

SYSTEM SPECIFICATION	
SYSTEM CAPACITY (MWdc)	104.03
AC CAPACITY (MWac)	100.8
MODULE	570W / 575W (MODEL TBD)
MODULE LENGTH (mm)	2,382
MODULE WIDTH (mm)	1,134
NUMBER OF MODULES	180,927
NUMBER OF STRINGS	6,701
MODULES PER STRING	27 MODULES
INVERTER MODEL	SMA SUNNY CENTRAL 4200 UP
NUMBER OF INVERTERS	24
PCU MODEL	MVPS-4200-S2
NUMBER OF PCUS	24 (1 x INVERTER PER PCU)
TRACKER	NEXTRACKER NX HORIZON
TRACKER RANGE	+/- 60 DEGREES
BATTERY TYPE	LITHIUM ION PHOSPHATE
BATTERY CONNECTION	DC COUPLED
BATTERY CAPACITY	128MWh
NUMBER OF BATTERIES	96 X WARTSILA GRIDSOLV QUANTUM BATTERY ENCLOSURES
NUMBER OF BATTERIES PER PCU	4 x BATTERY ENCLOSURES PER INVERTER
TOTAL NUMBER OF 2 STRING TRACKERS	76
TOTAL NUMBER OF 3 STRING TRACKERS	2,202
TOTAL SITE AREA (ha)	155
PITCH (M)	5.5
NUMBER OF FEEDERS	5
PCUs PER FEEDER	4 x 5 PCUs, 1 x 4 PCUs
DC SYSTEM VOLTAGE (V)	1500
MV SYSTEM VOLTAGE (kV)	33
HV SYSTEM VOLTAGE (kV)	66

TABLE 1 - LEGEND			
LOT BOUNDARY		15m ASSET PROTECTION ZONE	
PERIMETER FENCE		ACCESS GATE	
PROPOSED LAYDOWN AREA		EXISTING VEGETATION	
PV TRACKERS		5m VEGETATION SCREENING	
DISTRIBUTED POWER STATION (DPS)		ACCESS TRACK	
UNDERGROUND 33kV CABLE ROUTE		EXTERNAL ROADS	
EMERGENCY ACCESS GATE		WATER TANKS	
EXCLUSION ZONE		WATERWAY SETBACK	

