16 March 2026
General Manager
56 Chanter Street
Berrigan, NSW 2712

Dear Mrs Ewer

ATTN: Noureen Wajid

DA 18-26 – Construction of a Proposed Solar Farm at 728 Plumptons Road (access to be from Howe Street) in Finley - Response to Western Regional Planning Panel – Record of Deferral Letter Dated 2 March 2026

I am writing to you regarding the deferral of the determination of DA 18-26, for which we have proposed the construction of a 4.95 MW AC Solar Farm and associated infrastructure at 728 Plumptons Road in Finley. We appreciate Council's support of this project and the Planning Panel's consideration in the public meeting held on 24 February 2026.

From the letter dated 02 March 2026 from the Planning Panel, we note that the following residual information is required to facilitate a determination:

- Revised Noise and Vibration Impact Assessment, including addressing construction noise impacts
- Revised Landscaping Plan
- Fire Management Statement
- Site Selection and Suitability Analysis

To address the requirements of the Planning Panel, we have submitted the following documents and Plans.

- **Appendix 1** – Final Noise and Vibration Impact Assessment prepared by SoundIn dated 20 June 2025. We note that the draft version dated 17 June 2026 was submitted with the original DA package with a preliminary site plan inserted. The appended SoundIn report is based on the final site plan submitted with DA 18-26.
- **Appendix 2** – Letter from SoundIn addressing Construction Noise Management, dated 11 March 2026.
- **Appendix 3** – Detailed Landscape Plan, including a maintenance regime on page 3, prepared by Site Image, originally prepared and submitted on the Planning Portal as part of the Response to Submissions report to Council. This plan has recently been updated to include additional renders and sections of the proposed landscape buffers.
- **Appendix 4** – Fire Management Statement, prepared by Atlas Renewables dated 16 March 2026.
- **Appendix 5** – Review of Site Suitability and Site Selection, Prepared by Atlas Renewables and SKM Planning.

Based on the comprehensive assessment conducted in our development application, response to submissions report to Council and this response to the Planning Panel, whilst

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considering the valuable issues raised in the public submissions, SKM Planning and Atlas Renewables believe that the proposal has merit, complies with all relevant regulations, and should be approved contingent upon reasonable conditions of consent.

We appreciate your consideration of this vital project and look forward to contributing to the Finley community's renewable energy goals.

Thank you for your attention to this matter.

Yours sincerely

Kelly McNicol

Kelly McNicol

Director
SKM Planning

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Appendix 1 – Final Noise and Vibration Impact Assessment prepared by Soundin

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728 PLUMPTONS ROAD, FINLEY

NOISE AND VIBRATION IMPACT ASSESSMENT

REPORT NO. 17322
VERSION 1.0

JUNE 2025

PREPARED FOR

ATLAS RENEWABLES
SUITE 1, 68-72 RAILWAY PARADE
BURWOOD NSW 2143

DOCUMENT CONTROL

Version	Status	Date	Prepared by	Approved by
0.1	Draft	17/06/2025	Nic Hall (NH), MAAS [1]	NH
1.0	Final	20/06/2025	NH	NH

1. MAAS = Member, Australian Acoustical Society.

TABLE OF CONTENTS

GLOSSARY OF ACOUSTIC TERMS

Most environments are affected by environmental noise which continuously varies. To describe the overall noise environment, a number of noise descriptors have been developed and these involve statistical and other analysis of the varying noise over sampling periods, typically taken as 15 minutes. The most common of these noise descriptors are defined below.

L_{Amax} The maximum noise level over a sample period is the maximum level, measured on fast response, during the sample period.

L_{A1} The L_{A1} level is the noise level which is exceeded for 1% of the sample period. During the sample period, the noise level is below the L_{A1} level for 99% of the time.

L_{A10} The L_{A10} level is the noise level which is exceeded for 10% of the sample period. During the sample period, the noise level is below the L_{A10} level for 90% of the time.

L_{A90} The L_{A90} level is the noise level which is exceeded for 90% of the sample period. During the sample period, the noise level is below the L_{A90} level for 10% of the time. This measure is commonly referred to as the background noise level.

L_{Aeq} The equivalent continuous sound level (L_{Aeq}) is the energy average of the varying noise over the sample period and is equivalent to the level of a constant noise which contains the same energy as the varying noise environment. This descriptor is a common measure of environmental noise.

ABL The Assessment Background Level is the single figure background level representing each assessment period (daytime, evening and night time) for each day.

RBL The Rating Background Level for each period is the median value of the ABL values for the period over all of the days measured. There is therefore an RBL value for each period – daytime, evening and night time.

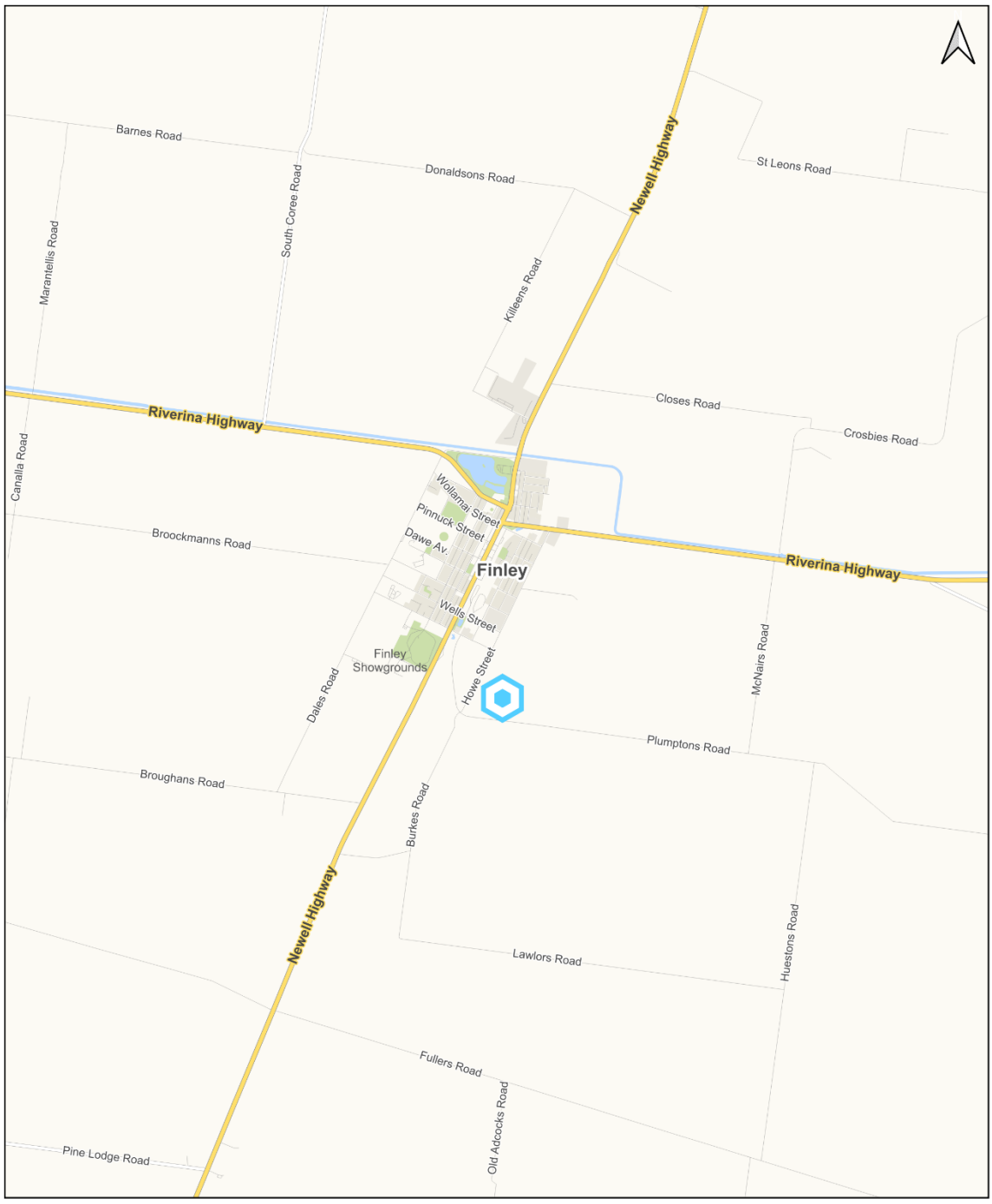
1 INTRODUCTION

SoundIN Pty Ltd (SoundIN) has been engaged by Atlas Renewables to undertake a noise and vibration impact assessment for a proposed solar farm (the Proposal) at 728 Plumptons Road, Finley (the Site). The locality of the Proposal is shown in **Figure 1-1**.

This report presents an assessment of potential noise and vibration impacts associated with the construction and operation of the Proposal at nearby sensitive receivers. The assessment has been conducted in general accordance with the following NSW Government guidelines and policies:

- *Interim Construction Noise Guideline* (DECC, 2009)
- *Assessing Vibration: a technical guide* (DEC, 2006)
- *Noise Policy for Industry* (EPA, 2017)

Figure 1-1 Project Locality



728 PLUMPTONS ROAD, FINLEY

PROJECT LOCALITY

LEGEND

Site

0 1 2 3 km

Note: Locations of features are indicative only and are shown solely to demonstrate features pertinent to the noise assessment.

2 THE PROPOSAL

2.1 The Site

The Site is located at 728 Plumpton Road, Finley. It is approximately 2 km south of the Finley town centre. The Site location is shown in **Figure 2-1**.

2.2 Surrounding Land Use and Sensitive Receivers

The land use surrounding the Site is rural. The nearest and most potentially affected sensitive receivers are several isolated rural dwellings. Several receivers have been identified for assessment purposes, as identified in **Table 2-1** and shown in **Figure 2-1**.

Table 2-1 Sensitive Receivers

Receiver ID	Address
R1	185 Howe Street, Finley
R2	694A Plumptons Road, Finley
R3	694 Plumptons Road, Finley
R4	712 Plumptons Road, Finley
R5	745 Plumptons Road, Finley
R6	210 Howe Street, Finley
R7	215 Howe Street, Finley

A single dwelling is located within the Site. This dwelling is associated with the Proposal and is therefore not considered a sensitive receiver for the purposes of this assessment.

Figure 2-1 Proposal Site and Sensitive Receivers

728 PLUMPTONS ROAD, FINLEY

PROPOSAL SITE AND SENSITIVE RECEIVERS

0 100 200 300 m

LEGEND

Site

Receivers

Note: Locations of features are indicative only and are shown solely to demonstrate features pertinent to the noise assessment.

2.3 Proposal Description

2.3.1 Proposal Overview

Atlas Renewables proposes the construction of a 4.95 MW (AC) 6.3 MW (DC) Solar Farm on a 8 ha portion of the site (see **Figure 2-1**). Atlas Renewables is an Australian company specialising in renewable energy including the development and operation of solar farms which feed electricity directly into the existing electrical network. The proposal would utilise a portion of the farm paddocks for solar farm. At the end of life of the solar farm (around 30 years), the site would be rehabilitated to its former state which would include the removal of the solar panels and associated infrastructure.

2.3.2 Proposal in Detail

The proposed development involves the following works:

- Geotechnical investigations to inform footing designs
- Site survey
- Site preparation and minor earthworks and land forming
- Construction of a new unsealed access road to the development area from existing access off Howe Street.
- Hardstand for a construction lay down area and unloading of heavy vehicles
- Transportation of solar panels and prefabricated supports in heavy rigid trucks and 19 m semi-trailers. A total of approximately 300 heavy vehicle movements over a 3-6 month period would be expected
- Installation of solar panel arrays with single axis trackers allowing east to west tracking (approximately 11,500 panels)
- Installation of a power conversion station with inverters and transformers and associated plant
- Installation of a 4 x 2,752 MWh batteries.
- Connection to the Essential Energy Network.
- Construction of security fencing.

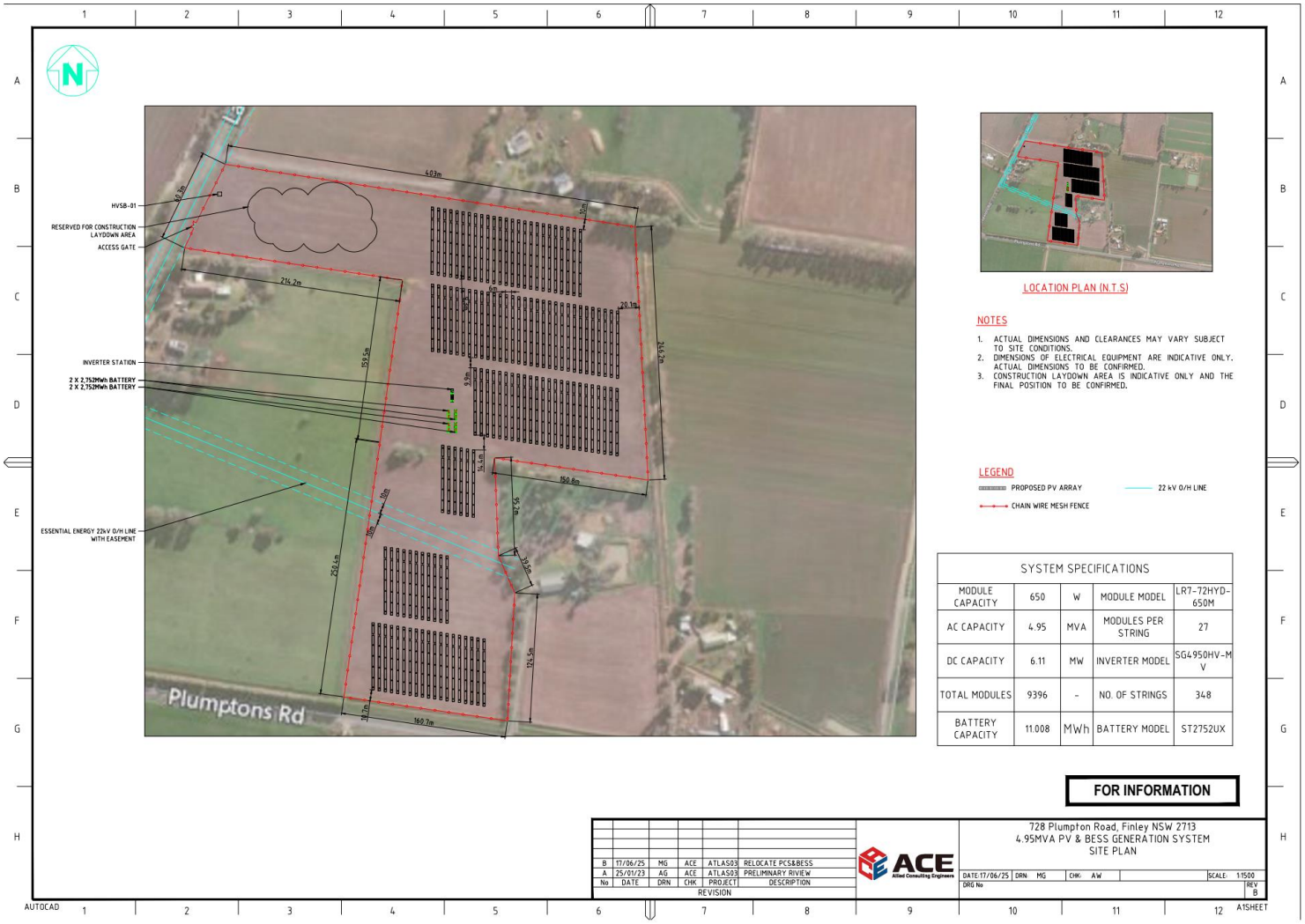
The construction period would take around 3-6 months and require 20-30 construction staff to be on site at any given time. Temporary parking facilities would be provided for construction workers and a moveable site office established. It is not expected that the proposed infrastructure would change the drainage patterns on the site. Maintenance contractors would be available when required. The Applicant's preference would be to utilise local contractors for maintenance during the operation of the solar farm.

