property boundary and railway corridor. The proposed use is now outside of the 25m railway buffer, which is used to determine referral agency interests. The TMR (Queensland Rail) interest in the application has been removed and as such, the conditions surrounding the railway are able to be deleted.

CONDITION 13 – RAILWAY INTERFACE

Condition 13.1:

~~*The layout of the development and its minimum 11m setback from the railway corridor must be carried out generally in accordance with the Power Station Location Plan, prepared by LMS Energy, dated 19/05/2023, drawing number 40041-DA-002, revision B.*~~

Comment:
As per the above, the proposed facility has been shifted 14m west to achieve a minimum 25m setback to the property boundary and railway corridor. The proposed use is now outside of the

25m railway buffer, which is used to determine referral agency interests. The TMR (Queensland Rail) interest in the application has been removed and as such, the conditions surrounding the railway are able to be deleted.

APPROVED PLANS

In order to reflect the proposed Minor Change, we request the Table of Approved Plans be amended as follows:

Title	Prepared By	Document No	Revision	Date
Power Station Location Plan	LMS Energy	40041-DA-002	~~B~~ **C**	~~19/05/2023~~ **23/04/2024**
Site layout Plan	LMS Energy	40041-DA-001	~~C~~ **D**	~~17/02/2023~~ **23/04/2024**
Risk Assessment for Development Application	LMS Energy		B	14/11/2023

5.0 SUMMARY

Pursuant to Section 84F of the State Development and Public Works Organisation Act 1971, we hereby request the Office of Coordinator-General issue a 'Change to SDA Approval' in support of the 'proposed change'. Should further information or clarification be required in relation to the above / enclosed documentation, please don't hesitate to contact me on (07) 5441 2188.

Yours faithfully,

Chris Page BRUP, M.P.I.A
Senior Town Planner
MURRAY & ASSOCIATES (QLD) PTY LTD

Appendix A

Current Titles Search

Survey Plan & SmartMap

Approval Conditions

Approved Plans

Amended Power Station Location Plan
Prepared by LMS Energy

Amended Power Station Site Layout Plan
Prepared by LMS Energy

Air Quality Assessment
Prepared by Astute Environmental Consulting

Noise Impact Assessment
Prepared by Matrix Acoustics

Signed Consent

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**50328162**	**Search Date:**	28/03/2023 10:47
Date Title Created:	11/09/2000	**Request No:**	43976966
Previous Title:	50259392		

ESTATE AND LAND

Estate in Fee Simple

LOT 2 SURVEY PLAN 132603
Local Government: TOWNSVILLE

REGISTERED OWNER

Dealing No: 704296683 07/09/2000

TOWNSVILLE CITY COUNCIL

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 10429241 (POR 140)
Deed of Grant No. 10435209 (POR 183)

2. EASEMENT IN GROSS No 703117852 15/01/1999 at 15:35
burdening the land
TOWNSVILLE/THURINGOWA WATER SUPPLY BOARD
over
EASEMENT B ON RP909848

3. VESTING No 705101544 09/10/2001 at 13:09
EASEMENT IN GROSS: 703117852
EASEMENT IN GROSS: 703444527
TOWNSVILLE-THURINGOWA WATER SUPPLY JOINT BOARD

4. VESTING No 714713693 08/10/2012 at 14:10
EASEMENT IN GROSS: 703117852
EASEMENT IN GROSS: 703444527
TOWNSVILLE CITY COUNCIL

5. EASEMENT IN GROSS No 703444527 09/07/1999 at 10:52
burdening the land
TOWNSVILLE / THURINGOWA WATER SUPPLY BOARD
over
EASEMENT C ON SP116848

6. EASEMENT IN GROSS No 707893742 15/07/2004 at 11:19
burdening the land
QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED
A.C.N. 078 849 233
over
EASEMENT I ON SP167049

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested by: D-ENQ GLOBALX

Land Title Act 1994 ; Land Act 1994
Form 21 Version 2

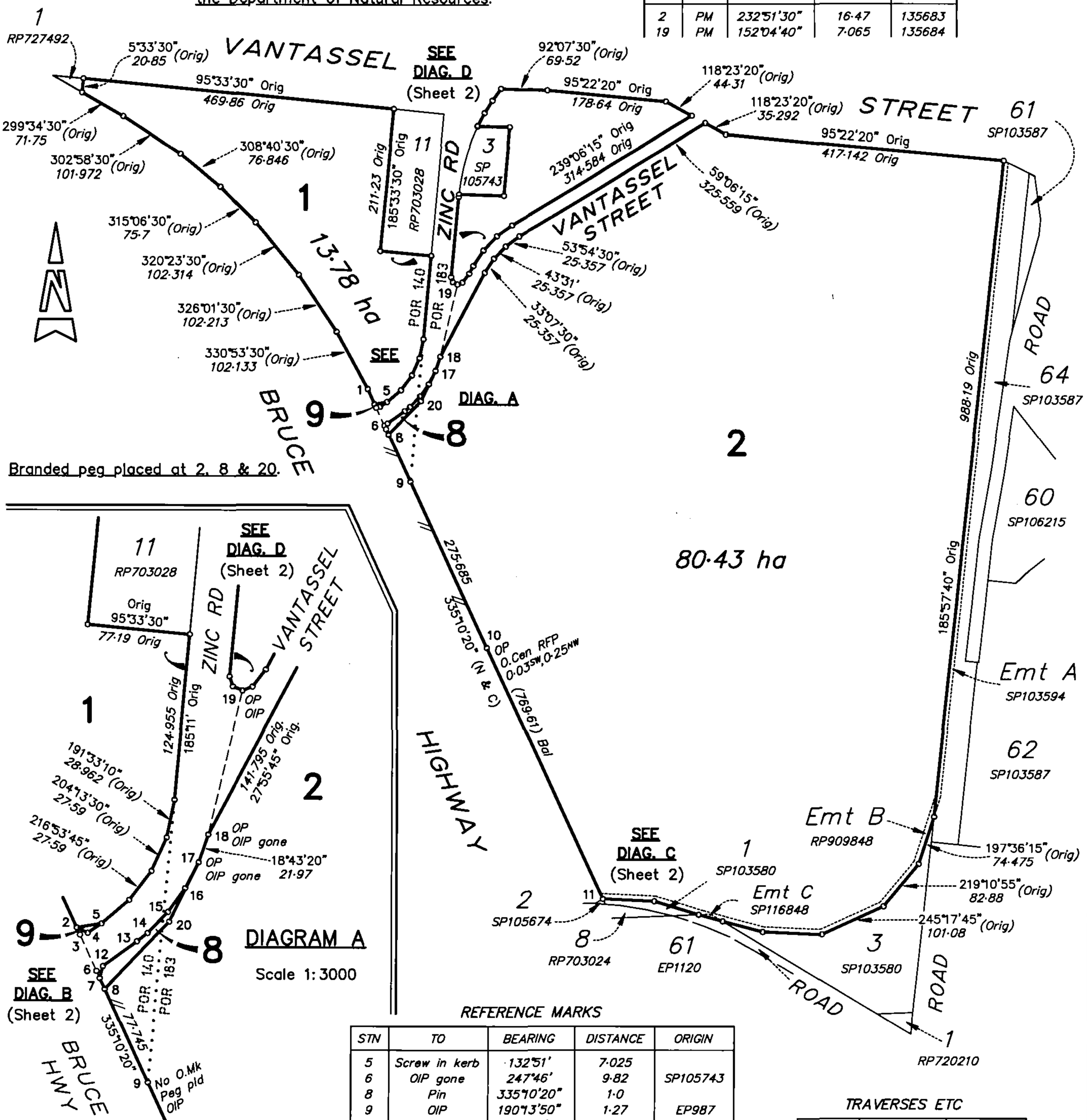
SURVEY PLAN

Sheet 1 of 2

Original Information compiled from SP103580, SP103598, SP105743 and SP112341 in the Department of Natural Resources.

PERMANENT MARKS

STN	TO	BEARING	DISTANCE	NUMBER
2	PM	232°51'30"	16·47	135683
19	PM	152°04'40"	7·065	135684



REFERENCE MARKS

STN	TO	BEARING	DISTANCE	ORIGIN
5	Screw in kerb	132°51'	7·025	
6	OIP gone	247°46'	9·82	SP105743
8	Pin	335°10'20"	1·0	
9	OIP	190°13'50"	1·27	EP987
13	OIP gone	30°02'	1·795	SP105743
15	OIP gone	260°09'	3·88	SP105743
17	OIP gone	349°25'	14·55	SP105743
18	OIP gone	236°13'	11·7	SP105743
19	OIP	222°01'	1·68	SP105743
20	Pin	205°54'40"	1·0	

TRAVERSES ETC

LINE	BEARING	DISTANCE
2–3	155°10'20"	6·0
3–6	155°10'20"	30·0
6–7	155°10'20"	6·0
18–19	13°21'	110·865

. . RawJands Surveys. Pty .Ltd(ACN 010 .025 .260) . hereby certify that the Company has surveyed the land comprised in this plan by . . . . . .Stephen .Sydney .Hollaway . . . . . .(Licensed Surveyor) . . . . . for whose work the Company accepts responsibility, that the plan is accurate, that the said survey was performed in accordance with the Surveyors Act (1977) and the Surveyors Regulation (1992) and that the said survey was completed on 1/06/2000.

THE COMMON SEAL OF RAWLANDS SURVEYS PTY LTD A.C.N. 010 025 260

Kerry John Smith
Licensed Surveyor/ . . . . . Director
Laurence John Nolan
. . . . . Director
Date 16/6/2000

0m 6m 30m 60m 90m

PLAN OF

LOTS 1, 2, 8 & 9

Cancelling Lot 1 on SP105743 and Lot 2 on SP112341

PARISH: BEOR COUNTY: Elphinstone

Meridian: AMG (vide SP105743) F/N's: NONE

Scale: 1 : 6000

Format: STANDARD

SP132603

Plan Status:

10 - 1257

704296683

$257.00
07/09/2000 11:28

BE 400 NT

**WARNING : Folded or Mutilated Plans will not be accepted.
Plans may be rolled.
Information may not be placed in the outer margins.**

Registered

5. Lodged by

STATE CROWN SOLICITOR
PROPERTY GROUP
BOX 1[illegible] GPO
BRISBANE, Q. 4001
DX 40121 BRISBANE UPTOWN

(Include address, phone number, reference, and Lodger Code) 66

1. ~~Certificate of Registered Owners or Lessees.~~

~~I/We~~ The State of Queensland acting through the Department of Main Roads as Constructing Authority

(Names in full)

* ~~as Registered Owners of this land~~ agree to this plan and dedicate the Public Use Land as shown hereon in accordance with Section 50 of the Land Title Act 1994.

~~* as Lessees of this land agree to this plan.~~

Constructing Authority

Signature of ~~* Registered Owners~~ ~~* Lessees~~

SIGNED for and on behalf of
the STATE OF QUEENSLAND acting through
the DEPARTMENT OF MAIN ROADS by
JOHN GRAHAME DAY

DIRECTOR (PROPERTY SERVICES)
a person duly authorised to act in that behalf.

* Rule out whichever is inapplicable

2. Local Government Certificate.

TOWNSVILLE CITY COUNCIL

hereby approves this plan in accordance with the :

%

Dated this ..... day of .....

..... #

..... #

* Insert the name of the Local Government.
# Insert designation of signatory or delegation
% Insert Integrated Planning Act 1997 or Local Government (Planning & Environment) Act 1990

3. Plans with Community Management Statement :

CMS Number :

Name :

4. References :

Dept File :

Local Govt :

Surveyor : *41091/01*

6. Existing

Title Reference	Lot	Plan
50232081	*1*	*SP105743*
50259392	*2*	*SP112341*

Created

Lots	Emts	Road
1 & 9	–	–
2 & 8	–	–

NIR 703859750 satisfied
NIR 703859759 satisfied

EASEMENT ALLOCATION

Easement	Lots to be Encumbered
703117852	*2*
703444527	*2*

POR 140	*1, 2, 8 & 9*
POR 183	*1, 2 & 8*
Orig	Lots

7. Portion Allocation :

8. Map Reference :

8259–24221

9. Locality :

VANTASSEL ST, STUART

10. Local Government :

TOWNSVILLE C.C.

11. Passed & Endorsed :

By : Rowlands Surveys Pty Ltd (ACN 010 025 260)
Date : 21/6/2000
Signed :
Designation : Liaison Officer

12. Building Format Plans only.

I certify that :
* As far as it is practical to determine, no part of the building shown on this plan encroaches onto adjoining lots or road;
* Part of the building shown on this plan encroaches onto adjoining * lots and road

....
Licensed Surveyor/Director * Date
delete words not required

13. Lodgement Fees :

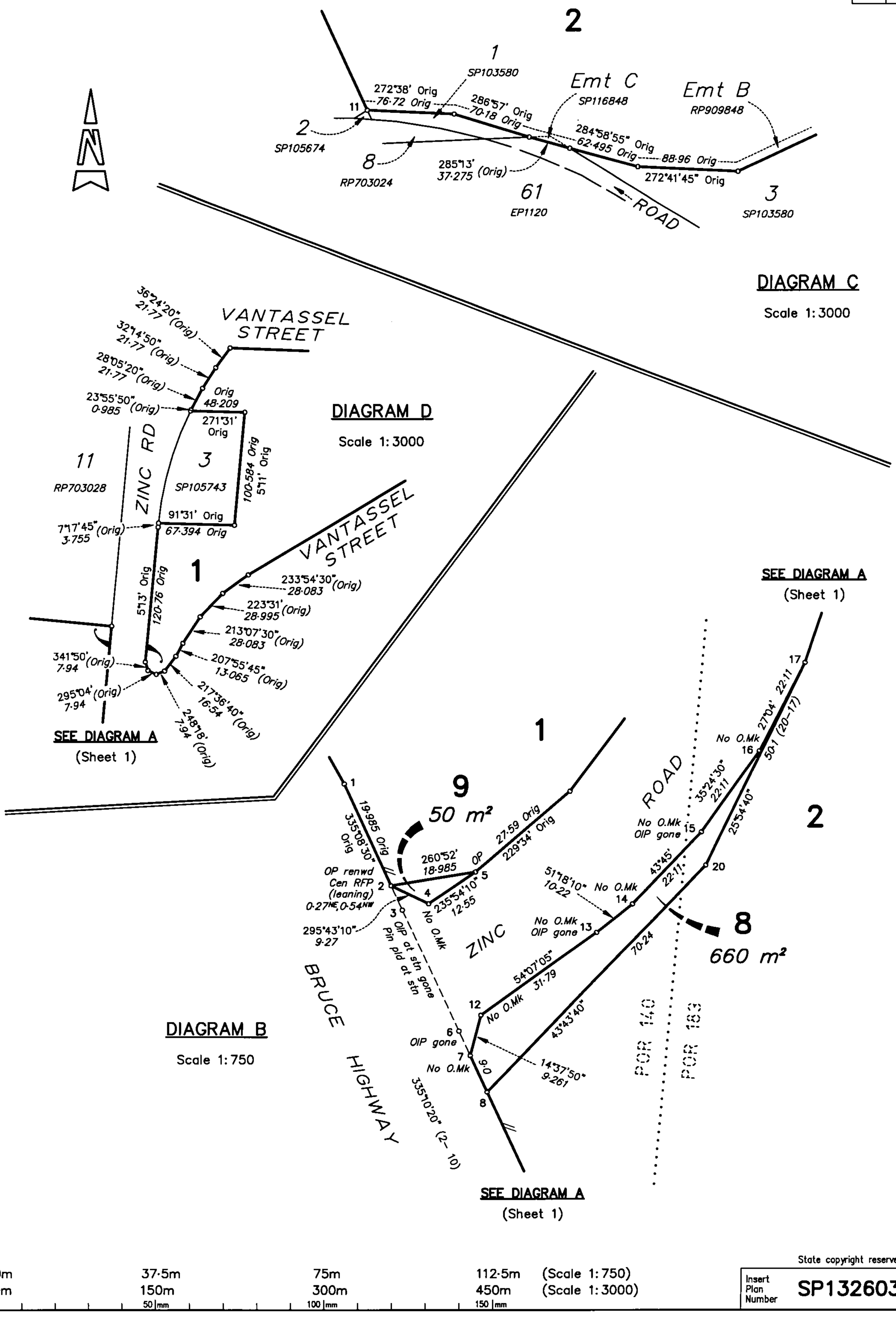
Survey Deposit	$ 161
Lodgement	$ 96
4 New Titles	$ –
Photocopy	$
Postage	$
TOTAL	$ 257

14. Insert Plan Number **SP132603**

Land Title Act 1994 ; Land Act 1994
Form 21A Version 1

ADDITIONAL SHEET

Sheet 2 of 2

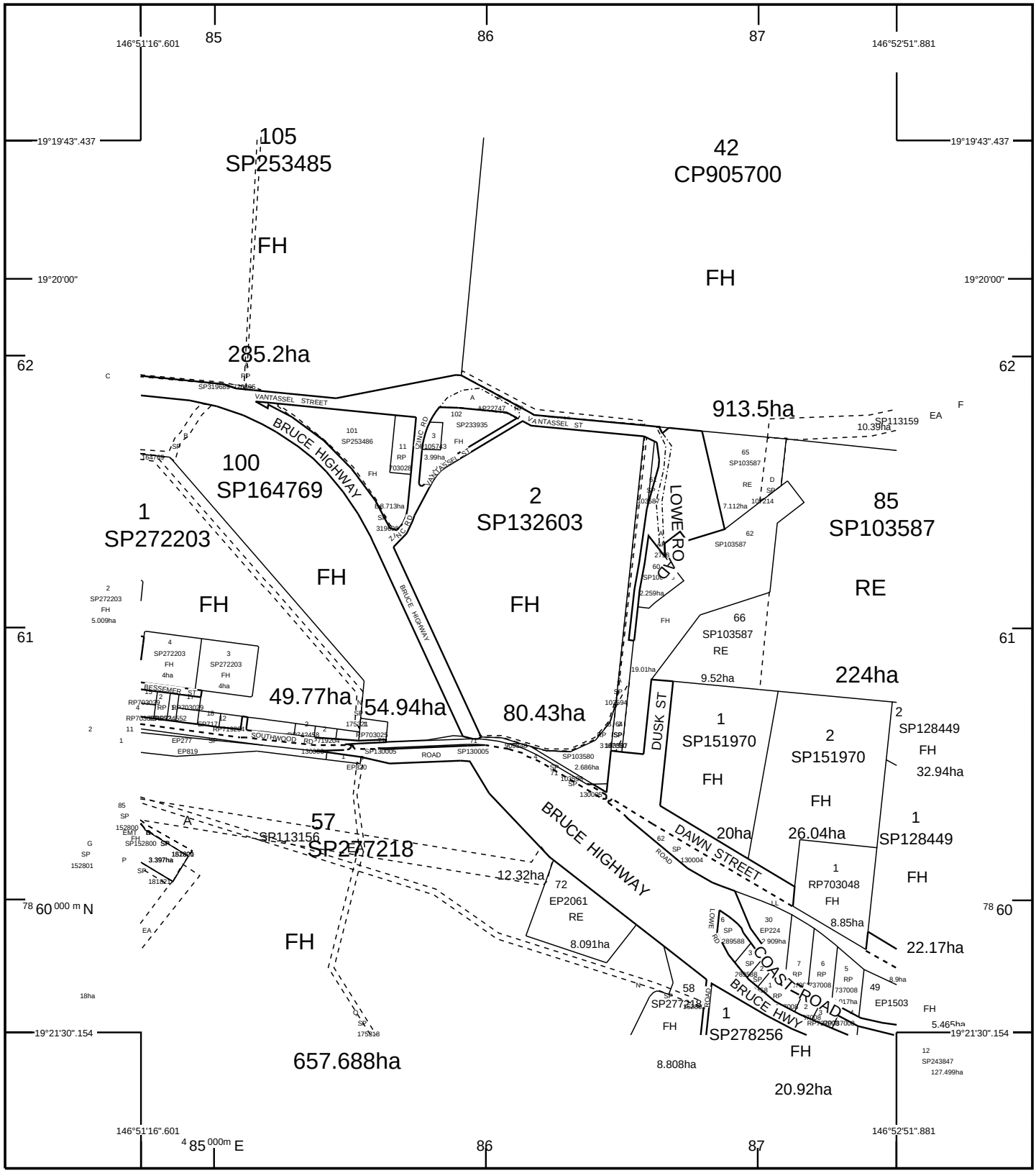


SEE DIAGRAM A
(Sheet 1)

DIAGRAM B
Scale 1:750

0m 37·5m 75m 112·5m (Scale 1:750)
0m 150m 300m 450m (Scale 1:3000)
0 50 mm 100 mm 150 mm

Insert Plan Number SP132603



STANDARD MAP NUMBER
8259-24212

0 400 800 1200 1600 2000 m

HORIZONTAL DATUM:GDA94 ZONE:55 SCALE 1 : 20000

MAP WINDOW POSITION & NEAREST LOCATION

146°52'04".241
19°20'36".796
STUART
2.79 KM

SUBJECT PARCEL DESCRIPTION

DCDB

Lot/Plan	2/SP132603
Area/Volume	80.43ha
Tenure	FREEHOLD
Local Government	TOWNSVILLE CITY
Locality	STUART
Segment/Parcel	51443/45

CLIENT SERVICE STANDARDS

PRINTED 04/04/2023

DCDB 03/04/2023 (Lots with an area less than 3000m² are not shown)

GDA

SmartMap

An External Product of SmartMap Information Services

Based upon an extraction from the Digital Cadastral Data Base

Queensland Government

SDA approval – conditions

Condition 1 - approved plans and documents		Timing
1.1	Carry out the approved development generally in accordance with the approved plans and documents as referenced in Table 1 (including any amendments marked in red), except insofar as modified by any of the conditions of this approval.	To be maintained at all times

Table 1 – approved plans and documents

Title	Prepared By	Document No	Revision No	Date
Power Station Location Plan	LMS Energy Pty Ltd	40041-DA-002	B	09/05/2023
Site layout Plan	LMS Energy Pty Ltd	40041-DA-001	C	17/02/2023
Risk Assessment for Development Application	LMS Energy Pty Ltd	40041-RG-032	B	14/11/2023

Condition 2 - commencement of the development		Timing
2.1	Notify the Coordinator-General in writing of the date of commencement of construction, completion of construction and the commencement of use	*Within 30 days of commencement of the use*