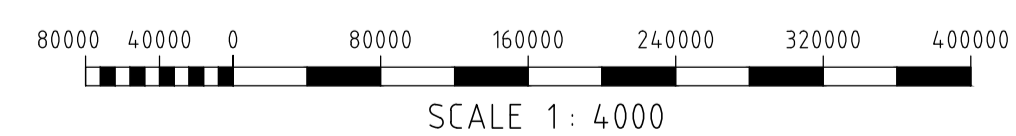
- NOTES FOR THE TENDER:
- THE SITE IS TO BE SUPPLIED WITH 220 KL OF WATER FOR FIRE FIGHTING OPERATIONS. THIS WATER IS TO BE STORED IN VARIOUS TANKS ACROSS THE SITE. ADDITIONALLY, THE SWITCHBOARD ROOM ARE TO BE FITTED WITH INERGEN FIRE SUPPRESSION SYSTEM.
  - 45KL FIRE WATER TANKS TO BE LOCATED WITHIN 120m OF EACH DISTRIBUTED POWER SYSTEM.
  - ACCESS TO THE SITE VIA FIVE GATES THAT CONNECT TO THE TRACKS WHICH LOOP AND CROSS THE SITE.
  - TO LIMIT UNAUTHORISED ACCESS TO THE SITE A SECURITY FENCE IS TO SURROUND THE LANDSCAPING BUFFER. THIS FENCE IS TO ALSO LIMIT ANIMALS ACCESSING THE SITE.
  - WATER TANK CONFIGURATION SHALL BE ARRANGED AS PER RISK MANAGEMENT PLAN (DOCUMENT 231122\_JV23-0004-0\_FULHAM\_SOLAR\_FARM\_RMP\_D1 PAGE 50)
  - REVISED FIRE SAFETY PERMIT DETAILS ARE LISTED IN TABLE 5 RISK MANAGEMENT PLAN.
  - THE PERIMETER ROAD IS TO ALSO MAKE UP PART OF THE FIREBREAK. THIS FIREBREAK SHALL BE AT LEAST 15m WIDE.
  - THE TRACKS AT THE FULHAM SOLAR FARM ARE TO BE AT LEAST 4m WIDE THESE TRACKS SHALL MEET THE CONDITIONS SET OUT IN THE CFA GUIDE 2022 (COUNTRY FIRE AUTHORITY (VIC), 2022).
  - THERE SHALL ALSO BE A LANDSCAPE BUFFER ALONG THE BOUNDARY THAT IS 5m WIDE AND IS DESIGNED TO GENERATE A BAL OF NO GREATER THAN 19 AT 15m FROM THE BUFFER.
  - THE TRACKS ON SITE MAKES A LOOP AND INTERCONNECT EACH OTHER. WHERE DEAD ENDS ARE FORMED THEN A TURNING CIRCLE ARRANGEMENT IS TO BE INCLUDED.
  - CFA IS TO HAVE ACCESS TO THE SITE VIA FIVE GATES THAT CONNECT TO THE TRACKS WHICH LOOP AND CROSS THE SITE.
  - ALL OTHER REQUIREMENTS LISTED IN RISK MANAGEMENT PLAN (DOCUMENT 231122\_JV23-0004-0\_FULHAM\_SOLAR\_FARM\_RMP\_D1) SHALL BE IMPLEMENTED.
  - SITE LIGHTNING PROTECTION SHALL BE PROVIDED AS STIPULATED IN RISK MANAGEMENT PLAN.
  - SOLAR FACILITIES ARE TO HAVE A MINIMUM 6m SEPARATION BETWEEN SOLAR PANEL BANKS. A BANK OF SOLAR PANELS MAY BE THAT CONNECTED TO A SINGLE POWER CONVERSION UNIT/INVERTER.
  - TYPICAL DISTRIBUTED POWER STATION (DPS) CONTAINING 2x INVERTER, 8x DC COUPLED BATTERY ENCLOSURES AND 12x DC CONVERTERS (59.6m X 7.5m). EARTHEN BUNDS PROVIDED AROUND THE DPS TO CONTAIN 45KL OF FIRE WATER RUNOFF.
  - TYPICAL DISTRIBUTED POWER STATION (DPS) CONTAINING 1x INVERTER, 4x DC COUPLED BATTERY ENCLOSURES AND 6x DC CONVERTERS (28.9m X 7.5m). EARTHEN BUNDS PROVIDED AROUND THE DPS TO CONTAIN 45KL OF FIRE WATER RUNOFF.
  - DPS WITH 5.5m HIGH ACOUSTIC BARRIER. REFER TO DRAWING FHSF-PRI-EL-DR-0003 SHEET 4.
  - DPS WITH 5.0m HIGH ACOUSTIC BARRIER. REFER TO DRAWING FHSF-PRI-EL-DR-0003 SHEET 3.
  - DPS WITH 4.0m HIGH ACOUSTIC BARRIER. REFER TO DRAWING FHSF-PRI-EL-DR-0003 SHEET 2.
  - ACOUSTIC BARRIERS TO BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS OUTLINED WITHIN THE PREDICATIVE NOISE ASSESSMENT PREPARED BY WMG CONSULTANTS. THE ACOUSTIC BARRIERS TO BE CONSTRUCTED OF FIBRE CEMENT AND FINISHED IN 'PALE EUCALYPT'.
  - ALL BUILDINGS TO BE FINISHED IN 'PALE EUCALYPT'.
  - SOLAR PANELS TO INCLUDE ANTI-REFLECTIVE GLAZING AS PER CONDITION 1(c).



**ADVERTISED PLAN**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

DWG MUST BE VIEWED IN COLOUR



COPYRIGHT: 2012 - 2024. THIS DRAWING IS A PRIVATE AND CONFIDENTIAL COMMUNICATION AND THE PROPERTY OF ERV CONSULTING & DESIGN Pty Ltd BEING REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE CONSENT OF THE COMPANY

No	DESCRIPTION	DRAWN	CHKD	APPRD	DATE
E	REVISED AS PER CLIENT MARK UP	G.L.S.	J.S.	J.E.	24/07/24
I	UPDATED BESS CAPACITY	J.E.	D.R.	D.R.	02/08/24
H	MINOR UPDATES PERIMETER ROAD AND 65KL TANK	J.E.	D.R.	D.R.	02/08/24
G	REVISED AS PER CLIENT MARK UP	J.E.	D.R.	D.R.	31/07/24
F	REVISED AS PER CLIENT MARK UP	J.E.	D.R.	D.R.	30/07/24

**EHV**  
POINT COOK VIC 3030  
AUSTRALIA  
ABN: 74 613 402 447  
Telephone: +61 3 9386 6713  
Facsimile: +61 3 9386 6713  
Email: info@ehvdesign.com.au  
Web: www.ehvdesign.com.au

**RINA**

DRAWING TITLE  
**FULHAM SOLAR FARM  
PROPOSED SOLAR ARRAY LAYOUT**

DESIGN	G.L.Smith	DRAWN	N.Ochoa	DATE	06/06/2024
A1 SCALE	1:4000	CAD FILE	FHSF-PRI-EL-DR-0004	FOLDER	FHSF
DRAWING NUMBER	FHSF-PRI-EL-DR-0004	SHEET NUMBER	1	OF	2
REV					I