2.3.3 Construction Hours

The works would be limited to standard construction hours, as follows:

- 7:00am – 6:00pm Monday to Friday
- 8:00am – 1:00pm Saturday
- No work on Sundays or Public Holidays.

Figure 2-2 Proposed Site Plan



3 CONSTRUCTION NOISE ASSESSMENT

3.1 Construction Noise Management Levels

The *Interim Construction Noise Guideline* (ICNG) (DECC, 2009) recommends noise management levels (NML) to reduce the likelihood of noise impacts arising from construction activities. The ICNG NML for residential receivers are presented in **Table 3-1**.

Table 3-1 Construction NML – Residential Receivers

Time of day	Management level – $L_{Aeq,15min}$ (dBA)	How to apply
Recommended standard hours: Monday to Friday 7am to 6pm Saturday 8am to 1pm No work on Sundays or Public Holidays	Noise affected RBL + 10dBA	The noise affected level represents the point above which there may be some community reaction to noise. Where the predicted or measured $L_{Aeq,15min}$ is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to minimise noise. The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
	Highly noise affected 75dBA	The highly noise affected level represents the point above which there may be strong community reaction to noise. Where noise is above this level, the proponent should consider very carefully if there is any other feasible and reasonable way to reduce noise to below this level. If no quieter work method is feasible and reasonable, and the works proceed, the proponent should communicate with the impacted residents by clearly explaining the duration and noise level of the works, and by describing any respite periods that will be provided.
Outside recommended standard hours	Noise affected RBL + 5 dBA	A strong justification would typically be required for works outside the recommended standard hours. The proponent should apply all feasible and reasonable work practices to meet the noise affected level. Where all feasible and reasonable practices have been applied and noise is more than 5dBA above the noise affected level, the proponent should negotiate with the community. For guidance on negotiating agreements see *ICNG* section 7.2.2.

Noise monitoring has not been undertaken for the purpose of this assessment. Instead, a conservative approach has been taken whereby the minimum daytime RBL value of 35 dBA, as recommended in the *Noise Policy for Industry* (NPfI), has been adopted.

Project-specific construction NML for the most potentially affected receivers near the Site are presented in **Table 3-2**.

Table 3-2 Project-specific Construction NML

Receiver	Acceptable $L_{Aeq,15min}$ noise level (standard daytime hours) (dBA)	Highly affected noise level (dBA)
Nearby residences	45	75

3.2 Noise Modelling Methodology and Assumptions

Construction noise emissions from the Proposal have been modelled using SoundPLAN v8.2. The selected noise calculation method is International Standard ISO 9613-2:1996 *Acoustics – Attenuation of sound during propagation outdoors – Part 2: General Method of Calculation* (ISO 9613-2).

Factors accounted for by ISO 9613-2 are:

- Noise source sound power and locations
- Shielding from ground topography and structures
- Noise attenuation due to geometric spreading
- Ground absorption
- Atmospheric absorption.

ISO 9613-2 is a "downwind" model, which conservatively assumes that each receiver is downwind from all noise sources.

3.3 Construction Plant, Activities and Sound Power Levels

Sound levels of typical construction equipment are listed in **Table 3-3**. Equipment sound levels have been determined from Transport for NSW's *Construction Noise Estimator* and the UK Department of Environment, Food and Rural Affairs' (DEFRA) *Noise Database for Prediction of Noise on Construction and Open Sites*.

The table gives both Sound Power Level (SWL) and Sound Pressure Level (SPL) at seven metres from the equipment. SWL is independent of measurement position. Verification of plant noise is often done by measuring the SPL at seven metres.

Based on the information in **Table 3-3**, activity sound power levels for several key construction phases have been calculated and are presented in **Table 3-4**.

Table 3-4 presents typical worst-case construction source noise levels across a 15-minute period, considering the likely usage of plant during that time, termed the "activity sound power level". The activity sound power is considered to represent the typical worst-case level in a given 15-minute period. It is important to note that this sound power level is unlikely to be sustained at such a level for the duration of the activity. As a result, many 15-minute periods will be at lower levels.

Typical construction noise levels at sensitive receivers are predicted by modelling the activity sound power level across the works area. Worst-case construction noise levels are predicted by modelling the noisiest plant item in each scenario as a "moving point source" across the works area.

Table 3-3 Typical Construction Plant Sound Levels

Equipment	Sound Power Level, L_{Aeq} (dBA)	Sound Pressure Level at 7m, L_{Aeq} (dBA)
Backhoe	110	85
Truck	103	78
Hand-held power tools	100	75
Piling rig	113	88
Generator	103	78
Welder	105	80
Telehandler	106	81
Mobile crane	98	73

Table 3-4 Construction Phase Activities and Associated Sound Power Levels

Code	Activity	Typical Equipment Used	Activity Sound Power Level (dBA)
S01	Trenching and earthworks	Backhoe Truck	111
S02	Piling	Piling rig Telehandler Truck	114
S03	Assembly and fitout	Hand-held power tools Mobile crane Telehandler Generator Welder Truck	111

3.4 Predicted Construction Noise Levels

The predicted $L_{Aeq,15min}$ noise levels at sensitive receivers during the identified activities are presented in **Table 3-5**. Predicted noise levels exceeding the NML are highlighted in **bold** font.

The results indicate that:

- Noise levels are predicted to exceed the NML at nearby receivers. The exceedances range from 1 to 15 dBA.
- Construction noise levels are predicted to be highest during piling works (S02).
- Noise levels are not predicted to exceed the highly affected level of 75 dBA at any residential receivers.

Table 3-5 Predicted Construction Noise Levels

Receiver	Predicted Construction $L_{Aeq,15min}$ Noise Levels (dBA)			NML	Exceedance (dBA)
	S01	S02	S03		
R1	**51-57**	**54-60**	**52-52**	45	15
R2	42-44	**45-47**	40-42	45	2
R3	43-45	**46-48**	41-43	45	3
R4	**47-50**	**50-53**	**46-47**	45	8
R5	39-43	42-**46**	39-39	45	1
R6	**47-50**	**50-53**	**46-47**	45	8
R7	43-45	**46-48**	41-43	45	3

Measures to manage construction noise levels down toward the NML are discussed in Section 5.

4 CONSTRUCTION VIBRATION ASSESSMENT

The following section presents an assessment of potential vibration impacts associated with the works. Piling would be the most likely potential source of vibration impacts associated with the works.

The recommended safe working distances for vibration intensive plant suggested in the Transport for New South Wales *Construction Noise Strategy* have been adopted in this assessment to evaluate the potential for vibration impacts from the proposed works. The safe working distances are conservative and vibration levels within these distances would be well below the criteria for cosmetic damage and human comfort.

Table 4-1 sets out the recommended safe working distances for piling.

Table 4-1 Recommended Safe Working Distances for Vibration Intensive Plant (Vibratory Rollers)

Item	Description	Safe working distance	
		Cosmetic damage	Human comfort
Vibratory pile driver	< 800 mm	2 m	20 m

Review of the information in **Table 4-1** indicates that the safe working distances for building damage and human comfort for the piling are 2 metres and 20 metres, respectively. The nearest and most potentially affected sensitive receivers are located well outside the safe working distances for piling. Therefore, vibration impacts during the works would be negligible.

5 CONSTRUCTION MITIGATION MEASURES

Noise levels associated with the proposed works are predicted to exceed the NML at nearby receivers. Therefore, in accordance with the ICNG, all reasonable and feasible measures should be applied to manage construction noise emissions from the site down toward the NML.

A detailed Construction Noise and Vibration Management Plan (CNVMP) should be prepared and should include, but not be limited to, the following:

- Identification of nearby residences and other sensitive land uses
- Description of approved hours of work
- Description and identification of construction activities, including work areas, equipment and duration
- Description of what work practices (generic and specific) will be applied to minimise noise
- Consider the selection of plant and processes with reduced noise emissions
- A complaint handling process
- Noise monitoring procedures
- Induction and training will be provided to relevant staff and sub-contractors outlining their responsibilities with regard to noise.

Examples of typical construction noise mitigation measures are provided in **Table 5-1**, along with the likely reduction in noise levels. Where reasonable and feasible, these measures should be employed during the works to the extent that NML are achieved at sensitive receivers.

Table 5-1 Construction Noise Mitigation Measures and Indicative Noise Reductions

Mitigation measure	Anticipated noise reduction (dBA)
Administrative controls	
Operate during approved hours	N/A
Undertake regular noise monitoring to determine the impact of operating plant on sensitive receivers	N/A
Appropriate training of onsite staff	N/A
Undertake community consultation and respond to complaints in accordance with established project procedures	N/A

Mitigation measure	Anticipated noise reduction (dBA)
Turning off machinery when not in use	0-5
Respite periods for pile drivers and rock breakers	N/A
Undertake noisier activities during standard construction hours	N/A
Engineering controls	
Portable temporary screens	5-10
Screen or enclosure for stationary equipment	10-15
Maximising the offset distance between noisy plant items and sensitive receivers	3-6
Avoiding using noisy plant simultaneously and / or close together, adjacent to sensitive receivers	2-3
Orienting equipment away from sensitive receivers	3-5
Carrying out loading and unloading away from sensitive receivers	3-5
Using dampened tips on rock breakers	3-6
Using noise source controls, such as the use of residential class mufflers, to reduce noise from all plant and equipment including bulldozers, cranes, graders, excavators and trucks	5-10
Selecting site access points and roads as far as reasonably practicable away from sensitive receivers	3-6
Using spotters, closed circuit television monitors, “smart” reversing alarms, or “squawker” type reversing alarms in place of traditional reversing alarms	2-5
Employ non noise-generating structures such as site offices, storage sheds, stockpiles and tanks as noise barriers	5-10

It should be noted that, even with the application of all reasonable and feasible mitigation measures, noise levels at some sensitive receivers may exceed the NML. In accordance with the ICNG, this would be an acceptable outcome so long as all reasonable and feasible mitigation measures are in place.

6 OPERATIONAL NOISE ASSESSMENT

6.1 Operational Noise Trigger Levels

The *Noise Policy for Industry* (NPfI) (EPA, 2017) provides a framework for assessing environmental noise impacts from industrial premises and industrial development proposals in New South Wales.

The NPfI recommends the development of project noise trigger levels, which provide a benchmark for assessing a proposal or site. The project noise trigger levels should not be interpreted as mandatory noise criteria but, rather, as noise levels that, if exceeded, would indicate a potential noise impact on the community.

The project noise trigger level is the lower value of the project intrusiveness noise level and the project amenity noise level. The project intrusiveness noise level assesses the likelihood of noise being intrusive above the ambient noise level and is applied to residential receivers only. The project amenity noise level ensures the total industrial noise from all sources in the area does not rise above a maximum acceptable level.

The NPfI stipulates that project noise trigger levels are determined for the daytime (7am – 6pm), evening (6pm – 10pm) and night time (10pm – 7am) periods, as relevant. The determined trigger levels typically apply at the most affected point on or within the receiver property boundary.

6.1.1 Project Intrusiveness Noise Level

The intrusiveness noise level is the noise level 5 dBA above the rating background noise level (RBL) for each time period (daytime, evening or night time) of interest at a residential receiver. The RBL is derived from the measured L_{A90} noise levels.

The NPfI stipulates that project intrusiveness noise levels should not be set below 40 dBA during the daytime and 35 dBA in the evening and night time. Additionally, the NPfI recommends that the project intrusiveness noise level for evening is set at no greater than that for the daytime, and that the project intrusiveness level for night time is set at no greater than that for the evening and daytime.

A conservative approach has been adopted in this assessment whereby the minimum project intrusive noise levels recommended in the NPfI have been adopted. Intrusiveness noise levels for the project are summarised in **Table 6-1**.

Table 6-1 Project Intrusiveness Noise Levels

Receiver	Time of day [1]	RBL (dBA)	Project Intrusiveness noise level – $L_{Aeq,15min}$ (dBA)
R1 – R7	Day	35	40
	Evening	30	35
	Night	30	35

1. Day – 7am – 6pm; Evening = 6pm – 10pm; Night = 10pm – 7am.

6.1.2 Project Amenity Noise Levels

Project amenity noise levels aim to set a limit on continuing increases in noise levels from all industrial noise sources affecting a variety of receiver types; that is, the ambient noise level in an area from all industrial noise sources remains below recommended amenity noise levels.

The amenity assessment is based on noise criteria specific to land use and associated activities. The criteria relate only to industrial-type noise and do not include transportation noise (when on public transport corridors), noise from motor sport, construction noise, community noise, blasting, shooting ranges, occupational workplace noise, wind farms, amplified music/patron noise.

The amenity noise level aims to limit continuing increases in noise levels which may occur if the intrusiveness level alone is applied to successive development within an area.

The recommended amenity noise level represents the objective for total industrial noise at a receiver location. The project amenity noise level represents the objective for noise from a single industrial development at a receiver location.

To prevent increases in industrial noise due to the cumulative effect of several developments, the project amenity noise level for each new source of industrial noise is set at 5dBA below the recommended amenity noise level.

The following exceptions apply to determining the project amenity noise level:

- For high-traffic areas the amenity criterion for industrial noise becomes the $L_{Aeq,period(traffic)}$ minus 15dBA.
- In proposed developments in major industrial clusters.
- If the resulting project amenity noise level is at least 10 dB lower than the existing industrial noise level, the project amenity noise level can be set at 10 dB below existing industrial noise levels if it can be demonstrated that existing industrial noise levels are unlikely to reduce over time.
- Where cumulative industrial noise is not a consideration because no other industries are present in, or likely to be introduced into the area, the relevant amenity noise level is assigned as the project amenity noise level for the development.

