

APPLICATION ON NOTIFICATION - CROWN DEVELOPMENT

Type of development:	SECTION 49A - STATE AGENCY DEVELOPMENT
Development Number:	145/V011/18
Applicant:	LMS Energy Pty Ltd c/- URPS
Nature of Development:	Establish a solar farm for the purposes of power generation. The works comprise the installation of ground mounted photovoltaic panels, inverters, convertors, electrical cabling,
	transformers and underground power connection.
Subject Land:	112 Bakewell Drive, McLaren Vale
Development Plan:	Onkaparinga Council Development Plan
Zone / Policy Area:	Urban Employment Zone/ Infrastructure Policy Area 13
Contact Officer:	Janine Philbey
Phone Number:	7109 7062
Consultation Start Date:	7 November 2018
Consultation Close Date:	Friday 30 November 2018

During the notification period, hard copies of the application documentation can be viewed at the Department of Planning, Transport and Infrastructure, Level 5, 50 Flinders St, Adelaide, during normal business hours. Application documentation may also be viewed during normal business hours at the local Council office (if identified on the public notice).

Written representations must be received by the close date (indicated above) and can either be posted, hand-delivered, faxed or emailed to the State Commission Assessment Panel (SCAP). A representation form is provided as part of this document.

Any representations received after the close date will not be considered.

Postal Address:

The Secretary State Commission Assessment Panel GPO Box 1815 ADELAIDE SA 5001

Street Address:

Development Division
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
ADELAIDE

Email Address: scapreps@sa.gov.au

Fax Number: (08) 8303 0753

DEVELOPMENT ACT, 1993 S49/S49A – CROWN DEVELOPMENT REPRESENTATION ON APPLICATION

Applicant:			LMS Energy Pty Ltd c/- URPS	
Developme	nt Nu	mber:	145/V011/18	
Nature of D	evelo	pment:	Establish a solar farm for the purposes of power general	ation.
Zone / Polic	cy Are	a:	Urban Employment Zone/Infrastructure Policy Area 13	
Subject Lan	d:		112 Bakewell Drive, McLaren Vale	
Contact Off	icer:		Janine Philbey	
Phone Num	ber:		7109 7062	
Close Date:			30 November 2018	
My Name:			My phone number:	
Primary me	thod(s) of contact:	Email:	
			Postal Address:	
				Postcode:
			minated PRIMARY METHOD(s) OF CONTACT if you indi	cate below that you wish
heard by t	he Sta	<u>ite Commissio</u>	n Assessment Panel in support of your submission.	
My interest			owner of local property	
(please tick o	one)		occupier of local property	
			a representative of a company/other organisation affe	cted by the proposal
			a private citizen	
ne address o	f the	property affec	ted is:	
				Postcode
My interest	s are:		Lounnart the dayalanment	
(please tick o	ne)		I support the development	
			I support the development with some concerns	
			I oppose the development	
ne specific as	spects	of the applica	tion to which I make comment on are:	
	•			
:	П	wish to be h	eard in support of my submission	
• (please			to be heard in support of my submission	
tick one)		(Please tick or		
Ву:		appearing pe	ersonally	
(please tick one)		being repres (Please tick or	ented by the following person e)	
Signature:				
0				

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide, SA 5001 /or

Email: scapadmin@sa.gov.au

DEVELOPMENT APPLICATION FORM

PLEASE USE BLO	OCK LETTERS			FOR OFFICE	USE						
COUNCIL: ONKAPARINGA		Development No:									
APPLICANT: LMS ENERGY PTY LTD		Previous Deve									
Postal Address:	79 KING WILL	IAM ROA	D	Assessment No:							
	UNLEY SA 50	61									
Owner:	SRWRA	***									ᆿ
Postal Address:	112 BAKEWE		,	Complying	g		Application	n forware	ded to D	Α	
	SEAFORD HE	EIGHTS SA	A 5169	Non Com	plying		Commission	on/Coun	cil on		
BUILDER:				☐ Notification	on Cat 2		1	1			
				☐ Notificatio	n Cat 3		Decision:				_
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	Licence ON FOR FURTHER I			, , , , , , , , , , , , , , , , , , ,	Deci	sion	Fees	Recei	ot No	Date	
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Name: OLIVE	R SCHEIDEGGI	ER		Planning:							-
Telephone: 829	1 9044 [work]		[Ah]	Building:							
	E@LMS.COM.A			Land Division:							-
			[An]	Additional:							-
EXISTING USE: L	ANDFILL SITE			Development Approval	:						
DESCRIPTION OF	PROPOSED DEVE	LOPMENT:_	SOLAR	FARM							
	ROPOSED DEVELO						A . 16 * A 400				
House No: 112	34-35,19 Lot No:	1-192 Street: BA	KEWELL I	DR	Town/St	uburb: 🖊	ICLAREN	VALE			
Section No [full/pa	rt]	Hundred: _	WILLUNG	A	Volume:	<u>5299</u>		Folio: _	719		-
Section No [full/pa	rt]	Hundred: _	WILLUNG	iA	Volume:	<u>5299</u>		Folio:	720		-
LAND DIVISION:			WILLUNG	6A		6199			628		
Site Area [m²]		Reserve Are	ea [m²]		No of e	xisting a	llotments _				
	nal allotments [exclud	_					YES		NO		
BUILDING RULES CLASSIFICATION SOUGHT:				Presen	t classific	cation:					
If Class 5,6,78 or 9 classification is sought, state the proposed number of employees: Male: Female:											
If Class 9a classific	cation is sought, state	e the number	o persons fo	or whom accom	modatior	ı is provi	ded:				
	cation is sought, state							nises: _		_	
DOES EITHER SO	CHEDULE 21 OR 22	OF THE DEV	ELOPMEN	T REGULATIO	NS 2008	APPLY	? YES		NO		
HAS THE CONST	RUCTION INDUSTR	Y TRAINING	FUND ACT	2008 LEVY BE	EEN PAII	D?	YES		NO		
DEVELOPMENT (COST [do not include	e any fit-out co	osts]: \$	3.5 MILLION	7						
I acknowledge that the Development I	t copies of this applic Regulations 2008.	ation and sup	porting doc	umentation may	y be prov	vided to i	nterested pe	ersons ir	accord	ance w	th
SIGNATURE:	C	5. be	heidig	ege-		Da	ted: 7	/ 6	/ 2	018	

DEVELOPMENT REGULATIONS 1993

Form of Declaration (Schedule 5 clause 2A)

(Selection 5 clause 211)
To: SCAP
From: LMS ENERGY PTY LTD
Date of Application: 7 / 6 / 2018
Location of Proposed Development:
House No: 1.12. Lot No: Street: BAKEWELL DRTown/Suburb. MCLAREN VALE
Section No (full/part):Hundred: .WILLUNGA 5299 719
Volume: 5299 Folio: .720
Nature of Proposed Development: SOLAR FARM

Date: 7 / 6 / 2018

Signed: Scheidigger

Note 1

This declaration is only relevant to those development applications seeking authorisation for a form of development that involves the construction of a building (there is a definition of 'building' contained in section 4(1) of the *Development Act* 1993), other than where the development is limited to –

- a) an internal alteration of a building; or
- b) an alteration to the walls of a building but not so as to alter the shape of the building.



Product Register Search (CT 5299/719)

Date/Time 22/11/2017 09:43AM

Customer Reference Pedler Creek

Pedler Creek 20171122001819

Cost \$28.25

Order ID

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 5299 Folio 719

Parent Title(s) CT 4054/614

Creating Dealing(s) CONVERTED TITLE

Title Issued 12/10/1995 **Edition** 5 **Edition Issued** 29/09/2008

Estate Type

FEE SIMPLE

Registered Proprietor

SOUTHERN REGION WASTE RESOURCE AUTHORITY OF PO BOX 221 MORPHETT VALE SA 5162

Description of Land

ALLOTMENT 34 FILED PLAN 153420 IN THE AREA NAMED MCLAREN VALE HUNDRED OF WILLUNGA

Easements

NIL

Schedule of Dealings

NIL

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes NIL

Administrative Interests NIL

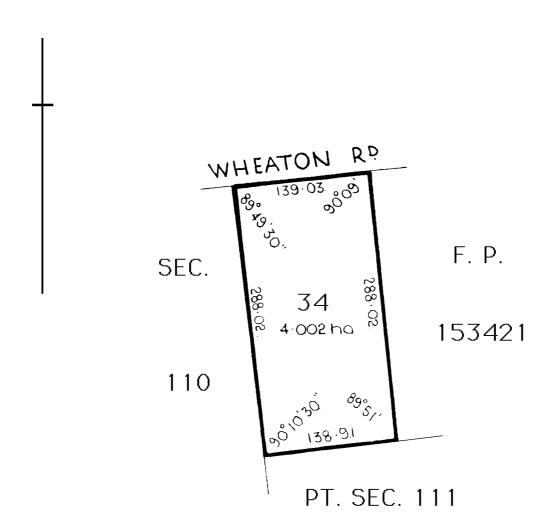
Land Services Page 1 of 2

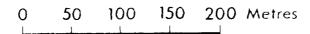
Product
Date/Time
Customer Reference
Order ID

