
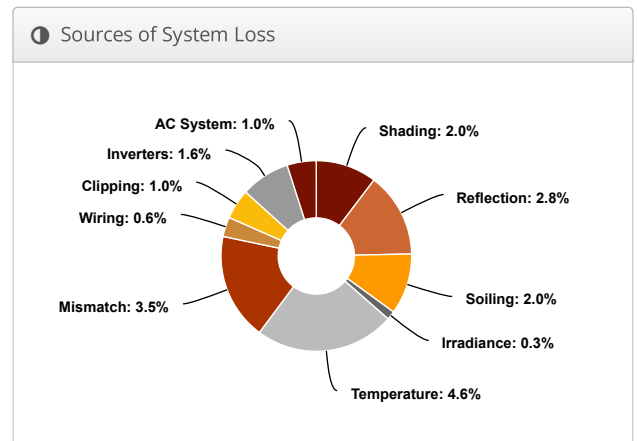
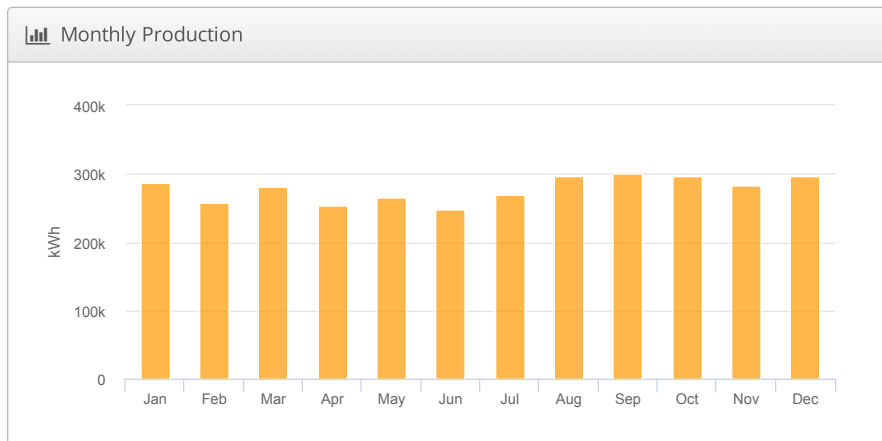
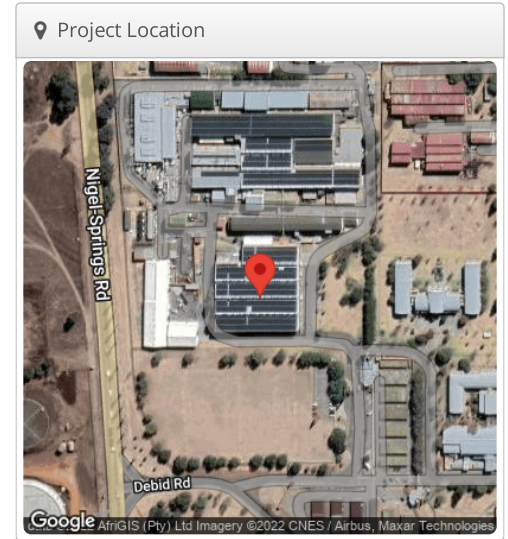


## Phase II - Ground Mount (Rev 4)(System Split Trees Option 1) Element Six, -26.296488, 28.455734

Report	
Project Name	Element Six
Project Address	-26.296488, 28.455734
Prepared By	Technical SA technical.sa@soventix.com
	

System Metrics	
Design	Phase II - Ground Mount (Rev 4)(System Split Trees Option 1)
Module DC Nameplate	1.81 MW
Inverter AC Nameplate	1.54 MW Load Ratio: 1.18
Annual Production	3,333 GWh
Performance Ratio	82.2%
kWh/kWp	1,837.2
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	a2413996ff-f921c26761-02d678cef2-052d8b88ae



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m <sup>2</sup> )	Annual Global Horizontal Irradiance	2,027.2	
	POA Irradiance	2,235.8	10.3%
	Shaded Irradiance	2,191.0	-2.0%
	Irradiance after Reflection	2,130.2	-2.8%
	Irradiance after Soiling	2,087.6	-2.0%
	<b>Total Collector Irradiance</b>	<b>2,087.5</b>	<b>0.0%</b>
Energy (kWh)	Nameplate	3,788,068.6	
	Output at Irradiance Levels	3,777,300.7	-0.3%
	Output at Cell Temperature Derate	3,603,657.0	-4.6%
	Output After Mismatch	3,477,288.9	-3.5%
	Optimal DC Output	3,454,839.7	-0.6%
	Constrained DC Output	3,420,809.2	-1.0%
	Inverter Output	3,365,545.5	-1.6%
		<b>Energy to Grid</b>	<b>3,333,354.0</b>
Temperature Metrics			
	Avg. Operating Ambient Temp		19.3 °C
	Avg. Operating Cell Temp		30.3 °C
Simulation Metrics			
	Operating Hours		4595
	Solved Hours		4595

☁ Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type	a	b	Temperature Delta								
	Fixed Tilt	-3.56	-0.075	3°C								
	Flush Mount	-2.81	-0.0455	0°C								
	East-West	-3.56	-0.075	3°C								
	Carport	-3.56	-0.075	3°C								
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Trackers	Maximum Angle						Backtracking					
	60°						Enabled					
Module Characterizations	Module						Uploaded By			Characterization		
	JAM72S30-540/MR (1500V) (JA Solar)						HelioScope			Spec Sheet Characterization, PAN		
Component Characterizations	Device						Uploaded By			Characterization		
	STP 110-60 (SMA)						HelioScope			Spec Sheet		

📦 Components		
Component	Name	Count
Inverters	STP 110-60 (SMA)	14 (1.54 MW)
AC Panels	14 input AC Panel	1
AC Home Runs	70 mm2 (Copper)	1 (479.4 m)
AC Home Runs	95 mm2 (Copper)	14 (2,706.4 m)
Strings	6 mm2 (Copper)	182 (24,128.9 m)
Module	JA Solar, JAM72S30-540/MR (1500V) (540W)	3,360 (1.81 MW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	15-19	Along Racking

🏠 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Portrait (Vertical)	20°	0°	4.0 m	3x24	35	2,520	1.36 MW
Field Segment 2	Fixed Tilt	Portrait (Vertical)	20°	0°	4.0 m	3x24	11	792	427.7 kW
Field Segment 3	Fixed Tilt	Portrait (Vertical)	20°	0°	4.0 m	3x16	1	48	25.9 kW

Detailed Layout