Amenity noise levels are not used directly as regulatory limits. They are used in combination with the project intrusiveness noise level to assess the potential impact of noise, assess mitigation options and determine achievable noise requirements.

The project amenity noise levels are calculated from the recommended amenity noise levels presented in **Table 6-2**.

Table 6-2 Recommended Amenity Noise Levels

Receiver	Noise amenity area	Time of day [1]	Recommended amenity noise level – $L_{Aeq,period}$ (dBA)
Residential	Rural	Day	50
		Evening	45
		Night	40
	Urban	Day	55
		Evening	45
		Night	40
	Suburban	Day	60
		Evening	50
		Night	45
Hotels, motels, caretaker's quarters, holiday accommodation, permanent resident caravan parks	See column 4	See column 4	5 dBA above the recommended amenity noise level for a residence for the relevant noise amenity area and time of day.
School classroom (internal)	All	Noisiest 1-hour period when in use	35
Hospital ward:			
Internal	All	Noisiest 1-hour	35
External	All	Noisiest 1-hour	50
Place of worship (internal)	All	When in use	40
Area specifically reserved for passive recreation (e.g., national park)	All	When in use	50

Receiver	Noise amenity area	Time of day [1]	Recommended amenity noise level – $L_{Aeq,period}$ (dBA)
Active recreation area (e.g., school playground, golf course)	All	When in use	55
Commercial premises	All	When in use	65
Industrial premises	All	When in use	70
Industrial interface (applicable only to residential noise amenity areas)	All	All	Add 5 dBA to recommended noise amenity area

1. Day – 7am – 6pm; Evening = 6pm – 10pm; Night = 10pm – 7am.

Recommended amenity noise levels presented in **Table 6-2** represent the objective for total industrial noise at a receiver location. In the case of a single new noise source being proposed, the project amenity noise level represents the objective for noise from a single industrial development at the receiver location. This is typically calculated as the recommended amenity noise level minus 5 dBA.

Due to different averaging periods for the $L_{Aeq,15min}$ and $L_{Aeq,period}$ noise descriptors, the values of project intrusiveness and amenity noise levels cannot be compared directly when identifying noise trigger levels i.e. the most stringent values of each category. To make a comparison between descriptors, the NPfI assumes that the $L_{Aeq,15min}$ equivalent of an $L_{Aeq,period}$ noise level is equal to the $L_{Aeq,15min}$ level plus 3dB.

Residential receivers near the Proposal are classified as being in a “rural” noise amenity area.

The project amenity noise levels for the Proposal are presented in **Table 6-3**.

Table 6-3 Project Amenity Noise Levels

Receiver	Time of day [1]	Recommended amenity noise level – $L_{Aeq,period}$ (dBA)	Project amenity noise level – $L_{Aeq,15min}$ (dBA)
R1 – R7	Day	50	48
	Evening	45	43
	Night	40	38

1. Day – 7am – 6pm; Evening = 6pm – 10pm; Night = 10pm – 7am.

6.1.3 Project Noise Trigger Levels

The project intrusiveness noise levels and project amenity noise levels for sensitive receivers are summarised in **Table 6-4**. The project noise trigger levels (PNTL) – which are the lower values of the project intrusiveness noise levels and the project amenity noise levels – are highlighted in bold.

Table 6-4 Project Noise Trigger Levels

Receiver	Time of day [1]	Project intrusiveness noise level – $L_{Aeq,15min}$ (dBA)	Project amenity noise level – $L_{Aeq,15min}$ (dBA)
R1 – R7	Day	**40**	48
	Evening	**35**	43
	Night	**35**	38

1. Day – 7am – 6pm; Evening = 6pm – 10pm; Night = 10pm – 7am.

6.2 Noise Modelling Methodology and Assumptions

Operational noise emissions from the Proposal have been modelled using SoundPLAN v8.2. The selected noise calculation method is International Standard ISO 9613-2:1996 *Acoustics – Attenuation of sound during propagation outdoors – Part 2: General Method of Calculation* (ISO 9613-2).

Factors accounted for by ISO 9613-2 are:

- Noise source sound power and locations
- Shielding from ground topography and structures
- Noise attenuation due to geometric spreading
- Ground absorption
- Atmospheric absorption.

ISO 9613-2 is a "downwind" model, which conservatively assumes that each receiver is downwind from all noise sources.

6.3 Operational Noise Sources and Assessment Scenarios

6.3.1 Continuous Noise Sources

Significant continuous noise sources associated with the operation of the Proposal are as follows:

- The inverter station, which includes the inverters and a transformer.
- Liquid-cooled battery containers.
- PV panel tracker motors

Sound power levels (SWL) for the noise sources identified above have been adopted from manufacturer data, information from the client and previous measurements conducted by SoundIN. SWL for significant noise sources associated with the operation of the Proposal a summarised in **Table 6-5**.

Table 6-5 Operational Noise Sources and Sound Power Levels

Item	Activity	Quantity	SWL (dBA)	
			Per item	Total
Inverter station	24/7, constant	1	89	89
Battery container	24/7, constant	4	86	92
Panel tracking motor	Daytime only, ~1 minute operation each motor per 15-minutes	200	78	89

6.4 Predicted Noise Levels

6.4.1 Predicted $L_{Aeq,15min}$ Noise Levels

The predicted $L_{Aeq,15min}$ noise levels at nearby residential receivers associated with the scenario outlined above are presented in **Table 6-6**.

Table 6-6 Predicted $L_{Aeq,15min}$ Noise Levels

Receiver	Predicted $L_{Aeq,15min}$ noise level (dBA)			Project noise trigger level (dBA)			Complies?
	Day	Evening	Night	Day	Evening	Night	
R1	35	32	32	40	35	35	Yes
R2	21	21	21	40	35	35	Yes
R3	23	22	22	40	35	35	Yes
R4	28	28	28	40	35	35	Yes
R5	<20	<20	<20	40	35	35	Yes
R6	32	32	32	40	35	35	Yes
R7	28	27	27	40	35	35	Yes

The results in **Table 6-6** indicate that predicted noise levels at all nearby receivers comply with the noise trigger levels at all times.

7 CONCLUSION

SoundIN has been engaged by Atlas Renewables to undertake a noise and vibration impact assessment (NVIA) for the proposed solar farm at 728 Plumptons Road, Finley.

Noise impacts associated with the construction of the Proposal have been assessed in general accordance with the *Interim Construction Noise Guideline*.

Construction NML have been established for nearby residential receivers and recreation areas.

A computer noise model has been developed to predict noise levels associated with construction activities at nearby sensitive receivers.

The modelling results indicate that:

- Noise levels are predicted to exceed the NML at nearby receivers. The exceedances range from 1 to 15 dBA.
- Construction noise levels are predicted to be highest during piling works.
- Noise levels are not predicted to exceed the highly affected level of 75 dBA at any residential receivers.

A Construction Noise and Vibration Management Plan (CNVMP) should be prepared for the works and should identify all reasonable and feasible measures that would be employed in an effort to achieve the NML at sensitive receivers.

Safe working distances for relevant vibration generating equipment have been established to ensure that off-site vibration levels do not result in either cosmetic damage to buildings or human comfort impacts.

Noise impacts associated with the operation of the Proposal have been assessed in general accordance with the NPfI. A computer noise model has been developed to predict operational noise levels at sensitive receivers. Noise modelling indicates that operational noise levels comply with the established noise trigger levels at all receivers.

Appendix 2 – Letter from Soundin addressing Construction Noise Management, dated 11 March 2026

Phone 0458794262
Email admin@skmplanning.com
PO Box 8085 Griffith East, Griffith NSW
112/30 Nobbs Street, Surry Hills NSW 2010

ABN 48 331 201 880

11 March 2026

SoundIN Project Number: 17322
Our Ref: Letter 17322 AR PW20260311 NH.docx
Email: paul.w@atlasrenewables.com.au

Paul Watson
Atlas Renewables
Suite 1, 68-72 Railway Parade
BURWOOD NSW 2134

Dear Paul

Re: 728 Plumptons Road, Finley - response to acoustic issues raised by Planning Panel

INTRODUCTION

Thank you for providing a copy of the Record of Deferral issued by the Western Region Planning Panel (the Planning Panel) relating to the proposed solar farm at 728 Plumptons Road, Finley (the Proposal).

This letter provides a response to matter 1 (noise impact on nearby sensitive receivers).

CONSTRUCTION NOISE IMPACTS

The Noise and Vibration Impact Assessment (NVIA) for the Proposal presented an assessment of potential noise impacts associated with the construction of the Proposal. This assessment was conducted in general accordance with the *Interim Construction Noise Guideline* (ICNG). The assessment indicated that typical worst-case construction noise levels at sensitive receivers were predicted to exceed a Noise Management Level (NML) of 45 dBA but would not exceed the "highly affected noise level" of 75 dBA. The assessment recommended that, in accordance with the ICNG, a Construction Noise and Vibration Management Plan (CNVMP) should be developed to manage noise levels down toward the NML.

It was noted in the NVIA and is reiterated here that the predicted construction noise levels represented typical worst-case levels over the noisiest 15-minute periods during the various construction activities considered in the assessment and that there would be many periods where construction noise levels at sensitive receivers would be significantly lower than those presented in the NVIA.

It is also reiterated that, in accordance with the ICNG, exceedances of the NML are acceptable so long as all reasonable and feasible mitigation measures are employed to reduce noise levels down toward the NML. NML derived in accordance with the ICNG are, as the name implies, management levels and should not be interpreted as noise limits.

The NIVA indicated that construction of the Proposal would take 3-6 months to complete. SoundIN understands that this timeframe is conservative and that the works are likely to take closer to 4 months to complete. It is also noted that the noisiest works (piling) is anticipated to be approximately 15 days, not including weekends, public holidays or bad weather. It is noted that the piling works will occur over a large area, with a mobile piling rig that will install each pile over a period of several minutes. Accordingly, the highest noise levels at each receiver during these works would only occur for a relatively short period when the rig is close to that receiver.

Due to the mobile nature of the piling rig, it is not reasonably practicable to erect acoustic barriers around the piling rig as this would significantly prolong the duration of the works. Alternatively, piling works would be limited to the hours of 9 am to 12 pm Monday to Saturday and 2 pm to 5 pm Monday to Friday to provide respite to surrounding residents.

Notwithstanding the above, it is noted that construction activities, particularly piling works, can cause community annoyance. One option suggested in the ICNG for reducing noise impacts from noisy construction activities, such as piling, is to limit those works to 9am to 12pm Monday to Saturday and 2pm to 5pm Monday to Friday to provide respite to surrounding residents.

It is noted that the use of respite periods is likely to extend the duration of the piling works and that this may not be preferable to some or all of the nearby community.

We trust this advice satisfies your requirements.

Yours faithfully
SOUNDIN

Nic Hall
Senior Engineer

Appendix 3 – Detailed Landscape Plan Prepared by Site Image

Phone 0458794262
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PO Box 8085 Griffith East, Griffith NSW
112/30 Nobbs Street, Surry Hills NSW 2010

ABN 48 331 201 880

Atlas Renewables Solar Farm

Plumptons Road, Finley NSW 2713

Landscape Development Application

DRAWING SCHEDULE

Dwg No.	Drawing Title	Scale
000	Landscape Coversheet	N/A @ A1
100	Landscape Plan	1:1000 @ A1
500	Landscape Specification Notes	N/A @ A1
501	Landscape Details	As Shown
601	Landscape Sections	As Shown

Proposed Plant Schedule

	Botanic Name	Common Name	Mature Size	Pot Size	Density	Qty
Plant Matrix 1						
Large Shrubs						
Aa	*Acacia acinacea*	Gold Dust Wattle	3 x 2	300mm	Refer to Detail	340
Pm	*Philotheca myoporoides*	Long-leaf Wax Flower	4 x 2	300mm		340
Medium Shrubs						
Cc	*Callistemon citrinus*	Callistemon Endevour	2 x 2	300mm	Refer to Detail	576
GS	*Grevillea* 'Superb'	Superb Grevillea	2 x 1.5	300mm		681
Grasses						
Cg	*Carpobrotus glaucescens*	Pigface	0.3 x spreading	150mm	Refer to Detail	916
Mp	*Myoporum parvifolium*	Creeping Boobialla	0.3 x spreading	150mm		916
Plant Matrix 2						
Large Shrubs						
Aa	*Acacia acinacea*	Gold Dust Wattle	3 x 2	300mm	Refer to Detail	707
Pm	*Philotheca myoporoides*	Long-leaf Wax Flower	4 x 2	300mm		900
Sa	*Senna artemisioides*	Silver Cassia	4 x 3	300mm		579
Medium Shrubs						
Cc	*Callistemon citrinus*	Callistemon Endevour	2 x 2	300mm	Refer to Detail	1350
GS	*Grevillea* 'Superb'	Superb Grevillea	2 x 2	300mm		1222
Grasses						
Cg	*Carpobrotus glaucescens*	Pigface	0.3 x spreading	150mm	Refer to Detail	1929
Ta	*Themeda australis*	Kangaroo Grass	0.6 x 0.3	150mm		2186
Plant Matrix 3						
Large Shrubs						
Aa	*Acacia acinacea*	Gold Dust Wattle	3 x 2	300mm	Refer to Detail	1093
Pm	*Philotheca myoporoides*	Long-leaf Wax Flower	4 x 2	300mm		1192
Medium Shrubs						
Cc	*Callistemon citrinus*	Callistemon Endevour	2 x 2	300mm	Refer to Detail	2782
GS	*Grevillea* 'Superb'	Superb Grevillea	2 x 2	300mm		2583
Grasses & Groundcovers						
Cg	*Carpobrotus glaucescens*	Pigface	0.3 x spreading	150mm	Refer to Detail	3279
Ll	*Lomandra longifolia*	Mat Rush	1 x 1	150mm		4372
Pl	*Poa labillardierei*	Common Tussock-grass	0.6 x 0.6	150mm		3676
Ta	*Themeda australis*	Kangaroo Grass	0.6 x 0.3	150mm		3279

Site Plan | 1:2000 @A1

Issue	Revision Description	Drawn	Check	Date
B	Updated Issue	LH	NM	24.10.2025
A	Preliminary Issue	LH	NM	01.08.2025

Client
Atlas Renewables Pty Ltd.