Cost

Register Search (CT 5299/719) 22/11/2017 09:43AM Pedler Creek 20171122001819 \$28.25

This plan is scanned for Certificate of Title 4054/614





Note: Subject to all lawfully existing plans of division



Product
Date/Time
Customer Reference
Order ID

Register Search (CT 5299/720) 22/11/2017 10:41AM Pedler Creek

20171122003255

Cost \$39.45

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 5299 Folio 720

Parent Title(s) CT 4054/615

Creating Dealing(s) CONVERTED TITLE

Title Issued 12/10/1995 **Edition** 5 **Edition Issued** 29/09/2008

Estate Type

FEE SIMPLE

Registered Proprietor

SOUTHERN REGION WASTE RESOURCE AUTHORITY OF PO BOX 221 MORPHETT VALE SA 5162

Description of Land

ALLOTMENT 35 FILED PLAN 153421 IN THE AREA NAMED MCLAREN VALE HUNDRED OF WILLUNGA

Easements

NIL

Schedule of Dealings

NIL

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes NIL

Administrative Interests NIL

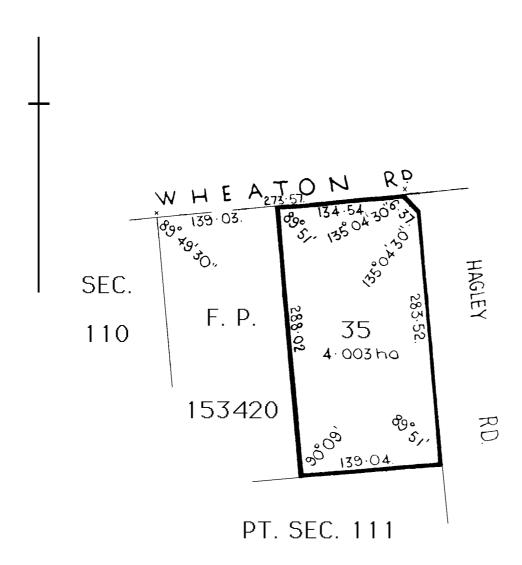
Land Services Page 1 of 2

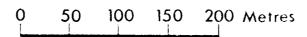
Product
Date/Time
Customer Reference
Order ID

Cost

Register Search (CT 5299/720) 22/11/2017 10:41AM Pedler Creek 20171122003255 \$39.45

This plan is scanned for Certificate of Title 4054/615





Note: Subject to all lawfully existing plans of division

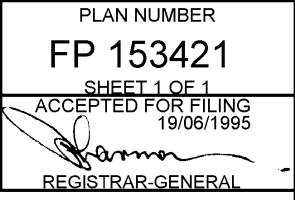
S.A. LANDS TITLES OFFICE RE-IDENTIFICATION PLAN