SYSTEM SPECIFICATION	
SYSTEM CAPACITY (Mwdc)	104.03
AC CAPACITY (MWAC)	100.8
MODULE	570w / 575w (MODEL TBD)
MODULE LENGTH (mm)	2,382
MODULE WIDTH (mm)	1,134
NUMBER OF MODULES	180,927
NUMBER OF STRINGS	6,701
MODULES PER STRING	27 MODULES
INVERTER MODEL	SMA SUNNY CENTRAL 4200 UP
NUMBER OF INVERTERS	24
PCU MODEL	MVPS-4200-S2
NUMBER OF PCUS	24 (1 x INVERTER PER PCU)
TRACKER	NEXTRACKER NX HORIZON
TRACKER RANGE	+/- 60 DEGREES
BATTERY TYPE	LITHIUM ION PHOSPHATE
BATTERY CONNECTION	DC COUPLED
BATTERY CAPACITY	116MWH
NUMBER OF BATTERIES	96 X WARTSILA GRIDSOLV QUANTUM BATTERY ENCLOSURES
NUMBER OF BATTERIES PER PCU	4 x BATTERY ENCLOSURES PER INVERTER
TOTAL NUMBER OF 2 STRING TRACKERS	76
TOTAL NUMBER OF 3 STRING TRACKERS	2,202
TOTAL SITE AREA (ha)	155
PITCH (M)	5.5
NUMBER OF FEEDERS	5
PCUs PER FEEDER	4 x 5 PCUs, 1 x 4 PCUs
DC SYSTEM VOLTAGE (V)	1500
MV SYSTEM VOLTAGE (kV)	33
HV SYSTEM VOLTAGE (kV)	66

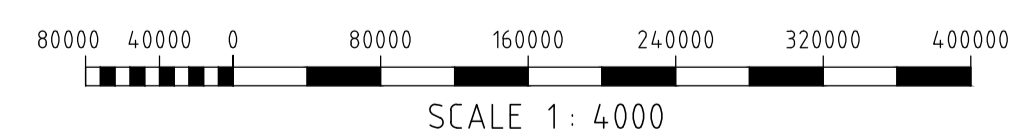
This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

TABLE 1 - LEGEND			
LOT BOUNDARY		15m ASSET PROTECTION ZONE	
PERIMETER FENCE		ACCESS GATE	
PROPOSED LAYDOWN AREA		EXISTING VEGETATION	
PV TRACKERS		5m VEGETATION SCREENING	
DISTRIBUTED POWER STATION (DPS)		ACCESS TRACK	
UNDERGROUND 33kV CABLE ROUTE		EXTERNAL ROADS	
EMERGENCY ACCESS GATE		WATER TANKS	
EXCLUSION ZONE		WATERWAY SETBACK	