Project
Atlas Renewables Solar Farm
Plumptons Rd, Finley NSW 2713

SITE IMAGE
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Australia

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Site Image (NSW) Pty Ltd
ABN 44 801 262 380

Landscape Architects

DEVELOPMENT APPLICATION

Drawing Name
Landscape Coversheet

SHEET

Scale N/A

Job Number	Drawing Number	Issue
SS25-5539	000	B

NOT FOR CONSTRUCTION

A1

NOT FOR CONSTRUCTION

A1

Issue	Revision Description	Drawn	Check	Date
B	Updated Issue	LH	NM	24.10.2025
A	Preliminary Issue	LH	NM	01.08.2025

Legend

- Site Boundary
- F1 - Architect's Fence — Refer Architect's Drawings
- Planting Matrix 1 — Refer Landscape Detail
- Planting Matrix 2 — Refer Landscape Detail
- Planting Matrix 3 — Refer Landscape Detail

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Landscape Architects

DEVELOPMENT APPLICATION

Drawing Name
Landscape Plan

Scale 1:1000 @ A1

SHEET
0 5 10 25 50m

Job Number	Drawing Number	Issue
SS25-5539	100	B

SPECIFICATION NOTES

GENERAL NOTES

References
All plans and details included in the project documents shall be read in conjunction with this specification. All structural and civil works components of the landscape design shall be referenced to engineers' details and specifications. Read this specification in conjunction with the plant and materials schedules on the drawings. If in doubt about any detail or if conflicts are found in the documents, seek advice.

Workmanship and Materials
The whole of the landscape works shall be carried out by a competent, trained and qualified landscape contractor who is experienced in horticultural practices, landscape construction and planting techniques. The landscape contractor shall hold a current Building Contractors License and/or be a financial member of LNA Landscape Association NSW & ACT or equivalent organisations in other states.

EXISTING TREES AND SHRUBS

Trees and Shrubs to be Retained and Protected
Identify and mark trees and shrubs to be retained using a suitable non-injurious, easily visible and removable means of identification. Protect from damage the trees and shrubs to be retained, including those beyond the site area, both above and below the ground. If a tree becomes damaged during the works or it is proposed to perform work on a tree, give written notice immediately and obtain instructions.

Work Near Trees and Shrubs
Keep the area of the drip-line free from construction material and debris. Do not place bulk materials and harmful materials under foliage canopies or near trees. Do not place spoil from excavations against tree trunks. Prevent wind-blown building materials, such as cement, from covering trees and other plants. Do not remove topsoil from, or add topsoil to, the area within the drip-line of trees.

EARTHWORKS

Excavation, Trimming and Filling
Except as otherwise noted in the contract, bulk excavation is excluded from the landscape works. After the completion of bulk excavation by others, trim and fill the excavated ground surfaces to achieve design levels to accommodate finish materials as detailed. Prepare the sub-grade surface as required for the various finished ground treatments.

Site Drainage
Keep the excavated works drained and free of standing water. Allow to supply and install sub-soil drainage pipes as required for the new works to ensure that all gardens are well drained. Connect the sub-soil drainage pipes to the nearest downstream stormwater pits. Include pipe filter socks and course sharp aggregate backfilling of trenches.

SOFTWORKS

Site Soil Testing
Where site soil is to be retrieved from site and stored on site for reuse, undertake at least two (2) soil tests in locations as advised by the Project Manager or as shown on the plans. Provide results and recommendations regarding soil additives for the benefit of healthy plant growth and to adjust the soil components to achieve an appropriate planting medium for successful plant development. Where topsoil is imported to site no testing of the imported soil is necessary but ensure that imported soil can b e supplied with test data to verify that it suits the design plants.

Subsoil
Excavate and/or fill all garden beds to bring the top of subsoil to at least 300mm below finished design soil levels. Excavate all turf areas to bring the subsoil to at least 100mm below finished design levels. In all areas shape the subsoil to fall to subsoil drains where applicable. Do not excavate within the drip line of trees and shrubs to be retained. Cultivate or rip the subsoil to a further depth of 100mm before placing top soil. Remove stones of size exceeding 25mm, clods of earth exceeding 50mm, and weeds, rubbish or other deleterious material brought to the surface during cultivation. Do not disturb services or existing tree roots. If necessary, cultivate these areas by hand. During cultivation, thoroughly mix in materials required to be incorporated into the subsoil, as recommended in the soil testing results and to manufacturer's recommendations. Trim the surface to design levels again after cultivation.

Subsoil Drainage
Provide and install subsoil drainage equal to Vinidex 65mm (min) Draincoil with filter sock at the base of slopes, on the high side of paths, at the base behind retaining walls and where water is likely to accumulate at depth in the soil. Connect all subsoil drainage to the nearest downstream stormwater pit to ensure that subsoil water is managed and channelled to a stormwater drainage system. On sites with cross fall of less than 1:50 install subsoil drains to remove excess water from the subsoil in areas where water is likely to accumulate and may not penetrate lower strata naturally. Rip the sub-base surface 150mm deep before placing any soil. Install drainage pipes in subsoil trenches backfilled with 10mm blue metal (basalt) equal to ANL Blue Metal.

Coordinate the connection of subsoil drains to stormwater pits with the Civil or Hydraulic contractor.

Topsoil
Import topsoil for the garden and turf areas, unless the topsoil can be provided from material recovered from the site, as recommended in the soil testing results. Spread the topsoil on the prepared subsoil and grade evenly, compact lightly and uniformly in 150mm layers. Avoid differential subsidence and excess compaction and produce a finished topsoil surface which has the following characteristics:
- Finished to design levels, allowing for mulch or turf, which is to finish flush with adjoining hard surfaces such as paths and edges;
- Smooth and free from inorganic matter, stones or clods of soil;
- Graded to drain freely, without ponding, to catchment and/or sub-soil drains;
- Graded evenly to adjoining surfaces; and
- Ready for planting.

Compost
Provide, in accordance with AS 4454, well rotted vegetative material or animal manure, free from harmful chemicals, inorganic matter, grass, weeds and the reproductive parts of unwanted plants.

Fertiliser
Provide proprietary fertilisers, delivered to the site in sealed containers marked to show manufacturer or vendor, weight, fertiliser type, N:P:K ratio, recommended uses, application rates and safety procedures. Apply appropriate fertiliser suited to the provenance of plants (indigenous or exotic) included in the design.

Plants
Supply plants in accordance with the landscape design drawings and schedules, which have the following characteristics:
- Large healthy root systems, with no evidence of root curl, restriction or damage;
- Vigorous, well established, free from disease and pests, of good form consistent with the species/variety;
- Hardened off, not soft or forced, and suitable for planting in the natural climatic conditions prevailing at the site in full sun, partial shade or full shade conditions;
- Grown in final containers for not less than twelve weeks;
- Trees, unless required to be multi-stemmed, shall have a single leading shoot; and
- Containers shall be free from weeds and of appropriate size in relation to the specified plant size.

Plant Installation
Following excavation of the planting hole, place and spread 15gms of wetting agent pre-mixed with one (1) litre of water. Place the plant correctly orientated to north or for best presentation. Backfill the planting holes with specified topsoil mixture. Lightly tamp and water to eliminate air pockets. Ensure that the backfill soil is not placed over the top of the root ball and that the root ball is not higher than the soil in which it is planted. Apply fertiliser, as specified around the plants in the soil at the time of planting.

Mulch
Unless noted otherwise, mulch shall be approved proprietary recycled wood fibre or pine bark material. Place mulch in all garden beds to a depth of 75mm after all specified plants are installed. Keep mulch clear of all plant stems and rake to an even plane, flush with the surrounding surfaces evenly graded between design surface levels. Over fill to allow mulch to settle to the specified depth.

Stakes and Ties
Stakes shall be durable hardwood, straight, free of knots and twists, pointed at one end, in the following quantities and sizes for each of the various plant pot sizes:
- Plants >25 lt: 1 off 38 x 38 x 1200mm;
- Semi-advanced plants >75 lt: 2 off 50x50x 1800mm;
- Advanced plants >100 lt: 3 off 50 x 50 x 2400mm.

IRRIGATION

Scope: Unless otherwise noted or instructed irrigate all planted areas shown on plans including planters, tubs, gardens, turf and the like. The irrigation system shall be an automatic permanent system, with an irrigation controller self operated via a soil moisture sensor. The system shall be calibrated to deliver the optimum rate and volume of water appropriate to the type of plants in the design. The system shall be adjustable and fully serviceable. The layout of the entire irrigation system shall focus on delivering the required amount of water to maintain healthy and vigorous growth. The irrigation system shall be such that, component theft, vandalism, over-spray and wetting of paths shall be reduced to a minimum or eliminated with the use of drip, pop-up sprinklers and judiciously placed fixed spray emitters. Generally, do not use fine mist emitters that provide a drifting mist that may wet paths and the buildings unless specifically required by the design.

The Landscape Contractor shall engage a qualitied irrigation consultant to design the system, document all components, accessories and materials for review by the Landscape Architect prior to starting landscape works generally.

LANDSCAPE MAINTENANCE

The Landscape Contractor shall rectify defects during installation and that become apparent in the works under normal use for the duration of the contract Defects Liability Period. Unless contracted otherwise, the Landscape Contractor shall maintain the contract areas by the implementation of industry accepted horticultural practices for 52 weeks from Practical Completion of the works. The landscape maintenance works shall include, but not be limited to:
- Replacing failed plants;
- Pruning;
- Insect and pest control;
- Fertilising;
- Maintaining and removing stakes and ties;
- Maintaining mulch;
- Mowing and top dressing;
- Irrigation and watering;
- Erosion control; and
- Weeding and rubbish removal.

Maintenance Log Book
Implement and keep a maintenance log book recording when and what maintenance work has been undertaken and what materials, actions and decisions have been used, implemented and concluded to keep the landscape always looking its best. Enter data daily and review information every 2 weeks. Observe trends and develop a maintenance regime around seasonal and observed event occurrences.

Maintenance Activities
During the defect maintenance period schedule the following activities to occur on a timely basis.

Plant replacement - Replace plants that have failed to mature, die or are damaged. Replacement plants shall be in a similar size and quality and identical species or variety to the plant that has failed. Replacement of plants shall be at the cost of the landscape contractor unless advised otherwise. If the cause of the failure is due to a controllable situation then correct the situation prior to replacing plants. Observe and replace failed plants within 2 weeks of observation.

Pruning - Prune dead wood, broken limbs, dead or infected foliage and as needed to develop strong, healthy plants to achieve the shape and form expected of the plant type. Observe daily and prune plants as necessary to maintain acceptable growth habit.

Insect, disease and pest control - Avoid spraying:
- if ever possible;
- in wet weather or if wet weather is imminent;
- if target plants are still wet after rain;
- in windy weather; and
- if non-target species are too close.

Immediately report to the Project Manager any evidence of intensive weed infestation, insect attack or disease amongst plant material. Submit all proposals to apply chemicals and obtain approval before starting this work. When approved, spray with herbicide, insecticide, fungicide as appropriate in accordance with the manufacturers' recommendations. Observe daily and act as necessary to control any infestation or disease. Record in the logbook all relevant details of spraying activities including:
- Product brand / manufacturer's name,
- Chemical / product name,
- Chemical contents,
- Application quantity and rate,
- Date of application and location,
- Results of application, and
- Use approval authority.

Fertilising
Fertilise gardens with a proprietary slow release fertiliser applied in accordance with the manufacturer's directions and recommendations. Apply 6-12 monthly. Record in the logbook all relevant details of fertilising including:
- Product brand / manufacturer's name,
- Fertiliser / product name,
- Application quantity and rate, and
- Date of application and location.

Stakes and ties - Adjust and replace as required to ensure plants remain correctly staked. Remove those not required at the end of the planting establishment period (Defects Liability Period). Inspect and act at least every 2 weeks.

Maintaining mulch - Maintain the surface in a clean, tidy and weed free condition and reinstate the mulch as necessary to ensure correct depth as specified. Observe weekly and replenish mulch as required.

Mowing and top dressing - Mow the turf to maintain a grass height of between 30-50mm. Do not remove more than one third of the grass height at any one time. Remove grass clippings from the site after each mowing. Top dress to a maximum of 10mm to fill depressions and hollows in the surface. Mow weekly/fortnightly in warmer months. Mow monthly or as required in cooler months. Top dress at approximately 6 monthly intervals.

Irrigation and watering - Maintain the irrigation system to sure that each individual plant receives the required amount of water to maintain healthy and vigorous growth. Adjust and calibrate as required. Provide additional watering, if necessary but inspect irrigation weekly and make repairs as necessary.

Erosion control - Where necessary, maintain the erosion control fabric in a tidy and weed free condition and reinstate as necessary to ensure control measures are effective where deemed necessary. Inspect every 2 weeks and act to repair any damage as soon as possible.

Weeding and rubbish removal - During the plant establishment period remove by hand, rubbish and weed growth that may occur or re-occur throughout all planted, mulched and paved areas. The contractor shall target weeds that are capable of producing a major infestation of unwanted plants by seed distribution. Whenever possible, time weed removal to precede flowering and seed set. Constant observation and removal of weeds is essential.

NOT FOR CONSTRUCTION

A1

The contractor shall check and verify all work on site (including work by others) before commencing the landscape installation. Any discrepancies are to be reported to the Project Manager or Landscape Architect prior to commencing work. Do not scale this drawing. Any required dimensions not shown shall be referred to the Landscape Architect for confirmation.

Issue	Revision Description	Drawn	Check	Date
A	Preliminary Issue	LH	NM	01.08.2025

Client
Atlas Renewables Pty Ltd.