Condition 3 – 'As constructed' plans		Timing
3.1	Prepare and submit to the Coordinator-General, 'As constructed' plans certified by RPEQ or other independent suitably qualified person. The plans must show that the development has been constructed generally in accordance with the plans referenced in Table 1 of Condition 1. Plans must be submitted in electronic pdf and shape files.	*Prior to commencement of use*

Condition 4 - auditing		Timing
4.1	Prepare and submit audit reports to the Coordinator-General within 30 business days after commencement of development. The audit report must be prepared by an independent suitably qualified person to determine whether the conditions of this approval have been complied with. An audit report will contain detail consistent with the information provided in Enclosure 1.	*As indicated*

Condition 5 - inspection		Timing
5.1	Permit the Coordinator-General, or any person authorised by the Coordinator-General, to inspect any aspect of the development. Note: Where practicable, at least forty-eight (48) hours' notice will be provided	*At all times*

Condition 6 – Complaints		**Timing**
6.1	Record all complaints received relating to the development in a register that includes, as a minimum: a) date and time when complaint was received b) complainant's details including name and contact information c) reasons for complaint d) investigations undertaken and conclusions formed e) actioned taken to resolve this complaint, including the time take to implement these actions f) include a notation to the register as to the satisfaction (or dissatisfaction) of the complainant with the outcome.	*At all times*
6.2	Prepare and provide a response to the complainant within 48 hours of receipt of the complaint	*As indicated*
6.3	Provide an up to date copy of the register if request by the Coordinator-General.	*As indicated*

Condition 7 – waste management		**Timing**
7.1	Reuse, recycle or lawfully dispose of all waste (other than treated wastewater released to land) generated by the development.	*At all times*
7.2	Solid waste is to be stored on site in vermin-proof facilities until it is transferred to a licensed refuse facility.	*At all times*

Condition 8 – hazardous materials		**Timing**
8.1	All flammable and combustible liquids (including hazardous waste materials) must be contained within an on-site containment system, controlled in a manner that prevents environmental harm and must be maintained in accordance with the current edition of *AS1940—Storage and Handling of Flammable and Combustible Liquids*.	*At all times*
8.2	All containers must be secured to prevent movement during a flood event.	*At all times*
8.3	Carry out the risk mitigation controls for the development generally in accordance with the Risk Assessment for Development Application, prepared by LMS Energy, dated 14/11/2023, report reference 40041-RG-032, revision B.	*Prior to the commencement of use and ongoing*
8.4	(a) Amend and finalise the Emergency Response Plan Draft – For Development Approval, prepared by LMS Energy, dated 18/09/2023, report reference 40041-RG-030, revision A to address the following, amongst other relevant considerations for the railway corridor: • Update the contact list in Section 2 to include the 24/7 emergency contact details for Queensland Rail (1800 079 303 – Network Control) and require the immediate notification of any situation so that rail operations can be appropriately managed. • Establish the emergency response procedure for the railway corridor to be applied during incidents/emergencies in agreement with the railway manager (Queensland Rail). (b) Amend and finalise the Safety Management Plan Draft – For	(a) – (c) Prior to the commencement of use

	Development Approval, prepared by LMS Energy dated 18/09/2023, document reference 40041-RG-031, revision A to address the requirements of condition 8.3 and condition 8.4(a), amongst other relevant considerations for the railway corridor, in agreement with the railway manager (Queensland Rail). (c) Provide the amended and finalised Emergency Response Plan and Safety Management Plan to the Program Delivery and Operations Unit, North Queensland Region within the Department of Transport and Main Roads (North.Queensland.IDAS@tmr.qld.gov.au) and the Office of the Coordinator General (SDAinfor@Coordinatorgeneral.qld.gov.au). (d) The operation of the development must be in accordance with the amended and finalised Emergency Response Plan and Safety Management Plan required in condition parts (a) and (b) and of this condition.	(d) At all times

Condition 9 – services and utilities		**Timing**
9.1	Obtain the necessary approvals for all required services and utilities (power, potable water, sewer, gas, wastewater, communications etc) for both construction and operation.	*Prior to commencement of construction and to be maintained*
9.2	The development must be serviced by an on-site sewage treatment and disposal system in accordance with Part 9.3.6 Works code and SC6.4 Development manual planning scheme policy, specifically SC6.4.11.8 On-site sewerage facilities of the Townsville City Plan. Unless otherwise agreed to by Townsville City Council in writing.	*Prior to commencement of the use.*
9.3	The development must be serviced by a private water supply in accordance with Part 9.3.6 Works code and SC6.4 Development manual planning scheme policy, specifically SC6.4.11.7 On-site water supply of the Townsville City Plan. Unless otherwise agreed to by Townsville City Council in writing.	*Prior to commencement of the use*
9.4	Electricity and telecommunications must be provided to the premise in accordance with the works code of the Townsville City Plan. Unless otherwise agreed to by Townsville City Council in writing.	*Prior to commencement of the use*
9.5	Any required relocation and/or alteration to any public service or facility installation must be carried out at no cost to Townsville City Council.	*Prior to commencement of the use and to be maintained*

Condition 10 – Potential contamination		**Timing**
10.1	Areas where potentially contaminating substances are stored or used, are roofed and sealed with concrete, asphalt or similar impervious substance and bunded.	*At all times*
10.2	Roof water is piped away from areas of potential contamination.	*At all times*

Condition 11 – Air contaminants		**Timing**
11.1	Materials that are capable of generating air contaminants are wholly enclosed in storage bins.	*At all times*

Condition 12 – traffic management and access		**Timing**
12.1	Provide adequate and safe access for firefighting/other emergency vehicles and for safe evacuation.	*At all times*
12.2	Access to the site will be restricted to the operating hours of the surrounding waste facility (Stuart waste facility)	*At all times*
12.3	All parking is to occur on site.	*At all times*

Condition 13 – Railway Interface		**Timing**
13.1	The layout of the development must be carried out generally in accordance with the Power Station Location Plan, prepared by LMS Energy, dated 09/05/2023, drawing number 40041-DA-002, revision B. The development must ensure no encroachment upon the state-controlled rail corridor and maintain a minimum 11m setback from the railway corridor	*Prior to the commencement of use and to be maintained at all times*

Condition 14 – Safety and Crime Prevention		**Timing**
14.1	Install adequate fencing and signage to warn the public of operations and safety hazards.	*Prior to commencement of use and to be maintained*
14.2	Any solid wall or semi permeable fence is protected from graffiti through means of vertical landscaping or vandal resistant paint or artwork.	*Prior to commencement of use and to be maintained*

Condition 15 – external details		**Timing**
15.1	Construct and/or paint external details of buildings and structures to reduce visual impact and negate excessive glare in accordance with current best practise.	*To be maintained*

Condition 16 - construction management plan		**Timing**
16.1	Prepare a construction management plan that includes the following: (a) Two (2) employee parking areas (b) The storage location/s materials, structures, plant and equipment on the construction site (c) management of noise and dust generated from the site during and outside construction work hours (d) a monitoring program to identify issues of noncompliance, actions for correcting any non-compliance and who is responsible for undertaking those actions (e) a timetable and process for review of the construction management plan to assess its effectiveness and to implement amendments as required.	*Prior to the commencement of construction*
16.2	Undertake all works generally in accordance with the construction management plan which must be current and available on site at all times during the construction period.	*At all times during the site works phase*
16.3	Water to be used for dust mitigation is to be drawn from sources other than Townsville City Council's reticulated water supply should Level 3 or 4 water restrictions be in effect and / or imposed during the construction of the development.	*At all times during the site works phase*

Condition 17 – stormwater		**Timing**
17.1	The management of stormwater and drainage within the development must not cause a worsening or actionable nuisance	
17.2	The stormwater and flooding management of the development must not cause worsening to the operating performance of the railway corridor such that any works on the land must not: (i) create any new discharge points for stormwater runoff onto the railway corridor (ii) concentrate or increase the velocity of flows to the railway corridor (iii) interfere with and/or cause damage to the existing stormwater drainage on the railway corridor (iv) surcharge any existing culvert or drain on the railway corridor (v) reduce the quality of stormwater discharge onto the railway corridor (vi) impede or interfere with overland flow and/or hydraulic conveyance on the site (vii) reduce the floodplain immunity of the railway corridor.	*At all times*

Condition 18 – Stormwater drainage		**Timing**
18.1	Drainage from the development works/ building shall not adversely impact upon adjacent properties. No ponding, concentration or redirection of stormwater shall occur on adjoining land.	*At all times*
18.2	Provide the discharge of stormwater drainage flows to a legal point of discharge.	*At all times*
18.3	Drainage works shall be designed and constructed in accordance with the Queensland Urban Drainage Manual, Fourth Edition.	Prior to the commencement of the use

Condition 19 - repair of damage		**Timing**
19.1	Repair any property fencing, roads and service infrastructure and re-instate existing signage and pavement markings that have been removed or damaged during any works carried out in association with the approved development.	*Prior to commencement of development and ongoing*

Condition 20 – lighting		**Timing**
20.1	Ensure outdoor lighting installed within the development minimises light spill in the adjacent properties and sensitive receptors in accordance with AS4282:1997 Control of obtrusive effects of outdoor lighting.	*Prior to the commencement of the use and to be maintained*
20.2	Provide external lighting sufficient to provide safe ingress and egress for site users.	*Prior to the commencement of the use and to be maintained*
20.3	Outdoor lighting must be provided in accordance with *AS1158.1:2005 – Lighting for Roads and Public Spaces.*	*Prior to the commencement of the use and to be maintained*

Condition 21 – erosion and sediment control plan		**Timing**
21.1	Prescribed Water Contaminants (as defined in the *Environmental Protection Act 1994*) must not be released from the site or to waters within the site, or be likely to be released should rainfall occur, unless all reasonable and practicable measures are taken	*Prior to the commencement of site works and to be maintained*

	to prevent or minimise the release and concentration of contamination. These measures must be designed, implemented and maintained in accordance with "Best Practice Erosion and Sediment Control" published by the International Erosion Control Association (Australasian Chapter) (IECA, 2008).	*during the site works phase*

Condition 22 – Electrical Safety		**Timing**
22.1	The statutory clearances set out in the Electrical Safety Regulation 2013 must be maintained during construction and operation. No encroachment within the statutory clearances is permitted.	*At all times*
22.2	The development must achieve compliance with the terms and conditions of Easement I on SP167049 (Dealing No.707893742)	*At all times*
22.3	The development must achieve compliance with the generic requirements in respect to proposed works in the vicinity of Powerlink Queensland infrastructure as detailed in Enclosure 2	*At all times*

Condition 23 - Infrastructure Charges Notice		**Timing**
23.1	Pay to Townsville City Council any outstanding charges or expenses applied over the subject land, including infrastructure charges shown on the adopted infrastructure charges notice contained in Enclosure 3, or as agree to in writing by Townsville City Council.	*Prior to commencement of the use*

Advice

Currency period

This SDA approval is valid until the end of the currency period, four years after the date of approval, unless the approval states a different period. For the SDA approval to remain valid the proponent must have, before the end of the currency period:

- (if the development is reconfiguring a lot) provided the plan of subdivision to the Coordinator-General for approval in accordance with the relevant development scheme; or
- (for all other development) substantially started the development; or
- made an application to the Coordinator-General to extend the currency period.

Other approvals

This approval relates solely to the material change of use for a high impact industry (renewable energy facility) within the Townsville State Development Area. All other approvals and/or permits required under local, state and/or commonwealth legislation must be obtained prior to the commencement of the use.

Townsville City Council

Further Approvals Required

A Compliance Permit to carry out plumbing and drainage works prior to the commencement of sanitary drainage works.

For filling and excavation associated with this approval, an Operational works application must be submitted to Townsville City Council

Building Works

A Development Permit for Building Works to carry out building works prior to works commencing on site.

Infrastructure charges

An Infrastructure Charges Notice outlining the estimated infrastructure contributions payable relevant to the Development Permit is attached for your information.

Water restrictions

To manage Townsville's water resources, council regulates water restrictions on a permanent basis. All development undertaken in Townsville must be mindful of the current and projected level of water restrictions that may affect development activities such as landscaping establishment and/or soil erosion and sediment control.

Developers remain responsible for compliance with any water restrictions as directed by Townsville City Council.

During times of significant water shortage, Townsville City Council may refuse to grant developer exemptions from water restrictions for the purposes of landscaping works or soil erosion and sediment control activities.

In circumstances where exemptions to water restrictions are no longer issued by Townsville City Council, bonding of soft landscaping works will be permitted to enable the release of plans of survey and / or compliance certificates. In cases where the soft landscaping is a component of

permanent soil erosion and sediment control (such as an open drain) the use of "bonded fibre matrix" type hydro-mulch products or other suitable soil erosion and sediment control methods can be carried out as alternatives to demonstrate compliance with water restrictions.

The responsibility for compliance with all relevant environmental protection requirements (in particular sediment and erosion control) remains with the developer.

Construction

All materials and machinery to be used during the construction period are to be wholly stored on the site, unless otherwise approved.

Building Work Noise
The hours of audible noise associated with construction and building work on site must be limited to between the hours of:

a. 6.30 a.m. to 6.30 p.m. Monday to Saturday
b. No work on Sundays or Public Holidays.

Powerlink

This response does not constitute an approval to commence any works within the easement. Prior written approval is required from Powerlink Queensland before any work is undertaken within the easement areas. All works on easement (including but not limited to earthworks, drainage, and detention basins; road construction; underground and overhead service installation) require detailed submissions, assessments and consent (or otherwise) by Powerlink.

Compliance with the *Electrical Safety Act 2002* including any Code of Practice under the Act and the Electrical Safety Regulation 2013 including any safety exclusion zones defined in the Regulation. In respect of this application, the exclusion zone for untrained persons and for operating plant operated by untrained persons is **three (3) metres** from the **132,000-volt** wires and exposed electrical parts.

Should any doubt exist in maintaining the prescribed clearance to the conductors and electrical infrastructure, then the applicant is obliged under the Act to seek advice from Powerlink.

Department of Transport and Main Roads

Pursuant to section 255 of the *Transport Infrastructure Act 1994,* the railway manager's written approval is required to carry out works in or on a railway corridor or otherwise interfere with the railway or its operations.

Please be advised that this Coordinator-General response does not constitute an approval under section 255 of the *Transport Infrastructure Act 1994* and that such approvals need to be separately obtained from the railway manager.

The applicant should contact Bill Weston – Regional Manager Engineering Services of Queensland Rail on telephone number 0409 492 603 or at bill.weston@qr.com.au in relation to the emergency response procedures and safety management required for the railway corridor during dangerous goods incidents/emergencies.

Enclosure 1

The following information will be required in an audit report:

- Details of the development approval, including the SDA approval number, the date of approval and a summary of the audit reporting requirements. This should include a schedule of the dates by which audit reporting is to be provided to the Coordinator-General.

- Details of the independent, suitably qualified person(s) (see Schedule 1 in the Townsville SDA Development Scheme) (the auditor) responsible for preparing the audit report, including the auditor(s):

  - name, position, company and contact details

  - qualifications and experience

  - proof that the auditor is an independent third party unaffiliated with the proponent.

- Details of any external suitably qualified person(s) used to supplement reports/plans outside of the auditor's expertise.

- Details of any compliance reporting which has previously been provided to the Coordinator-General for the purpose of complying with Schedule 3 of the Townsville SDA Development Scheme.

- An audit evaluation matrix including but not limited to:

  - each condition of the SDA approval, and the status of the condition at the end of the relevant audit period

  - where a condition is current or complete, (to be activated, activated, complete), whether compliance has been achieved (compliant, non-compliant or not applicable), how compliance has been achieved (description of works, tasks or actions undertaken) and how the evaluation of the audit has been undertaken

  - a full description of the relevant standards, practices etc. against which works have been assessed together with evidence (reports, site photographs, certification documentation) to support the evaluation of the works against the compliance standards

  - the title, date, location and holder of any documentation referred to in the compliance evaluation matrix but not provided with the audit to allow the Coordinator-General to call upon these documents as required

  - details of any non-compliances identified by any party during the current audit period and a methodology specifying how compliance has been/will be achieved and by when it will be achieved, and

  - details of previous audit reports (if relevant) with an update on any non-compliance, corrective actions and revised practices (as relevant) undertaken and the current status of any corrective actions.

- Additional evidence to support the compliance evaluation, including the date and locations of any site inspection/s conducted during the preparation of the audit report and details of any employees of the proponent interviewed for the audit.

- The auditor's declaration whereby the auditor:

- certifies the conditions contained in the SDA approval have been satisfactorily complied with, subject to any qualifications which the author has outlined in the audit report

- certifies that to the best of the auditor's knowledge, all information provided in the audit report is true, correct and complete, and

- acknowledges it is an offence under section 157O of the *State Development and Public Works Organisation Act 1971*, to give the Coordinator-General a document containing information the auditor knows is false or misleading in any material particular.

- Any further attachments the auditor considers relevant to the audit report.

An audit report guideline has been prepared to provide guidance to proponents and auditors in compiling audit reports. The guideline is available on the Department of State Development, Infrastructure, Local Government and Planning website at https://www.statedevelopment.qld.gov.au/coordinator-general/state-development-areas/development-schemes-applications-and-requests or by contacting the Planning and Services Division on 1800 001 048 or via sdainfo@coordinatorgeneral.qld.gov.au.

Enclosure 2 – Powerlink Generic Requirements

ANNEXURE A – GENERIC REQUIREMENTS

The conditions contained in this Annexure have been compiled to assist persons (the applicant) intending to undertake work within the vicinity of high-voltage electrical installations and infrastructure owned or operated by Powerlink. The conditions are supplementary to the provisions of the Electrical Safety Act 2002, Electrical Safety Regulation 2013 and the Terms and Conditions of Registered Easements and other forms of Occupational Agreements hereinafter collectively referred to as the "Easement". Where any inconsistency exists between this Annexure and the Easement, the Easement shall take precedence.

1. POWERLINK INFRASTRUCTURE

You may not do any act or thing which jeopardises the foundations, ground anchorages, supports, towers or poles, including (without limitation) inundate or place, excavate or remove any soil, sand or gravel within a distance of twenty (20) metres surrounding the base of any tower, pole, foundation, ground anchorage or support.

2. STRUCTURES

No structures should be placed within twenty (20) metres of any part of a tower or structure foundation or within 5m of the conductor shadow area. Any structures on the easement require prior written consent from Powerlink.

3. EXCLUSION ZONES

Exclusion zones for operating plant are defined in Schedule 2 of the Electrical Safety Regulation 2013 for Untrained Persons. All Powerlink infrastructure should be regarded as "electrically live" and therefore potentially dangerous at all times.

In particular your attention is drawn to Schedule 2 of the Electrical Safety Regulation 2013 which defines exclusion zones for untrained persons in charge of operating plant or equipment in the vicinity of electrical facilities. If any doubt exists in meeting the prescribed clearance distances from the conductors, the applicant is obliged under this Act to seek advice from Powerlink.

4. ACCESS AND EGRESS

Powerlink shall at all times retain the right to unobstructed access to and egress from its infrastructure. Typically, access shall be by 4WD vehicle.

5. APPROVALS (ADDITIONAL)

Powerlink's consent to the proposal does not relieve the applicant from obtaining statutory, landowner or shire/local authority approvals.

6. MACHINERY

All mechanical equipment proposed for use within the easement must not infringe the exclusion zones prescribed in Schedule 2 of the Electrical Safety Regulation 2013. All operators of machinery, plant or equipment within the easement must be made aware of the presence of live high-voltage overhead wires. It is recommended that all persons entering the Easement be advised of the presence of the conductors as part of on site workplace safety inductions. The use of warning signs is also recommended.

ANNEXURE A – GENERIC REQUIREMENTS

7. EASEMENTS

All terms and conditions of the easement are to be observed. Note that the easement takes precedence over all subsequent registered easement documents. Copies of the easement together with the plan of the Easement can be purchased from the Department of Environment & Resource Management.

8. EXPENDITURE AND COST RECOVERY

Should Powerlink incur costs as a result of the applicant's proposal, all costs shall be recovered from the applicant.

Where Powerlink expects such costs to be in excess of $10 000.00, advanced payments may be requested.

9. EXPLOSIVES

Blasting within the vicinity (500 metres) of Powerlink infrastructure must comply with AS 2187. Proposed blasting within 100 metres of Powerlink infrastructure must be referred to Powerlink for a detailed assessment.

10. BURNING OFF OR THE LIGHTING OF FIRES

We strongly recommend that fires not be lit or permitted to burn within the transmission line corridor and in the vicinity of any electrical infrastructure placed on the land. Due to safety risks Powerlink's written approval should be sort.

11. GROUND LEVEL VARIATIONS

Overhead Conductors

Changes in ground level must not reduce statutory ground to conductor clearance distances as prescribed by the Electrical Safety Act 2002 and the Electrical Safety Regulation 2013.

Underground Cables

Any change to the ground level above installed underground cable is not permitted without express written agreement of Powerlink.

12. VEGETATION

Vegetation planted within an easement must not exceed 3.5 metres in height when fully matured. Powerlink reserves the right to remove vegetation to ensure the safe operation of the transmission line and, where necessary, to maintain access to infrastructure.

13. INDEMNITY

Any use of the Easement by the applicant in a way which is not permitted under the easement and which is not strictly in accordance with Powerlink's prior written approval is an unauthorised use. Powerlink is not liable for personal injury or death or for property loss or damage resulting from unauthorized use. If other parties make damage claims against Powerlink as a result of unauthorized use then Powerlink reserves the right to recover those damages from the applicant.

ANNEXURE A – GENERIC REQUIREMENTS

14. INTERFERENCE

The applicant's attention is drawn to s.230 of the Electricity Act 1994 (the "Act"), which provides that a person must not wilfully, and unlawfully interfere with an electricity entity's works. "Works" are defined in s.12 (1) of the Act. The maximum penalty for breach of s.230 of the Act is a fine equal to 40 penalty units or up to 6 months imprisonment.

15. REMEDIAL ACTION

Should remedial action be necessary by Powerlink as a result of the proposal, the applicant will be liable for all costs incurred.

16. OWNERS USE OF LAND

The owner may use the easement land for any lawful purpose consistent with the terms of the registered easement; the conditions contained herein, the Electrical Safety Act 2002 and the Electrical Safety Regulation 2013.

17. ELECTRIC AND MAGNETIC FIELDS

Electric and Magnetic Fields (EMF) occur everywhere electricity is used (e.g. in homes and offices) as well as where electricity is transported (electricity networks).