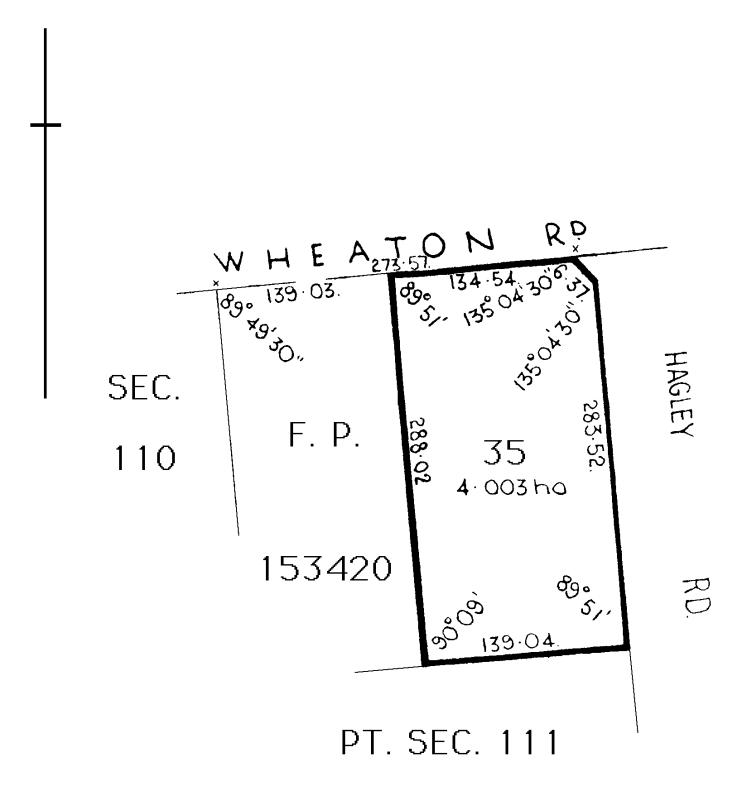
AREA: MCLAREN VALE

LGA : CORP OF THE CITY OF NOARLUNGA

HUNDRED: WILLUNGA SECTION: PS 111

This plan is scanned for Certificate of Title 4054/615





0 50 100 150 200 Metres

Note: Subject to all lawfully existing plans of division



Product
Date/Time
Customer Reference

Order ID

Register Search (CT 6199/628) 22/11/2017 10:00AM Pedler Creek 20171122002221

Cost \$28.25

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 6199 Folio 628

Parent Title(s) CT 5479/871

Creating Dealing(s) RTD 12810212

Title Issued 10/11/2017 Edition 1 Edition Issued 10/11/2017

Estate Type

FEE SIMPLE

Registered Proprietor

SOUTHERN REGION WASTE RESOURCE AUTHORITY OF 112 BAKEWELL DRIVE SEAFORD HEIGHTS SA 5169

Description of Land

ALLOTMENT 191 DEPOSITED PLAN 116986 IN THE AREA NAMED MCLAREN VALE HUNDRED OF WILLUNGA

Easements

NIL

Schedule of Dealings

NIL

Notations

Dealings Affecting Title NIL

Priority Notices NIL

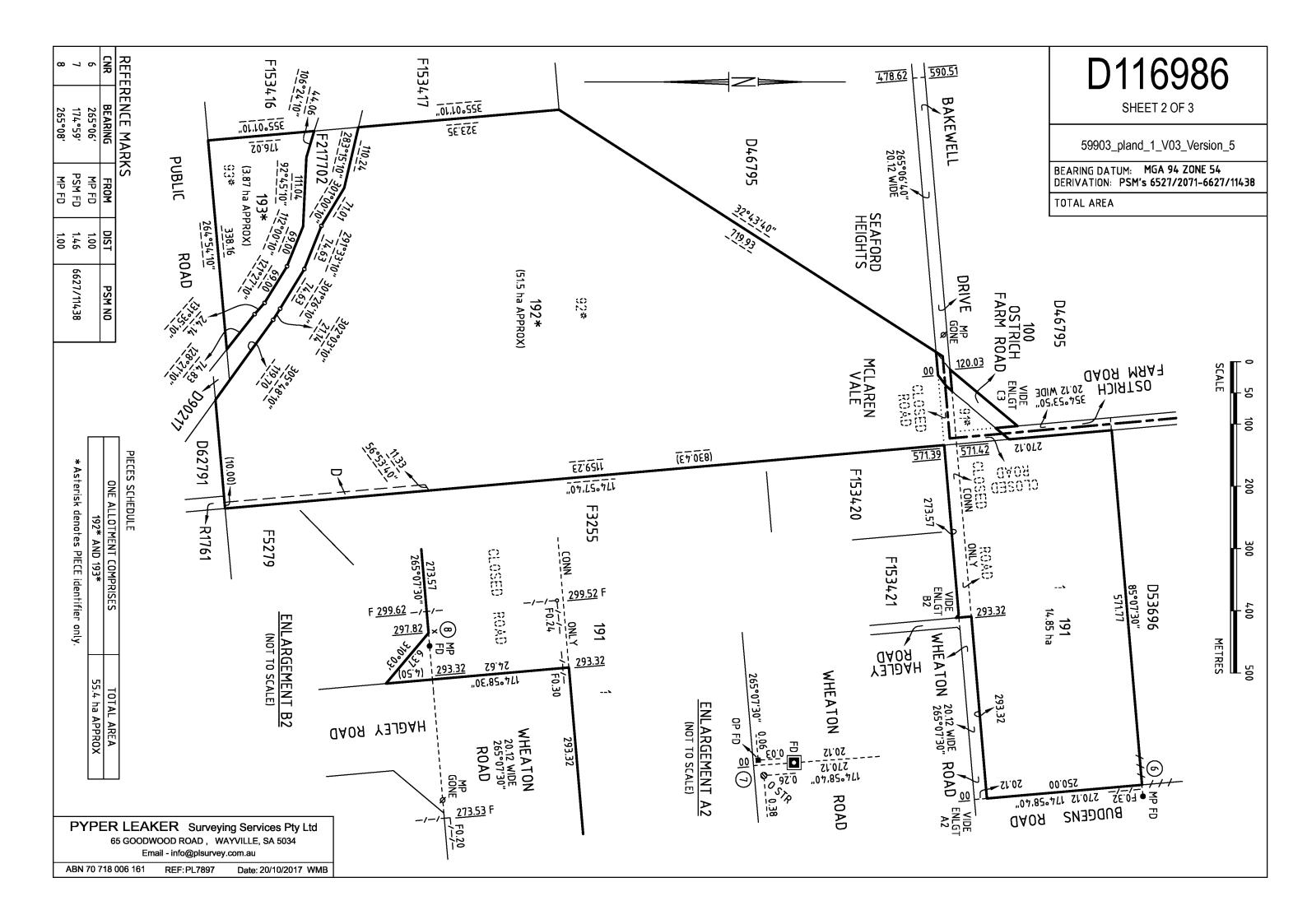
Notations on Plan NIL

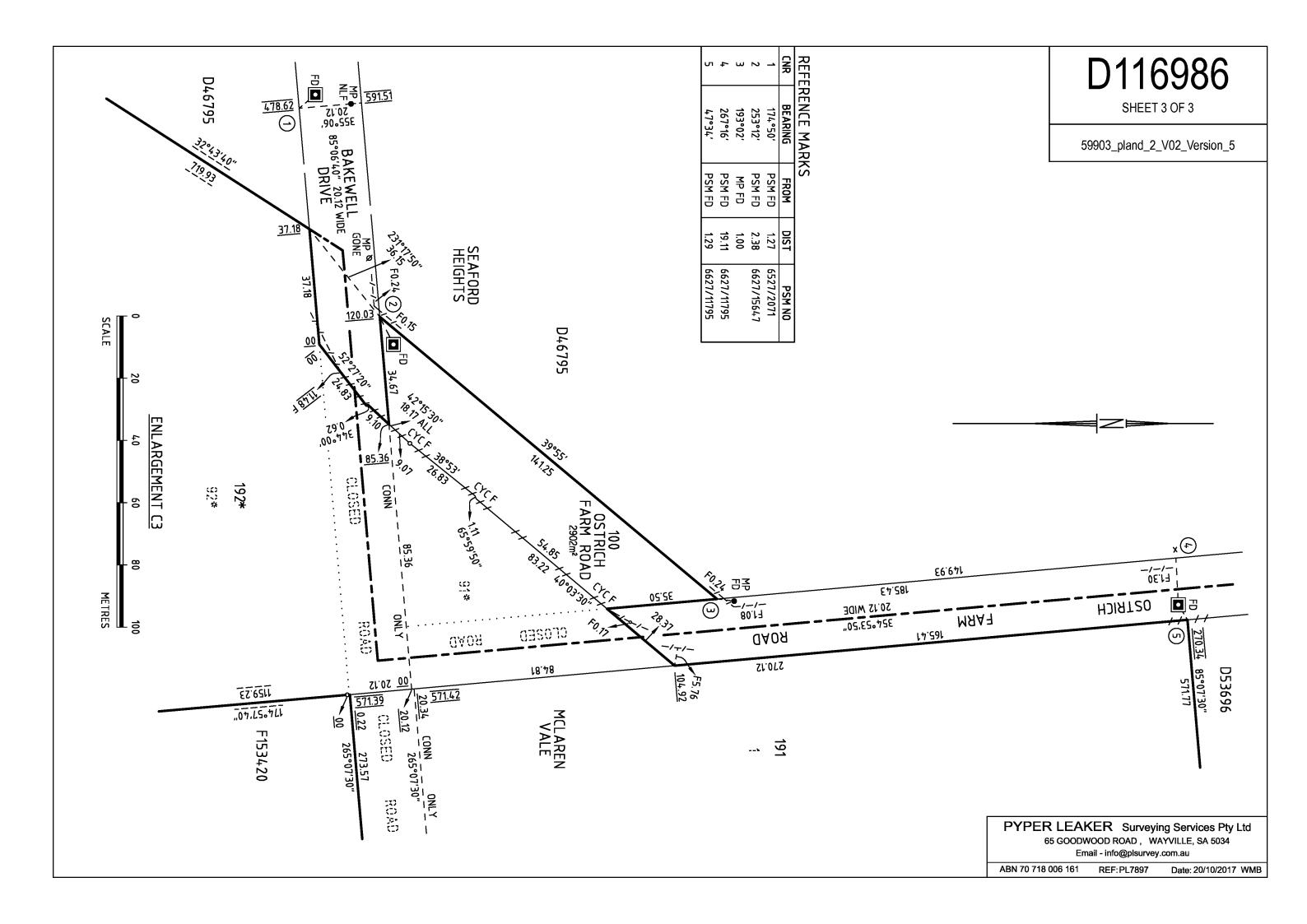
Registrar-General's Notes NIL

Administrative Interests NIL

Land Services Page 1 of 1

SEAFORD HEIGHTS, MCLAREN VALE PURPOSE: ROADS (OPENING & CLOSING) ACT 1991 AREA NAME: APPROVED: JOHN VERDUYN 20/10/2017 6627/21/A, 6627/20/R, 6527/25/D CITY OF ONKAPARINGA MAP REF: COUNCIL: D116986 DEPOSITED: JOHN VERDUYN LAST PLAN: **DEVELOPMENT NO:** SHEET 1 OF 3 02/11/2017 59903_text_01_v05_Version_5 PYPER LEAKER SURVEYING SERVICES I Michael William Harmer, a licensed surveyor do hereby certify - 1) That this plan has been made from surveys carried out by me or under my AGENT DETAILS: **SURVEYORS** personal supervision and in accordance with the Survey Act 1992. 2) That the field work was completed on the 3rd day of August 2017 65 GOODWOOD ROAD **CERTIFICATION:** WAYVILLE SA 5034 20th day of October 2017 Michael Harmer Licensed Surveyor PH: 8373 3880 FAX: PLS6P **AGENT CODE:** PL 7897 REFERENCE: SUBJECT TITLE DETAILS: PREFIX VOLUME FOLIO OTHER **PARCEL** NUMBER **PLAN** NUMBER HUNDRED / IA / DIVISION **TOWN** REFERENCE NUMBER СТ 871 F 5479 ALLOTMENT(S) 1 5952 **WILLUNGA** СТ 5696 771 ALLOTMENT(S) COMPRISING PIECES F (91*,92*,93*) 196645 WILLUNGA RTD 12810212 CLOSED ROAD ADJACENT TO PIECES 91 AND 92 IN WILLUNGA F196645 AND ALLOTMENT 1 IN F5952 OTHER TITLES AFFECTED: **LEASEMENT DETAILS:** STATUS **FORM IDENTIFIER PURPOSE CREATION** LAND BURDENED **CATEGORY** IN FAVOUR OF EXISTING 192* LONG EASEMENT(S) D THE WILLUNGA BASIN WATER COMPANY PTY LTD TG 8662892 ROAD OPENED UNDER THE ROADS (OPENING AND CLOSING) ACT 1991 NUMBERED 100 AND NAMED OSTRICH FARM ROAD IANNOTATIONS: NO OCCUPATION ON SURVEYED BOUNDARIES OF SUBJECT UNLESS OTHERWISE SHOWN.