Project
Atlas Renewables Solar Farm
Plumptons Rd, Finley NSW 2713

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Site Image (NSW) Pty Ltd
ABN 44 801 262 380
Landscape Architects

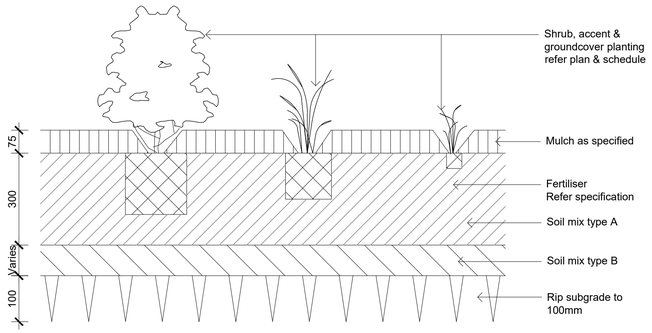
DEVELOPMENT APPLICATION

Drawing Name
Landscape Specification Notes

SHEET

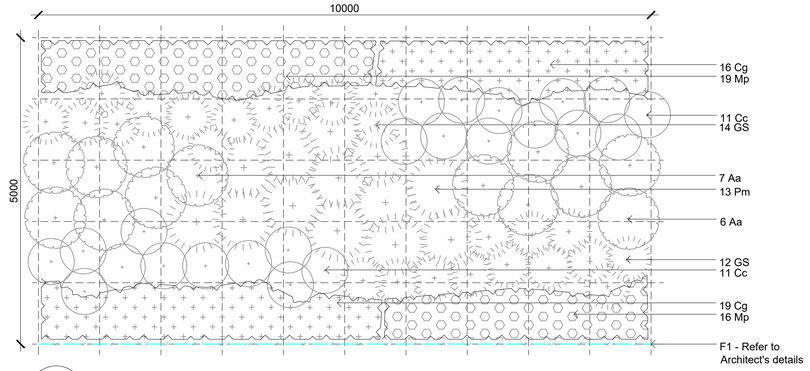
Scale N/A

Job Number	Drawing Number	Issue
SS25-5539	500	A



Detail Shrub Accent & Groundcover Planting on Grade

1:10



01 / 501 Matrix Planting 1

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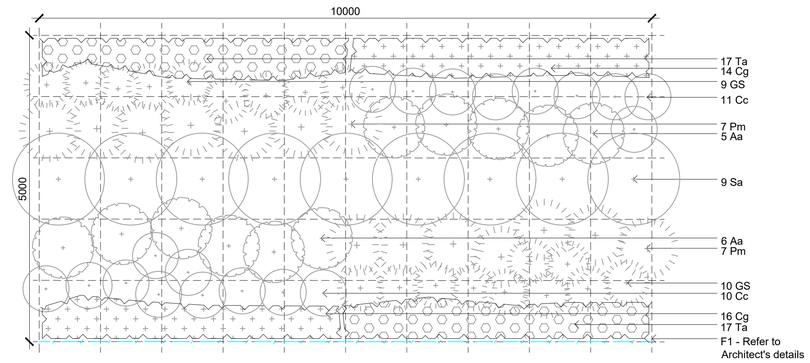

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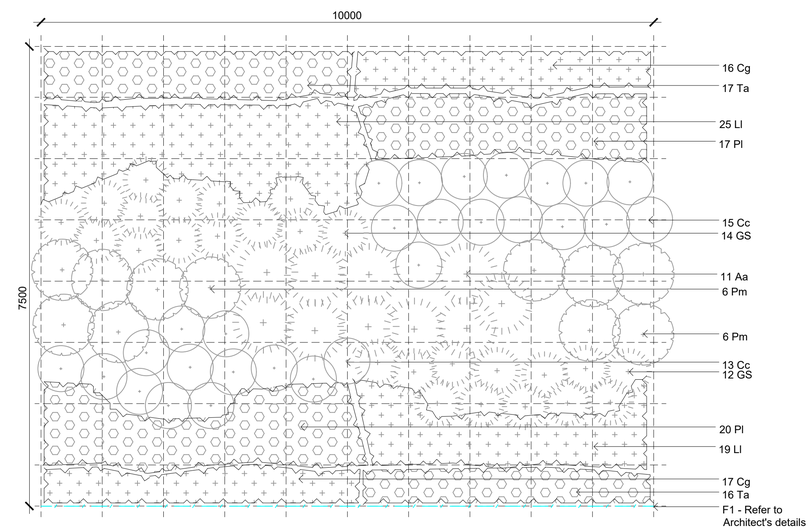

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NOT FOR CONSTRUCTION

A1

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Issue	Revision Description	Drawn	Check	Date
A	Preliminary Issue	LH	NM	01.08.2025

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Landscape Architects

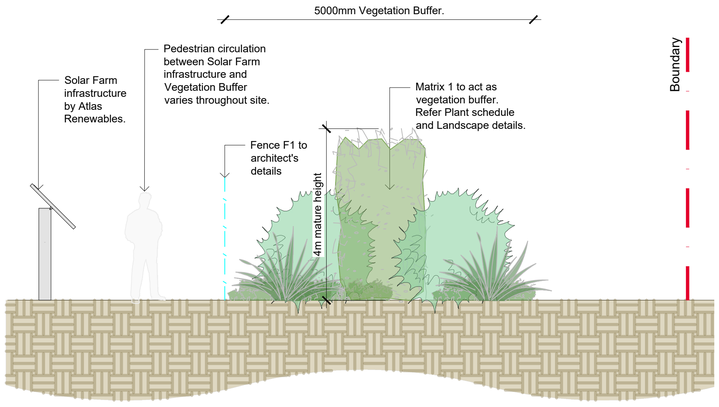
DEVELOPMENT APPLICATION

Drawing Name
Landscape Details

SHEET

Scale As Shown @ A1

Job Number	Drawing Number	Issue
SS25-5539	501	A



01 / 601 Matrix Planting 1 - Section

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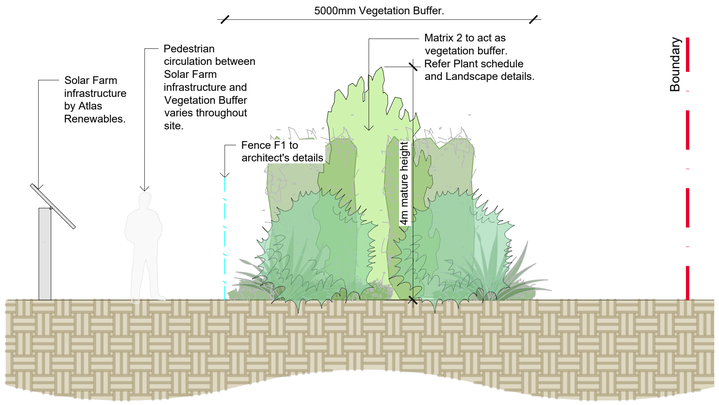

02 / 601 Matrix Planting 2 - Section

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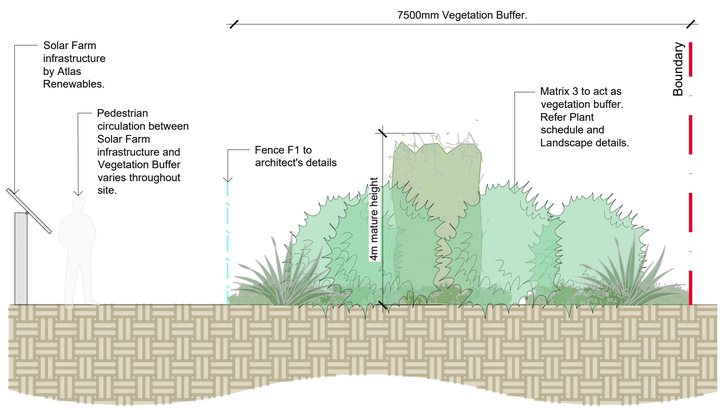

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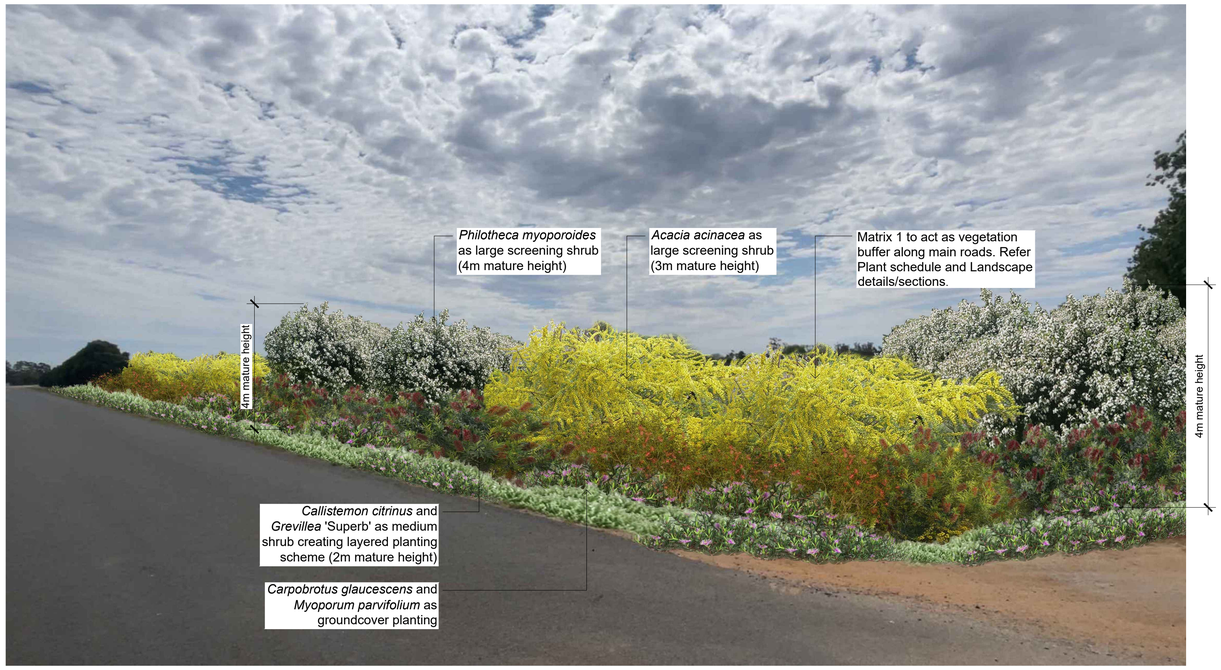
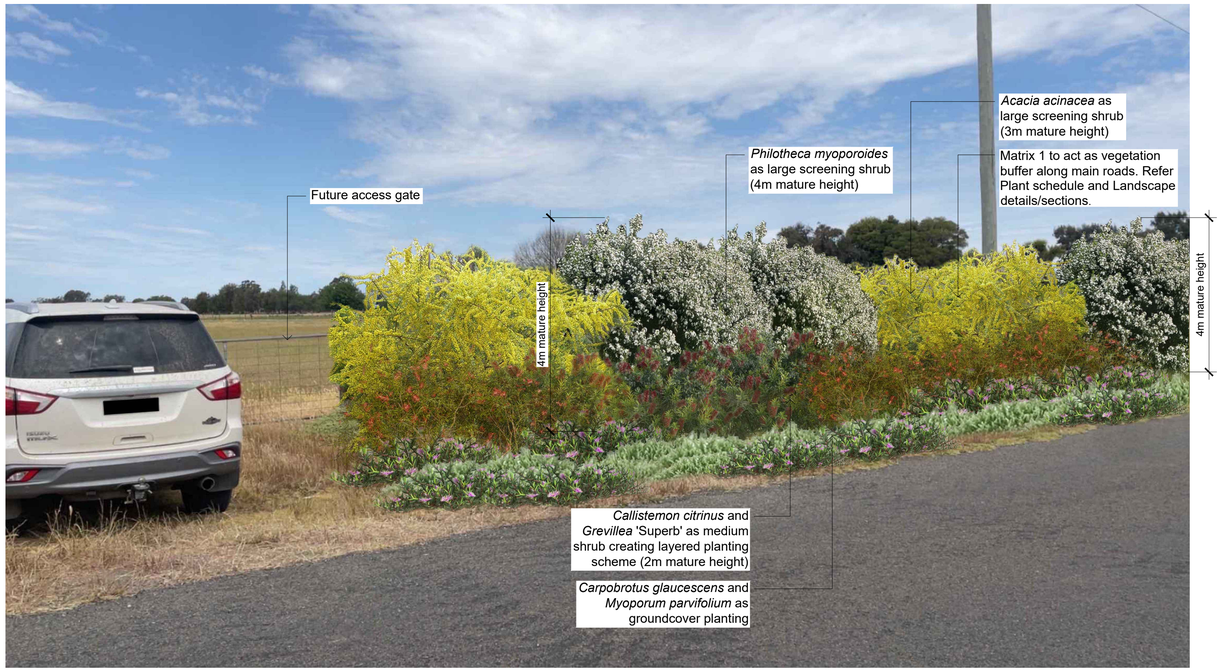


Mature Vegetation Render - Plumptons Road

NTS



Mature Vegetation Render - Howe Street

NTS

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Issue	Revision Description	Drawn	Check	Date
C	Updated Renders & Sections	LH	NM	09.03.2026
B	Updated Issue	LH	NM	24.10.2025
A	Preliminary Issue	LH	NM	01.08.2025

Client

Atlas Renewables Pty Ltd.

Project

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Landscape Architects

DEVELOPMENT APPLICATION

Drawing Name

Landscape Sections & Renders

SHEET

Scale As Shown @ A1

Job Number	Drawing Number	Issue
SS25-5539	601	C

NOT FOR CONSTRUCTION

A1

Appendix 4 – Fire Management Statement, prepared by Atlas Renewables

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Fire Management Statement

Project: Finley 2 – 4.95MW Solar Farm and Battery Energy Storage System (BESS)
Site Address: 728 Plumptons Road, Finley NSW 2713
Prepared for: Development Application Submission
Prepared by: Atlas Renewables
Version: v1.0
Date: 16 March 2026

1. Executive Summary

This Fire Management Statement has been prepared to address the Western Regional Planning Panel's request for further information relating to fire risk management for the proposed Solar Farm and Battery Energy Storage System (BESS) at 728 Plumptons Road, Finley NSW.

A review of the NSW Rural Fire Service Bush Fire Prone Land Mapping was carried out as part of the submission of the development application which confirmed that the subject site where the solar farm and BESS is to be located is not considered bushfire prone land and the development is therefore not subject to the bushfire assessment requirements of Section 4.14 of the Environmental Planning and Assessment Act 1979. The development is also not habitable in nature requiring special consideration under

Notwithstanding this, Atlas Renewables has prepared this Fire Management Statement to outline the design, operational, and emergency management measures that will be implemented to mitigate fire risk associated with the development.

The development incorporates multiple layers of fire risk mitigation, including:

- vegetation and fuel load management
- separation distances between infrastructure and site boundaries
- electrical protection systems and underground cabling
- advanced fire detection and suppression systems within the BESS units
- use of a water cart to be available onsite at all time
- emergency access provisions and firefighting water supply

These measures ensure that the development presents a low fire risk to surrounding land uses and infrastructure.

Atlas Renewables notes that while a detailed Fire Management Plan is not required under current planning legislation, the proponent is amenable to the preparation of a detailed Fire Management Plan as a condition of development consent if considered appropriate by the consent authority.

2. Purpose of this Statement

This Fire Management Statement has been prepared to support the Development Application for the proposed 4.95 MW AC Solar Farm and Battery Energy Storage System (BESS) at 728 Plumptons Road, Finley NSW. The purpose of this document is to identify potential fire risks associated with the development and outline mitigation measures that will be implemented during design, construction, and operation. This statement responds to the request for further information issued by the Riverina Regional Planning Panel and demonstrates how fire risks will be appropriately managed.

3. Fire Risk Planning Context

A review of the NSW Rural Fire Service (RFS) Bush Fire Prone Land mapping indicates that the subject site where the solar farm and BESS is to be located is not considered Bush Fire Prone Land. Notwithstanding this, the project adopts industry best practice fire risk management measures consistent with relevant NSW guidance.

Relevant guidance considered includes:

- Fire and Rescue NSW guidance on Lithium-Ion Battery Energy Storage Systems
- Hazardous Industry Planning Advisory Paper (HIPAP) No.2 – Fire Safety Study Guidelines
- AS/NZS 5139 Electrical Installations – Battery Systems

The site and surrounding locality are characterised by cleared agricultural land with limited native vegetation, further reducing the potential exposure to bushfire hazards.