**ADVERTISED PLAN**

- NOTES FOR THE TENDER:
- THE SITE IS TO BE SUPPLIED WITH 220 KL OF WATER FOR FIRE FIGHTING OPERATIONS. THIS WATER IS TO BE STORED IN VARIOUS TANKS ACROSS THE SITE. ADDITIONALLY, THE SWITCHBOARD ROOM ARE TO BE FITTED WITH INERGEN FIRE SUPPRESSION SYSTEM.
  - 45KL FIRE WATER TANKS TO BE LOCATED WITHIN 120m OF EACH DISTRIBUTED POWER SYSTEM.
  - ACCESS TO THE SITE VIA FIVE GATES THAT CONNECT TO THE TRACKS WHICH LOOP AND CROSS THE SITE.
  - TO LIMIT UNAUTHORISED ACCESS TO THE SITE A SECURITY FENCE IS TO SURROUND THE LANDSCAPING BUFFER. THIS FENCE IS TO ALSO LIMIT ANIMALS ACCESSING THE SITE.
  - WATER TANK CONFIGURATION SHALL BE ARRANGED AS PER RISK MANAGEMENT PLAN (DOCUMENT 231122\_JV23-00040\_FULHAM\_SOLAR\_FARM\_RMP\_D1 PAGE 50)
  - REVISED FIRE SAFETY PERMIT DETAILS ARE LISTED IN TABLE 5 RISK MANAGEMENT PLAN.
  - THE PERIMETER ROAD IS TO ALSO MAKE UP PART OF THE FIREBREAK. THIS FIREBREAK SHALL BE AT LEAST 15m WIDE.
  - THE TRACKS AT THE FULHAM SOLAR FARM ARE TO BE AT LEAST 4m WIDE. THESE TRACKS SHALL MEET THE CONDITIONS SET OUT IN THE CFA GUIDE 2022 (COUNTRY FIRE AUTHORITY (VIC), 2022).
  - THERE SHALL ALSO BE A LANDSCAPE BUFFER ALONG THE BOUNDARY THAT IS 5m WIDE AND IS DESIGNED TO GENERATE A BAL OF NO GREATER THAN 19 AT 15m FROM THE BUFFER.
  - THE TRACKS ON SITE MAKES A LOOP AND INTERCONNECT EACH OTHER. WHERE DEAD ENDS ARE FORMED THEN A TURNING CIRCLE ARRANGEMENT IS TO BE INCLUDED.
  - CFA IS TO HAVE ACCESS TO THE SITE VIA FIVE GATES THAT CONNECT TO THE TRACKS WHICH LOOP AND CROSS THE SITE.
  - ALL OTHER REQUIREMENTS LISTED IN RISK MANAGEMENT PLAN (DOCUMENT 231122\_JV23-00040\_FULHAM\_SOLAR\_FARM\_RMP\_D1) SHALL BE IMPLEMENTED.
  - SITE LIGHTNING PROTECTION SHALL BE PROVIDED AS STIPULATED IN RISK MANAGEMENT PLAN.
  - SOLAR FACILITIES ARE TO HAVE A MINIMUM 6m SEPARATION BETWEEN SOLAR PANEL BANKS. A BANK OF SOLAR PANELS MAY BE THAT CONNECTED TO A SINGLE POWER CONVERSION UNIT/INVERTER.
  - TYPICAL DISTRIBUTED POWER STATION (DPS) CONTAINING 2x INVERTER, 8x DC COUPLED BATTERY ENCLOSURES AND 12x DC CONVERTERS (59.6m X 7.5m). EARTHEN BUNDS PROVIDED AROUND THE DPS TO CONTAIN 45KL OF FIRE WATER RUNOFF.
  - TYPICAL DISTRIBUTED POWER STATION (DPS) CONTAINING 1x INVERTER, 4x DC COUPLED BATTERY ENCLOSURES AND 6x DC CONVERTERS (28.9m X 7.5m). EARTHEN BUNDS PROVIDED AROUND THE DPS TO CONTAIN 45KL OF FIRE WATER RUNOFF.
  - SOLAR PANELS TO INCLUDE ANTI-REFLECTIVE GLAZING AS PER CONDITION 1(c)
  - MESH SCREENING TO BE PROVIDED ON THE SECURITY FENCING TO A HEIGHT OF 18m AS PER THE RECOMMENDATIONS OF THE GLINT AND GLARE ASSESSMENT. SCREENING TO BE REMOVED ONCE LANDSCAPE BUFFER REACHES A HEIGHT OF 2.0m.

DWG MUST BE VIEWED IN COLOUR



COPYRIGHT: 2012 - 2024. THIS DRAWING IS A PRIVATE AND CONFIDENTIAL COMMUNICATION AND THE PROPERTY OF ERV CONSULTING & DESIGN Pty Ltd BEING REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE CONSENT OF THE COMPANY.

No	DESCRIPTION	DRAWN	CHKD	APPRD	DATE
E	REVISED AS PER CLIENT MARK UP	G.L.S.	J.S.	J.E.	24/07/24
D	REDESIGN DPS AND SUBSTATION FOR ACOUSTICS	J.E.	DR	DR	28/06/24
C	MINOR UPDATES TO DPS AND BUNDS	J.E.	J.E.	J.E.	07/06/24
G	REVISED AS PER CLIENT MARK UP	J.E.	D.R.	D.R.	31/07/24
F	REVISED AS PER CLIENT MARK UP	J.E.	D.R.	D.R.	30/07/24

No	DESCRIPTION	DRAWN	CHKD	APPRD	DATE

**ERV** CONSULTING AND DESIGN  
 POINT COOK VIC 3030  
 AUSTRALIA  
 ABN: 74 613 402 447  
 Telephone: +61 3 9386 6713  
 Facsimile: +61 3 9386 6713  
 Email: info@ervdesign.com.au  
 Web: www.ervdesign.com.au

**RINA**

DRAWING TITLE  
**FULHAM SOLAR FARM  
 PROPOSED SOLAR ARRAY LAYOUT**

DESIGN	G.L.Smith	DRAWN	N.Ochoa	DATE	06/06/2024
A1 SCALE		CAD FILE			
1:4000		FHSF-PRI-EL-DR-0004			
DRAWING NUMBER	FHSF-PRI-EL-DR-0004		SHEET NUMBER	2	OF 2
					REV G