

# Design 1 C | Sunport, 2200 Sunport Blvd SE

## Report

Project Name	C   Sunport
Project Address	2200 Sunport Blvd SE
Prepared By	OE Solar info@oscolaenergy.com

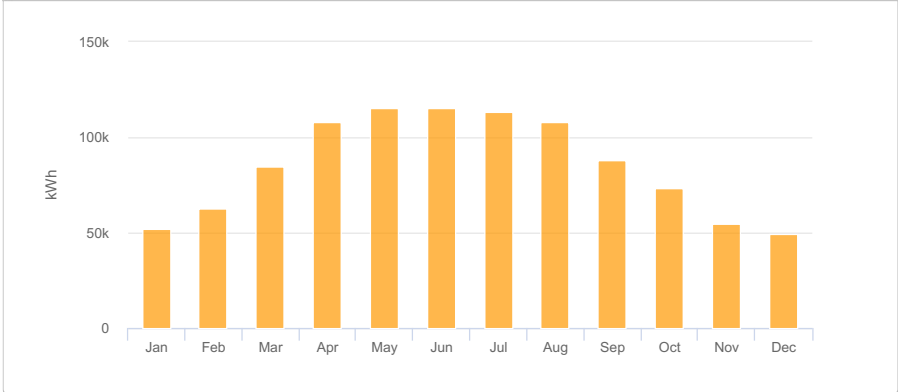
## System Metrics

Design	Design 1
Module DC Nameplate	609.8 kW
Inverter AC Nameplate	600.0 kW Load Ratio: 1.02
Annual Production	1,026 GWh
Performance Ratio	85.0%
kWh/kWp	1,681.9
Weather Dataset	TMY, ALBUQUERQUE INTL ARPT [ISIS], NSRDB (tmy3, I)
Simulator Version	976710bd6f-d16b7b72d4-0dcfd22a50-1d0eb092a8

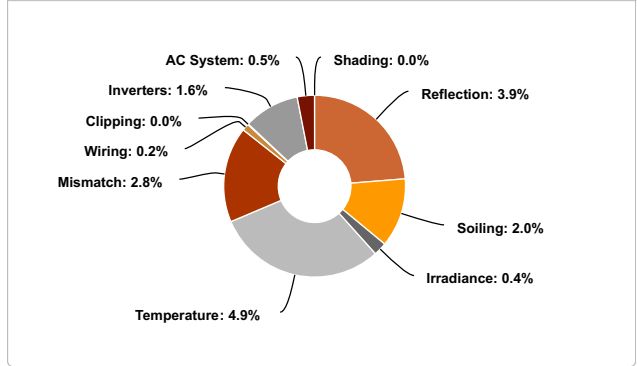
## Project Location



## Monthly Production



## Sources of System Loss



## Annual Production

	Description	Output	% Delta
Irradiance (kWh/m <sup>2</sup> )	Annual Global Horizontal Irradiance	1,980.4	
	POA Irradiance	1,978.2	-0.1%
	Shaded Irradiance	1,978.2	0.0%
	Irradiance after Reflection	1,901.9	-3.9%
	Irradiance after Soiling	1,863.9	-2.0%
	<b>Total Collector Irradiance</b>	<b>1,863.9</b>	<b>0.0%</b>
Energy (kWh)	Nameplate	1,140,375.2	
	Output at Irradiance Levels	1,135,986.6	-0.4%
	Output at Cell Temperature Derate	1,079,997.8	-4.9%
	Output After Mismatch	1,050,089.1	-2.8%
	Optimal DC Output	1,047,976.8	-0.2%
	Constrained DC Output	1,047,763.9	0.0%
	Inverter Output	1,030,824.8	-1.6%
	<b>Energy to Grid</b>	<b>1,025,670.7</b>	<b>-0.5%</b>
Temperature Metrics			
	Avg. Operating Ambient Temp		17.3 °C
	Avg. Operating Cell Temp		27.2 °C
Simulation Metrics			
	Operating Hours	4566	
	Solved Hours	4566	

Condition Set													
Description	Condition Set 1												
Weather Dataset	TMY, ALBUQUERQUE INTL ARPT [ISIS], NSRDB (tmy3, I)												
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							
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%												
Module Characterizations	Module		Uploaded By		Characterization								
	TSM-165DC31 (Trina Solar)		HelioScope		Spec Sheet Characterization, PAN								
Component Characterizations	Device			Uploaded By		Characterization							
	PVI 60TL 2-21-2017 (Solectria (Yaskawa Solectria Solar))			HelioScope		Default Characterization							

Components		
Component	Name	Count
Inverters	PVI 60TL 2-21-2017 (Solectria (Yaskawa Solectria Solar))	10 (600.0 kW)
Strings	10 AWG (Copper)	190 (58,037.4 ft)
Module	Trina Solar, TSM-165DC31 (165W)	3,696 (609.8 kW)

Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	16-20	Along Racking

Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1 (copy 3)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 7)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 8)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 9)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 10)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 4)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 5)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 6)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 11)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 12)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 13)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 14)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 15)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 16)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 17)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 18)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 19)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 20)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 21)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 22)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 23)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW
Field Segment 1 (copy 24)	Carport	Portrait (Vertical)	0°	180°	0.0 ft	1x1	168	168	27.7 kW

Detailed Layout