4. Site Fire Risk Profile

The subject land is predominantly cleared agricultural land characterised by low vegetation density and flat topography. Surrounding land uses are primarily cropping and grazing. There are no significant forested areas adjacent to the site. Consequently, the overall bushfire exposure of the site is considered low.

The principal fire risks associated with the development include:

- Electrical faults within solar infrastructure
- Thermal events associated with battery energy storage systems
- Grass or crop fires originating from the surrounding farmland

5. External Fire Risk Mitigation

The most credible external fire scenario is a grass or crop fire originating from surrounding agricultural land. This risk is mitigated through perimeter access roads, vegetation management across the site, and separation distances between infrastructure and site boundaries. A 10 mere distance has been established between the panels and the proposed landscape buffer.

The development incorporates a number of measures to minimise potential impacts from external grass or crop fires originating on neighbouring agricultural land.

Key mitigation measures include:

- Minimum 10 metre separation distance between the solar panel infrastructure and the perimeter fence. This area would be maintained similar to an Inner Protection Area (IPA) required by Planning for Bushfire Protection 2019. No vegetation or grasses, including pasture crops, would be permitted in this area.
- Ongoing vegetation management, including grazing and slashing.
- Maintenance of low fuel loads across the site

6. Solar Infrastructure Fire Mitigation

Electrical systems associated with the solar farm will incorporate industry-standard safety and protection measures to minimise fire risk.

These include:

- Underground cabling for DC and AC systems
- Electrical protection systems, including overcurrent and fault detection
- Continuous monitoring via SCADA systems
- Remote shutdown capability in the event of abnormal operating conditions

These measures are consistent with standard electrical safety practices for utility-scale solar installations and significantly reduce the likelihood of electrical ignition sources.

7. Battery Energy Storage Fire Management

The proposed development includes Sungrow ST2752UX battery energy storage units incorporating Lithium Iron Phosphate (LFP) battery chemistry. This chemistry is widely recognised as having higher thermal stability compared with other lithium-ion battery chemistries.

Safety features incorporated into the BESS include:

- Active liquid cooling systems
- Multi-sensor fire and gas detection systems
- Automated system shutdown and isolation protocols
- Internal fire suppression systems within the battery enclosures
- Pressure relief and deflagration venting panels

The Battery Energy Storage System is located centrally within the site and is separated from the site boundary and neighbouring properties by substantial setbacks. The separation distances significantly exceed those typically required for energy infrastructure and ensure that, in the unlikely event of a battery incident, any thermal event would remain contained within the project site.

8. Emergency Response Provisions

The facility will incorporate appropriate provisions to support safe access and emergency response by fire authorities.

These measures include:

- All-weather internal access roads suitable for fire appliances
- A dedicated static firefighting water supply located near the main entrance
- A fire cart to be used to suppress fires.
- An emergency information area containing site plans and safety documentation
- Provision of site familiarisation for local emergency services prior to operation

The final specification of emergency infrastructure will be confirmed during detailed design and construction.

9. Construction Phase Controls

During construction, appropriate fire prevention measures will be implemented, including vegetation management and control of ignition sources. All construction contractors will be required to comply with site fire prevention procedures, including restrictions on hot works during Total Fire Ban days.

Construction activities will also comply with relevant local fire authority requirements during periods of elevated fire danger.

10. Operational Fire Management

During operation, fire risk will be managed through routine inspection and maintenance of electrical infrastructure, vegetation management programs, continuous system monitoring, and implementation of emergency response procedures.

11. Role of Rural Fire Service

In the first instance, the onsite fire supression measures listed above would be utilised by the site manager and the owner of the land to suppress or control fires on site or at boundaries. Should these measures require supplementation, the RFS would be called to site.

The NSW Rural Fire Service serves as the primary responder to fires in the locality including any future potential fires within the development site. The RFS have internal guidelines and protocols which they follow to respond to fires at solar farms. These guidelines and protocols would be utilised to fight exposure fires and prevent grass fires from entering the development site, including: OP 1.2.22 – Operational Protocol for Incidents Involving Photovoltaic Arrays and BESS; Guideline for Incidents involving Photovoltaic Arrays and BESS, AFAC 2020, and Australian Standard 50323:2014.

Should the development be approved, Atlas Renewables would liaise with the RFS to provide any information, plans or protocols required for the ongoing operation of the solar farm.

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12. Conclusion

The proposed solar farm and battery energy storage system is not located on bushfire prone land and therefore is not subject to mandatory bushfire assessment under Planning for Bush Fire Protection 2019.

The proposed development is classified as electricity generating works within a rural landscape and is not considered a hazardous industrial land use.

Nevertheless, the development incorporates multiple layers of fire risk mitigation, including vegetation management, engineered electrical protections, advanced battery safety systems, and emergency response infrastructure. These measures ensure that the development will present a low fire risk to surrounding land uses and can be safely operated.

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Appendix A – Bushfire Prone Land Mapping

Atlas Renewables has confirmed the land is not in a bushfire zone

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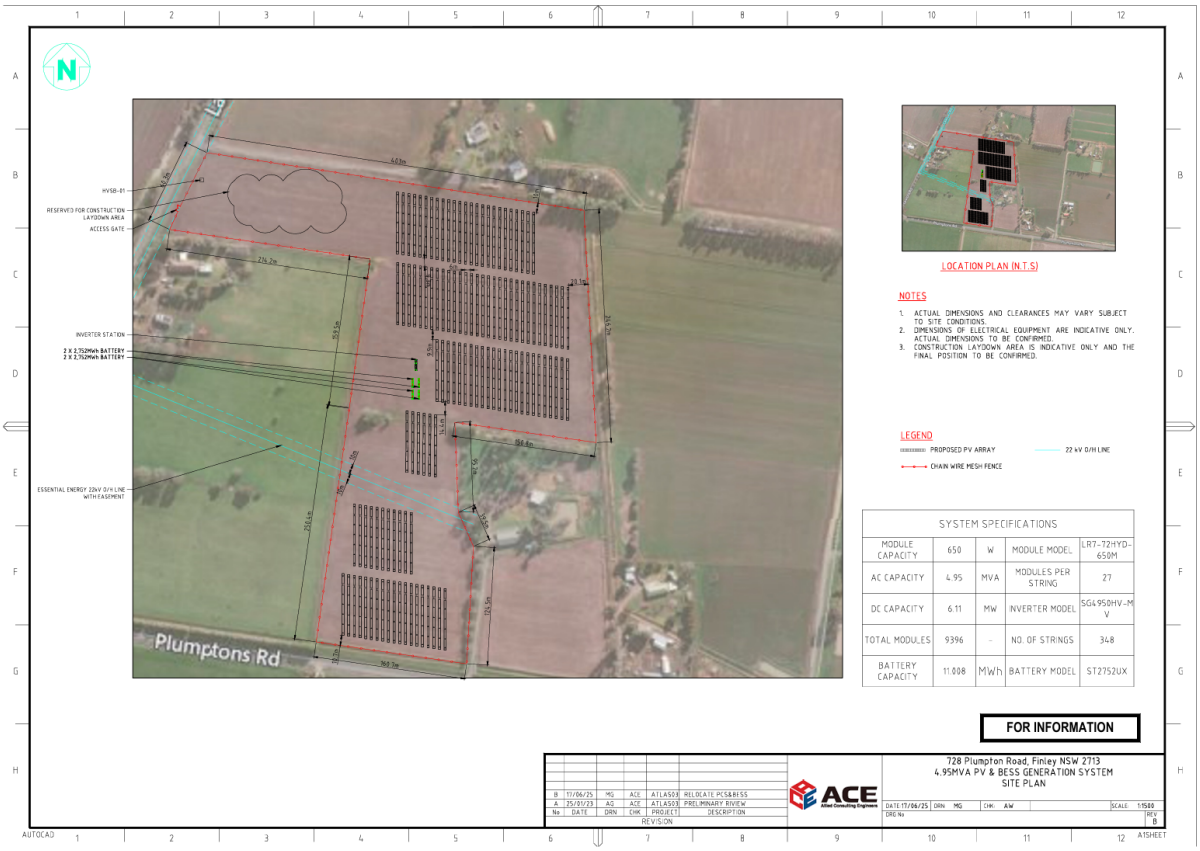
Appendix B – Site Layout Plan



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Appendix C – BESS Manufacturer Safety Information

SUNGROW
Clean power for all

FSS Design

ST2752UX ST2236UX

V 16

1 Introduction

This document describes design of fire suppression system of ST2752UX, ST2236UX, and other nonstandard capacity configuration.

2 System Configuration

2.1 FSS Devices

Water-based FSS is a standard FSS configuration of a battery cabinet. It is mainly composed of dry water pipes, fused sprinkler heads, smoke detectors, thermal detectors, flammable gas detectors, ventilation and exhaust systems, and auxiliary accessories.

Aerosol generators and sounder beacons are optional configurations.

Note: Customers need to discuss the FSS configuration with SUNGROW to ensure that the fire protection of the project meets the local requirements.

Tab. 1 Standard FSS Configuration in a Battery Cabinet

No.	Device	Number	Standard
1	Smoke detector	2	EN 54-7
2	Thermal detector	2	EN 54-5
3	Input Module	4	EN 54-17, EN54-18
4	Output Module	4	EN 54-17, EN54-18
5	Flammable gas detectors	2	EN 61010-1
6	Fused Sprinkler Heads	16	EN 12259-1
7	Ventilation and exhaust systems	2	-

Tab. 2 Extra Devices of Optional FSS Configuration in a Battery Cabinet

No.	Device	Number	Standard
1	Aerosol generator	6	ISO 15779-2011 CEN/TR 15276-1
2	Input Module	2	EN 54-17, EN54-18
3	Output Module	2	EN 54-17, EN54-18
4	Sounder Beacon	1	EN 54-3
5	Sounder Controller	1	EN 54-17, EN54-18

Note1: The data in Tab. 1 and Tab. 2 may change according to specific customer needs.

Note2: Output Modules in Tab. 1 and Tab. 2 may change to Input/Output Modules since the device supplier may differ.

Note3: If the sounder beacon is addressable, it can be connected to FACP directly. If the sounder beacon is unaddressable, it needs to add a sounder controller between sounder beacon and FACP. Which type of sounder beacon to choose depends on the customer's needs and local standards. Therefore, the sounder controller in Tab. 2 depends on the specific situation of the project.

2.2 Layout Diagram

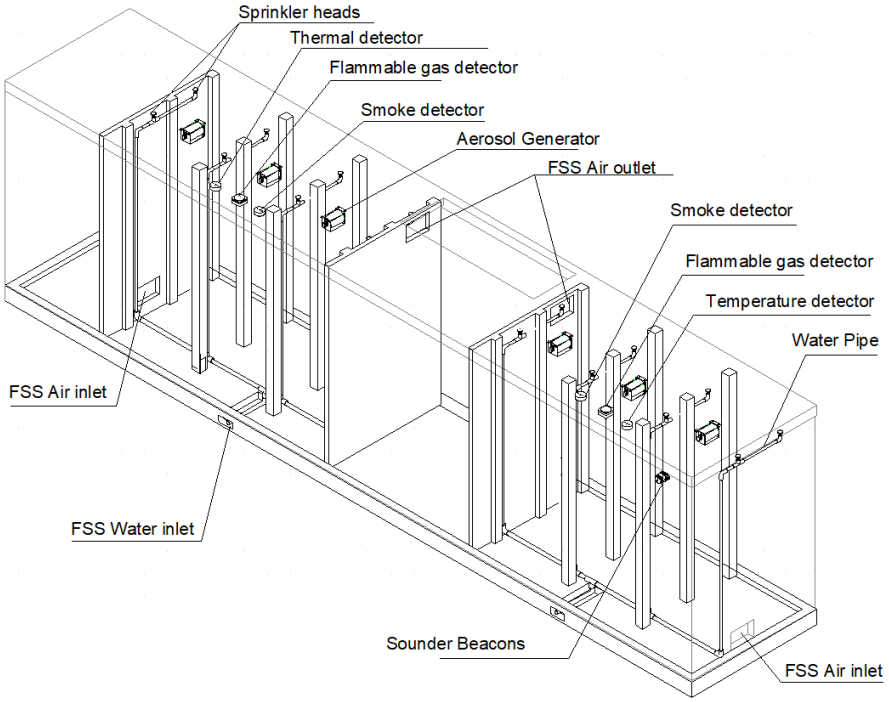


Fig. 1 FSS Layout of ST2752UX

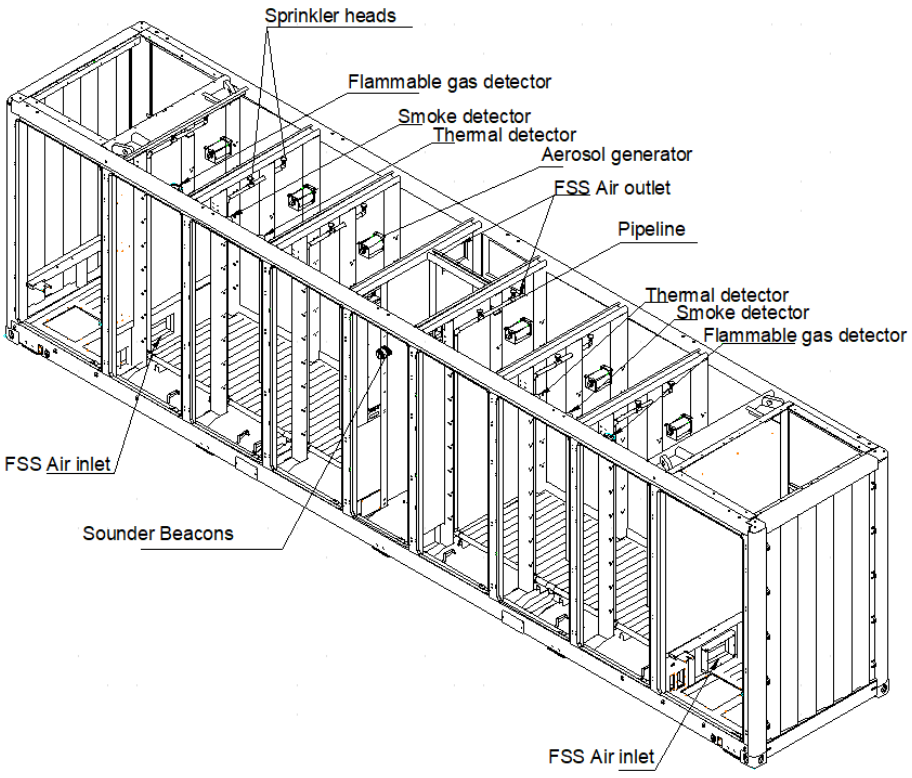


Fig. 2 FSS Layout of ST2236UX

Fig. 1 and Fig. 2 show installation position of FSS devices. The battery cabinet has 2 separate battery chambers and each battery chamber has an independent FSS.