 Product
 Register Search (CT 6199/629)

 Date/Time
 07/06/2018 11:07AM

Customer Reference Lot 192

Order ID 20180607004142

Cost \$28.25



South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 6199 Folio 629

Parent Title(s) CT 5696/771

Creating Dealing(s) RTD 12810212

Title Issued 10/11/2017 Edition 1 Edition Issued 10/11/2017

Estate Type

FEE SIMPLE

Registered Proprietor

SOUTHERN REGION WASTE RESOURCE AUTHORITY OF 112 BAKEWELL DRIVE SEAFORD HEIGHTS SA 5169

Description of Land

ALLOTMENT COMPRISING PIECES 192 AND 193 DEPOSITED PLAN 116986 IN THE AREAS NAMED MCLAREN VALE AND SEAFORD HEIGHTS HUNDRED OF WILLUNGA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED D ON D116986 (TG 8662892)

Schedule of Dealings

NIL

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

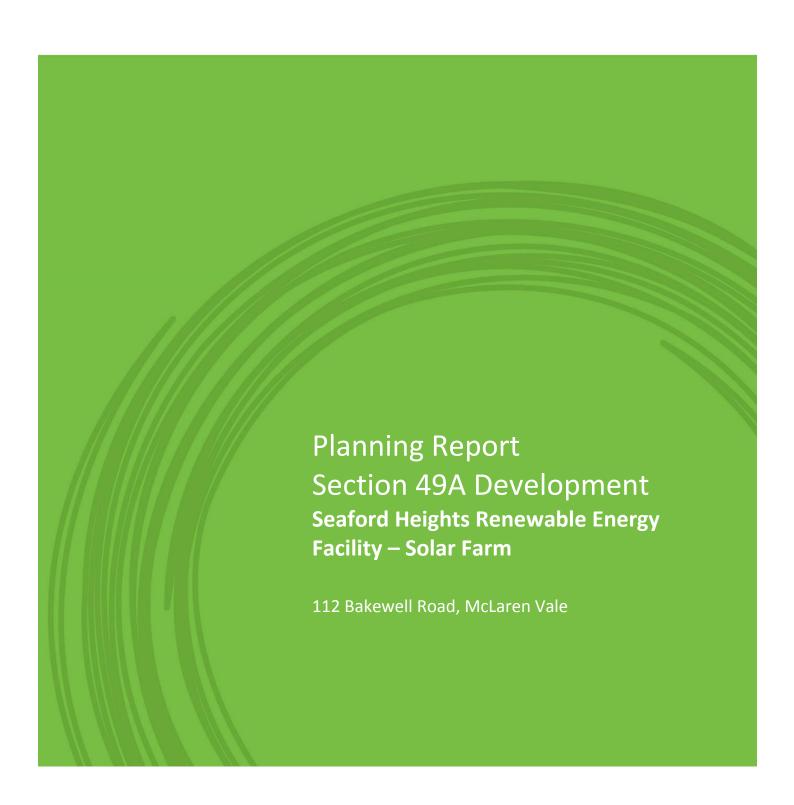
PLAN FOR LEASE PURPOSES VIDE G24/1996

Administrative Interests NIL

Land Services Page 1 of 1









Planning Report

6 June 2018

Lead consultant URPS

Prepared for LMS Energy Pty Ltd

Consultant Project Manager Simon Channon, Associate

Suite 12/154 Fullarton Road

(cnr Alexandra Ave) Rose Park, SA 5067 Tel: (08) 8333 7999

Email: simon@urps.com.au

URPS Ref R001_v3_180606.docx

Document history and status

Revision	Date	Approved	Details
1	14 December 17	GM	Draft
2	21 January 18	SC	Final
3	6 June 18	SC	Final Following Plan Amendments

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Appendix A

Development Application Forms

Appendix B

Certificates of Title

Appendix C

Proposal Plans

Appendix D

Electricity Generation Licence



1.0 Application Overview

	Renewable Energy Facility – Solar Farm	
Applicant	LMS Energy Pty Ltd	
Property location	112 Bakewell Road, McLaren Vale	
Description of land	Certificate of Title 5299/719	
	Certificate of Title 5299/720	
	Certificate of Title 6199/628	
	Certificate of Title 6199/628	
Ownership	Southern Region Waste Resource Authority	
Site area	73 hectares	
Council	City of Onkaparinga	
Development Plan	Onkaparinga Council consolidated 20 February 2018	
Zone and Policy Area	Urban Employment Zone	
	- Infrastructure Policy Area 13	
Current land use	Landfill site	
Description of development	Installation of solar farm	
Assessment Pathway	Section 49A (Public Infrastructure) of the Development Act 1993	
Cost of development	\$3.5 million	
Public notification	Required	
Relevant Authority	The Minister for Planning	
Referrals	City of Onkaparinga	
Related applications	Nil	
Plans and details	Development application form and electricity declaration	
accompanying application	Certificates of Title	
	 Plans and details prepared by LMS Energy Electricity Generation Licence 	
Contact person	Simon Channon, URPS, 8333 7999	
contact person	Grazio Maiorano, URPS, 8333 7999	



2.0 Introduction

URPS has been engaged by LMS Energy Pty Ltd (LMS Energy), the applicant in this matter, to provide a planning statement regarding this proposed development. The proposed development involves the installation of a 2.3 MW solar farm at the Southern Region Waste Resource Authority (SRWRA) site at 112, Bakewell Road, McLaren Vale.

The applicant is a "prescribed person" for the purpose of section 49A of the *Development Act 1993* (the Act) and this matter is not a kind that is referred to section 49(2) or 49(3) and is therefore subject to the assessment pathway prescribed by section 49A of the Act.

Appended with this report are:

- copies of the relevant Certificates of Title
- site plans prepared by the applicant
- elevations of the proposed solar array, and
- a copy of the Electricity Generation Licence issued by the Essential Services Commission of South Australia.



3.0 Subject Land and Locality

3.1 Subject Land

The subject land comprises four contiguous allotments forming part of the SWRWA's McLaren Vale site. These include:

- Allotment 34 in Filed Plan 153420, Certificate of Title 5299/719
- Allotment 35 in Filed Plan 153421, Certificate of Title 5299/720
- Allotment 191 in Deposited Plan 116986, Certificate of Title 6199/628, and
- Pieces 192 and 193 in Deposited Plan 116986, Certificate of Title 6199/628.

The above land parcels form part of a larger site owned by SWRWA and used as a landfill site. The site of the proposed development is located on the allotments identified above which form northern portion of the SRWRA land which appears to be a capped portion of the site.

The land has a gentle slope with its highest point toward the north-west of the site sloping toward the south-east. As the land has previously been used for landfill, the site, particularly in respect of the proposed development, is clear of any mature trees and other vegetation.



Image 1 View of the subject looking south-east from the adjoining Ostrich Farm Road (Streetview March 2017)



Image 2 View of the site looking west from the corner of Hagley Road and Wheaton Road (Streetview January 2014)

3.2 Locality

The subject land is located within a semi-rural locality approximately midway between McLaren Vale and Seaford Heights. The land is located some 250 metres to the south of Victor Harbor Road where it is separated by an existing vineyard. Vineyards and an olive grove are located to the east and partly to the west of the subject land. Other land uses within the locality include a horse stable and agricultural land to the west of the site and rural-residential land uses to the east.



Image 3 View of adjoining olive grove and vineyard in the background to the south-east of the subject land (Streetview January 2014)



Image 4 View of the horse stable and agricultural land in the background to the west of the subject site (Streetview March 2017)

The site and locality are also illustrated on the following page.



SITE PLAN 112 BAKEWELL DRIVE, McLAREN VALE- LMS ENERGY SOLAR

17ADL-0268
ML
17.05.18
2
Property Location Browser, Onkaparinga DP

LEGEND				
	Cadastre			
	Zone Boundar			
*	Dwelling			

ZONES	Ö
DU	Deferred Urban
PrPro	Primary Production
UE	Urban Employmen





4.0 Proposal

The proposal is detailed in the proposed site plan prepared by LMS Energy and the solar module specification provided by the manufacturer (including elevations) and contained in Appendix C.

The development comprises:

- the installation of 8,096 ground mounted photovoltaic panels
- 46 photovoltaic inverters
- 2 high voltage transformers
- electrical cabling (linking solar modules), and
- Underground powerline connecting the solar panels to the grid.

No earthworks are required for the proposed solar farm. The solar panels are connected in small arrays and are able to be placed directly on the ground as per the appended proposal plans. The proposed solar modules do not have any supporting posts or elevated frames. At their highest point, they are up to 600 millimetres high.

The solar panels are expected to produce approximately 4.4 MWh per annum which will be exported to the grid. This amount of electricity can power in the order of 200 households each year with an estimated 2,408,000 kg of greenhouse gas abatement.



5.0 Procedural Considerations

5.1 Section 49A of the Development Act 1993

The applicant is a holder of an Electricity Generation Licence and is therefore a "prescribed person" pursuant to section 49A of the *Development Act 1993*. Furthermore, given the proposed development does not involve electricity plant with a generating capacity of more than 30 MW or powerlines conveying more than 66 kV over a distance of more than 5 kilometres, the development application is subject to the process prescribed by section 49A of the *Development Act 1993*.

The State Commission Panel is the relevant authority in this case (in the place of the former Development Assessment Commission), pursuant to Schedule 8 of the Planning, Development and Infrastructure Act 2016.

5.1.1 Public Notification

Section 49A(7d) of the Development Act 1993 prescribes public notification procedure where the total cost of a development is greater than \$4,000,000. The proposed development has a cost of \$3,500,000 and therefore public notification will not be required.

5.1.2 Referrals

Pursuant to section 49A(4a) - (6), the application will be referred to the City of Onkaparinga, being the area within which the subject land is located. Council has 2 months to provide a response to the State Planning Commission.

5.2 Zoning

The subject land is located wholly within the Infrastructure Policy Area 13 of the Urban Employment Zone of the Onkaparinga Council Development Plan (consolidated 20 February 2018).