Powerlink recognises that there is community interest about Electric and Magnetic Fields. We rely on expert advice on this matter from recognised health authorities in Australia and around the world. In Australia, the Federal Government agency charged with responsibility for regulation of EMFs is the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). ARPANSA's *Fact Sheet – Magnetic and Electric Fields from Power Lines*, concludes:

"On balance, the scientific evidence does not indicate that exposure to 50Hz EMF's found around the home, the office or near powerlines is a hazard to human health."

Whilst there is no scientifically proven causal link between EMF and human health, Powerlink nevertheless follows an approach of "*prudent avoidance"* in the design and siting of new powerlines. This includes seeking to locate new powerline easements away from houses, schools and other buildings, where it is practical to do so and the added cost is modest.

The level of EMF decreases rapidly with distance from the source. EMF readings at the edge of a typical Powerlink easement are generally similar to those encountered by people in their daily activities at home or at work. And in the case of most Powerlink lines, at about 100 metres from the line, the EMF level is so small that it cannot be measured.

Powerlink is a member of the ENA's EMF Committee that monitors and compiles up-to-date information about EMF on behalf of all electricity network businesses in Australia. This includes subscribing to an international monitoring service that keeps the industry informed about any new developments regarding EMF such as new research studies, literature and research reviews, publications, and conferences.

We encourage community members with an interest in EMF to visit ARPANSA's website: www.arpansa.gov.au Information on EMF is also available on the ENA's website: www.ena.asn.au

Enclosure 3 – Townsville City Council Infrastructure Charges Notice

Infrastructure Charges Notice

Townsville City Council

To:	LMS Energy Pty Ltd 118 Greenhill Road UNLEY SA 5061	**Notice Date:** **Issue Date:** **Infrastructure charges notice number:** **Application reference:**	15 Aug 2023 15 Aug 2023 ICN-001487 CAR23/0229

Type of approval:	Concurrence Agency Referral
Description:	Affected Entity Response Notice to DSDMIP associated with AP2023/004 (Renewable Energy Facility - BioEnergy)
Charges Resolution:	Infrastructure Charges Resolution - 1 July 2023

Premises to which the levied charge applies	**Primary site address:** 24 Vantassel Street, Stuart QLD 4811 **Real property description:** Lot 2 SP 132603

About this notice	The Council has decided to give an Infrastructure Charges Notice, which states a levied charge the details of which are stated below, for the development of the premises that is the subject of the development approval.

Applicable levied charge	**Applicable levied charge**	**$0.00**

Infrastructure charges notice advice	**Infrastructure Agreements:** If an Infrastructure Agreement applies to this development, to the extent of any inconsistency, the Infrastructure Agreement applies instead of the Infrastructure Charges Notice.

Charges reductions	No charges reductions apply.

Other adjustments	No other adjustments apply.

Other adjustments	No other adjustments apply.

Cost of trunk infrastructure for offset or refund	No offsets or refunds for trunk infrastructure apply

How the levied charge was worked out	Details of how the applicable levied charge and any charge reductions, other adjustments, and the cost of trunk infrastructure for offsets and refunds have been worked out are provided in the detailed calculations section of this Infrastructure Charges Notice.

Why the charge is levied	The charge is levied in accordance with Council's Infrastructure Charge Resolution to accompany any Townsville State Development Area Development Approval assessed against the State Development and Public Works Organisations Act 1971.

Increase of levied charge (automatic increase provision)	The levied charge may be increased from the date of this notice to the day the levied charge is paid by the Producer Price Index (PPI), adjusted according to the 3 year moving average quarterly percentage change between financial quarters in accordance with Council's infrastructure charges resolution.

Date levied charge is payable	Once payment is due, a levied charge is, for the purpose of recover, taken to be rates of the Council. A notation will be placed on the premises in Council's Property Database that will be discoverable by prospective purchases that a levied charge is outstanding. This will be removed once full payment is received. Should the levied charge remain outstanding, it will be considered a debt on the land, interest of 8.03% per annum compounded daily applies and Council may take legal action to recover the debt, in accordance with Council's debt recovery policy.

Making a payment	Before paying the levied charge you must request an invoice showing the total levied charge payable at the time of payment including any automatic increase.

Appeal rights	If you are dissatisfied with this Infrastructure Charges Notice, under Section 229 (3) (d) of the *Planning Act 2016* you may appeal against an Infrastructure Charges Notice within twenty (20) business days after receiving the Notice.

Calculation Details

Infrastructure charges notice number:	ICN-001487
Application reference:	CAR23/0229
Type of approval:	Concurrence Agency Referral
Applicable resolution:	Infrastructure Charges Resolution - 1 July 2023

1. How the levied charge was worked out

Development

Land Use	Development Unit	Proposed Development	Existing Development	Net Development
Use not in the list (Other nature)	Item	2	0	2

Applicable levied charge

Land Use	Development Unit	Net Development	Adopted Charge Rate $/unit	Charge $
Adopted rate				
Use not in the list (Other nature)	Item	2	$0.00	$0.00
			Applicable levied charge	**$0.00**

2. How the charges reduction and other adjustments were worked out

No charges reductions apply.

No other adjustments apply.

NEARMAP PTY LTD AERIAL DATED 06 MAY 2021

50 0 50 100 150m

SCALE 1:2000 FOR A1 SIZE
SCALE 1:4000 FOR A3 SIZE
GDA94 / MGA ZONE 55

NOTES:
1. WORKS NOT PROPERLY SURVEYED

FOR INFORMATION

No	DATE	DRN	DESN	CHKD	APP	DESCRIPTION
C	23/04/24	AAH	WB			BIOENERGY FACILITY REVISED AND RELOCATED.
B	09/05/23	AAH	WB			HV CONNECTION DETAILS ADDED
A	17/02/23	AAH	WB			FI – ISSUED FOR INFORMATION

REVISIONS REFERENCE DRAWINGS

LMS ENERGY

DRAWN:	AAH
DATE:	17/02/23
DESIGN:	WB
DATE:	17/02/23
APPRVD:	
DATE:	
A.B.N.	39 059 428 474

STUART LANDFILL BIOENERGY FACILITY

PROPOSED POWER STATION LOCATION PLAN

SCALE	DRAWING NUMBER	PAGE	SIZE	REV
1:2000	40041–DA–002	1 OF 1	A1	C

LAST PLOTTED TIME: PLOTTED DATE: LAST MODIFIED TIME: MODIFIED DATE:

NEARMAP PTY LTD AERIAL DATED 06 MAY 2021

PLANS AND DOCUMENTS
referred to in the
SDA APPROVAL

SDA approval: AP2023/004

Queensland Government

50 0 50 100 150m

SCALE 1:2000 FOR A1 SIZE
SCALE 1:4000 FOR A3 SIZE
GDA94 / MGA ZONE 55

NOTES:
1. WORKS NOT PROPERLY SURVEYED

FOR INFORMATION

No	DATE	DRN	DESN	CHKD	APP	DESCRIPTION
B	09/05/23	AAH	WB			HV CONNECTION DETAILS ADDED
A	17/02/23	AAH	WB			FI – ISSUED FOR INFORMATION

REVISIONS REFERENCE DRAWINGS

LMS ENERGY

DRAWN:	AAH
DATE:	17/02/23
DESIGN:	WB
DATE:	17/02/23
APPRVD:	
DATE:	
A.B.N.	39 059 428 474

STUART LANDFILL BIOENERGY FACILITY

POWER STATION LOCATION PLAN

SCALE	DRAWING NUMBER	PAGE	SIZE	REV
1:2000	40041–DA–002	1 OF 1	A1	B

LAST PLOTTED TIME: PLOTTED DATE: LAST MODIFIED TIME: MODIFIED DATE:

LEGEND

	2m CHAINWIRE FENCE
	PIPEWORK ABOVE GROUND
	PIPEWORK BELOW GROUND
CCV	CONDENSATE COLLECTION VESSEL
CKV	CONDENSATE KNOCKOUT VESSEL
CT	CHEMICAL TOILET
GAC	GAS ANALYSER CUBICLE
GM	GENERATOR MODULE
LP	22m LIGHTNING POLE
RMU	RING MAIN UNIT (HIGH VOLTAGE SWITCHBOARD)
SS	SAFETY SHOWER
TM	TARIFF METER
VP	VALVE PIT

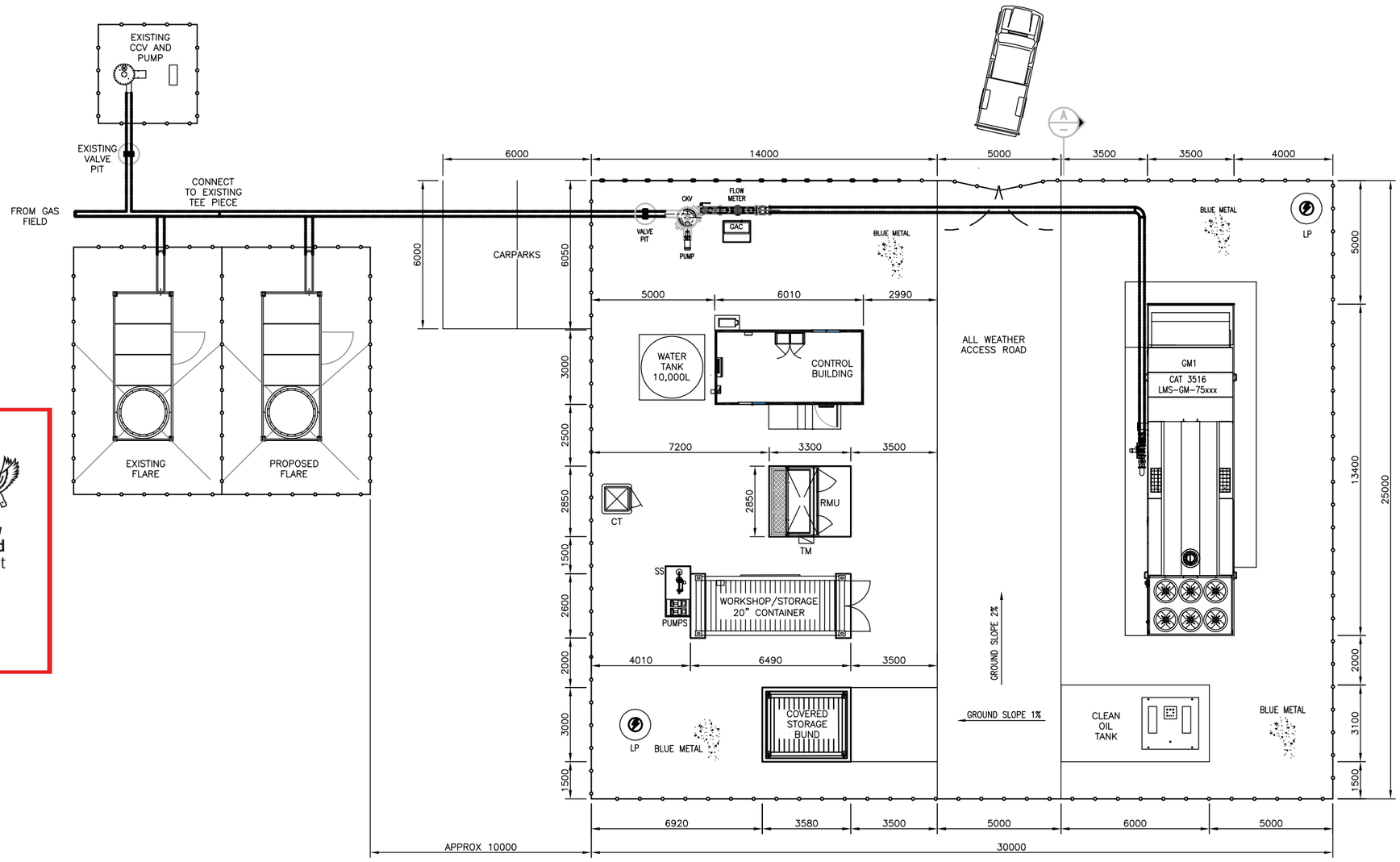
2 1 0 2 4 6 8m

SCALE 1:100 FOR A1 SIZE

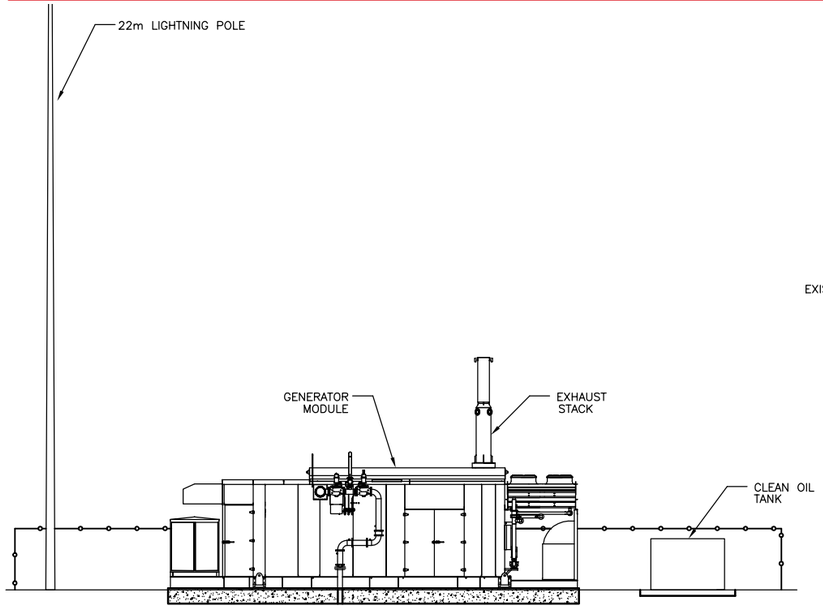
PLANS AND DOCUMENTS referred to in the SDA APPROVAL

SDA approval: AP2023/004

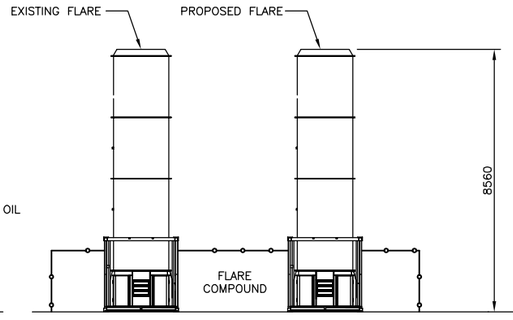
Queensland Government

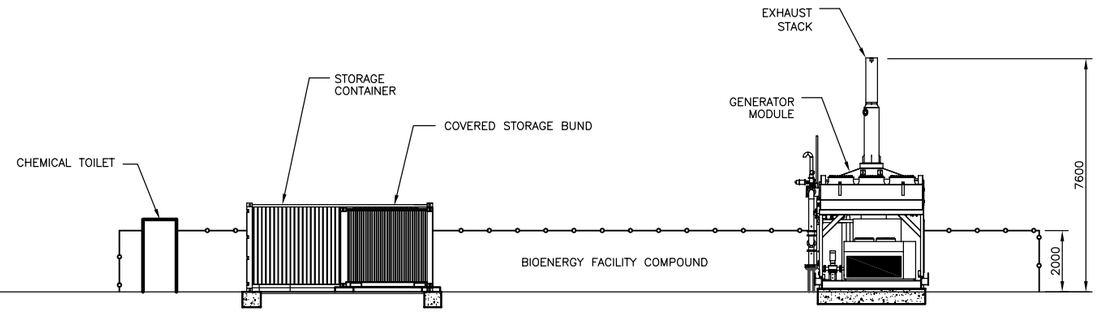


PLAN



SECTION A





ELEVATION

CLEAN OIL TANK, LIGHTNING POLES, CKV, GAC, FUEL RAIL, RMU WATER TANK AND CONTROL BUILDING REMOVED FOR CLARITY

FOR INFORMATION

No	DATE	DRN	DESN	CHKD	APP	DESCRIPTION
C	17/02/23	AAH	WB			LAYOUT REVISED FOR 1X CAT 3516 GM.
B	04/08/22	SA	WB			FOR INFORMATION – JENBACHER REFERENCE REMOVED
A	13/07/22	SA	WB			FOR INFORMATION

REVISIONS

No	DATE	DRN	DESN	CHKD	APP	DESCRIPTION

REVISIONS

DRAWING NUMBER	DESCRIPTION

REFERENCE DRAWINGS

LMS ENERGY

DRAWN:	S.A.
DATE:	13/07/22
DESIGN:	W.B.
DATE:	13/07/22
APPRVD:	
DATE:	
A.B.N. 39 059 428 474	

STUART LANDFILL BIOENERGY FACILITY

POWER STATION SITE LAYOUT

SCALE	DRAWING NUMBER	SHEET	SIZE	REV
1:100	40041-DA-001	1 OF 1	A1	C

PLANS AND DOCUMENTS
referred to in the
SDA APPROVAL

Queensland Government

SDA approval: AP2023/004

Stuart Landfill BioEnergy Facility

Risk Assessment For Development Approval Application

Report Date:	14/11/2023
Report Reference:	40041-RG-032
Version:	B

LMS ENERGY Pty Ltd
ACN: 059 428 474
Damien Manning
118 Greenhill Road
Unley SA 5061
T: 08 8291 9038
M: 0437 290 499

lms.com.au

Report Title:	Stuart Landfill BioEnergy Facility - Risk Assessement - For Development Approval
Report Reference:	40041-RG-032 - Rev B
Written/Submitted By:	Jason Achatz
Reviewed/Approved By:	Chris Kennedy - RPEQ PE0010358

IMS #: TP1 Rev 5

DOCUMENT CONTROL

LMS ENERGY Pty Ltd
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118 Greenhill Road
Unley, SA 5061
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Fax: (08) 8291 9099
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REVISION STATUS

Revision No.	Status	Date	Writer	Reviewer	Approver
A	Issued for Development Approval Application	18/09/2023	Jason Achatz	Chris Kennedy RPEQ PE0010358	Chris Kennedy RPEQ PE0010358
B	Revised to address TMR RFI	14/11/2023	Jason Achatz	Chris Kennedy RPEQ PE0010358	Chris Kennedy RPEQ PE0010358

RECORD OF DISTRIBUTION

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RISK ASSESSMENT MATRIX

Likelihood	Perception
Almost Certain	Expected to occur; more than 75% chance of occurring
Likely	Will probably occur; 50 - 75% chance of occurring
Possible	Might occur; 25 - 50% chance of occurring
Unlikely	Could occur; less than 25% chance of occurring
Rare	May only occur in exceptional circumstances

Rating	Insignificant	Minor	Moderate	Major	Catastrophic
OH&S	Incident but no injury	Medical treatment only	Lost Time Injury	Death or permanent disability	Multiple Fatalities
Environment	Impact can easily be rectified with on-site resources	Impact can be rectified but requires off-site resources	Serious environmental impact resulting in a fine	Major impact resulting in prosecution and media attention	Catastrophic impact resulting in prosecution and public outcry

Risk Matrix	Consequence				
Likelihood	**Insignificant**	**Minor**	**Moderate**	**Major**	**Catastrophic**
Almost Certain	**Medium**	**High**	**High**	**Extreme**	**Extreme**
Likely	**Low**	**Medium**	**High**	**High**	**Extreme**
Possible	**Low**	**Low**	**Medium**	**High**	**High**
Unlikely	**Negligible**	**Low**	**Low**	**Medium**	**High**
Rare	**Negligible**	**Negligible**	**Low**	**Low**	**Medium**

Refer LMS Safety Management System located on the LMS Intranet Site for all Policies, Procedures and Forms

PR23	Hand Tools Procedure
PR25	Housekeeping Procedure
PR27	Manual Handling Procedure
PR28	Personal Protective Equipment Procedure
PR85	Leachate Handling Procedure
PR89	LMS Safety Tag System Procedure
FM13	Job Safety Analysis (JSA) /Safe Work Methond Statement (SWMS) Worksheet
FM64	Toolbox meetings

BUSINESS UNIT	LOCATION (Optional)	RISK EVENT	CONSEQUENCE	CONSEQUENCE	FREQUENCY	RISK RATING	CONTROLS	REASSESSED RISK RATING
BIOGAS FACILITY AND FLARE COMPOUNDS								
Power Generation	Stuart Landfill	Creation of Hazardous Areas within the Renewable Energy Facility and Flare compound	Fire and explosion impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor.	Major	Possible	High	Creation of Hazardous Area Dossiers Creation of Hazardous Area Drawings Electrical equipment must be suitably rated and effectively earthed to mitigate ignition risks Scheduled maintenance and inspection program Suitably experienced and qualified electricians only to work on or modify electrical equipment	Low
Power Generation	Stuart Landfill	Ignition sources eminating from the adjacent rail corridor such as or caused by the following: - Passing railway traffic eminating sparks from general operation such as application of brakes. - Passing railway traffic eminating sparks from engine exhaust. - Hot works such as grinding, welding and cutting being conducted in the rail corridor.	Fire and explosion impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor.	Major	Possible	High	Creation of Hazardous Area Dossiers. Hazardous Areas comply with relevant standards. Creation of Hazardous Area Drawings. Electrical equipment must be suitably rated and effectively earthed to mitigate ignition risks. Scheduled maintenance and inspection program. Gas field wells and associated pipelines are under constant vaccum. (not pressurised). Low pressure and low fuel methane concentration (due to ingress of air) triggers plant shutdown. Refer Cause and Effect Matrix. Fire protection (smoke and UV detectors) installed to generator module initiate shutdown of modules. Instrumentation monitors integrity and alarms in accordance with Cause and Effect Matrix. A fire inside the generator module the gas engine and associated gas blower will result in an immediate shut down via hard-wired controls and the gas supply from the gas field will be immediately isolated by safety shutoff valves. Facility finished in non-combustible material (i.e. blue chip metal). Vegetation to be cleared up to 15m from the facility boundary. Clearance zone between facility and rail corridor. Generator modules ventilated to prevent methane build up.	Low
BIOGAS HEADER DELIVERY LINE								
Power Generation	Stuart Landfill	Damaged pipe (due to puncture, excavation, failure of welds, or traffic movements) resulting in ingress of air.	Fire and explosion iimpacting the energy facility and potentially surrounding areas including landfill facility or rail corridor.	Major	Possible	High	Low pressure and low fuel methane concentration (due to ingress of air) triggers plant shutdown. Refer Cause and Effect Matrix. Blower design incorporates relief valve for high suction pressure. Facility built on virgin land therefore no subsidence anticipated. Permit to work system.	Low