2.3 Device Introduction

- Fused Sprinkler Heads (Upright Type)

Fused sprinklers are automatic sprinklers with heat sensitive components and sealing components. In the event of a fire, the heat-sensitive liquid in the glass bubble expands due to heat, and when it reaches the nominal operating temperature, the glass bubble will eventually burst and start the sprinkler to sprinkle water. The nominal operating temperature is about 93°C.

There are 8 fused sprinkler heads in each battery compartment, which are divided into 4 groups and placed between batteries or walls to achieve the best fire extinguishing effect.

- Dry Water Pipe

Customers need to design their own external water based FSS to match the water based FSS in battery cabinet. The FSS for the whole plant can be Pre-Action FSS or Dry FSS. To save cost, manual water injection fire extinguishing system is also feasible. No matter what kind of FSS is adopted for the whole station, it should be ensured that there is no water in the pipeline of the battery cabinet when there is no fire, thereby preventing other adverse effects caused by accidental water leakage.

Specifications of the pipe network in battery cabinet are designed according to hydraulic calculations and flow requirements. SUNGROW will provide hydraulic calculations reports for the single battery cabinet, please refer to *Hydraulic Calculations Report*.

The two separate battery chambers have a water inlet of dry water pipes respectively. The water inlet is DN40 with BSPT 1-1/2 external thread, connected to outside water pipes in the plant. Dry water pipes inside are DN25. The water inlet is shown in Fig. 3.

Fig. 3 Water Inlet

- Smoke Detectors

The battery will produce a lot of smoke in the early stage of battery thermal runaway. The smoke detector will transmit the signal to the controller after detecting the smoke, and the controller performs a series of operations, which are displayed in FSS logic diagram.

- Thermal Detectors

Many tests show that the change of external temperature is not obvious in the early stage of battery thermal runaway, so the temperature detection has hysteresis. In some cases, when an abnormally high temperature is detected, the thermal runaway of the battery has already occurred, so the priority of smoke detection is higher than that of thermal detection. Nevertheless, thermal sensor can be used as an auxiliary input signal. Similarly, the details are displayed in FSS logic diagram.

- Flammable Gas Detectors

Testing has shown that flammable gases are released in the early stage of battery thermal runaway. A buildup of these gases creates an explosion hazard. The flammable gas detectors can accurately detect anomaly and report an alarm.

- Ventilation and Exhaust System

The ventilation and exhaust system mainly includes ventilation inlet and exhaust fan windows. The ventilation inlet and exhaust windows are equipped with electric shutters, which can be started and closed according to the needs of the system, and it has a

protective structure on the outside. Ventilation and exhaust system can control and reduce the explosion hazard.

- Aerosol Generators

Aerosol generators are automatic units which are thermally or electrically activated. SUNGROW recommends a more reliable thermal activation.

Aerosol generators are automatically activated when it reaches a pre-selected temperature which is determined by the thermal head temperature chosen. Generally, the activation temperature is 95°C.

Once the aerosol begins to erupt, a feedback signal will be given to the controller, and the controller will close the ventilation and exhaust system according to this signal.

Aerosol generators are maintenance free products. Suggestions for timely replacement within the validity period are provided in the product manual.

- Auxiliary Accessories

Auxiliary Accessories include I/O modules and communication cables. I/O modules are used to realize the communication access of some devices.

Input modules are used for flammable gas detectors and aerosol generators.

Output modules are used for BSC and ventilation and exhaust system.

- Sounder Beacon and Sounder Controller

Sounder beacon can emit strong sound and light alarms, reminding on-site personnel to pay attention to the fire and stay away from it.

- Controller.

FACP (fire alarm control panel) is the core of FSS and indispensable. FACP receives the signals and executes the fire protection logic, and it communicates with BSC to transmit the fire protection signal to LC.

Note1: FACP is involved in the construction of the site level fire protection system, so it is supplied by customers.

Note2: There are some restrictions on the matching of FACP with fire-fighting devices. For specific projects, the number and brand of FACP need to be discussed with SUNGROW and SUNGROW can recommend a specific brand and model of FACP.

2.4 Communication of FSS

Communication wiring between battery cabinets and FACP is be designed to Hand-in-Hand.

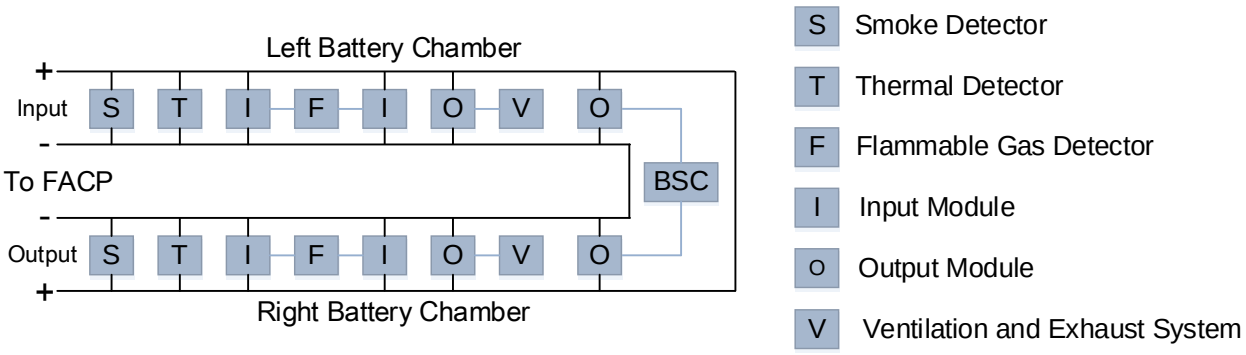
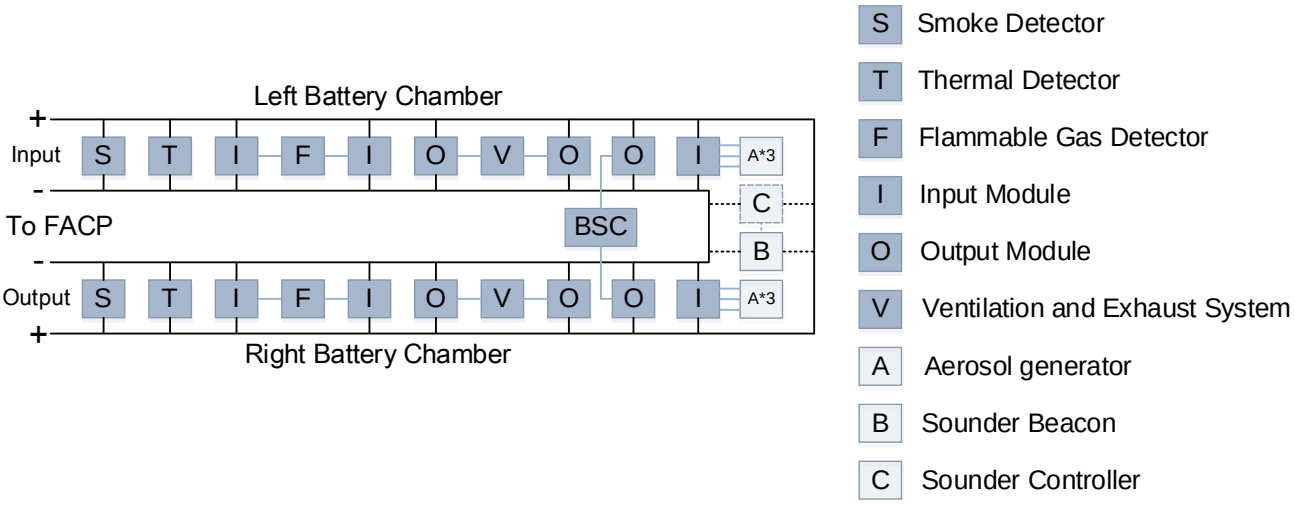


Fig. 4 Communication of a Standard FSS Configuration



Note: refer to Tab. 2 for the selection of optional devices.

Fig. 5 Communication of an Optional FSS Configuration

3 FSS Logic Diagram

The following FSS logic diagram is for reference only. For the specific fire logic of the project, the FSS drawings shall prevail.

3.1 Fire Signal

3.1.1 Fire Signal of Standard FSS Configuration in Battery Cabinet

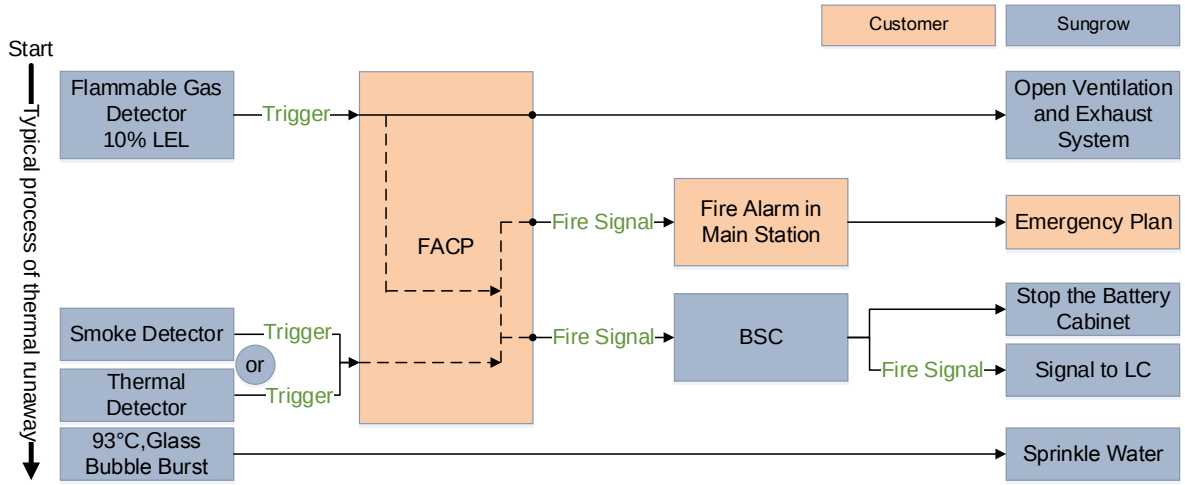


Fig. 6 Applicable to ST2752UX and ST2236UX

3.1.2 Fire Signal of Optional FSS Configuration in Battery Cabinet

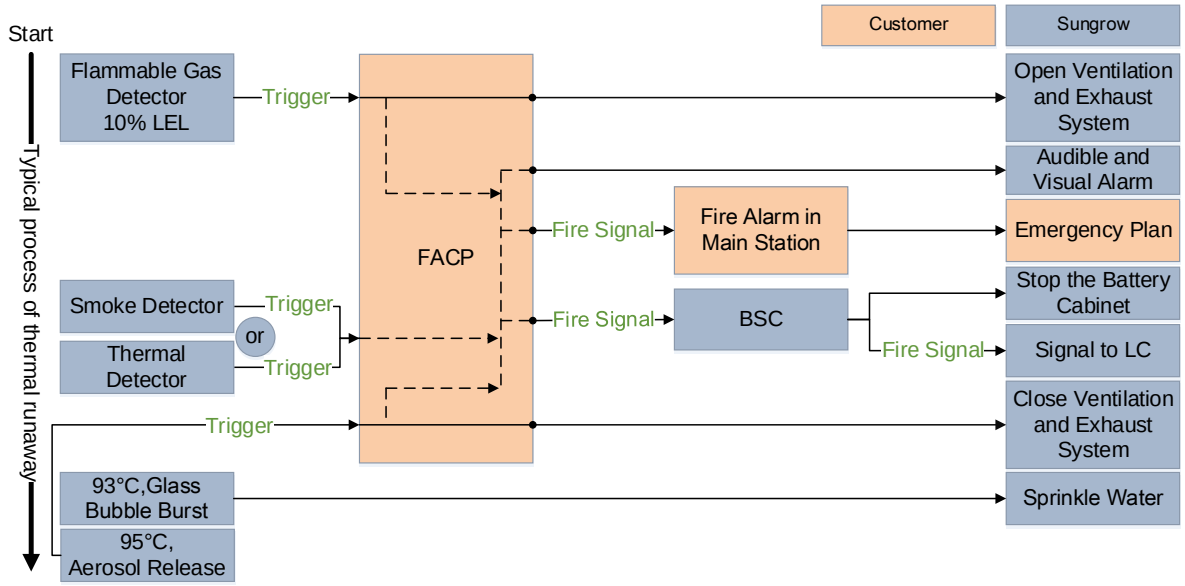


Fig. 7 Applicable to ST2752UX and ST2236UX

Note: The logic in Fig.7 is related to the devices selected in Tab. 2.

3.1.3 Fire Signal of One Block

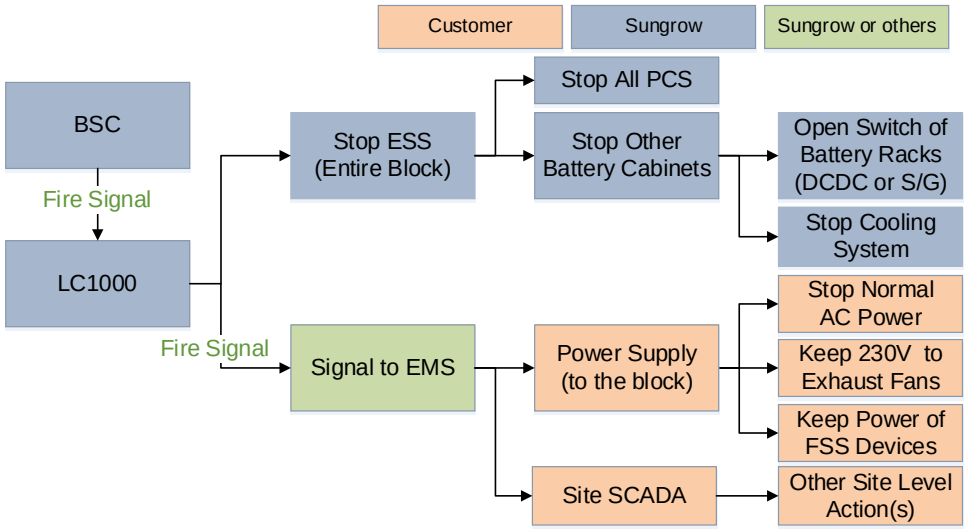


Fig. 8 Applicable to ST2752UX and ST2236UX

Note: The logic in Fig.8 only considers the situation where the customer directly provides fire power supply. For other situations, it is also necessary to maintain the continuity of FSS power supply.

