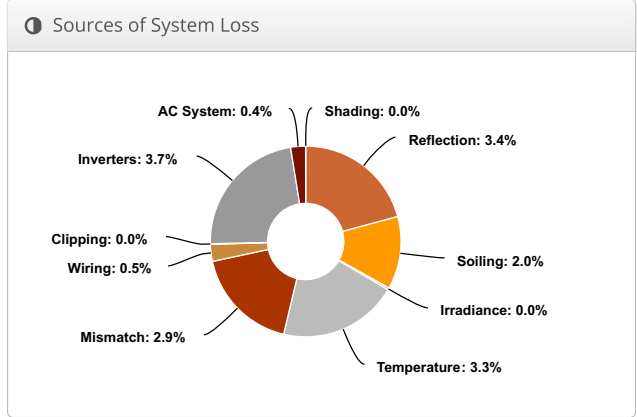
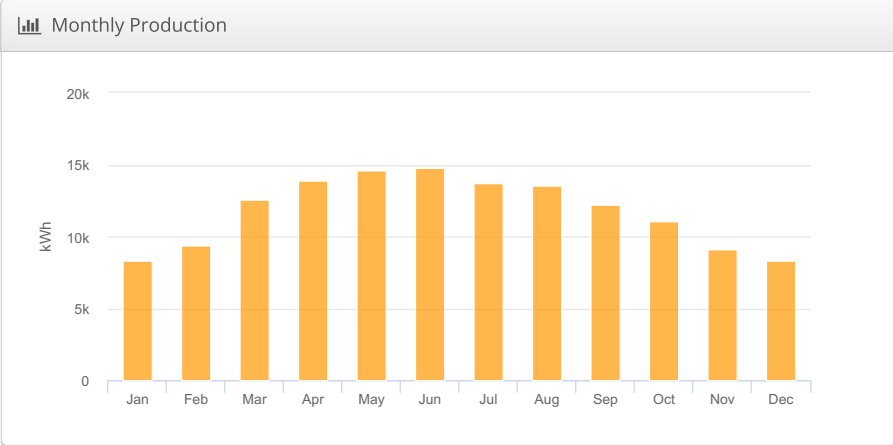
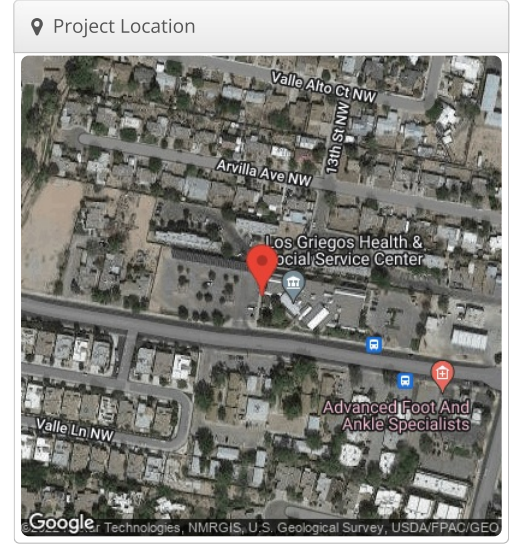


Final Design - Seraphim 360M (For Construction) City of ABQ Griegos Center (P2G2), 1231 Candelaria, Albuquerque, NM 87107

Report	
Project Name	City of ABQ Griegos Center (P2G2)
Project Address	1231 Candelaria, Albuquerque, NM 87107
Prepared By	Benjamin Rodefer ben@riogranderenewables.com

System Metrics	
Design	Final Design - Seraphim 360M (For Construction)
Module DC Nameplate	75.6 kW
Inverter AC Nameplate	70.0 kW Load Ratio: 1.08
Annual Production	141.5 MWh
Performance Ratio	84.9%
kWh/kWp	1,871.4
Weather Dataset	TMY, 10km grid (35.15,-106.65), NREL (prospector)
Simulator Version	45a06c4782-65a2e3a7bc-cce9d61228-18ebce00b3



Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m ²)	Annual Global Horizontal Irradiance	2,040.2	
	POA Irradiance	2,204.0	8.0%
	Shaded Irradiance	2,203.9	0.0%
	Irradiance after Reflection	2,129.7	-3.4%
	Irradiance after Soiling	2,087.1	-2.0%
	Total Collector Irradiance	2,087.1	0.0%
Energy (kWh)	Nameplate	157,948.7	
	Output at Irradiance Levels	157,871.5	0.0%
	Output at Cell Temperature Derate	152,679.5	-3.3%
	Output After Mismatch	148,244.2	-2.9%
	Optimal DC Output	147,548.8	-0.5%
	Constrained DC Output	147,527.2	0.0%
	Inverter Output	142,064.8	-3.7%
Energy to Grid	141,480.5	-0.4%	
Temperature Metrics			
	Avg. Operating Ambient Temp		14.4 °C
	Avg. Operating Cell Temp		25.2 °C
Simulation Metrics			
	Operating Hours		4650
	Solved Hours		4650

Condition Set													
Description	Condition Set 1												
Weather Dataset	TMY, 10km grid (35.15,-106.65), NREL (prospector)												
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									
	SRP-360-6MA (Seraphim)	HelioScope		Seraphim_PV360_6MA.PAN, PAN									
Component Characterizations	Device	Uploaded By		Characterization									

Components		
Component	Name	Count
Inverters	PVI 14TL-208 (Solectria)	5 (70.0 kW)
AC Home Runs	4 AWG (Copper)	5 (4,763.7 ft)
Strings	10 AWG (Copper)	20 (3,382.8 ft)
Module	Seraphim, SRP-360-6MA (360W)	210 (75.6 kW)

Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone 4	-	9-11	Along Racking

Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 4	Carport	Landscape (Horizontal)	10°	190.389°	0.0 ft	1x1	210	210	75.6 kW

Detailed Layout