6.0 Development Assessment

Our assessment of the proposed development is made under the following headings:

- renewable energy facilities generally
- land use
- interface with adjoining land

6.1 Renewable Energy Facilities Generally

Solar farms are a renewable energy facility and therefore the following provisions of the Onkaparinga Development Plan are relevant:

General Section - Renewable Energy Facilities

- Objective 1 Development of renewable energy facilities that benefit the environment, the community and the state.
- Objective 2 The <u>development of renewable energy facilities</u>, such as wind farms and ancillary development, <u>in</u> areas that provide opportunity to harvest natural resources for the efficient generation of electricity.
- Objective 3 <u>Location, siting, design and operation of renewable energy facilities to avoid or minimise adverse</u> impacts on the natural environment and other land uses.
- Principle 1 Renewable energy facilities, including wind farms and ancillary development, should be:
 - (a) located in areas that maximize efficient generation and supply of electricity; and
 - (b) designed and sited so as not to impact on the safety of water or air transport and the operation of ports, airfields and designated landing strips.

The proposed solar farm takes place on land used for landfill and is effectively a value adding activity to the existing land use. It is a secondary use of the land and does not affect the ability of the balance of the land to be used for landfill. The proposal makes use of an underutilised portion of the site and which can take advantage of solar access for the generation of electricity.

Accordingly, it is considered that the use of the site for energy production by way of a solar farm to be appropriate in this location.

The proposed development is designed maximise efficient generation of electricity with the development consisting of ground mounted panels on a shallow angle to enhance energy generation.

6.2 Land Use

As outlined in the preceding section, the proposed solar farm is a secondary use of a site used for land fill. The landfill activity is will continue to operate on the subject land in accordance with its planning and environmental authorisations.



The provisions of the Infrastructure Policy Area 13 support the development of renewable energy facilities in conjunction with existing landfill development:

Industry Zone - Infrastructure Policy Area 13

Objective 1 Primarily, a policy area for the <u>provision of infrastructure including</u> water, waste water, waste management and <u>renewable energy technologies</u>.

Desired Character Statement

It is envisaged that development within this section of the policy area will primarily comprise activities involving or ancillary to the reuse, recycling, recovery, treatment, transfer and disposal of waste materials, and the generation of energy from renewable resources, including the associated distribution networks and plant and equipment associated with the extraction of landfill gas.

Land in this section of the policy area which is no longer needed for landfill or waste management will be remediated or revegetated (as necessary) and may be used for purposes consistent with the applicable Urban Employment Zone and which do not detract from the ongoing landfill land waste management operations. These uses will not detrimentally impact on the amenity or appearance of the surrounding locality or the environment nor impair ongoing operations on the balance of the landfill site. (underlining added)

Principle 1 The following forms of development are envisaged in the policy area:

...renewable energy facility...

The proposed solar farm associated with a landfill development is clearly an envisaged land use.

6.3 Interface with Adjoining Land

Being an existing landfill site, there are few dwellings within close proximity to the subject site. Most land nearby is used for some kind of primary production use (such as vineyards, agriculture and olive growing), with the proposed development being compatible with these activities.

The nearest dwellings are approximately 250 metres from the subject site (one directly to the west and the other directly to the east) and neither of these dwellings has direct views across the site of the proposed development.

As the solar panels are mounted directly on the ground, they will have limited visibility from adjoining public roads. Depending on localised circumstances (i.e. land contour, vegetation, distance), views of the panels may be visible from some sections of Bakewell Drive, Ostrich Farm Road, Wheaton Road and Hagley Road.

Having regard to the provisions of the subject Urban Employment Zone and the Infrastructure Policy Area 13, and the General Section – Renewable Energy Facilities, I am of the view that it is reasonable that the solar panels may be visible from adjoining roads.

Additionally, the dark anti-reflective coated glass colour of the solar panels and their low overall height will mean they are visually unobtrusive.

New powerlines associated with the proposed solar farm are to be installed underground and will therefore not add to any visual impact.

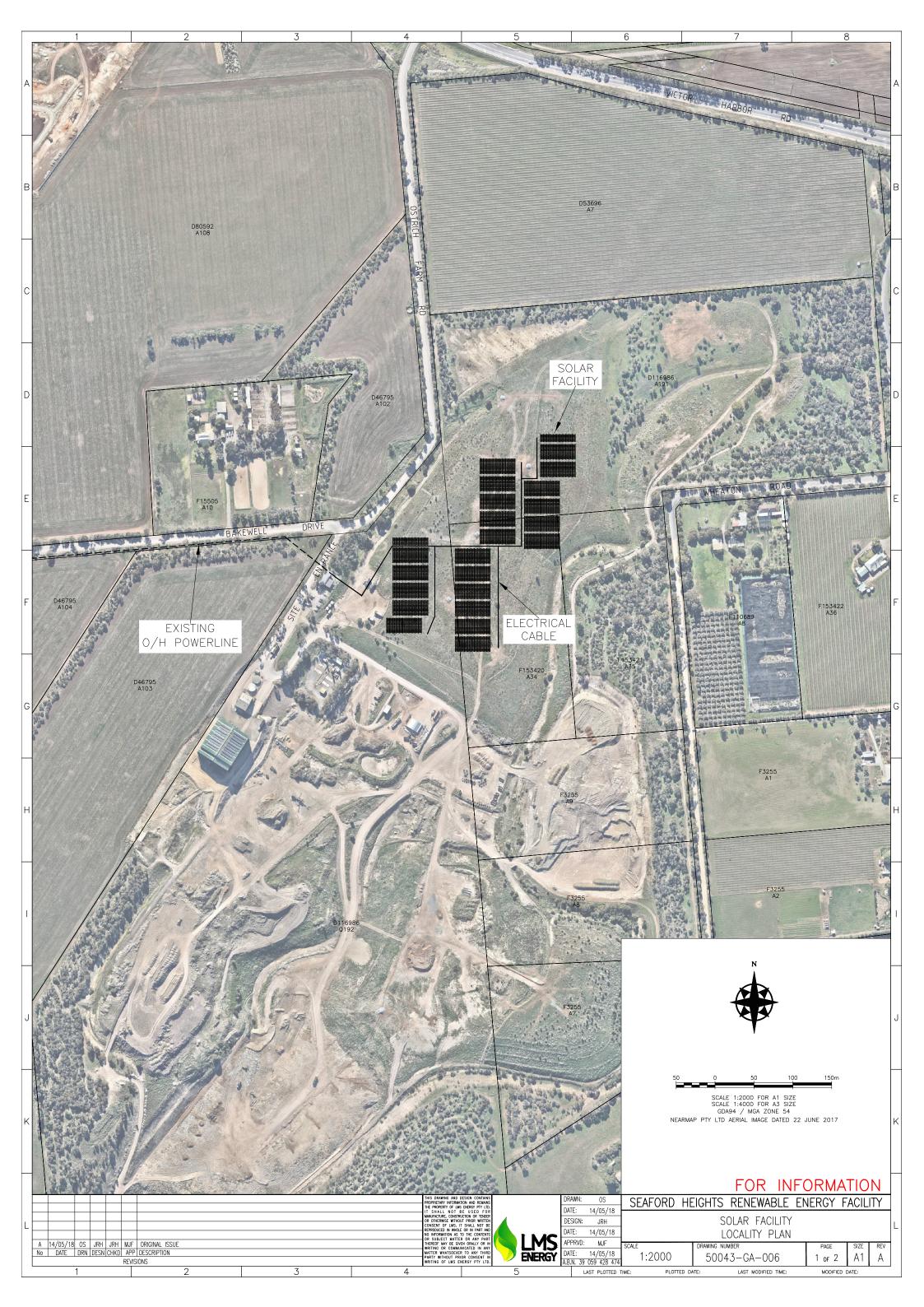
The proposed development will not have any other detrimental impacts on adjoining land by way of noise, electrical interference or any other similar operational impacts.