3.2 Fault Signal

3.2.1 Fault Signal of One Battery Cabinet

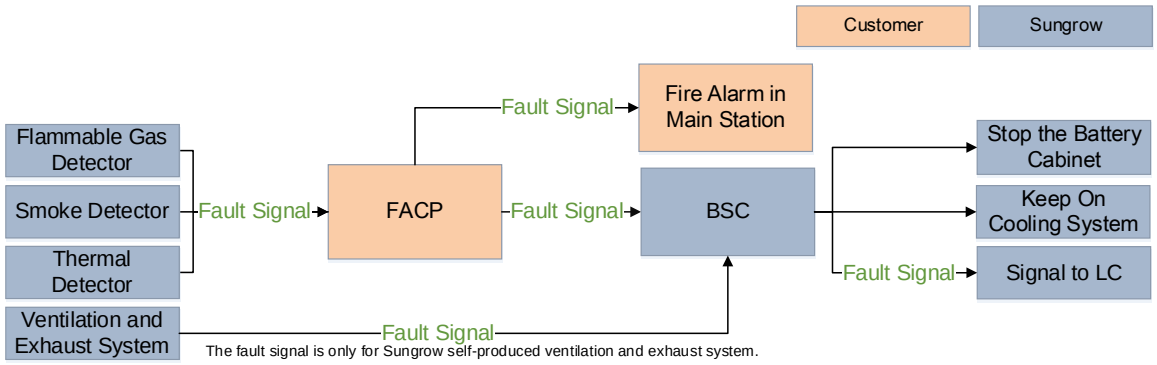


Fig. 9 Applicable to ST2752UX and ST2236UX

3.2.2 Fault Signal of One Block

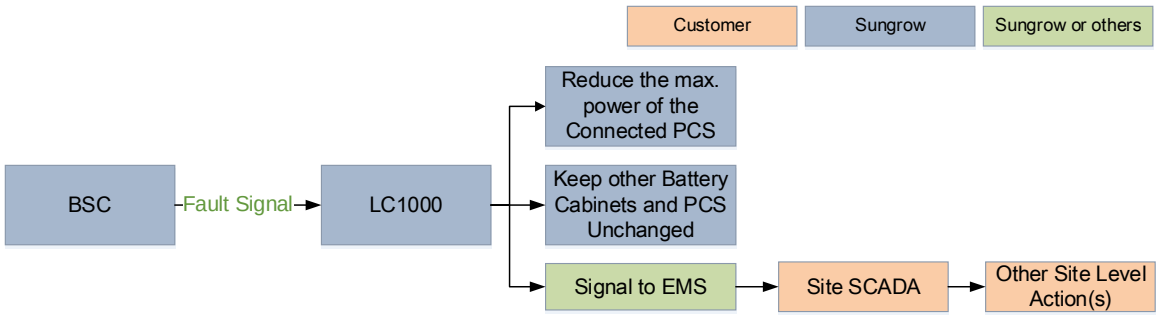


Fig. 10 Applicable to ST2752UX

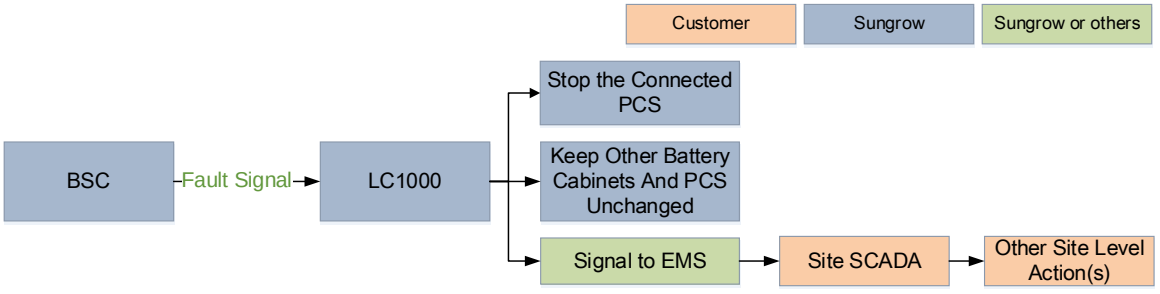


Fig. 11 Applicable to ST2236UX

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Appendix D – Potential Water Supply for Firefighting

The project site is located within an agricultural area where irrigation infrastructure is present.

The landowner has confirmed that water is available through an existing **Murray irrigation water licence** associated with the property. Water may be sourced through the temporary water market where required.

Subject to detailed design, water may be stored onsite within a **tank,** and pumped for operational uses including vegetation management and emergency water supply if required.

The final specification and location of firefighting water supply infrastructure will be determined during detailed design.

Appendix 5 – Review of Site Suitability and Site Selection, Prepared by Atlas Renewables and SKM Planning.

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MEMORANDUM

Project: Finley 2 – 4.95MW Solar Farm and Battery Energy Storage System (BESS)
Site Address: 728 Plumptons Road, Finley NSW 2713
Prepared for: Regional Planning Panel
Prepared by: Atlas Renewables
Version: v1.0
Date: 16 March 2026

Re: Review of Site Suitability and Site Selection – 728 Plumptons Road, Finley DA

1. Purpose

This memorandum explains or provides:

1. An assessment of site suitability with reference to relevant legislation, caselaw and Practice Notes.
2. The structured methodology used to select the subject site by Atlas Renewables.
3. The network constraints governing site selection.
4. Why the practical number of viable sites in Finley is limited?
5. Why 728 Plumptons Road represents a technically and planning-appropriate outcome?

1.1 Site Suitability

The Department of Planning, Housing and Infrastructure has prepared a practice note entitled "Assessment of impacts under section 4.15 of the EP&A Act" – January 2026. This Practice note refers to the matters a consent authority must consider when determining a DA, including

- *Suitability of the site: Whether the site can accommodate the development safely and appropriately (section 4.15(1)(c)),*

The Statement of Environmental Effects and appended plans and technical assessments have determined that the site is suitable for the proposed development for the following reasons:

- There are no hazards that preclude the carrying out of the development. To this end:

  - The site has sufficient area for the proposed development, including adequate setbacks from the BESS to adjacent dwellings and boundary treatments including landscaped buffers, access tracks and fencing.
  - The site is not burdened by contamination, which could impact the construction or operation of the development.
  - The site is not flood-prone.
  - The site is not constrained by other aspects, including topography, slope, watercourses, orientation or access to key infrastructure.
- The site is not burdened by any planning controls that would constrain the development and which need to be varied.
- Council has not identified the site or the locality for future village expansion or alternative uses. Council has identified in its LSPS that small-scale renewable energy development should be supported with an action stating *"Facilitate appropriate, smaller-scale renewable energy projects."*
- The site is not bushfire-prone. A Fire Management Statement has been prepared, which details the proposed fire safety measures that would be implemented.
- Electricity generating works are permissible with development consent within the RU1 – Primary Production zone in accordance with SEPP (Transport and Infrastructure) 2021.
- There is sufficient capacity in the local electrical infrastructure to facilitate development.
- Substantial visual landscape buffers have been proposed in the detailed Landscape Plan prepared by Site Image to reduce the potential visual impacts of the development on neighbours.
- The proposed development would not impact the ongoing operations of the surrounding primary production uses or ancillary rural dwellings. Construction activities would be short-lived and the development during operation is considered an innocuous use.
- Primary production activities that currently exist on the site can continue to operate, including sheep grazing.

2. Critical Network Constraint – Linear Network Distance (Not Radial Distance)

A key point requiring clarification is the nature of network feasibility.

For distribution-connected solar farms (sub-5MW), it is **not** the straight-line (radial) distance to a substation that determines viability.

It is the **linear distance along the path of the distribution feeder** that must be minimised.

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This distinction is critical.

2.1 Why Linear Distance Matters

Electricity does not travel "as the crow flies." It must:

- Follow the existing distribution feeder alignment.
- Connect at a technically suitable point.
- Avoid exceeding thermal, voltage, and fault level limits.

If a property is 2km away in a straight line, but 7–10km away along the actual feeder path, it may be:

- Technically unviable.
- Commercially prohibitive.
- Or require augmentation exceeding project scale.

3. Practical Effect – Elimination of the Majority of Properties

When applying this correct technical lens, the number of electrically viable properties reduces materially.

To be electrically feasible, a property must:

1. Be within an acceptable **linear feeder distance** of the zone substation.
2. Have an existing 3-phase 11kV or 22kV feeder on or immediately adjacent to the land.
3. Be located on a feeder segment with sufficient spare capacity.
4. Not be located at the extreme end of a radial line.
5. Avoid voltage drop and fault level limitations.

In practical terms:

- The majority of rural properties are outside the feasible linear feeder distance.
- Many properties lack 3-phase infrastructure.
- Many properties are located on constrained feeder ends.
- Many are physically close to town in radial terms but electrically distant.

When these filters are applied, **well over 90% of land parcels are excluded** from consideration before any planning assessment occurs.

This is not a discretionary choice — it is a function of network physics.

4. Feeder Topology, Linear Distance & Strategic Town Growth Considerations

4.1 Feeder Topology Demonstration

The Site-to-Substation diagram (refer to Figure 1) illustrates the actual 22kV feeder alignment between the Finley Town Zone Substation and the subject site.

Figure 1: Feeder Topology in Finley, including the proposed site.

The measured distance of approximately 2.05 km represents the **linear path along the distribution feeder**, not a straight-line (radial) distance.

This distinction is critical.

Electricity must travel:

- Along the physical feeder route,
- Through existing poles and conductors,

- Subject to voltage drop and thermal constraints.

It cannot travel “as the crow flies.”

When the feeder alignment is reviewed in context, the subject site is positioned toward the outer practical extent of viable connection for a 5MW distribution-connected project.

Extending materially further along this feeder would introduce:

- Increased voltage drop,
- Reduced fault level strength,
- Greater thermal loading risk,
- Higher connection cost,
- Increased augmentation probability.

At sub-5MW scale, these factors rapidly render further parcels technically and commercially impractical. Accordingly, the subject site represents one of the furthest viable connection points along this feeder for a project of this size.

This is not a discretionary choice — it is a function of distribution network physics.

4.2 Elimination of Alternative Parcels along the feeder

To be viable, a parcel must simultaneously:

1. Be within acceptable **linear feeder distance**.
2. Have 3-phase 22kV infrastructure on or immediately adjacent.
3. Provide approximately 15 hectares of contiguous land.
4. Avoid flood, bushfire and heritage overlays.
5. Be zoned RU1 Primary Production.
6. Have a willing landowner.
7. Be commercially deliverable.
8. Have suitable access and infrastructure routes
9. Be flat with an appropriate soil type to pass geotechnical requirements
10. Minimise proximity to neighbouring properties

When these constraints are mapped spatially along the feeder corridor, the number of eligible parcels again reduces materially.

The majority of surrounding properties are excluded because they:

- Are electrically further along the feeder,
- Lack suitable 3-phase infrastructure,
- Are fragmented or undersized,
- Contain higher intensity improvements,
- Were not appropriately zoned
- Or were not available for lease.

When these objective filters are applied, the subject site emerges as virtually the only viable parcel within this feeder segment capable of accommodating a 5MW solar facility.

4.3 Consideration of Council Strategic Planning & Town Expansion

In addition to technical network analysis, Atlas reviewed:

- Berrigan Shire planning instruments,
- Zoning maps,
- Strategic land use directions,
- Known or anticipated town expansion patterns.

The intent was to avoid:

- Land earmarked for residential growth,
- Future urban interface conflict,
- Strategic expansion corridors.

The subject site is:

- Zoned RU1 Primary Production,
- Outside identified residential growth trajectories,
- Located within an established rural landscape.

Importantly, the direction of township expansion was considered.

Positioning the project further in the direction of anticipated growth would:

- Increase land use conflict risk,
- Increase long-term interface pressure,
- Reduce strategic compatibility.

Conversely, moving materially further away from town would:

- Exceed feasible linear feeder distance,
- Increase connection risk and cost,
- Potentially require disproportionate network augmentation.

Accordingly, when both:

1. Distribution network constraints, and
2. Council strategic growth directions

are considered together, the subject site represents the only location within the Finley feeder corridor that satisfies both technical and planning criteria simultaneously.

4.4 Addressing the "Why Not Further Away?" Question

It may be intuitively assumed that renewable energy facilities should simply be placed further from town centres.

However, for distribution-connected generation:

- Zone substations are commonly located near town centres.
- Feeders radiate outward from those substations.
- Electrical strength decreases with distance along the feeder.

Therefore:

- Moving "further away" does not necessarily improve planning outcomes.
- It may instead create technically inferior and less efficient infrastructure outcomes.

The subject site balances:

- Network efficiency,
- Rural zoning compatibility,
- Environmental suitability,
- Strategic land use alignment.

It is located where infrastructure makes sense — not where arbitrary buffers might suggest.

5. Addressing the "Can Go Anywhere" Misconception

There appears to be a misconception that:

- Solar farms can be located anywhere in rural land; or
- Sites should simply be chosen further from town centres.

Neither position reflects how distribution networks operate.

5.1 Solar Farms Cannot "Go Anywhere"

A 5MW solar farm:

- Must connect to an existing distribution network.
- Cannot economically construct kilometres of new distribution infrastructure.
- Cannot bypass feeder topology constraints.
- Cannot alter substation loading characteristics.

Unlike residential or agricultural development, renewable generation is fundamentally network-constrained.

6. Application to 728 Plumptons Road

The subject site satisfies the critical network criteria:

- Approximately 2.05km to Finley Town Substation along the distribution path
- Access to a 3-phase 22kV feeder (FIN8B2)
- Substation capacity available materially exceeds 4.99MVA requirement

This proximity materially reduces:

- Voltage drop risk.
- Augmentation risk.
- Infrastructure duplication.
- Network losses.
- Community-scale infrastructure expansion.

Few alternative parcels within the Finley network area satisfy the same combination of:

- Acceptable linear feeder distance.
- Suitable 3-phase infrastructure.
- Appropriate land area (~15ha).
- Low slope.
- Absence of flood and bushfire overlays.

- RU1 zoning.
- Willing landowner.

7. Planning Balance

The Panel's role includes considering:

- Suitability of the site.
- Public interest.
- Environmental and social impacts.

The site was selected because it:

- Minimises new network infrastructure.
- Utilises existing electrical assets efficiently.
- Is not flood or bushfire constrained
- Is zoned RU1 Primary Production
- Maintains rural character.
- Represents a scale (sub-5MW) appropriate to the locality.

Importantly, the constrained nature of distribution-connected generation means that site selection is driven by objective infrastructure limitations, not broad discretionary choice.

8. Conclusion

The subject site was not chosen arbitrarily.

It was selected because:

- It meets strict network feasibility criteria.
- It is within feasible linear feeder distance of the Finley zone substation.
- It has existing suitable 3-phase infrastructure.
- It avoids major environmental overlays.
- It aligns with rural zoning objectives.

When the correct technical constraints are applied, the pool of viable land parcels in the Finley area is limited.

For these reasons, the site represents a suitable and defensible location for a sub-5MW renewable energy development.