BUSINESS UNIT	LOCATION (Optional)	RISK EVENT	CONSEQUENCE	CONSEQUENCE	FREQUENCY	RISK RATING	CONTROLS	ASSESSED RISK RATING
CONDENSATE KNOCKOUT VESSEL								
Power Generation	Stuart Landfill	Release of gas / condensate due to damaged vessel wall from high pressure or weld failure.	Allergic reaction or illness due to skin contact with condensate. Land and water contamination.	Moderate	Unlikely	Low	Pressure relief valve provided on blower. High pressure alarms lead to plant shutdown. Refer Cause and Effect Matrix. Suitably qualified and experienced contractors and employees used to undertake PE welding.	Negligible
Power Generation	Stuart Landfill	Release of condensate due to overflow.	Allergic reaction or illness due to skin contact with condensate. Land / water contamination.	Minor	Possible	Medium	High level alarm. Refer Cause and Effect Matrix. Overfull would lead to low pressure at blower triggering plant shut down. Use of PPE. Refer Safety Management System.	Low
Power Generation	Stuart Landfill	Maintenance of CKV i.e. Change of pumps, pipework, cleanout of sludge.	Human exposure to condensate may lead to illness. Explosive atmosphere may exist if air ingress into vessel. Fire hazard if hot work / welding required.	Major	Possible	High	Specialist contractor engaged to pump out system. Use of PPE. Leachate Handling Permit to Work System. Task Specific Job Safety Analysis (JSEA) \ Safe Work Method Statement (SWMS) Worksheet. Refer Safety Management System.	Low
Power Generation	Stuart Landfill	Damaged to vessel due to high vacuum pressure resulting in ingress of air.	Fire and explosion impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor.	Major	Possible	High	Pressure relief valve provided on blower. Low pressure alarms lead to plant shutdown. Refer Cause and Effect Matrix. Suitably qualified and experienced contractors and employees used to undertake PE welding.	Low

BUSINESS UNIT	LOCATION (Optional)	RISK EVENT	CONSEQUENCE	CONSEQUENCE	FREQUENCY	RISK RATING	CONTROLS	ASSESSED RISK RATING
FUEL RAIL								
Power Generation	Stuart Landfill	Static electricity build up on pipework creates an ignition source.	Fire and explosion impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Electric shock.	Major	Unlikely	Medium	Above ground fuel rail constructed from stainless steel and earthed. HDPE pipe buried therefore no voltage potential. Inherent safety from static charge build up due to wet fuel source.	Low
Power Generation	Stuart Landfill	Dropped engine on fuel rail during removal from generator module during major maintenance or repair campaign.	Fire and explosion impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Gas leak. Damage to plant and equipment.	Major	Rare	Low	Suitably experienced and qualified crane contractors to be utilised. Lifting gear certified and inspections up to date. Use of PPE. Permit to Work System. Task Specific Job Safety & Environment Analysis (JSEA) \ Safe Work Method Statement (SWMS) Worksheet. Refer Safety Management System.	Low
Power Generation	Stuart Landfill	Vehicle / mobile plant collision with fuel rail / on site personnel.	Fire and explosion impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Gas leak. Damage to plant and equipment. Fatality	Moderate	Unlikely	Medium	Facility located within a fenced compound. Restricted vehicle access. Use spotters where risk of collision is present. Refer Safety Management System.	Low
Power Generation	Stuart Landfill	Severe weather affecting operation of plant including cyclone, flood and lightening strike.	Fire and explosion impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Inundation and damage to plant and equipment. Dangerous road conditions leading to accident.	Moderate	Likely	High	Lightning poles located within Facility. Plant and equipment suitably anchored to slab/foundation. Stormwater design undertake by suitable qualified and experienced engineer. Facility can be remotely monitored and controlled (for limited situations).	Low
Power Generation	Stuart Landfill	Release of gas resulting from line failure due to stress cracking or corrosion.	Fire and explosionimpacting the energy facility and potentially surrounding areas including landfill facility or rail corridor.	Moderate	Unlikely	Low	Above ground fuel rail constructed from stainless steel. Expansion bellows incorporated into line. Pressure gauges installed and in the event of high or low pressure shutdown and isolation sequence initiated. Double block and bleed valving. Suitably experienced and qualified welders / gasfitters employed during construction and during major maintenance / repair campaigns.	Low

BUSINESS UNIT	LOCATION (Optional)	RISK EVENT	CONSEQUENCE	CONSEQUENCE	FREQUENCY	RISK RATING	CONTROLS	ASSESSED RISK RATING
GENERATOR MODULE								
Power Generation	Stuart Landfill	Electrical fault causes fire.	Fire impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Personal Injury.	Major	Possible	High	Facility fence, generator module, fuel rail earthed. Earth grid buried and extends at least 1m beyond metal boundary fence. Instrumentation monitors electrical integrity and alarms in accordance with Cause and Effect Matrix. Generator modules ventilated to prevent methane build up. Methane detectors installed. Immediate generator module shutdown if methane concentration reaches 20%LEL. Fire protection (smoke and UV detectors) installed. Fire extinguishers located outside of entry. Facility finished in non combustible material (i.e. blue chip metal). Fire fighting and equipment safety equipment plan. Earth leakage devices provided on portable tools and switchboards. Refer Document: Fire Safety Drawing - 40041-DA-003	Low
Power Generation	Stuart Landfill	Oil fire within generator module.	Fire impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Personal Injury.	Major	Unlikely	Medium	Generator module earthed. Copy of hazardous area dossiers and hazardous area drawing kept on site. Instrumentation monitors integrity and alarms in accordance with Cause and Effect Matrix. Fire protection (smoke and UV detectors) installed. Fire extinguishers located outside of generator module entry. Fire fighting and equipment safety equipment plan. Fuel source can be isolated during maintenance. Double block and bleed valve. Site monitored remotely. Oil storage designed and maintained to Australian Standards. All oil spills from general operation and maintenance activities promptly cleaned up and disposed of in accordance with Australian standards / legislation / licence requirements as appropriate. House Keeping. Refer Safety Management System. Refer Document: Fire Safety Drawing - 40041-DA-003	Low
Power Generation	Stuart Landfill	Operation and maintenance of rotating equipment.	Burns. Crush injury. Cuts and bruises.	Major	Possible	High	All rotating parts and guards painted yellow (as appropriate). Safety manual, which includes all operating and maintenance procedures, maintained and kept on site. Long sleeves and pants must be worn on site. PPE used. All personnel provided with adequate training prior to using / working on rotating equipment. Training matrix prepared and kept up to date. Toolbox / Pre-start talks undertaken. Task Specific Job Safety & Environment Analysis (JSEA) \ Safe Work Method Statement (SWMS) Worksheet. Appropriate safety signage erected. Refer Safety Management System.	Low

BUSINESS UNIT	LOCATION (Optional)	RISK EVENT	CONSEQUENCE	CONSEQUENCE	FREQUENCY	RISK RATING	CONTROLS	ASSESSED RISK RATING
GENERATOR MODULE CONTINUED								
Power Generation	Stuart Landfill	Release of gas resulting from working on pressurised equipment including overpressure event.	Fire or explosion iimpacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Personal injury.	Major	Possible	High	Pressure relief provided in accordance with Australian standards (as appropriate). High pressure alarms lead to plant shutdown. Refer Cause and Effect Matrix. Double block and bleed valving. Suitably experienced and qualified welders / gasfitters employed during construction and during major maintenance / repair campaigns. PPE used. Permit to Work System. Isolations. Task Specific Job Safety & Environment Analysis (JSEA) \ Safe Work Method Statement (SWMS) Worksheet. Refer Safety Management System.	Low
Power Generation	Stuart Landfill	Gas leak from venting instruments / seals.	Fire or explosion impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Asphyxiation. Greenhouse gas emissions.	Moderate	Possible	Medium	Low pressure downstream of blower initiates fuel supply isolation. Generator module ventilation hardwired to shut off if not operating. Refer Cause and Effect Matrix. Methane detectors installed. Immediate generator module shutdown if methane concentration reaches 20%LEL. Emergency shutdown if methane concentration reaches 40%LEL. Fire protection (smoke and UV detectors) installed. Fire extinguishers located outside of entry. Refer Document: Fire Safety Drawing - 40041-DA-003	Low
Power Generation	Stuart Landfill	Vibration of generator causes fuel, coolant or oil line rupture.	Fire or explosion iimpacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Personal injury.	Major	Possible	Medium	Braided flexible stainless steel gas lines. Coolant lines braided stainless steel. Engine installed on rubber mount. Generator module is self bunded and capable of storing 110% of oil inventory. Low pressure alarms (on coolant or gas lines) initiate shutdown. Refer Cause and Effect Matrix. Methane detectors installed. Immediate generator module shutdown if methane concentration reaches 20%LEL. Emergency shutdown if methane concentration reaches 40%LEL. Fire protection (smoke and UV detectors) installed. Fire extinguishers located outside of entry. PPE Used. Refer Safety Management System. Refer Document: Fire Safety Drawing - 40041-DA-003	Low

BUSINESS UNIT	LOCATION (Optional)	RISK EVENT	CONSEQUENCE	CONSEQUENCE	FREQUENCY	RISK RATING	CONTROLS	ASSESSED RISK RATING
GENERATOR MODULE CONTINUED								
Power Generation	Stuart Landfill	Noise from operations.	Hearing loss. Nuisance to sensitive receptors (including residents, fauna and public).	Moderate	Almost certain	High	Specific noise policy for occupational health and safety developed. Refer Safety Management System. Where possible noise limited by using engineering controls (e.g. generator located within an acoustic enclosure, muffler on exhaust stack). Engineering controls regularly inspected and maintained. Records of maintenance kept. Safety signs erected to highlight noisy areas and PPE requirements. PPE used, Inductions undertaken and Environmental Management Plan implemented which includes Noise Management. Refer Safety Management System.	Low
Power Generation	Stuart Landfill	Overflow of generator module oil tank.	Fire impacting the energy facility aimpacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Injury as a result of slip/fall. Onsite or offsite land and/or water contamination.	Moderate	Possible	Medium	Bunded tank. Generator module self bunded and capable of storing 110% of oil and coolant inventory upon catastrophic failure. Oil tank has sight glass. Tank overflows into bunded area. Oil flow meter monitors top up volumes (greater than 15L in 24hour period leads to warning alarm, greater than 40L in 24hour period leads to generator shutdown). Spill kit located onsite. Spill procedure and environmental management plan implemented.	Low
FLARES								
Power Generation	Stuart Landfill	Operation of flare.	Facility fire which could escalate to bushfire or landfill or rail corridor fire threat.	Major	Possible	High	Flare located outside fenced compound with restricted access. Operation of the flare/s is typically limited to extended scheduled or unscheduled maintenance / repairs, however the flare/s may at times be utilised on conjunction with the generator/s to control biogas levels that exceed the combustion capabilities of the generators/s. The flare is an enclosed design with no flame visible. Facility finished in non combustible material (i.e. blue chip metal). Fire fighting and equipment safety equipment plan. Copy of hazardous area dossiers and hazardous area drawings kept on site. Emergency response plan in place to prevent escalation of Facility fire to bushfire / landfill fire threat. Vegetation to be cleared up to 15m from the flare. Refer Document: Emergency Response Plan - 40041-RG-030	Low
LOW VOLTAGE (415V) MAINS CABLE								
Power Generation	Stuart Landfill	Damage to LV cable due to hotspots.	Power station unable to operate.	Insignificant	Possible	Low	Routine thermal imaging undertaken. Preventative maintenance system in place. Maintenance and inspection records maintained.	Negligible

BUSINESS UNIT	LOCATION (Optional)	RISK EVENT	CONSEQUENCE	CONSEQUENCE	FREQUENCY	RISK RATING	CONTROLS	ASSESSED RISK RATING
HIGH VOLTAGE (11KV) ASSETS - POLES AND WIRES								
Power Generation	Stuart Landfill	Damage to HV cable due to hotspots.	Power station unable to operate.	Minor	Possible	Low	Routine thermal imaging undertaken. Preventative maintenance system in place. Maintenance and inspection records maintained.	Negligible
Power Generation	Stuart Landfill	Conductor clearance to objects compromised	Where an asset failure has not occurred however the conductor has come into contact with another object that is at a different voltage and there is potential for a discharge of energy sufficient to cause a fireimpacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Some examples include: - Conductors clashing together due to insufficient clearance - Insufficient design clearances - Vehicle or plant coming into contact with conductors - Equipment or stores stored too close to conductors - Buildings or scaffolding too close to conductors	Moderate	Unlikely	Low	Conduct monthly inspections of LMS infrastructure using FM59. Ensure site design and construction takes into consideration the location of site buildings, neighbouring structures and plant. All future works must consider this risk.	Negligible
Power Generation	Stuart Landfill	Insufficient conductor clearance to vegetation	Clearances to vegetation not maintained and conductors and vegetation are likely to come into contact. Vegetative fuel under overhead lines provides a source of fire propagation after an asset failure.	Moderate	Possible	Medium	Vegetation Clearance Procedure that implements relevant requirements in ISSC3 Vegetation Clearance for Power Lines Conduct monthly inspections of LMS infrastructure using FM59, and organise the professional trimming or slashing of vegetation that encroaches into conductor exclusion zones.	Negligible

BUSINESS UNIT	LOCATION (Optional)	RISK EVENT	CONSEQUENCE	CONSEQUENCE	FREQUENCY	RISK RATING	CONTROLS	ASSESSED RISK RATING
HIGH VOLTAGE (11KV) ASSETS - POLES AND WIRES CONTINUTED								
Power Generation	Stuart Landfill	Mechanical or electrical failure	An asset fails mechanically resulting in a conductor coming into contact with the ground or other object and the energy discharged causes a fire. An electrical failure due to age, overloading, poor design, equipment damage that releases energy that causes a fire or causes mechanical damage which then leads to fire impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor.	Moderate	Possible	Medium	Ensure electrical equipment is included in LMS's Maintenance Manage System (MMS). All faults or defects identified during monthly site safety inspections (FM59) are added to the MMS or appropriate HV contractors are engaged to repair any issues.	Negligible
Power Generation	Stuart Landfill	Arcing during equipment operation	Some equipment types have potential to arc in normal operation such as air break switches, links, fuses. This arcing has potential to release hot material onto the ground and start a fire impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor.	Moderate	Unlikely	Low	Switching programs to be scheduled on days that do not present extra risks such as fire ban days or days of extreme wind. Vegetation to be monitored and controlled around transformers and poles where fuses, air breaks and switches are located, in accordance with FM59.	Negligible
Power Generation	Stuart Landfill	Hot work	Maintenance and construction activity associated with power supply assets, for example using a grinder, welding or driving a vehicle through long grass has potential to initiate a fire impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor.	Moderate	Unlikely	Low	All LMS vehicles are diesel. LMS to communicate with landfill owners regarding slashing roadways or tracks to LMS assets. Hot Work Procedure in place and SWMS for the tasks completed and on site highlighting the hot work and appropriate controls to be implemented.	Negligible
Power Generation	Stuart Landfill	Operation of LMS sites on High Fire Risk days or Fire Ban days, or on days of high wind.	LMS Network / plant causing a fire on High Fire Risk days or Fire Ban days through failure or sparking, or through coming into contact with vegetation in high winds impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor.	Moderate	Possible	Medium	Conduct monthly inspections of LMS infrastructure ie: flares, pad mount transformers, electrical poles and wires (HV/LV Overhead) to ensure vegetation, both on the ground and above the ground, is kept under control and where required organising the slashing or pruning of vegetation where it is deemed to be a hazard, Inspecting LMS Infrastructure in PRA area's to ensure it is maintained in a safe and ready for use condition, Coordinate vegetation control with neighbouring properties (council's, landfill's or forestry departments), Liaise with landfill operator and/or emergency services during a bushfire event to coordinate the safe operation, shut down and evacuation of LMS staff if and when required, Respond to a Bushfire Evacuation event in accordance with LMS Energy's Emergency Response Plan where one is available, or the landfill Emergency Response Plan. Refer Documents: Emergency Response Plan - 40041-RG-030	Negligible
Power Generation	Stuart Landfill	Damage to Overhead HV/LV wires and Infrastructure due to malicious or intentional damage	Unauthorised access in and around HV/LV network enabling a person of malicious intent the opportunity to cause damage to LMS plant and assets	Moderate	Unlikely	Low	Ensure design and construct includes security fencing around the perimeter of the site and HV/LV infrastructure, security cameras installed around LMS compounds as an extra level of deterrence.	Negligible

BUSINESS UNIT	LOCATION (Optional)	RISK EVENT	CONSEQUENCE	CONSEQUENCE	FREQUENCY	RISK RATING	CONTROLS	ASSESSED RISK RATING
HIGH VOLTAGE (11KV) ASSETS - POLES AND WIRES CONTINUTED								
Power Generation	Stuart Landfill	Overhead HV/LV equipment design and construction faults	Design or location of OH poles and wires contributing to the cause of fires or bushfires impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor.	Moderate	Possible	Medium	Design and construction of Overhead poles and wires network to consider the local environment and assess whether any impacts of plant or equipment failure has the risk of starting a fire.	Negligible
Power Generation	Stuart Landfill	Damage to Overhead HV/LV wires and Infrastructure due to Landfill Fire or Bushfire	Overhead HV/LV cables coming into contact with vegetation / Damage to HV/LV poles and wires causing a spark that ignites neighbouring vegetation / damage to LMS plant and equipment from a landfill fire or bushfire.	Moderate	Possible	Medium	Conduct monthly inspections of LMS infrastructure ie: flares, pad mount transformers, electrical poles and wires (HV/LV Overhead) to ensure vegetation, both on the ground and above the ground, is kept under control and where required organising the slashing or pruning of vegetation where it is deemed to be a hazard, Inspecting LMS Infrastructure in PRA area's to ensure it is maintained in a safe and ready for use condition, Coordinate vegetation control with neighbouring properties (council's, landfill's or forestry departments), Liaise with landfill operator and/or emergency services during a bushfire event to coordinate the safe operation, shut down and evacuation of LMS staff if and when required, Respond to a Bushfire Evacuation event in accordance with LMS Energy's Emergency Response Plan where one is available, or the landfill Emergency Response Plan. Refer Documents: Emergency Response Plan - 40041-RG-030	Negligible
STORAGE CONTAINER, STORAGE BUND AND WASTE MANAGEMENT								
Power Generation	Stuart Landfill	Leaking chemical / hazardous material storages (e.g. oil, battery acid and coolant) due to damaged packing, seals, fittings.	Fire, land and/or water contamination impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Slip hazard. Burns.	Moderate	Almost certain	High	All chemical / hazardous material stored in storage bund or cabinet provided in storage container as appropriate. Eye wash and safety shower located at Facility. Spill kits provided. Fire Extinguishers on site. Bunds regularly checked and cleaned out. Routine inspection of storage areas. PPE used. House Keeping. Refer Safety Management System. Refer Document: Fire Safety Drawing - 40041-DA-003	Low
Power Generation	Stuart Landfill	Potential reaction between incompatible substances in storage or handling.	Fire. Heat. Toxic gas emission. Explosion. Spill.	Major	Almost certain	Extreme	All chemical / hazardous material stored in storage bund or cabinet provided in storage container as appropriate. Separation distances maintained in accordance with relevant Australian standards/ legislative requirements. SDS available on site for all chemical / hazardous materials stored. Eye wash and safety shower located at Facility. Spill kits provided. Bunds regularly checked and cleaned out. Routine inspection of storage areas. PPE used. House Keeping. Refer Safety Management System. Refer Documents: Fire Safety Drawing - 40041-DA-003	Low

BUSINESS UNIT	LOCATION (Optional)	RISK EVENT	CONSEQUENCE	CONSEQUENCE	FREQUENCY	RISK RATING	CONTROLS	ASSESSED RISK RATING
FACILITY (BEF)								
Power Generation	Stuart Landfill	Fire at transformer (due to electrical fault, oil leak) affects operation of Facility.	Fire impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Burns. Power station unable to operate.	Major	Unlikely	Medium	Transformers have over temperature protection that will shut down the generator module in the event of a fault. Transformer overpressure protection will shut down the station in the event of a fault. Electrical protection relays will shutdown station and open High Voltage breaker in the event of a transformer electrical fault. Refer Cause and Effect Matrix. Transformers enclosed in a steel Kiosk. Storage of flammable products (i.e. pallets, plastic must not be stored against fences, buildings or next to transformers. House Keeping. Refer Safety Management System.	Low
Power Generation	Stuart Landfill	Pests or scavenging native species attracted to refuse.	Fire. Health hazard. Trip, slip and fall hazards. Pollution of creek.	Minor	Likely	Medium	Fire or explosion impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Air, land and water contamination.	Low
Power Generation	Stuart Landfill	Deliberate attack on site facilities.	Fire or explosion impacting the energy facility and potentially surrounding areas including landfill facility or rail corridor. Air, land and water contamination.	Moderate	Rare	Low	Fenced facility. Operations remotely operated. Security Cameras. Facility located within Landfill boundary which is fenced. Refer to Emergency Response Plan and Safety Management System. Refer Documents: Emergency Response Plan - 40041-RG-030	Low
Power Generation	Stuart Landfill	Vehicle / mobile plant collision while travelling to and from facility (onsite risk addressed in Fuel Rail risks).	Fatality. Damage to vehicle. Fauna fatality. Oil or chemical spill potentiall impacting the energy facility and surrounding areas including landfill facility or rail corridor.	Moderate	Likely	High	Regular servicing undertaken and logbooks maintained. Employees must obey rules in Vehicle Policy Employees must obey rules in Electronic Resources & Communications Policy (Use of Mobile Device). Valid drivers licence must be held. First aid kits and fire extinguisher located in company vehicles. Refer Safety Management System. Refer Documents: Safety Management Plan - 40041-RG-031	Low
Power Generation	Stuart Landfill	Personnel undertaking operation / maintenance activities at height (e.g. Accessing radiator fans on top of generator module or undertaking emissions testing at exhaust stack monitoring ports).	Fatality. Damage to plant and equipment.	Major	Possible	High	Safety harness required where fall possible greater than 1.8m. Permit to work system. Task Specific Job Safety & Environment Analysis (JSEA) \ Safe Work Method Statement (SWMS) Worksheet. Suitably experienced and qualified employees and contractors to be utilised. PPE used. Training register. Inductions undertaken. Refer Safety Management System. Refer Documents: Safety Management Plan - 40041-RG-031	Low