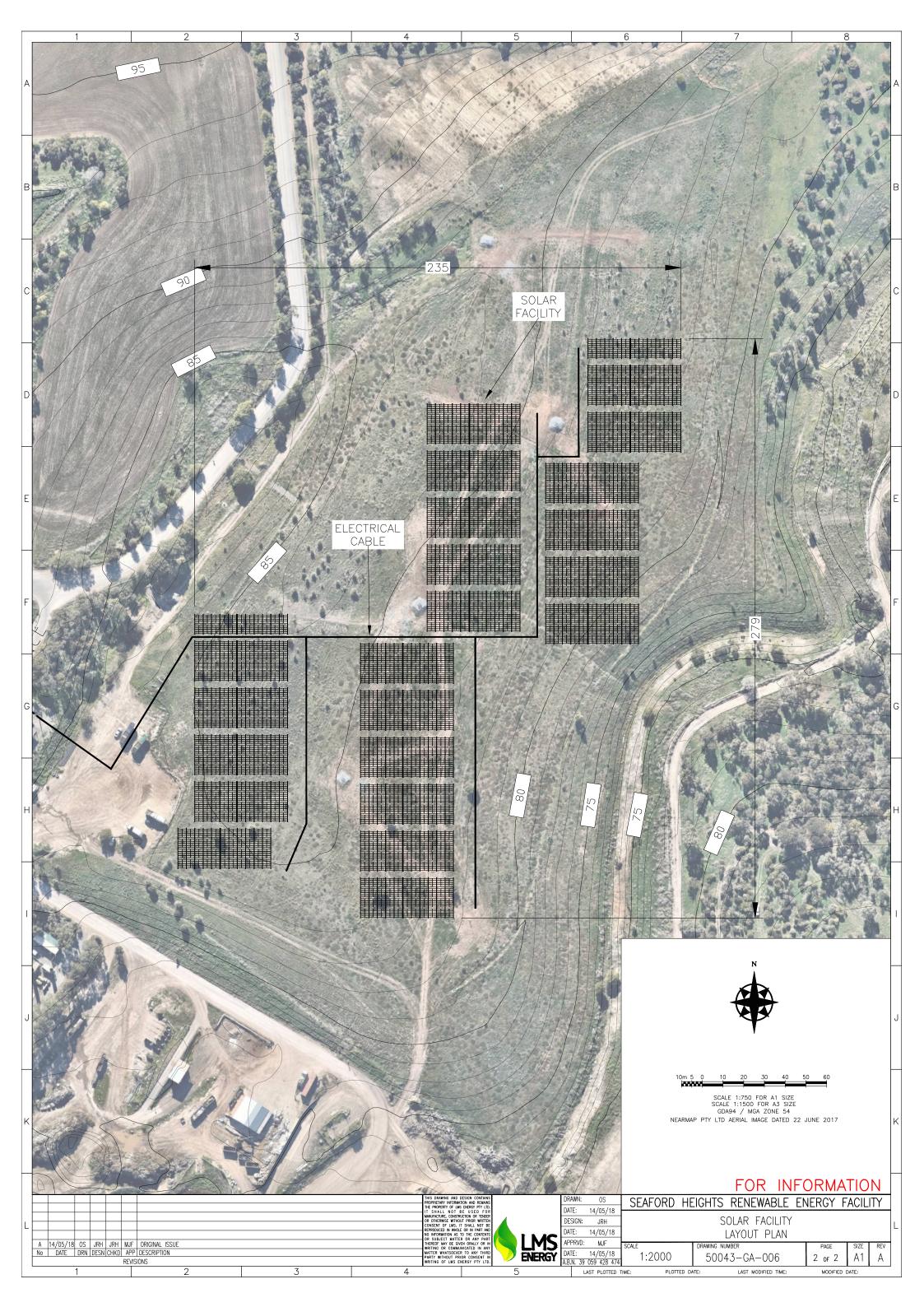


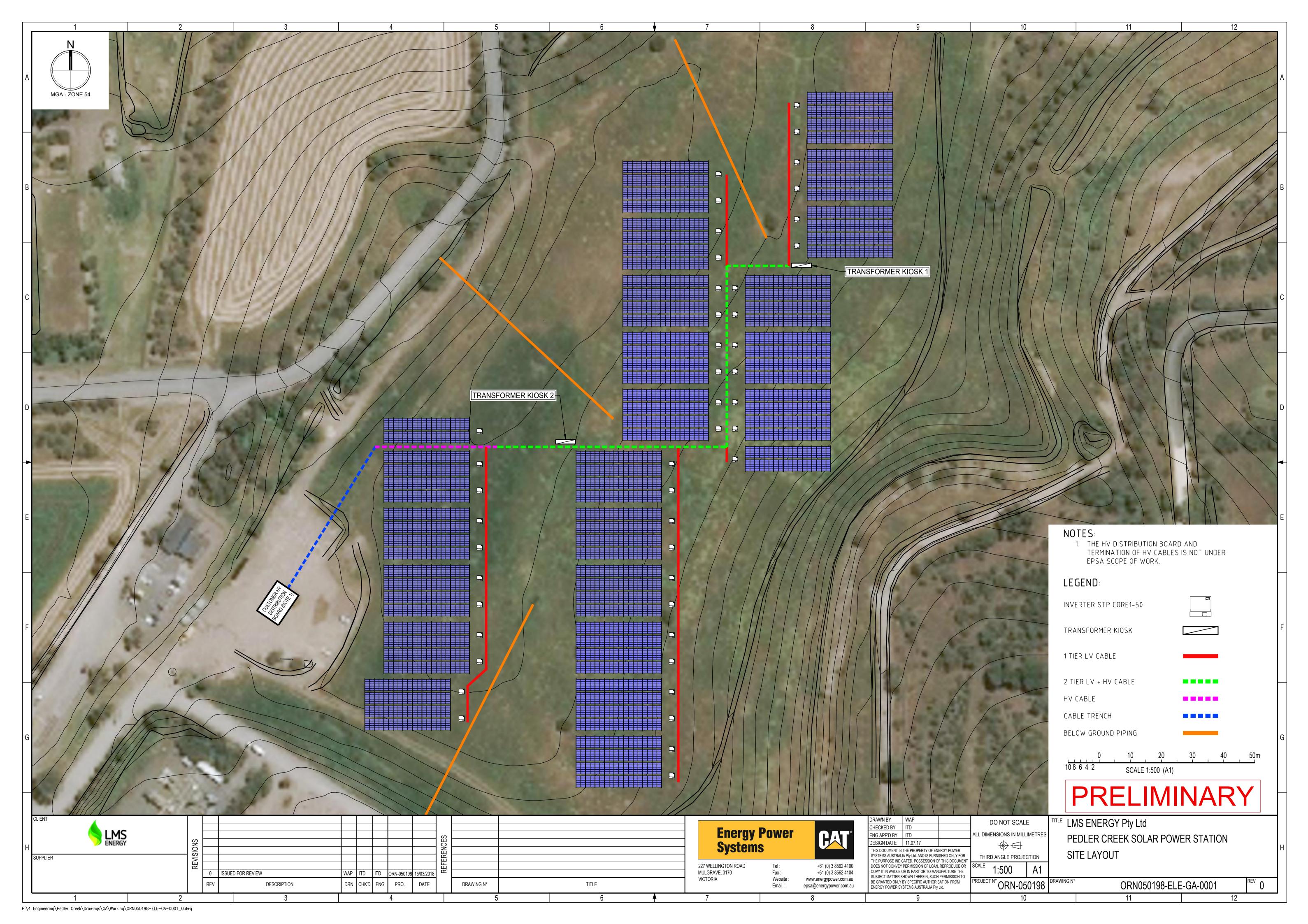
7.0 Summary and Conclusion

The proposed development comprises a solar farm associated with an existing landfill site. The proposed development is considered appropriate and to warrant Development Plan Consent on the basis that:

- renewable energy facilities are to be located in areas where they provide the efficient generation of electricity
- the activity is effectively a secondary land use that does not impact the existing lawful landfill activities on the subject land
- renewable energy facilities are supported in the subject Zone and Policy Area where they are in associated with landfill activities
- the proposed development is located some 250 metres from adjoining dwellings where it will not have an unreasonable visual impact
- the perimeter of the subject land is largely vegetated and will, in part, screen views of the solar farm from much of the adjoining road network
- the solar arrays have a low profile and are coated in a dark anti-reflective coating which further reduces the visual impact of the solar farm, and
- there are no other detrimental or unreasonable interface impacts that would affect adjoining or nearby landowners.









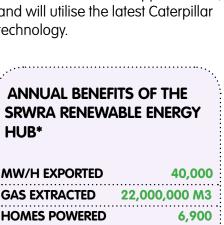


FACT SHEET

LMS ENERGY, SRWRA AND JOULE ENERGY **ARE IN THE PROCESS** OF DEVELOPING THE SRWRA RENEWABLE **ENERGY HUB. A WORLD CLASS RENEWABLE ENERGY FACILITY.**

Due to be commissioned in early 2019. the SRWRA Renewable Energy Hub will combine base-load landfill gas and solar technologies.

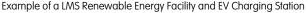
In what will be one of the first in Australia the project will comprise 4MW of landfill gas engines and a 2.3MW (AC) solar PV system consisting of approximately 8,300 solar panels. The solar PV system will be situated on a capped landfill, and will utilise the latest Caterpillar technology.



CARS CHARGED 800,000 CO2e ABATED 218,000 TONNES **WATER SAVED** 88,000,000 LITRES

ENOUGH ENERGY TO PROVIDE POWER TO AN AVERAGE OF 18,000 PEOPLE EACH YEAR









Example of a LMS Landfill Solar System

The facility will generate approximately 40,000 megawatt hours (MWh) of renewable electricity each year, which is enough to power more than 6,900 homes and over 18,000 electricity users in the local community. This is the equivalent to charging 800,000 electrical vehicles each year.

