RM5 (copy)1 City of Albuquerque City Yards, 5501 Pino Ave NE

Report

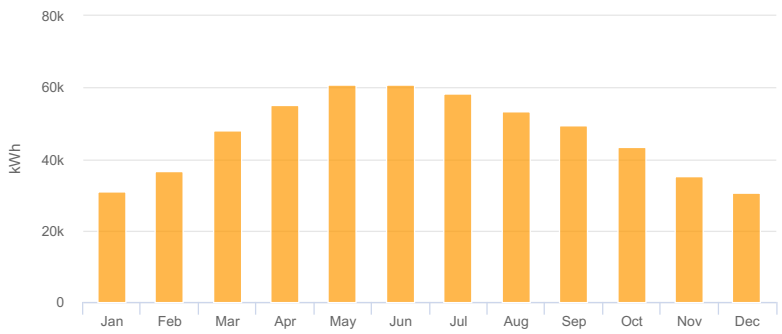
Project Name	City of Albuquerque City Yards
Project Address	5501 Pino Ave NE
Prepared By	OE Solar info@osceolaenergy.com

System Metrics

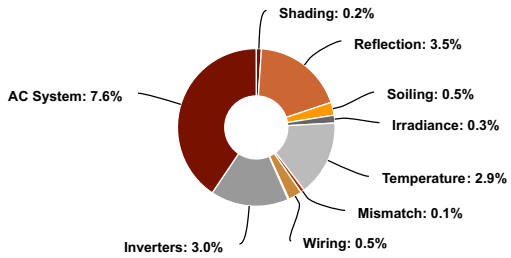
Design	RM5 (copy)1
Module DC Nameplate	319.6 kW
Inverter AC Nameplate	300.0 kW Load Ratio: 1.07
Annual Production	562.7 MWh
Performance Ratio	82.5%
kWh/kWp	1,760.6
Weather Dataset	TMY, 10km grid (35.15,-106.55), NREL (prospector)
Simulator Version	976710bd6f-d16b7b72d4-0dcfd22a50-1d0eb092a8

Project Location

Monthly Production



Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	2,045.1	
	POA Irradiance	2,134.4	4.4%
	Shaded Irradiance	2,130.1	-0.2%
	Irradiance after Reflection	2,054.8	-3.5%
	Irradiance after Soiling	2,044.5	-0.5%
	Total Collector Irradiance	**2,044.5**	**0.0%**
Energy (kWh)	Nameplate	653,615.6	
	Output at Irradiance Levels	651,645.1	-0.3%
	Output at Cell Temperature Derate	632,642.8	-2.9%
	Output After Mismatch	631,724.3	-0.1%
	Optimal DC Output	628,389.7	-0.5%
	Constrained DC Output	628,137.7	0.0%
	Inverter Output	609,179.9	-3.0%
	Energy to Grid	**562,689.7**	**-7.6%**
Temperature Metrics			
	Avg. Operating Ambient Temp		14.2 °C
	Avg. Operating Cell Temp		24.7 °C
Simulation Metrics			
	Operating Hours		4649
	Solved Hours		4649

Condition Set

Description	Condition Set 2
Weather Dataset	TMY, 10km grid (35.15,-106.55), NREL (prospector)
Solar Angle Location	Meteo Lat/Lng
Transposition Model	Hay 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
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Irradiation Variance	1%
Cell Temperature Spread	1° C
Module Binning Range	-1% to 1%
AC System Derate	0.50%

Module Characterizations

Module	Uploaded By	Characterization
AC-340M/156-72S (Axitec)	HelioScope	Spec Sheet Characterization, PAN

Component Characterizations

Device	Uploaded By	Characterization

Components

Component	Name	Count
Inverters	PVI50kW-240 (Solectria Renewables)	6 (300.0 kW)
AC Panels	6 input AC Panel	1
AC Home Runs	1/0 AWG (Copper)	1 (1,489.6 ft)
AC Home Runs	6 AWG (Aluminum)	6 (1,868.4 ft)
Strings	10 AWG (Copper)	90 (18,451.0 ft)
Module	Axitec, AC-340M/156-72S (340W)	940 (319.6 kW)

Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	9-11	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Landscape (Horizontal)	5°	180°	0.6 ft	1x1	270	270	91.8 kW
Field Segment 2	Fixed Tilt	Landscape (Horizontal)	5°	180°	0.9 ft	1x1	68	68	23.1 kW
Field Segment 2 (copy)	Fixed Tilt	Landscape (Horizontal)	5°	180°	0.9 ft	1x1	170	170	57.8 kW
Field Segment 2 (copy 1)	Fixed Tilt	Landscape (Horizontal)	5°	180°	0.9 ft	1x1	434	432	146.9 kW

Detailed Layout