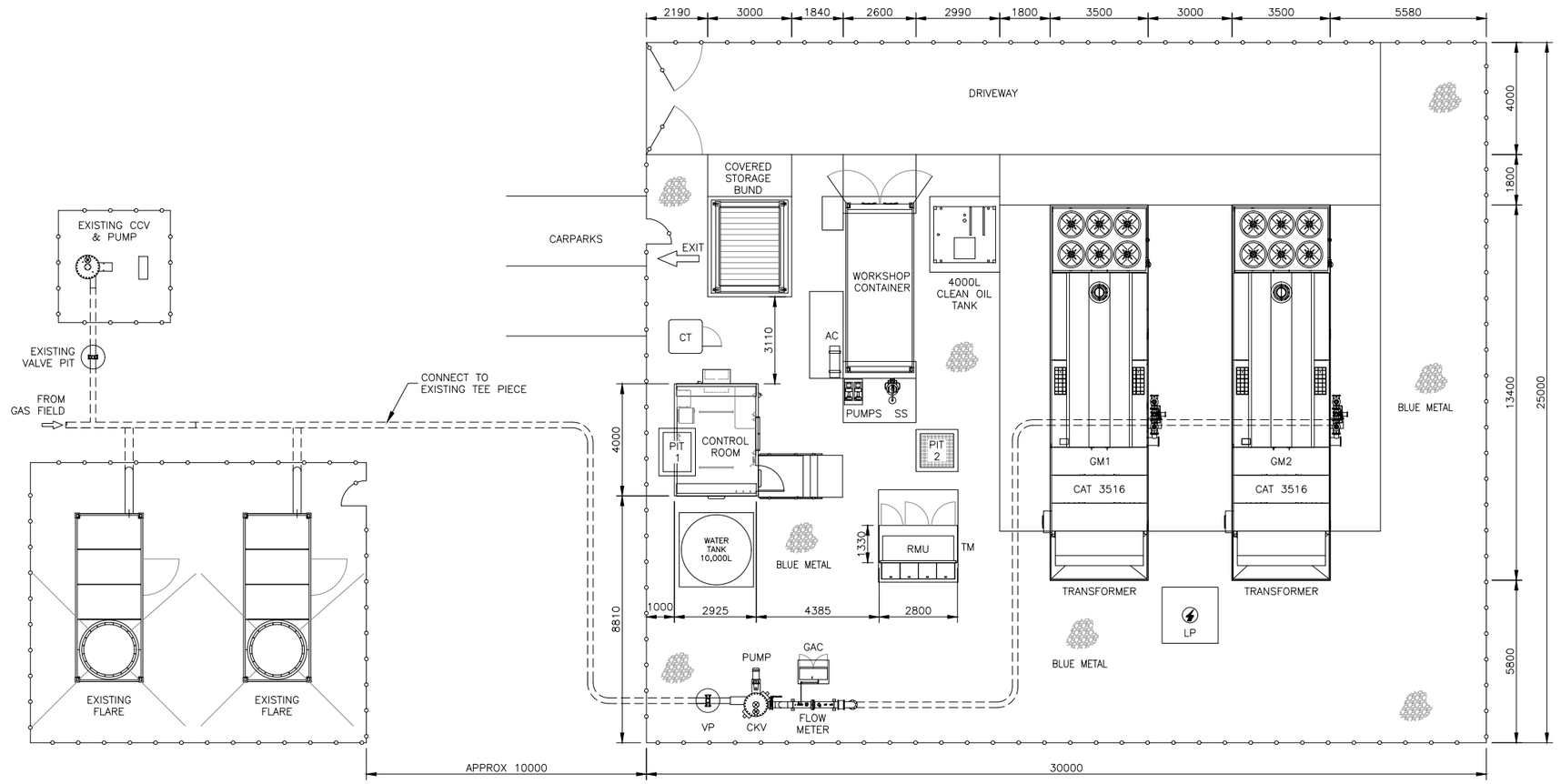
BUSINESS UNIT	LOCATION (Optional)	RISK EVENT	CONSEQUENCE	CONSEQUENCE	FREQUENCY	RISK RATING	CONTROLS	ASSESSED RISK RATING
FACILITY (BEF) CONTINUED								
Power Generation	Stuart Landfill	Unauthorised access from public, landfill operations staff and visitors.	Damage to plant and equipment. Injury. Electrocution.	Major	Possible	High	Facility fenced with security gate. Security gate padlocked when no operator in attendance. Entrance signed directing visitors to report to control room. Inductions undertaken. Warning and hazard signs erected on Facility fence. Operator contact details provided on front fence.	Low
Power Generation	Stuart Landfill	Fire affecting operation of the Facility (i.e. Bushfire or landfill fire).	Damage to plant and equipment potentiall impacting the energy facility and surrounding areas including landfill facility or rail corridor. Injury.	Minor	Possible	Low	Emergency Response Plan. Regular communications with landfill operator. LMS, ERP enacted during a facility incident which does not pose a threat beyond fence line. Landfill operator ERP enacted during an incident exists outside of facility boundary. First Aid Training. Training register. Inductions undertaken. Refer Documents: Emergency Response Plan - 40041-RG-030	Negligible

SCALE 1:100 FOR A1 SIZE
SCALE 1:200 FOR A3 SIZE

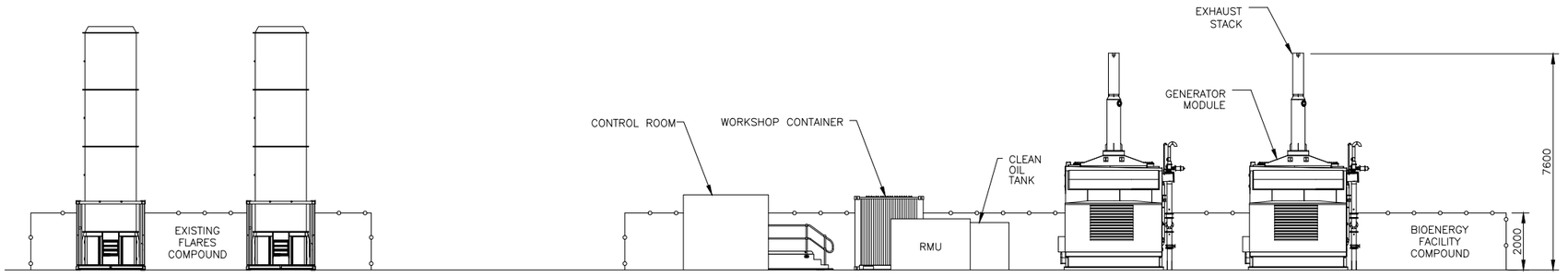
N

LEGEND

	2m CHAINWIRE FENCE
	PIPEWORK ABOVE GROUND
	PIPEWORK BELOW GROUND
AC	AIR COMPRESSOR
CCV	CONDENSATE COLLECTION VESSEL
CKV	CONDENSATE KNOCKOUT VESSEL
CT	CHEMICAL TOILET
GAC	GAS ANALYSER CUBICLE
GM	GENERATOR MODULE
LP	22m LIGHTNING POLE
RMU	RING MAIN UNIT (HIGH VOLTAGE SWITCHBOARD)
SS	SAFETY SHOWER
TM	TARIFF METER
VP	VALVE PIT

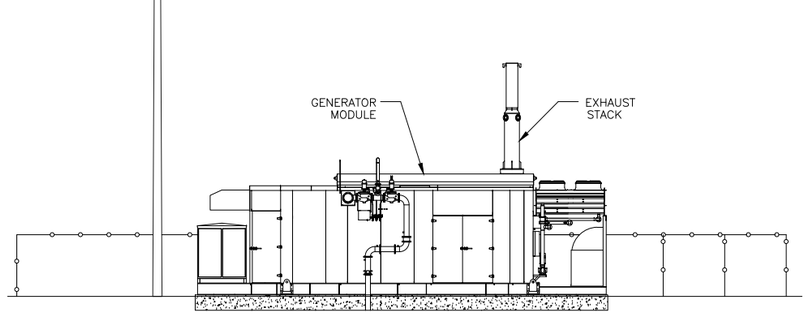


PLAN



ELEVATION

CKV, GAC, FUEL RAIL, WATER TANK, COVERED STORAGE BUND AND LIGHTNING POLE REMOVED FOR CLARITY



RIGHT END VIEW

CKV, GAC, FUEL RAIL, CONTROL ROOM, RMU, WATER TANK, COVERED STORAGE BUND, WORKSHOP CONTAINER AND LIGHTNING POLE REMOVED FOR CLARITY

FOR INFORMATION

No	DATE	DRN	DESN	CHKD	APP	DESCRIPTION
D	23/04/24	SA		DM		SITE CONFIGURATION CHANGED AND GM2 ADDED.
C	17/02/23	AAH		WB		LAYOUT REVISED FOR 1X CAT 3516 GM.
B	04/08/22	SA		WB		FOR INFORMATION – JENBACHER REFERENCE REMOVED
A	13/07/22	SA		WB		FOR INFORMATION

REVISIONS

No	DATE	DRN	DESN	CHKD	APP	DESCRIPTION

REVISIONS

DRAWING NUMBER	DESCRIPTION

REFERENCE DRAWINGS

LMS ENERGY

DRAWN:	S.A.
DATE:	13/07/22
DESIGN:	W.B.
DATE:	13/07/22
APPRVD:	
DATE:	
A.B.N.	39 059 428 474

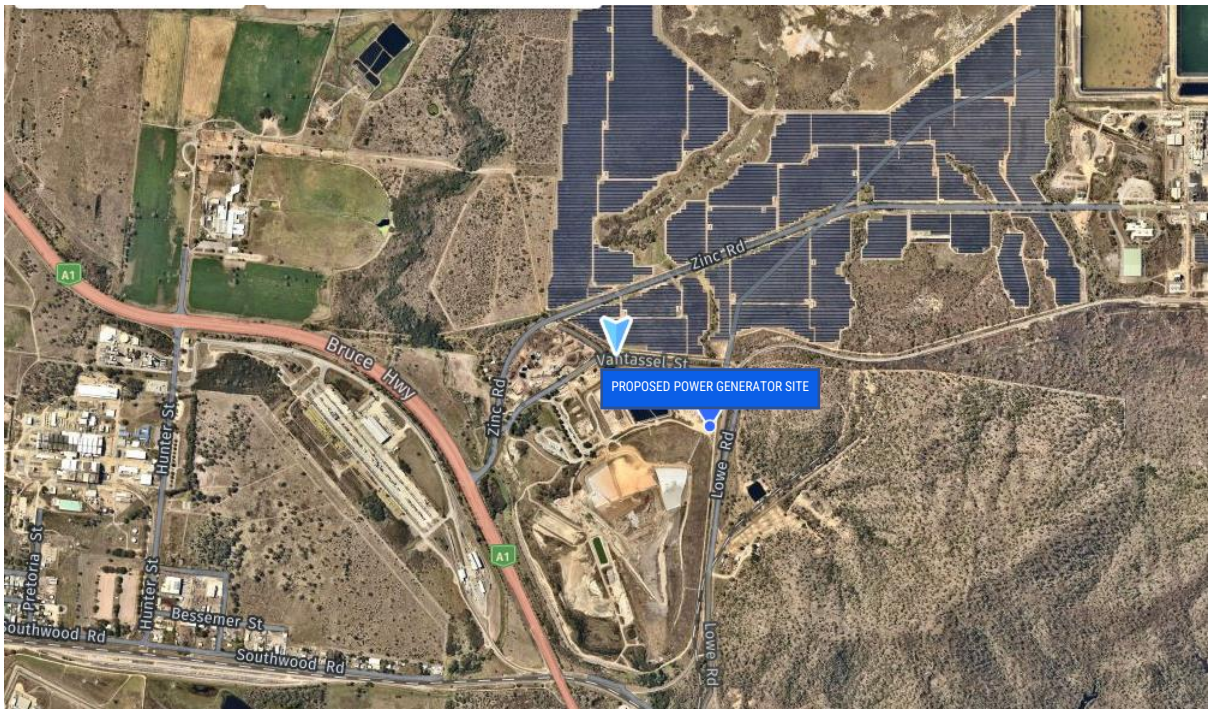
STUART LANDFILL BIOENERGY FACILITY

PROPOSED POWER STATION SITE LAYOUT

SCALE	DRAWING NUMBER	SHEET	SIZE	REV
1:100	40041-DA-001-01	OF 01	A1	D

Stuart Bio-Energy Facility Townsville

Noise Impact Assessment



Project:	Stuart Bio-Energy Facility
Location:	Townsville, Queensland
Client:	LMS Energy Pty Ltd
Date:	29 April 2024

DOCUMENT CONTROL

REVIEW RECORD

Revision	Date	Status	Prepared	Reviewed	Approved
1	05/05/2023	Draft – for Client review	AF	BH	ARH
2	09/05/2023	Final	AF	BH	ARH
3	29/04/2024	Updated for 2x CAT 3516	AF	BH	ARH

APPROVAL / SIGN OFF

ISSUE				
	Name	Position	Signature	Date
Prepared by:	Arturo Fernández	Senior Consultant		05/05/2023
Reviewed by:	Ben Hall	Principal Consultant		05/05/2023
Approved by:	Asbjorn Hansen (RPEQ: 21838)	Senior Engineer	Asbjorn Hansen	29/04/2024
Comments:				

TABLE OF CONTENTS

TABLE OF TABLES

TABLE OF IMAGES

EXECUTIVE SUMMARY

Noise impacts from the proposed LMS renewable energy facility at Stuart Landfill were assessed.

The noise assessment found that the noise levels from the proposed operation of two power generator modules are predicted to comply with the relevant noise criteria by a margin of 17 dB or more.

It is therefore considered that the project has demonstrated that it will be able to operate in a manner that complies with the noise requirements of the Environmental Protection Act, Environmental Protection Regulation, and the Environmental Protection (Noise) Policy.

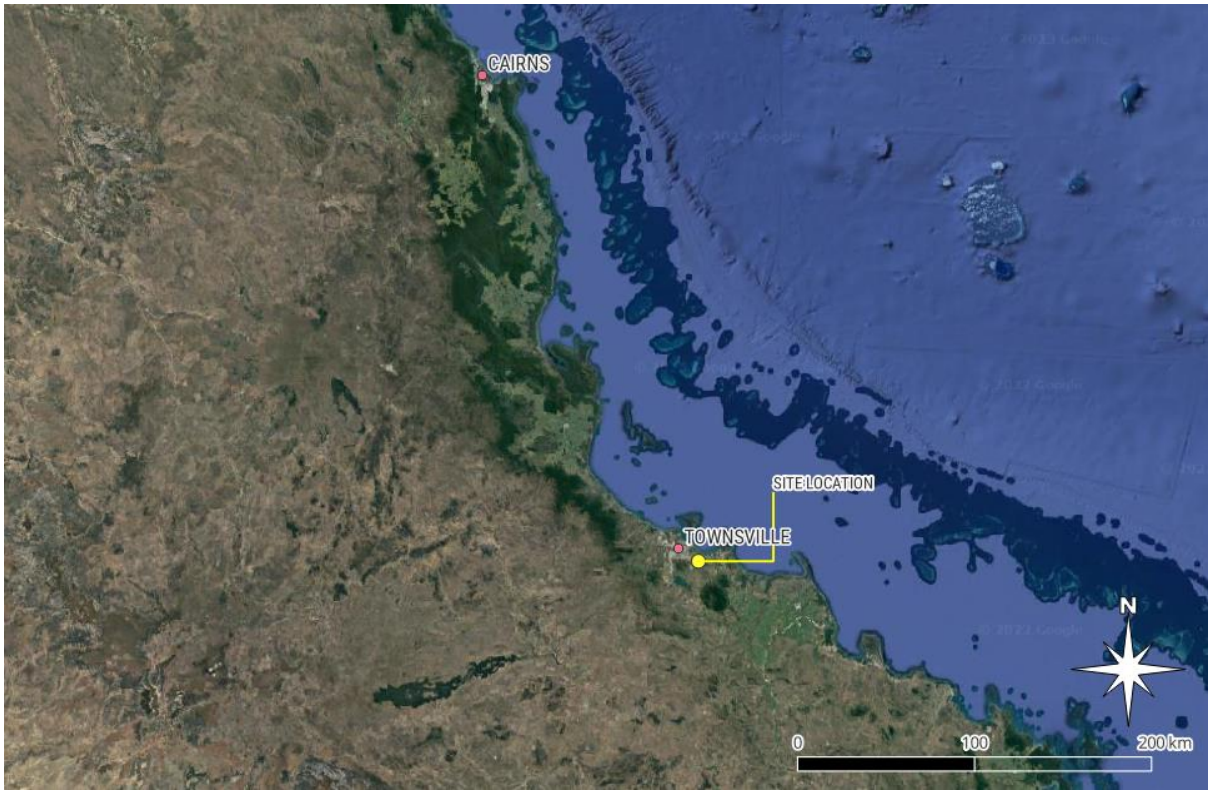
1 INTRODUCTION

Matrix Acoustics was engaged by LMS Energy Pty Ltd (LMS) to assess the noise impact from the proposed Bio-Energy facility at Stuart Landfill in Townsville, QLD. The site currently utilises one flare for the release of landfill gas. LMS is proposing to install two generator modules (GM's), one extra flare and use the landfill gas to run the GM's to generate electricity.

The objective of this study is to determine the potential noise impact from the proposed development. This will include assessment of the current ambient background noise levels, creation of a 3D noise model to predict the noise levels at the nearest noise sensitive receptors, and determination of compliance with noise criteria.

Image 1-1 shows the site location in relation to Townsville.

Image 1-1 Site location

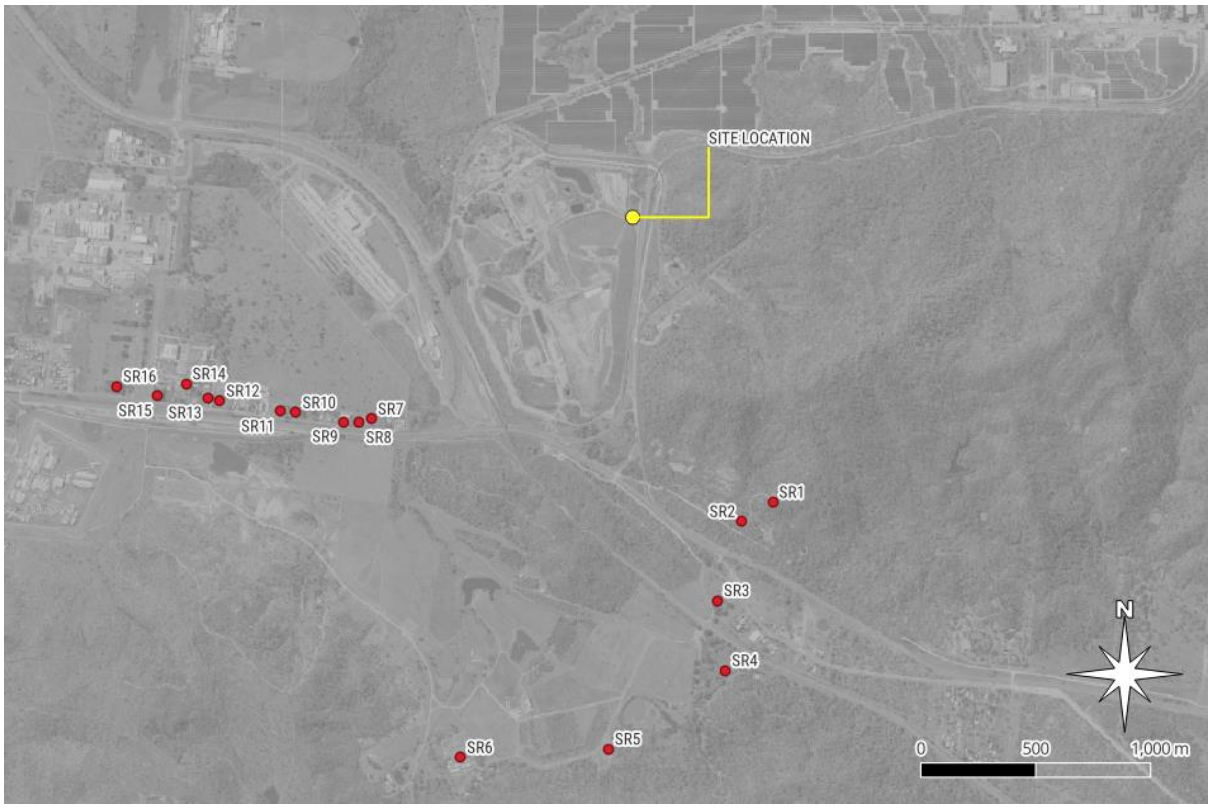


2 SENSITIVE RECEPTORS

The nearest noise sensitive receptors to the proposed site are situated to the south and to the southwest. Receptors in other directions are situated more than 2.5 km from the proposed site. Receptor 1 and Receptor 7 are the closest to the site and their respective distances are 1.4 km and 1.5 km from site.

Image 2-1 shows the proposed site and the surrounding sensitive receptors (the red circles). Note that no other sensitive receptors, such as schools, health care institutions or protected areas, have been identified in the study area.

Image 2-1 Site location and noise sensitive receptors



3 EXISTING NOISE ENVIRONMENT

Noise monitoring was conducted 900 m south of the proposed power generator site and 900 m northwest of Receptor 1 as shown in Image 3-2. This site was selected as it is representative of the ambient noise conditions of the receptors to the south and west of the proposed project area. Noise monitoring was conducted from Thursday 20 April to Tuesday 2 May 2023.

The acoustic environment at the noise monitor location was quiet with noise from the Bruce Highway and other natural sounds driving the background noise levels. The ambient sounds included rustling leaves and wind in the trees as well as birdlife. No noise from the landfill site such as heavy machinery was audible. The landfill operators indicated that occasional work vehicles would drive past this location on working days. These vehicle passbys have minimal impact on the ambient noise monitoring results.

Periods of adverse weather conditions were removed from the ambient noise analysis. The weather data was sourced from the Townsville Airport weather station in Townsville, Queensland.

Full noise measurements results are presented in Appendix A.

Table 3-1 Instrumentation used for the monitoring regime.

Instrument type	Type and model	Serial number
Noise monitor	NTI XL2	A2A-09856-E0
Calibrator	Pulsar 105 Type 1	72905

The equipment used for the monitoring regime was in current NATA calibration. Field calibration was undertaken before and after monitoring. Field calibration results showed no drift over the monitoring period.