Landfill gas is a potent greenhouse gas which is 25 times more harmful to the atmosphere than carbon dioxide. From power generation activities alone the facility will reduce nearly 218,000 tonnes of carbon (CO2-e) from being emitted each year.

When compared to a traditional coal-fired power station generating the same amount of electricity, the SRWRA Renewable Energy Hub will also save approximately 88 million litres of water each year.

LMS Energy, Joule and SRWRA are excited to partner together on this ground-breaking project.

To find out more please visit:

LMS Energy lms.com.au



5B MAYERICK

What would a solar farm look like, if we reinvented it today? 5B started with a clean slate and developed the simplest, fastest way to deploy PV modules into the field. Our answer is the Maverick: a modular PV system built up from our 12 kW MAV array blocks.

Maverick is the solar farm of the future: A pre-fabricated, low-cost solar array that shifts construction, labour and risk from the project site into the factory.









100% Prefabricated

The MAV DC solar unit arrives on site entirely electrically and mechanically prefabricated, simplifying design, slashing site time and labour.

Streamlined Logistics

MAV streamlines solar array procurement to a single source and simplifies on-site logistics: four MAVs ship in a standard 20 ft container.

Rapid Deployment

A MAV unit is deployed with a standard site vehicle in six minutes, with a crew of two, with minimal site preparation. Our continuous array means no trenching for DC cables.

Portable Solar

5B's MAV is the only cost-effective, portable solar array that unlocks the possibility of a solar fleet, giving customers control of how they use their site and solar in the future.



58 MAVERICK

Prefabricated in our factory

Maverick is the solar farm of the future: a modular PV system built up from our 12 kW MAV array blocks. We've slashed costs and project risks, by moving the bulk of work from the field into a safe, controlled, low-cost factory environment. 5B's two-person teams assemble one MAV every five hours.

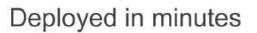
5B's Sydney factory produces 120 kW of MAVs per day, or 30 MW per year. Because Maverick is a modular solution, you get full flexibility in the design of the DC array, cabling runs and inverter locations.

Each MAV leaves the factory pre-commissioned, fault-tested and electrically complete up to the MC4 connectors for each string. A plug-and-play DC cabling solution and pre-fabricated inverter stands also reduce cabling costs and on-site electrical work.

Optimised Logistics

- 1 The MAV ships in standard shipping containers: Four 32-module MAVs fit in a 20-ft container. Instead of managing complex shipping arrangements with multiple suppliers, the MAV drastically simplifies on-site logistics: your 5B shipment will contain one-hundred per cent of your solar farm components, up to the AC terminals of the inverter. 5B will ship your MAVs on flatbed trucks for smaller applications.
- 2 MAVs can be stored on site before deployment, adding flexibility to your installation schedule.





Before we deploy a MAV, we survey the site with a drone. We then mark out the locations for the recycled rubber pads, which act to level the concerete beams.

Like everyone in solar, we like flat sites the best! We can also handle sites with more challenging terrain, contact us for more information.

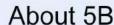
- 4 5B deploys each MAV on site with a five-tonne telehandler or forklift, in less than 10 minutes. A three-person deployment crew deploys 100 kW per day or one megawatt in 10 days.
- When deploying, the leading MAV is secured with 2 ground anchors, and the following units are daisy-chained. Our concrete beams provide full wind-rated ballast so these are our only ground penetrations.

FAST FACTS:

Due to the continuous array design, a plant built using the Maverick system can generate more MWh per hectare than conventional fixed tilt and single axis tracking designs- between 180-200% more.

Each MAV is ballasted, with minimal ground penetrations, so it can go places that are off-limits for most solar farms. 5B is deploying our Maverick solution on landfill sites and tailings dams for mines.

5B has even made the factory mobile: for your next project we can ship you MAVs or a MAV factory, using our containerised assembly pods.



5 billion years of sun. How will you use it? 5B are re-inventing solar energy from the ground up. We are a team of renewable energy experts who care about making energy projects cheaper, faster and smarter.

For pricing and ordering:

Visit our website: 5b.com.au

Email us: info@5b.com.au

Call us: (02) 9550 9239



Relocated to your next site

We remove the MAVs from site with the reverse of our deployment process, in the same timeframe. Each MAV is reloaded into shipping containers and ready to be relocated.

The Maverick solution is certified for installation in wind regions A,B and C, with minor additional ballast in wind regions B and C. 5B has a heavy duty Maverick design on its way for wind region D, contact us for more information.







Solar re-invented



Efficient pre-assembly cuts on-site labour by more than 50%

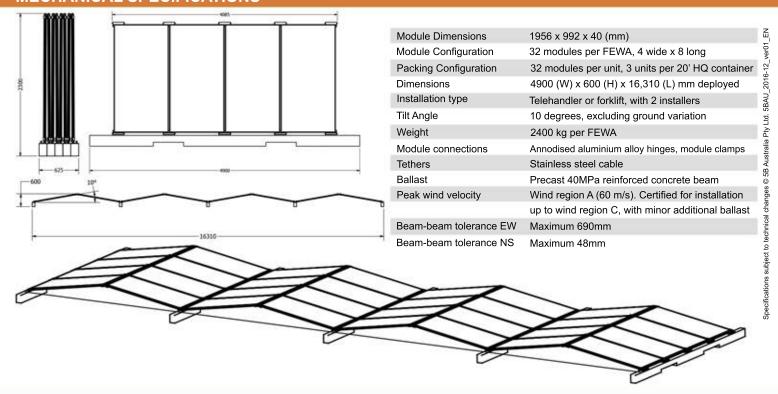


Arrives on site mechanically and electrically prefabricated



Rapidly deployed on site in under 10 minutes

MECHANICAL SPECIFICATIONS



ELECTRICAL SPECIFICATIONS

MODULE

PV Module Type	Jinko JKM	350M-72
	STC	NOCT
Maximum Power (Pmax)	350Wp	262Wp
Maximum Power Voltage (Vmp)	39.1V	37.2V
Maximum Power Current (Imp)	8.94A	7.05A
Open-circuit Voltage (Voc)	47.5V	46.0V
Short-circuit Current (Isc)	9.38A	7.46A
Module Efficiency STC (%)	18.0	01%
Operating Temperature(°C)	-40~	+85

ARRAY

AINIAI	
Power at MPP	11.2 kW
Short circuit current	9.4 A per string, 18.8 A array output
Open circuit voltage	760 V
Current at MPP	8.9 A per string,17.9 A array output
Voltage at MPP	626 V
Power Density	1.1 ha/MW ²
String Configuration	16 modules, 2 strings (1 east, 1 west)
Terminations	2 x MC4 connectors
String return cable	6mm x 20m
2	

Fixed tilt 3.0 ha/MW (NREL)

CERTIFICATIONS

Australian Patent #2015327772, Intl. Patents Pending.

Compliant with Australian Standards and CEC Solar installation guidelines [AS/NZS 5033, AS 1170.0, AS 1170.1, AS 1170.2, AS 1664.1, AS 3600, AS/NZS 3000, AS/NZS 4777:2005, AS/NZS 1768:2007, AS/NZS 4509:2009].

Structurally certified for transport and operation in wind regions A, B and C to the aforementioned standards.

NOTE: Please read the Installation Guide before using the product.



ABOUT 5B

5B is an Australian engineering team dedicated to developing cutting-edge technologies that reduce the cost of renewable energy. 5B's Maverick is the only re-deployable solar array that is cheaper and faster to install than conventional solar.

Contact: info@5b.com.au Website: www.5B.com.au



Appendix D

Electricity Generation Licence





Electricity Generation Licence

LMS Energy Pty Ltd ABN 39 059 428 474

Issued by the Essential Services Commission of South Australia on 27 September 2017.

Variation history

Amendment number	Variation date	Reason

1 Definitions and interpretation

- 1.1 Words appearing in bold like **this** are defined in Part 1 of Schedule 1.
- 1.2 This licence must be interpreted in accordance with the rules set out in Part 2 of the Schedule.

2 Grant of licence

2.1 The **licensee** is licensed under Part 3 of the **Act**, and subject to the conditions set out in this licence, to generate electricity using the **electricity generating plant** as specified in the Annexure.

3 Term

- 3.1 This licence commences on the date it is issued and continues until it is:
 - (a) surrendered by the licensee under section 29 of the Act; or
 - (b) suspended or cancelled by the **Commission** under section 37 of the **Act**.

4 Fees

4.1 The licensee must pay the applicable licence fees in accordance with section 20 of the Act.

5 Access

- 5.1 The licensee must:
 - (a) in accordance with, and to the extent required by, the Electricity Transmission Code, grant to a network service provider, rights to use, or have access to, those parts of the licensee's electricity generating plant that are interconnected or interface with the network service provider's assets for the purpose of ensuring the proper integrated operation of the South Australian power system and the proper conduct of the operations authorised by the network service provider's transmission licence or distribution licence; and
 - (b) in the absence of agreement as to the terms on which such rights are to be granted, comply with a determination of the **Commission** as to those terms.

6 Dispute resolution

- 6.1 A dispute relating to the granting of rights to use or have access to the interconnecting assets of the licensee's electricity generating plant referred to in clause 5 shall be resolved in accordance with any applicable industry code developed by the Commission for the resolution of disputes.
- 6.2 Clause 6.1 does not apply to the extent the dispute is subject to resolution in accordance with or under the **National Electricity Rules**.

7 Compliance with Codes

7.1 The licensee must:

- (a) comply with all applicable provisions of the Electricity Transmission Code, the Electricity Distribution Code and the Electricity Metering Code;
- (b) comply with all applicable provisions of any other **industry code** or **rule** made by the **Commission** from time to time; and
- (c) notify the Commission if it commits a material breach of the Electricity Transmission Code, the Electricity Distribution Code or the Electricity Metering Code within 3 days after becoming aware of that breach.

8 Safety, reliability, maintenance and technical management plan

8.1 The licensee must:

- (a) within 12 months of the commencement of this licence, or within 3 months of the date (as advised by the licensee) of final commissioning and plant acceptance, whichever is the later, prepare a safety, reliability, maintenance and technical management plan dealing with matters prescribed by regulation and submit the plan to the Commission for approval;
- (b) annually review, and if necessary update, the plan to ensure its efficient operation, and submit the updated plan to the **Commission** for approval;
- (c) comply with the plan prepared in accordance with clause 8.1(a) and as updated from time to time in accordance with clause 8.1(b);
- (d) not amend the plan without the approval of the Commission; and
- (e) undertake annual audits of its compliance with its obligations under the plan and report the results to the **Technical Regulator**, in a manner approved by the **Technical Regulator**.

9 National electricity market

9.1 The **licensee** must hold and comply with the conditions of any registration required under the **National Electricity Rules** granted by **AEMO** (or the person responsible for the granting of such registrations under the **National Electricity Law** or the **National Electricity Rules**) at all times that such registration is required for the operations authorised by this licence.

10 Information to AEMO

The **licensee** must, following a request from **AEMO**, provide to **AEMO** such documents and information as **AEMO** may reasonably require for the performance of its functions.

11 System controller

11.1 The licensee must comply with any directions given to it by the System Controller.

12 Information to the Commission

- The **licensee** must, from time to time, provide to the **Commission**, in a manner and form determined by the **Commission**:
 - (a) details of the **licensee's** financial, technical and other capacity to continue the operations authorised by this licence; and
 - (b) such other information as the Commission may require from time to time.
- The **licensee** must notify the **Commission** of any changes to its **officers**, and (if applicable) major shareholders, within 30 days of that change.

13 Operational and compliance audits

- The **licensee** must undertake periodic audits of the operations authorised by this licence and of its compliance with its obligations under this licence and any applicable **industry codes** in accordance with the requirements of any applicable guideline issued by the **Commission** for this purpose.
- The **licensee** must also conduct any further audits at a frequency and in manner approved by the **Commission**.
- 13.3 The results of audits conducted under this clause must be reported to the **Commission** in a manner approved by the **Commission**.
- The **Commission** may require the licensee to use an independent expert approved by the **Commission** to conduct audits under this clause.
- The **Commission** may require the costs of using an independent expert approved by the **Commission** to conduct audits under this clause to be met by the **licensee**.

14 Confidentiality

The licensee must, unless otherwise required by law, this licence, an industry code, or the National Electricity Rules, comply with any rules made by the Commission from time to time relating to the use of information acquired by the licensee in the course of operating the business authorised by this licence.

15 Community service

The **licensee** must comply with the requirements of any scheme approved and funded by the Minister for the provision by the State of customer concessions or the performance of community service obligations by the **electricity entities**.

16 Compatibility

The licensee must not do anything to its electricity generating plant affecting the compatibility of its electricity generating plant with any distribution network or transmission network so as to prejudice public safety or the security of the power system of which the electricity generating plant forms a part.

17 Insurance

- 17.1 The **licensee** must undertake and maintain during the term of this licence insurance against liability for causing bush fires.
- 17.2 The **licensee** must provide to the **Commission** a certificate of the insurer or the insurance broker by whom the insurance was arranged (in a form acceptable to the **Commission**) to the effect that such insurance is adequate and appropriate, given the nature of the **licensee's** activities conducted under this licence and the risks associated with those activities.

18 Compliance with laws

18.1 The **licensee** must comply with all applicable laws including, but not limited to, any technical or safety requirements or standards contained in regulations made under the **Act**.

19 Variation

19.1 This licence may only be varied in accordance with section 27 of the Act.

20 Transfer

20.1 This licence may only be transferred in accordance with section 28 of the Act.

This licence was issued by the **Commission** on 27 September 2017.

The COMMON SEAL of the	
ESSENTIAL SERVICES	
COMMISSION of South	
Australia was hereunto)
affixed by authority of the)
ESSENTIAL SERVICES	
COMMISSION and in the	
presence of:)



But Prove

Commissioner

27 September 2017

<u>Date</u>

Schedule 1: Definitions and Interpretation

Part 1 - Definitions

In clauses 1 to 20 (inclusive) of this licence:

Act means the Electricity Act 1996 (SA).

AEMO means the Australian Energy Market Operator Ltd (ACN 072 010 327).

business day means a day on which banks are open for general banking business in Adelaide, excluding a Saturday or Sunday.

Commission means the Essential Services Commission established under the ESC Act.

distribution licence means a licence to operate a distribution network granted under Part 3 of the Act.

distribution network has the meaning given to that term under the Act.

Electricity Distribution Code means the code of that name made by the Commission under section 28 of the ESC Act which regulates connections to a distribution network and the supply of electricity by distributors.

electricity generating plant includes all **generating units** and all other equipment involved in generating electrical energy authorised to be operated by the **licensee** under this licence.

Electricity Metering Code means the code of that name made by the Commission under section 28 of the ESC Act which regulates the installation, maintenance and testing of meters.

Electricity Transmission Code means the code of that name made by the Commission under section 28 of the ESC Act.

ESC Act means the Essential Services Commission Act 2002 (SA).

generator means a holder of a licence to generate electricity granted under Part 3 of the Act.

generating unit has the same meaning given to the term under the National Electricity Rules

industry code means any code made by the Commission under section 28 of the ESC Act from time to time.

licensee means LMS Energy Pty Ltd (ABN 39 059 428 474).

National Electricity Rules has the meaning given to that term in the National Electricity Law.

National Electricity Law means the National Electricity Law referred to in the National Electricity (South Australia) Act 1996 (SA).

network service provider means the holder of a **distribution licence** or a **transmission licence** (as the case may be) issued by the **Commission** under Part 3 of the **Act**.

rule means any rule issued by the Commission under section 28 of the ESC Act.

System Controller means the person licensed under Part 3 of the **Act** to exercise system control over a power system.

Technical Regulator means the person holding the office of Technical Regulator under Part 2 of the Act.

transmission licence means a licence to operate a transmission network granted under Part 3 of the Act.

transmission network has the meaning given to that term under the Act.

Part 2 - Interpretation

In this licence, unless the context otherwise requires:

- (a) headings are for convenience only and do not affect the interpretation of this licence;
- (b) words importing the singular include the plural and vice versa;
- (c) words importing a gender include any gender;
- (d) an expression importing a natural person includes any company, partnership, trust, joint venture, association, corporation or other body corporate and any governmental agency;
- (e) a reference to any statute, regulation, proclamation, order in council, ordinance or bylaw includes all statutes, regulations, proclamations, orders in council, ordinances or by-laws varying, consolidating, re-enacting, extending or replacing them and a reference to a statute includes all regulations, proclamations, orders in council, ordinances, by-laws and determinations issued under that statute;
- (f) a reference to a person includes that person's executors, administrators, successors, substitutes (including, without limitation, persons taking by novation) and permitted assigns;
- (g) a reference to a document or a provision of a document includes an amendment or supplement to, or replacement or novation of, that document or that provision of that document;
- (h) an event which is required under this licence to occur on or by a stipulated day which is not a **business day** may occur on or by the next **business day**.

ANNEXURE

The generating plant consisting of:

- 1. One Caterpillar 3516 reciprocating engine with a nameplate capacity of 1.13MW, and
- 2. 11,040 Caterpillar PVT115 photovoltaic panels with a nameplate capacity of 1.15MW located at NAWMA Balefill Landfill site at Uleybury.



The Essential Services Commission Level 1, 151 Pirie Street Adelaide SA 5000 GPO Box 2605 Adelaide SA 5001 T 08 8463 4444

E escosa@escosa.sa.gov.au | W www.escosa.sa.gov.au