Image 3-1 shows the noise monitoring location in relation to the proposed power generating site.

Image 3-2 shows the noise monitor installed at the southern boundary of the landfill site.

Image 3-1 Noise monitoring location

Image 3-2 Noise monitor within the landfill site

The recorded noise data was analysed to determine the ambient noise levels of the area. Periods of elevated noise levels were observed during the review of the data. It is believed that these elevated noise levels are a result of rail traffic on the nearby rail track or a result of nearby activity within the

landfill site. The elevated noise levels were excluded from the analysis for the determination of the general ambient noise levels of the area.

The summary of the monitored and analysed noise levels is shown in Table 3-2.

Table 3-2 Noise measurement summary

Time period	Average values, dBA					RBL*
	L_{Amax}	L_{Aeq}	L_{A1}	L_{A10}	L_{A90}	
Day (7am – 6pm)	63.5	45.3	53.1	47.5	39.5	37.9
Evening (6pm - 10pm)	63.2	52.4	57.8	54.3	48.3	45.0
Night (10pm – 7am)	58.9	48.0	53.6	50.1	43.7	39.5

Note: The RBL it is the Rating Background Noise Level (RBL) for each assessment period, determined in accordance with Australian guidelines.

It is notable to observe that the night time RBL is 39.5 dBA and the day RBL is 37.9 dBA. The reason that the daytime RBL is lower than the evening and the night time RBLs is due to insects in the area. These are very active in the evening and some parts of the night time period.

4 NOISE CRITERIA

The licencing for this site is managed by the Department of Environment and Science (DES). The regulating instrument for environmental impacts in Queensland is the Environmental Protection Act 1994 (EP Act).

4.1 ENVIRONMENTAL PROTECTION ACT (1994)

The EP Act provides the legislative framework for the assessment and management of environmental noise emissions in the state. It has the objective of regulating activities conducted in the state of Queensland and minimising environmental harm and nuisance from such activities.

The EP Act does not directly provide any specific noise or vibration criteria other than for blasting. Most specific noise criteria are developed in the Environmental Protection Regulation and the Environmental Protection (Noise) Policy 2019 (EPP Noise).

4.2 ENVIRONMENTAL PROTECTION REGULATION (2019)

Part 3, Division 1 of the Environmental Protection Regulation (EP Reg) defines the environmental objectives and performance outcomes for operational assessments. With regard to noise, the objective is stated as:

"The activity will be operated in a way that protects the environmental values of the acoustic environment."

Two performance outcomes are defined. These are:

1) Sound from the activity is not audible at a sensitive receptor.

2) The release of sound to the environment from the activity is managed so that adverse effects on environmental values, including health and wellbeing and sensitive ecosystems, are prevented or minimised.

These objectives are achieved through the application of the Acoustic Quality Objectives contained in the Environmental Protection (Noise) Policy 2019.

4.3 ENVIRONMENTAL PROTECTION (NOISE) POLICY 2019

The purpose of the EPP Noise is to achieve the object of the Act in relation to the acoustic environment. This Policy provides specific noise levels which, if complied with, would be considered achieving the objective of the EP Act, namely, to not cause environmental nuisance or harm.

The EPP (Noise) identifies the environmental values to be enhanced or protected relating to the qualities of the acoustic environment that are conducive to:

- protecting the health and biodiversity of ecosystems
- human health and wellbeing, including an individuals' ability to have sleep, study or learn, and recreation activities (including relaxation and conversation)
- protect the amenity of the community.

The policy defines noise sensitive receptors as the following:

- dwelling
- library and educational institute (including a school, college and university)

- childcare or kindergarten
- school or playground
- hospital, surgery or medical institution
- commercial and retail activity
- protected area, or an area identified under a conservation plan under the Nature Conservation Act 1992 as a critical habitat or an area of major interest.
- marine park under the Marine Parks Act 2004
- park or garden that is open to the public (whether on payment of an amount) for use other than for sport or organised entertainment.

The acoustic quality objective is the measurement of an acoustic descriptor at a sensitive receptor. Table 4-1 shows the acoustic quality objective for each type of sensitive receptor. Time periods are defined as follows:

- Daytime – 7 am to 6 pm
- Evening – 6 pm to 10 pm
- Night-time – 10 pm to 7 am.

Table 4-1 An extract of the residential receptors noise limits from the EPP Noise

Sensitive receptor	Time of day	Acoustic quality objectives (measured at the receptor) *dB(A)*			Environmental value
		$L_{Aeq,adj,1hr}$	$L_{A10,adj,1hr}$	$L_{A1,adj,1hr}$	
residence (for outdoors)	daytime and evening	50	55	65	health and wellbeing
residence (for indoors)	daytime and evening	35	40	45	health and wellbeing
	night-time	30	35	40	health and wellbeing, in relation to the ability to sleep

The EPP Noise states that where the noise limits outlined in in Table 4-1 are achieved, then the environmental value stated in the Acoustic Quality Objectives is preserved. This ensures the objectives of the EP Act and EP Reg are both achieved.

The noise levels stated in Table 4-1 are therefore adopted as the noise criteria for this proposed development.

5 NOISE IMPACT ASSESSMENT

5.1 NOISE MODEL INFORMATION

A noise model was created to calculate the noise impacts from the operation of the proposed LMS site. The noise model was constructed in SoundPLAN 8.2. Table 5-1 presents the noise model parameters and the meteorological conditions used in the noise model.

Table 5-1 Noise model parameters

Meteorological condition	Value
Air pressure	1013 mbar
Relative humidity	70%
Temperature	10°C
Ground contours	Elevation and Depth
Ground absorption	Soft ground (α = 1)

Noise levels from the noise generating source have been predicted using the SoundPLAN in-built ISO 9613-2: 1996 prediction method. The ISO 9613 method incorporates downwind propagation or equivalently propagation under a well-developed moderate ground-based temperature inversion. The predicted noise levels are as such conservative (tendency to overpredict) noise predictions.

The elevation data for the noise model was acquired from the Elevation and Depth Foundation Spatial Data database using the 1 metre data from 2018.

5.2 NOISE SOURCE INFORMATION

Comprehensive noise measurements of LMS's power generating modules have been conducted throughout the last decade. Table 5-2 presents the noise emission of the various elements of the power generating modules.

Table 5-2 Sound power levels of power generator module elements

Element name	dBA re 10^{-12} W
3516 Exhaust	88.6
3516 Enclosure Side	85
3516 Roof	89.1
Fans-3516 Radiator	93.5
Side Gap 3516 Radiator	93.5
Transformer Roof	72.1
Transformer End	72.6
Transformer Side	72.1

The generator modules do not produce tonal or impulsive noise. Therefore, no adjustments or penalties are required.

The proponent has advised that two GM's will be installed at the site. Therefore, the noise model was constructed with two GM's operating at the proposed site.

Noise emissions from the generator modules are very constant. Typically, the L_{A10} and the L_{A1} are within 3 dBA of the L_{Aeq}. Where the project noise emissions comply with the L_{Aeq} criteria, the L_{A1} and L_{A10} criteria will be achieved. This means the L_{Aeq} are the most stringent criteria for this project and will be used to define compliance.

5.3 INTERNAL CRITERIA

The most stringent L_{Aeq} criterion is the night time criterion of 30 dBA as outlined in in Table 4-1. This is an internal noise level. The noise model predicts noise levels at locations outside buildings. A method is therefore required to determine the amount of reduction that the building façade provides.

A façade reduction of 7 dB has been assumed for this assessment. This is a conservative assumption as some modern buildings can provide 20 dB or greater façade reduction. The façade reduction of 7 dB has been chosen to represent a building of light-weight construction with the windows open.

With the application of the 7 dB façade reduction, the external night time criterion becomes an L_{Aeq} criterion of 37 dBA. This is used as the most stringent criterion for the project. Compliance with this criterion will ensure compliance with all other project specific criteria.

6 RESULTS

The predicted noise levels are presented in Table 6-1 below.

Table 6-1 Predicted noise levels

Receptor	Current Predicted L_{Aeq} (dBA)	External Night time Noise criterion, L_{Aeq} (dBA)	Compliance (Yes/No)
SR1	8.4	37	Yes
SR2	9.6	37	Yes
SR3	14.6	37	Yes
SR4	12.9	37	Yes
SR5	11.8	37	Yes
SR6	10.1	37	Yes
SR7	20.0	37	Yes
SR8	19.2	37	Yes
SR9	18.8	37	Yes
SR10	18.3	37	Yes
SR11	16.1	37	Yes
SR12	14.4	37	Yes
SR13	14.5	37	Yes
SR14	14.4	37	Yes
SR15	13.4	37	Yes
SR16	12.8	37	Yes

Table 6-1 shows that all the noise sensitive receptors comply with the most stringent noise criterion (night-time). The predicted noise levels are 17 dB or more lower than the most stringent criterion.

The predicted noise levels are worst case noise predictions that only will occur during periods where the atmospheric conditions are conducive of noise propagation from the site towards the receptor. Therefore, it is considered that the project can operate in compliance with the noise criteria defined in EPP Noise.

Appendix B presents the predicted noise levels on an aerial map.

7 CONCLUSION

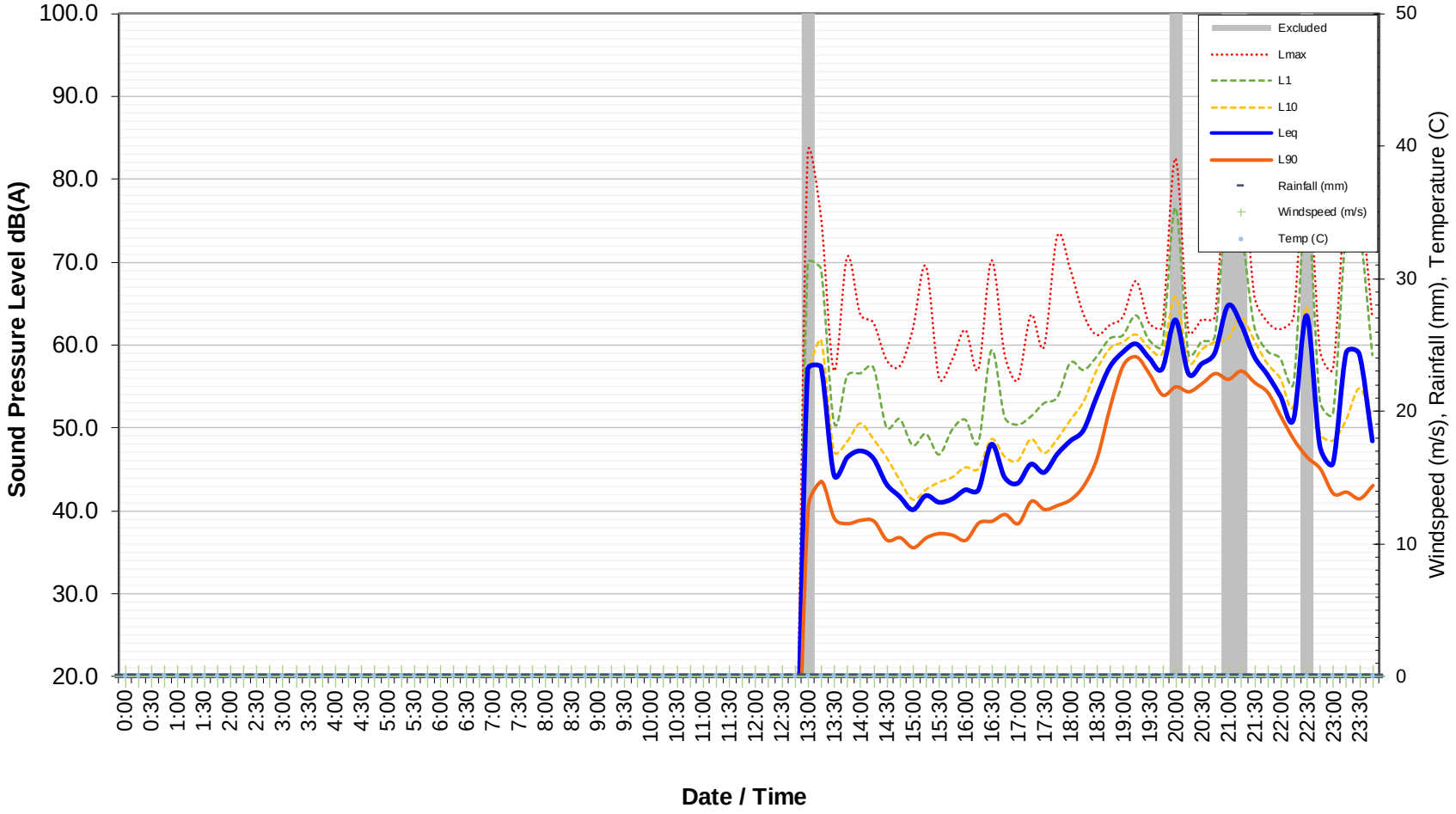
Noise impacts from the proposed LMS renewable energy facility at Stuart Landfill were assessed.

The noise assessment found that the noise levels from the proposed operation of two power generator modules are predicted to comply with the relevant noise criteria by a margin of 17 dB or more.

It is therefore considered that the project has demonstrated that it will be able to operate in a manner that complies with the noise requirements of the Environmental Protection Act, Environmental Protection Regulation, and the Environmental Protection (Noise) Policy.

APPENDIX A - NOISE MONITORING CHARTS

PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy

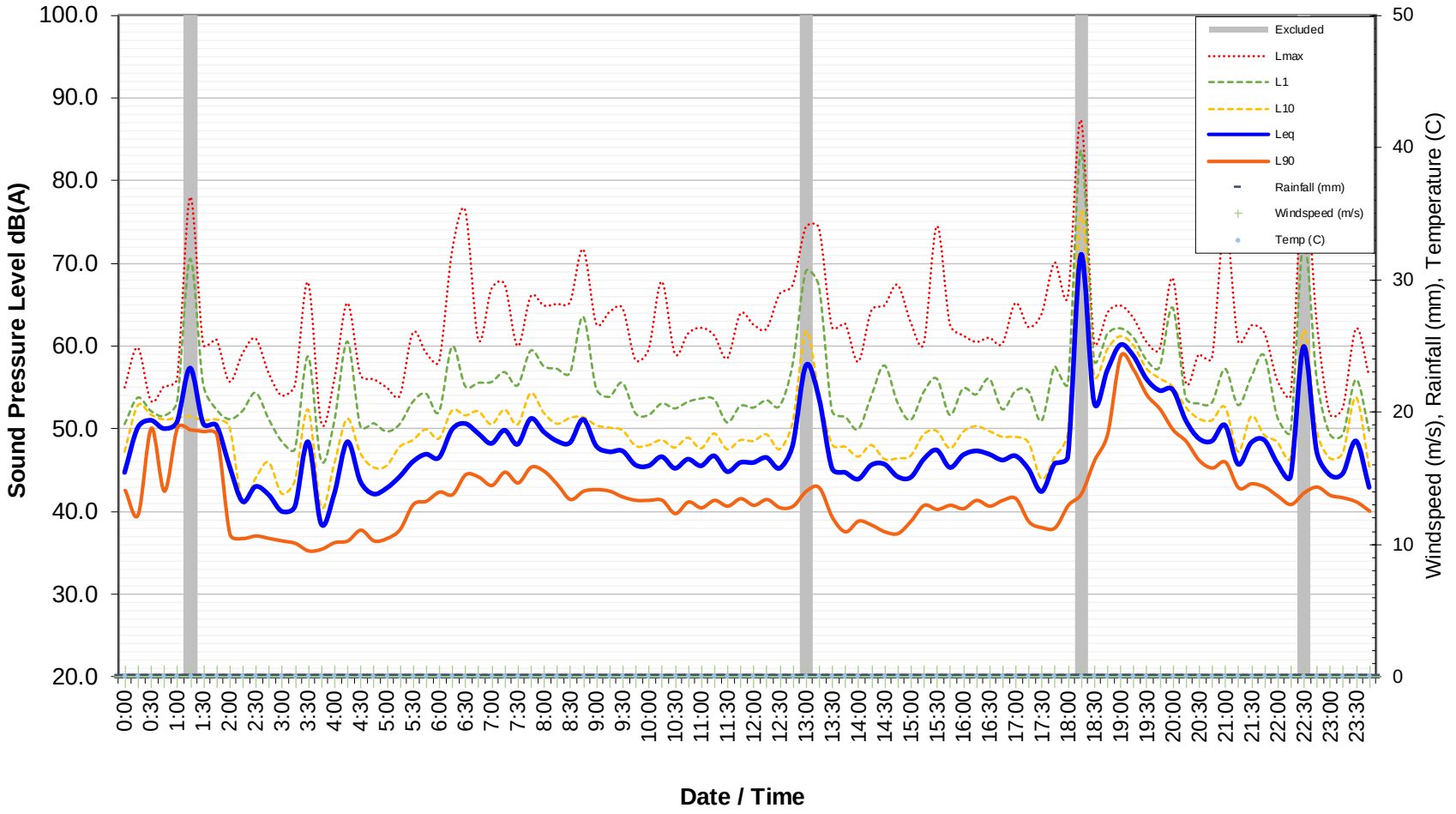


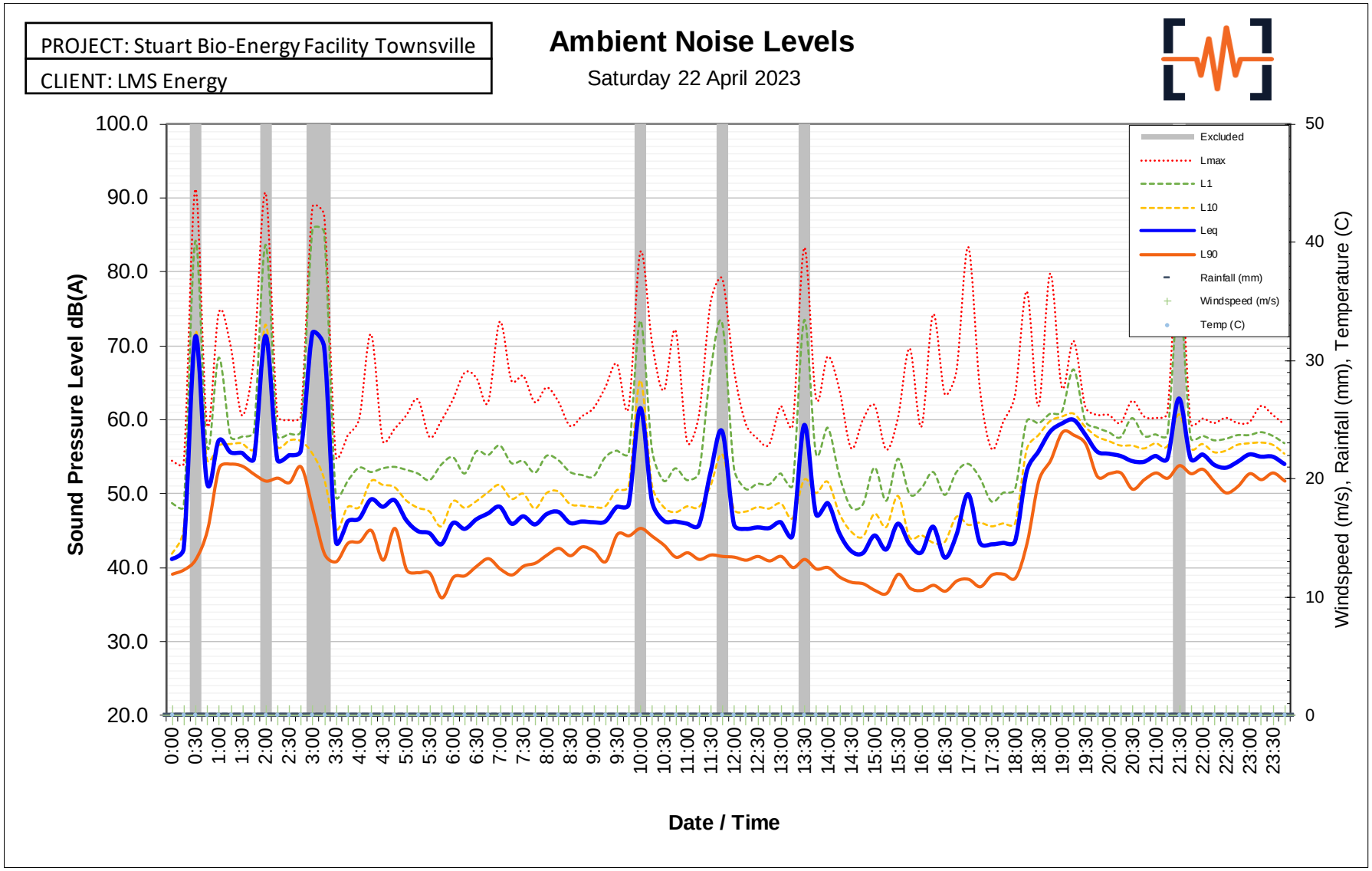
PROJECT: Stuart Bio-Energy Facility Townsville

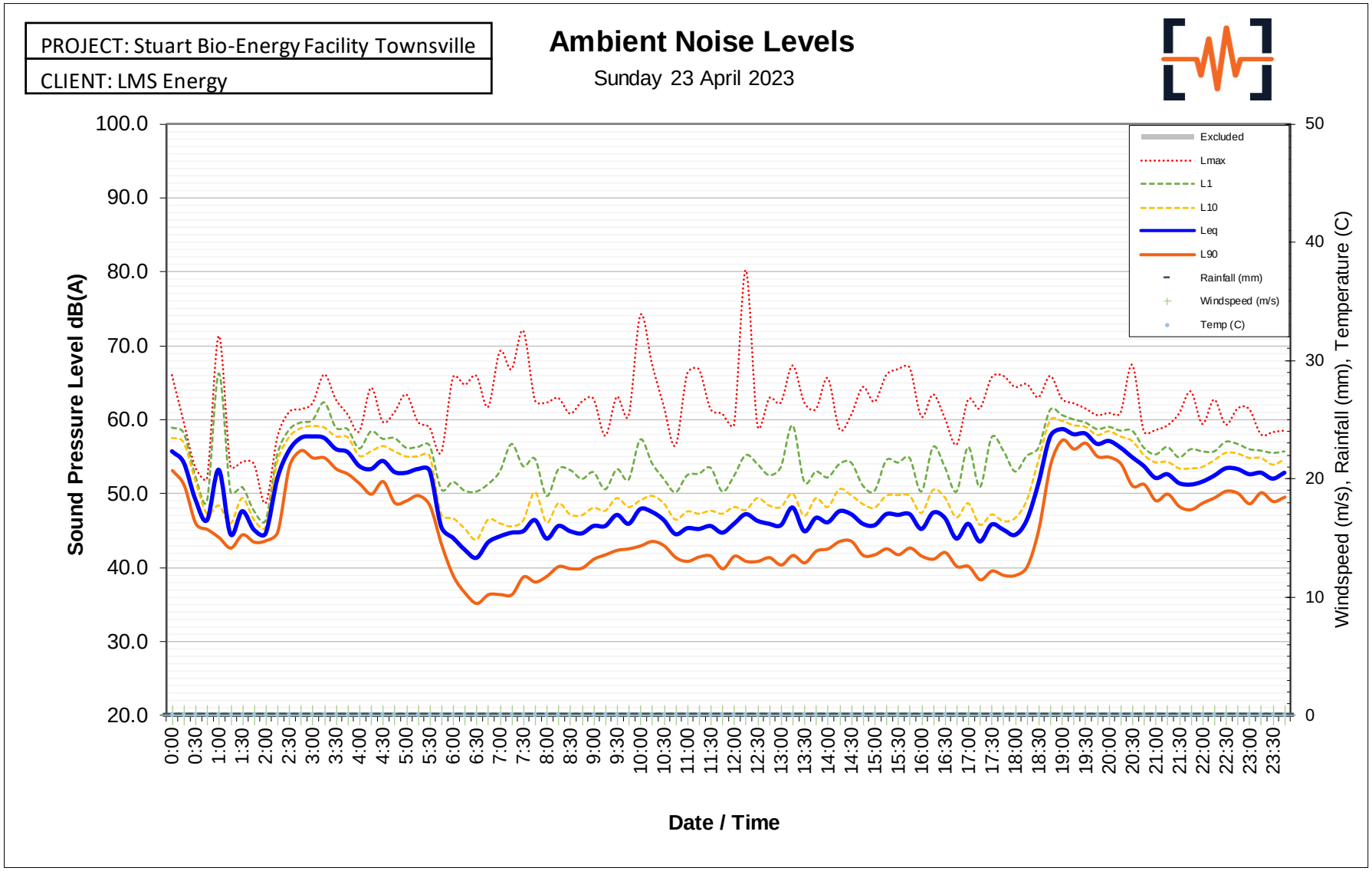
CLIENT: LMS Energy

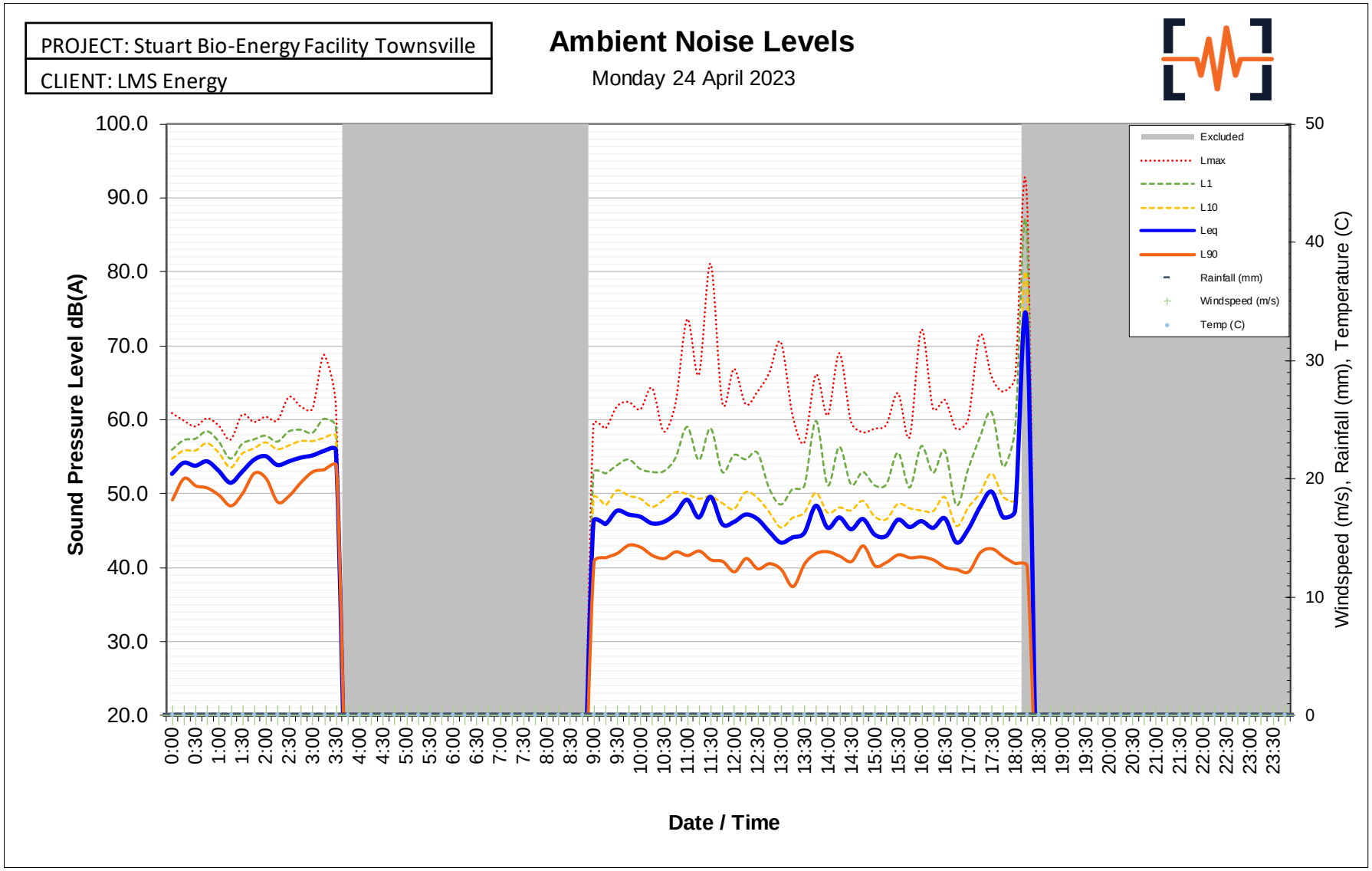
Ambient Noise Levels

Friday 21 April 2023




PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy
Ambient Noise Levels
Saturday 22 April 2023
Excluded
Lmax
L1
L10
Leq
L90
Rainfall (mm)
Windspeed (m/s)
Temp (C)
Sound Pressure Level dB(A)
Windspeed (m/s), Rainfall (mm), Temperature (C)
Date / Time


PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy
Ambient Noise Levels
Sunday 23 April 2023
Excluded
Lmax
L1
L10
Leq
L90
Rainfall (mm)
Windspeed (m/s)
Temp (C)
Sound Pressure Level dB(A)
Windspeed (m/s), Rainfall (mm), Temperature (C)
Date / Time


PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy
Ambient Noise Levels
Monday 24 April 2023
Sound Pressure Level dB(A)
Windspeed (m/s), Rainfall (mm), Temperature (C)
Date / Time
Excluded
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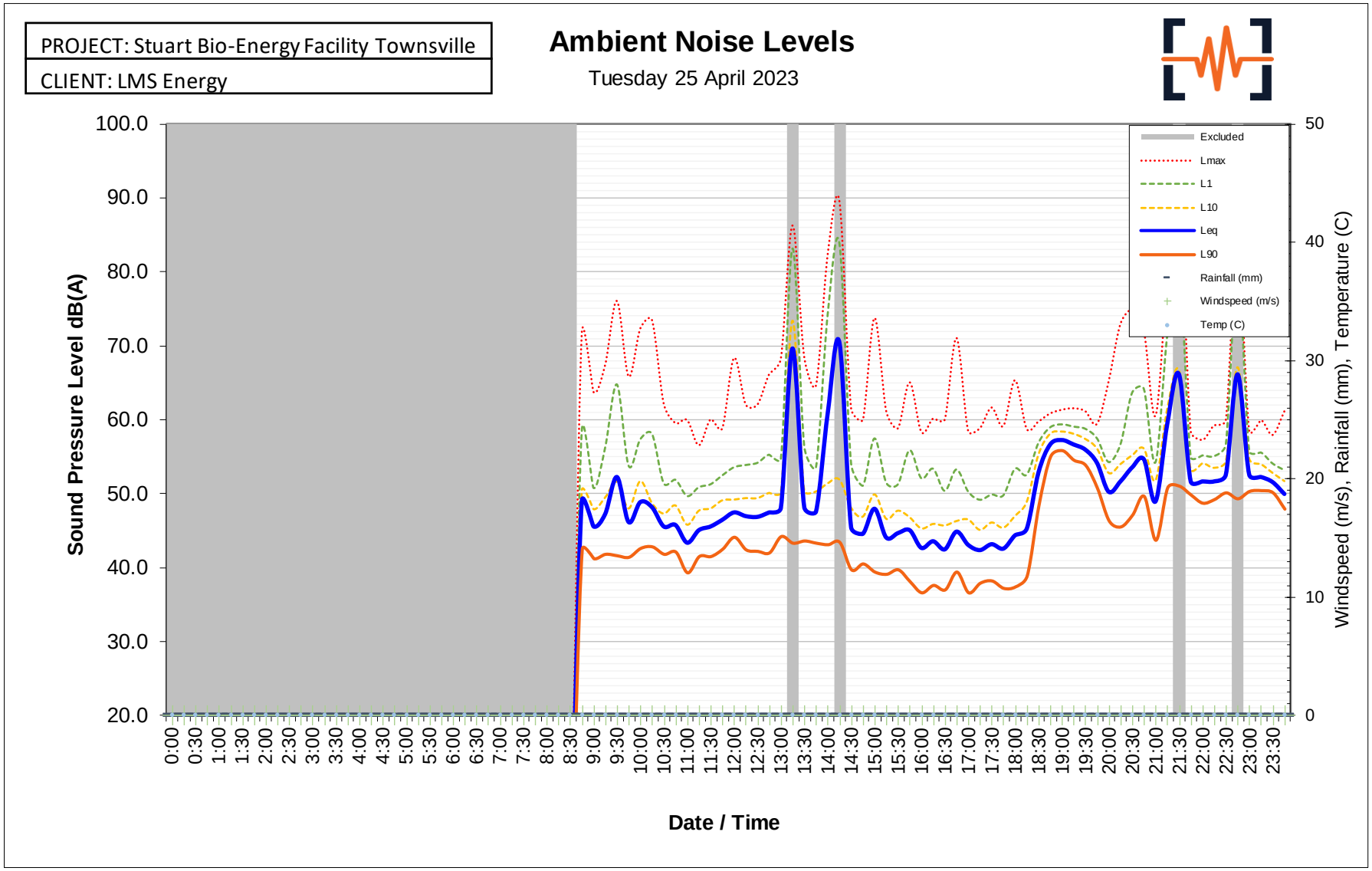
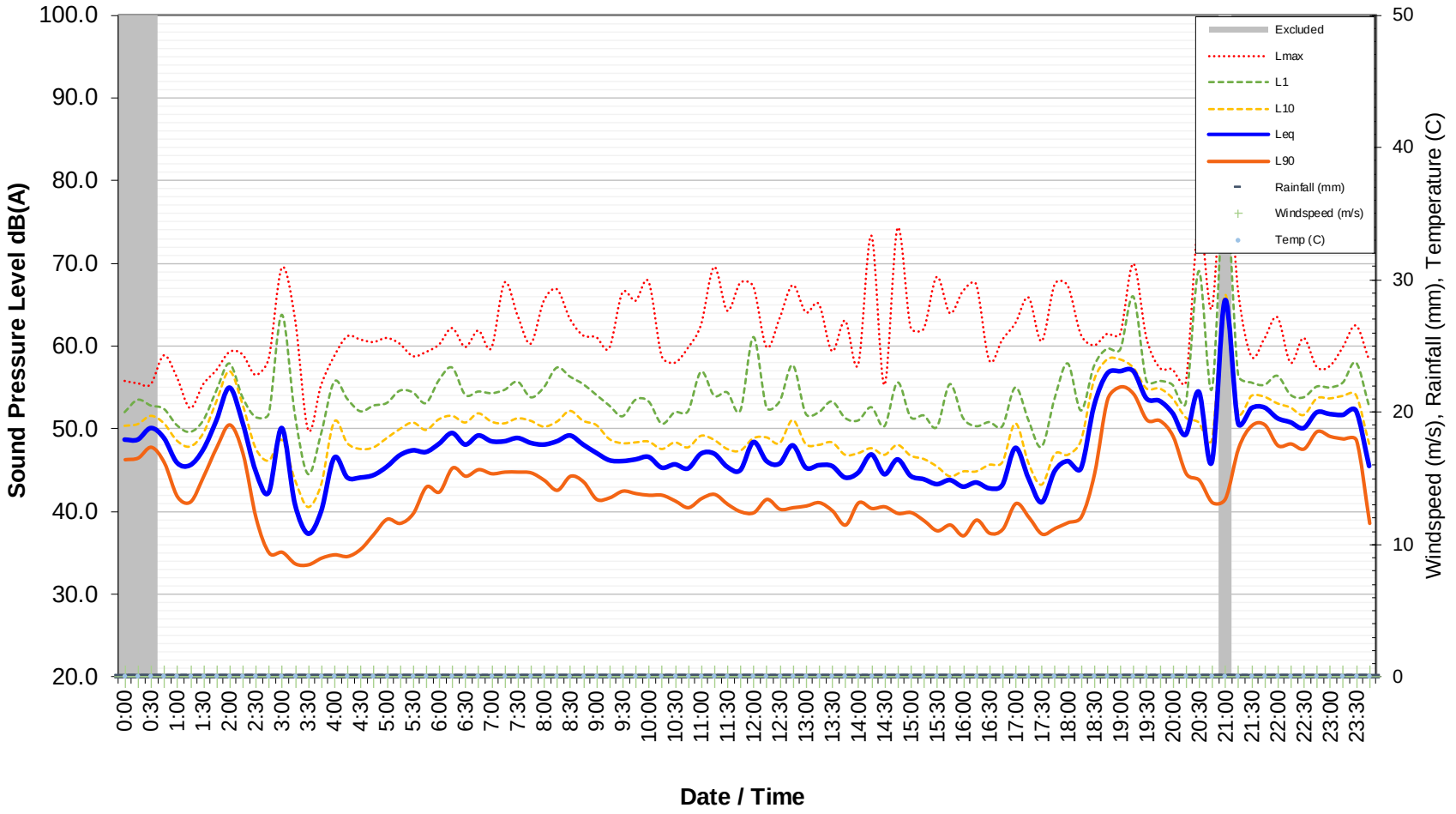
L10
Leq
L90
Rainfall (mm)
Windspeed (m/s)
Temp (C)


PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy
Ambient Noise Levels
Tuesday 25 April 2023
Sound Pressure Level dB(A)
Windspeed (m/s), Rainfall (mm), Temperature (C)
Date / Time
Excluded
Lmax
L1
L10
Leq
L90
Rainfall (mm)
Windspeed (m/s)
Temp (C)

PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy

Ambient Noise Levels

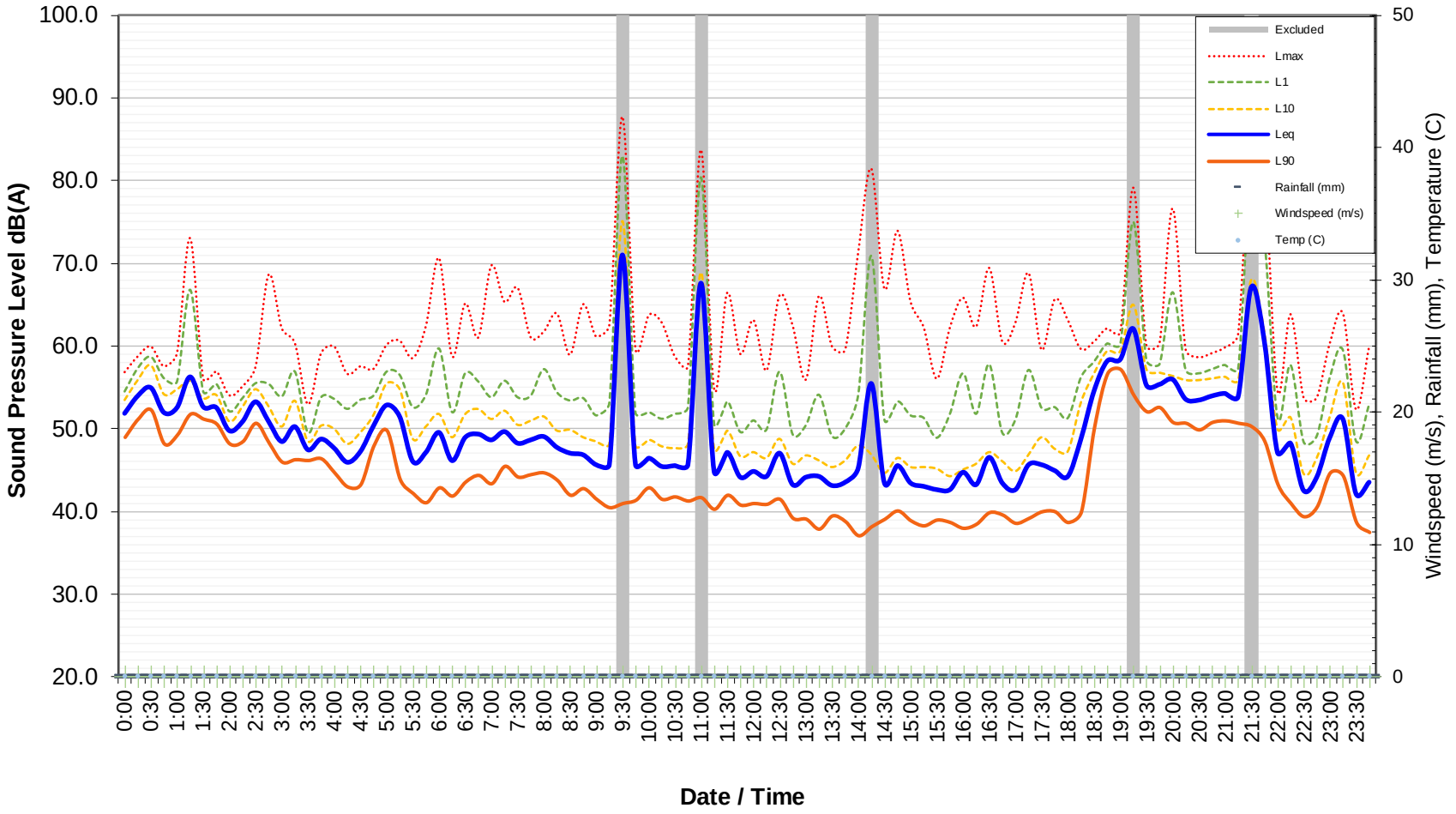
Wednesday 26 April 2023



PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy

Ambient Noise Levels

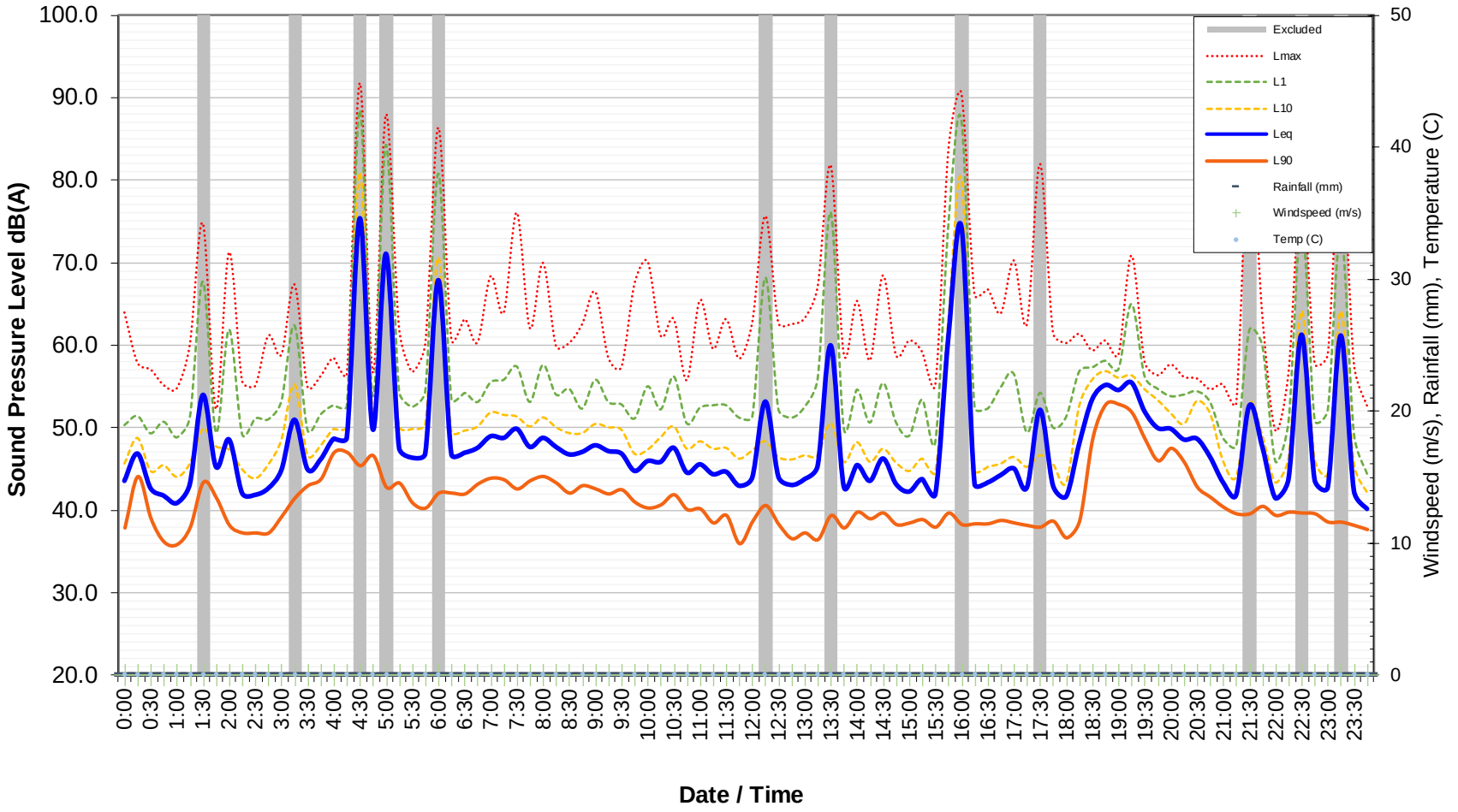
Thursday 27 April 2023

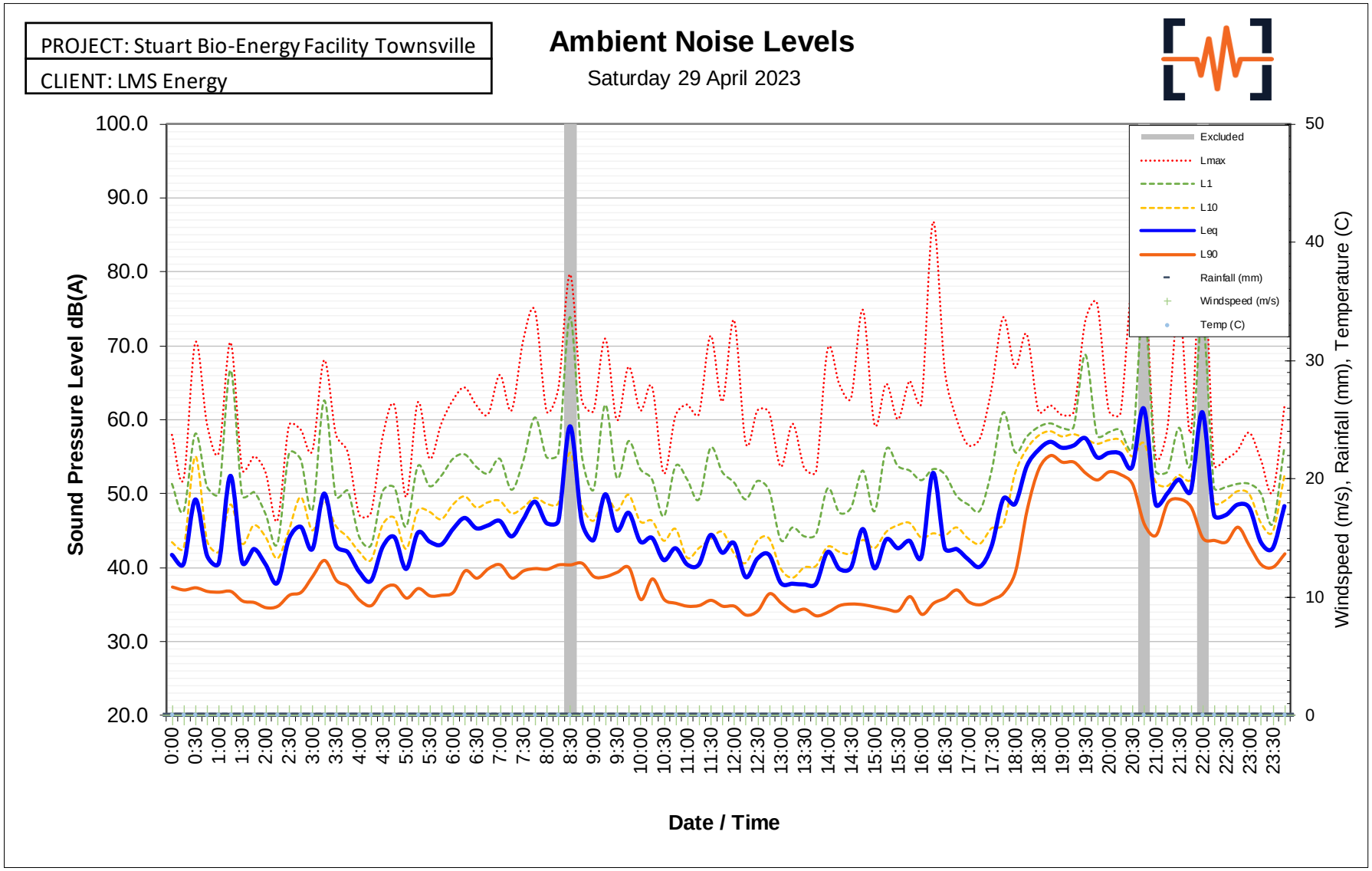


PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy

Ambient Noise Levels

Friday 28 April 2023




PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy
Ambient Noise Levels
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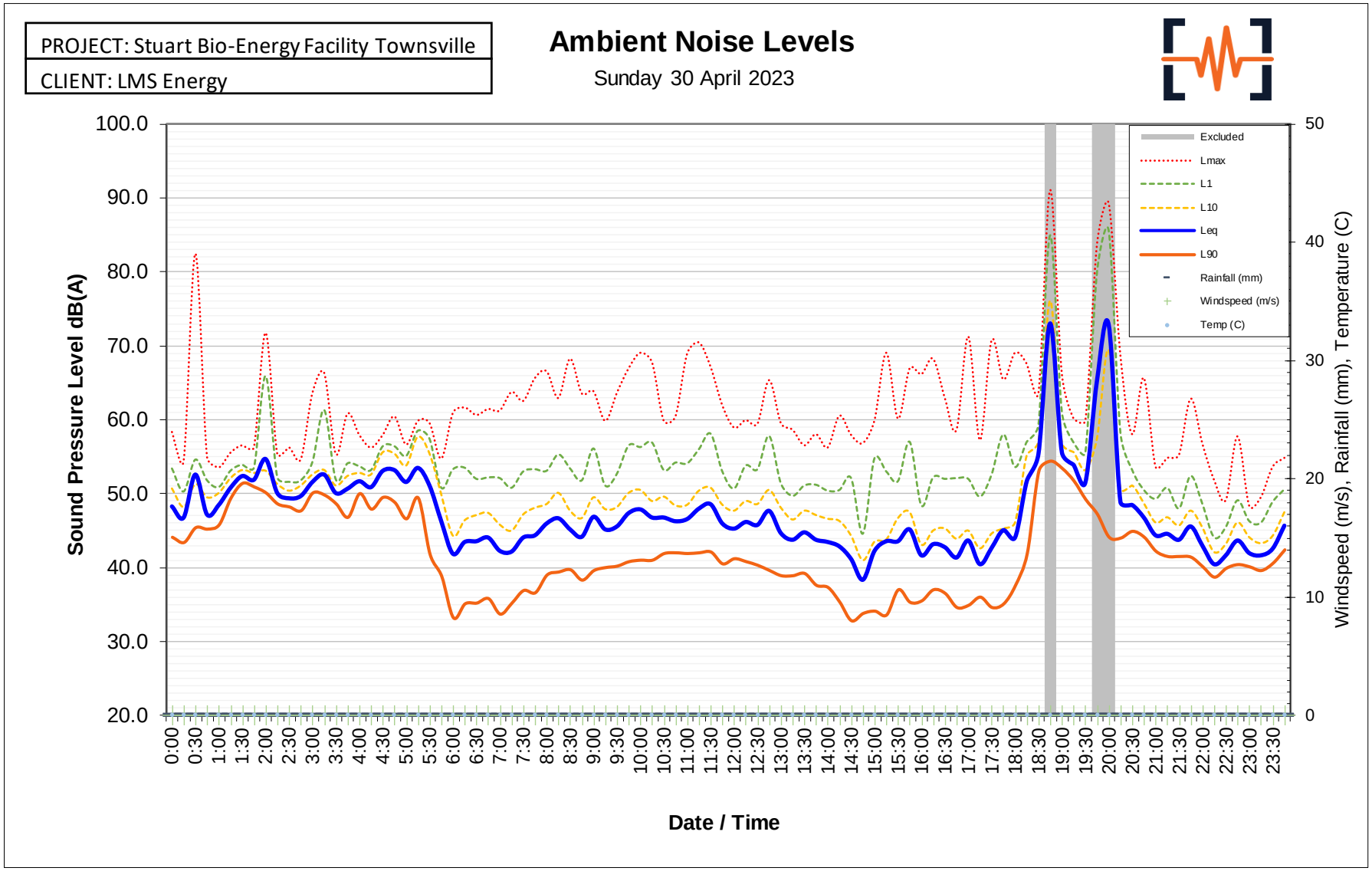
L1
L10
Leq
L90
Rainfall (mm)
Windspeed (m/s)
Temp (C)
Sound Pressure Level dB(A)
Windspeed (m/s), Rainfall (mm), Temperature (C)
Date / Time


PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy
Ambient Noise Levels
Sunday 30 April 2023
Sound Pressure Level dB(A)
Windspeed (m/s), Rainfall (mm), Temperature (C)
Date / Time
Excluded
Lmax
L1
L10
Leq
L90
Rainfall (mm)
Windspeed (m/s)
Temp (C)
100.0
90.0
80.0
70.0
60.0
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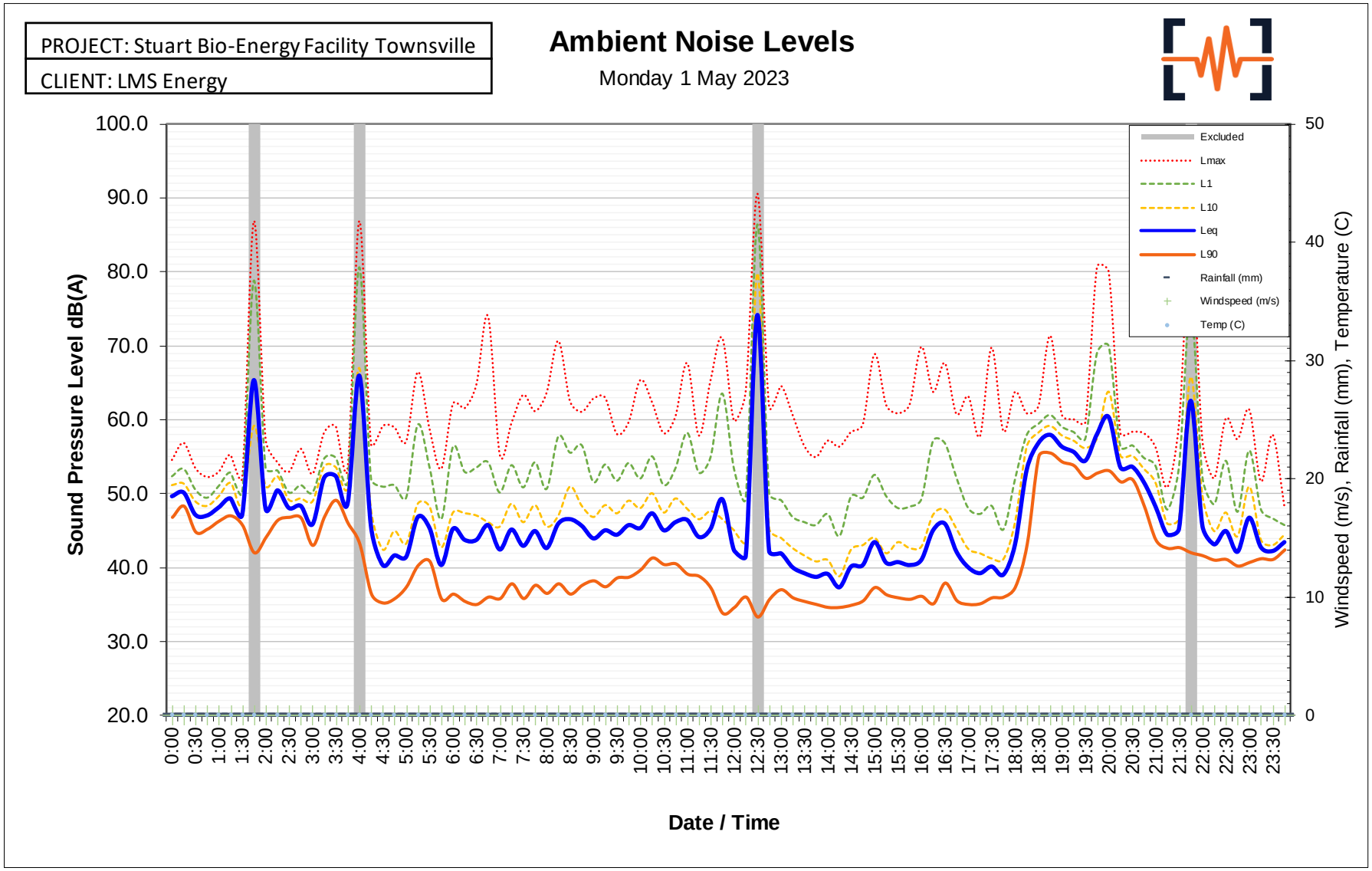
PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy
Ambient Noise Levels
Monday 1 May 2023
Excluded
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L10
Leq
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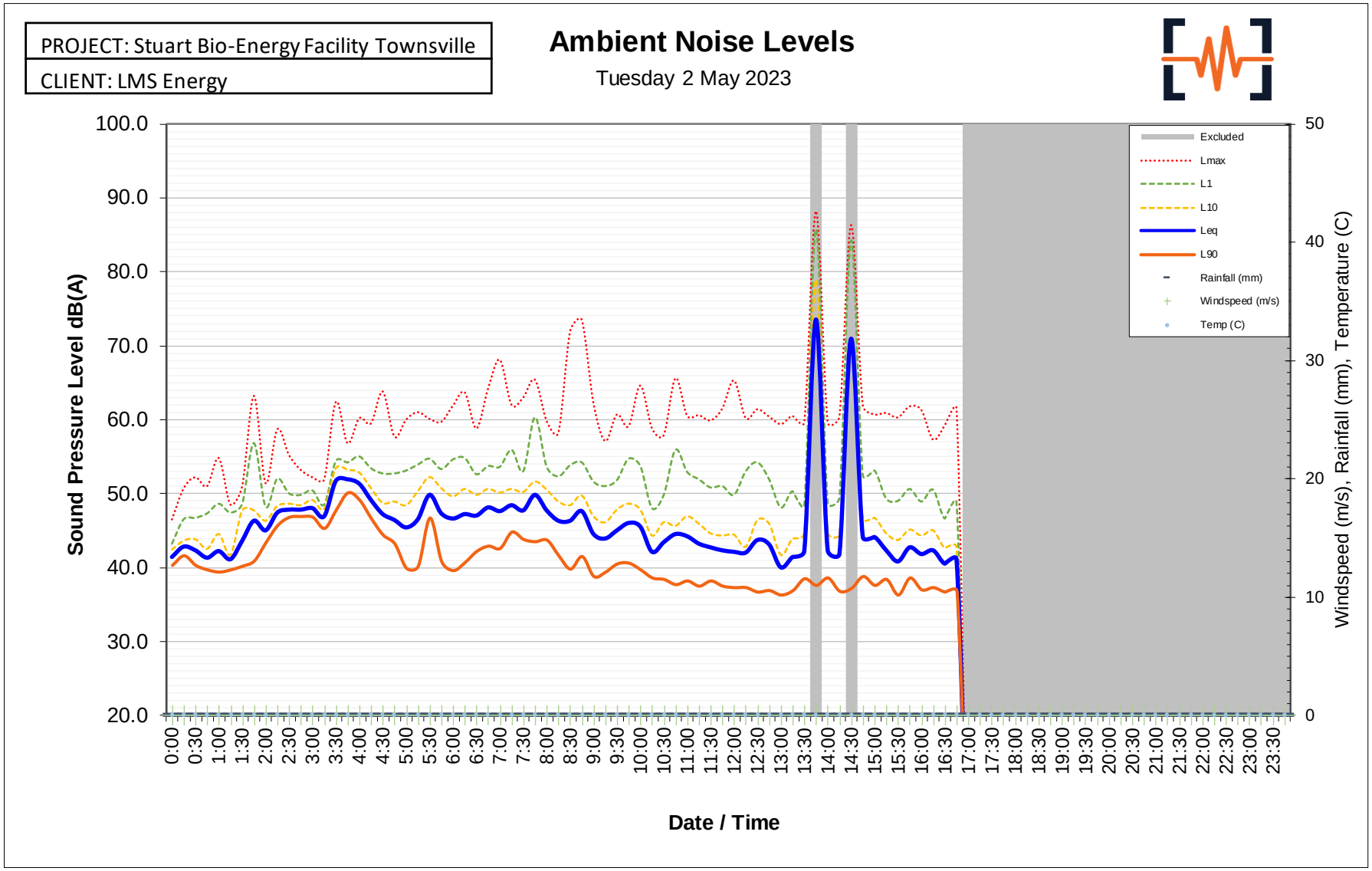
Rainfall (mm)
Windspeed (m/s)
Temp (C)
Sound Pressure Level dB(A)
Windspeed (m/s), Rainfall (mm), Temperature (C)
Date / Time


PROJECT: Stuart Bio-Energy Facility Townsville
CLIENT: LMS Energy
Ambient Noise Levels
Tuesday 2 May 2023
Sound Pressure Level dB(A)
Windspeed (m/s), Rainfall (mm), Temperature (C)
Date / Time
Excluded
Lmax
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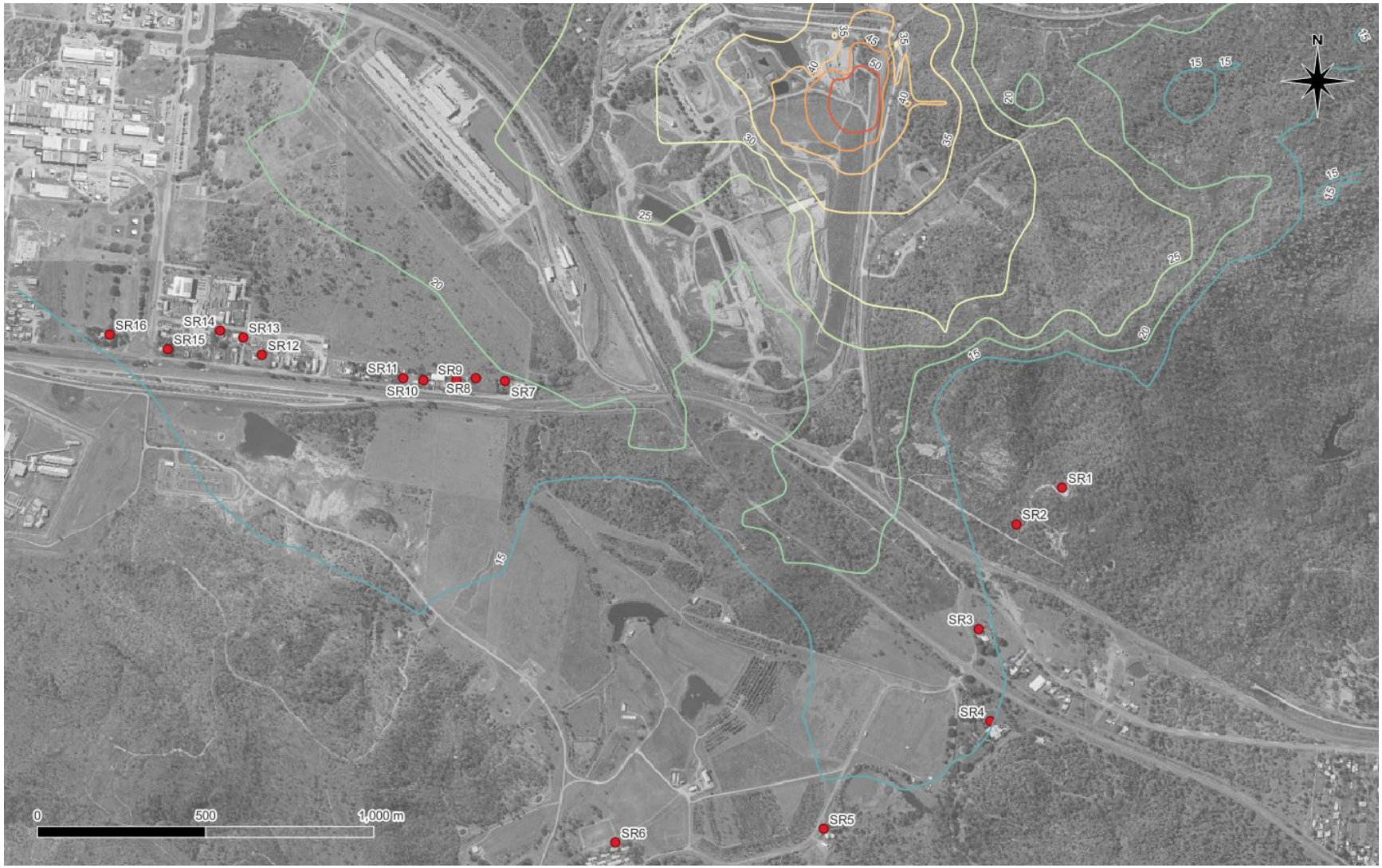
L10
Leq
L90
Rainfall (mm)
Windspeed (m/s)
Temp (C)

APPENDIX B - NOISE CONTOUR MAP L_{AEQ}



Owner's consent for making an SDA application or request under Part 6 of the *State Development and Public Works Organisation Act 1971*

PART 1: Company owner's consent

I, Amani Kowero

General Manager (Resource Recovery)

of the company mentioned below

Of Townsville City Council, ABN 44 741 992 072

as owner of the premises identified as follows:

24 Vantassel Street, Stuart, QLD 4811 (Lot 2 SP 132603)

consent to the making of an SDA application or request under Part 6 of the *State Development and Public Works Organisation Act 1971* by:

LMS Energy

on the premises described above for:

SDA application for a material change of use for a high impact industry

Company name and ACN.. – Townsville City Council ABN 44 741 992 072

.....

Signature of General Manager

07/05/24

.....

Date

The *State Development and Public Works Organisation Act 1971* is administered by the Department of State Development, Infrastructure, Local Government and Planning, Queensland Government.

PART 2: Individual owner's consent *[only applicable where consent is from an individual]*

I/We,

[Insert full name]

as owner/s of the premises identified as follows:

[Insert street address or lot on plan description of the premises the subject of the application]

consent to the making of an SDA application or request under Part 6 of the *State Development and Public Works Organisation Act 1971* by:

[Insert name of applicant]

on the premises described above for:

[Insert details of the proposed development, e.g. SDA application for a material change of use for medium impact industry OR request to extend the currency period for an SDA approval for a material change of use for medium impact industry]

..... Signature of individual owner	..... Signature of individual owner
..... Date	..... Date

[Duplicate the above box if more than two individuals are required to provide consent]