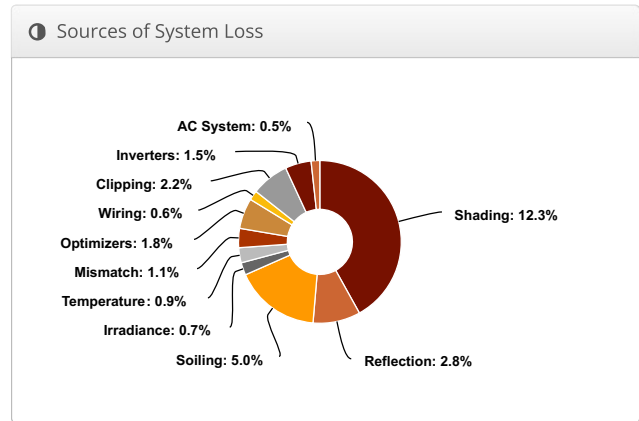
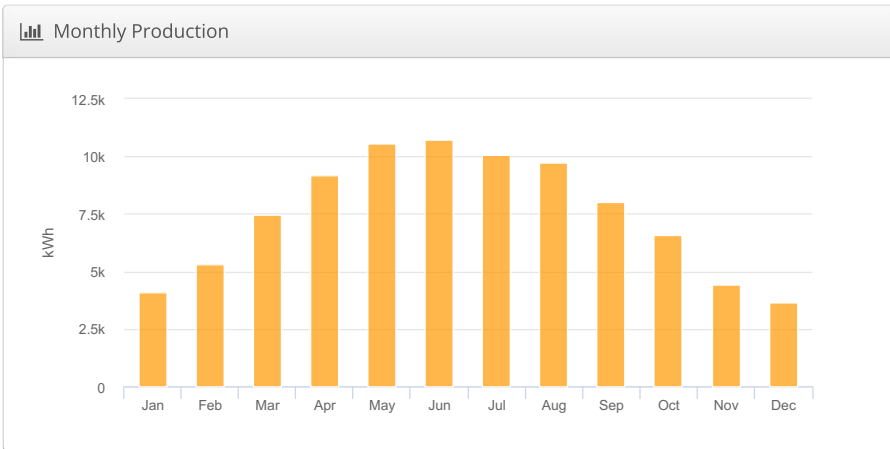
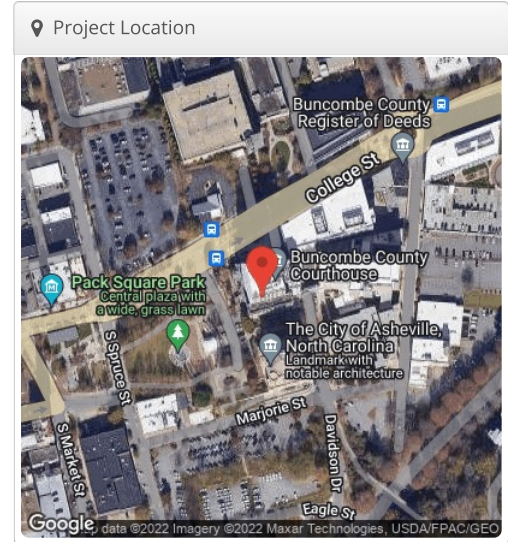


Rooftop Model Buncombe County - 60 Court Plaza, 60 Court Plaza

Report	
Project Name	Buncombe County - 60 Court Plaza
Project Address	60 Court Plaza
Prepared By	Jay Radcliffe ops@renuenergysolutions.com

System Metrics	
Design	Rooftop Model
Module DC Nameplate	70.1 kW
Inverter AC Nameplate	60.0 kW Load Ratio: 1.17
Annual Production	89.94 MWh
Performance Ratio	73.8%
kWh/kWp	1,283.4
Weather Dataset	TMY, 10km Grid (35.55,-82.55), NREL (prospector)
Simulator Version	ea2516024e-ca7e60f5c3-b7edc3b8d7-f100cd0da1



Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m ²)	Annual Global Horizontal Irradiance	1,620.9	
	POA Irradiance	1,739.3	7.3%
	Shaded Irradiance	1,525.2	-12.3%
	Irradiance after Reflection	1,483.0	-2.8%
	Irradiance after Soiling	1,408.9	-5.0%
	Total Collector Irradiance	1,409.1	0.0%
Energy (kWh)	Nameplate	98,751.0	
	Output at Irradiance Levels	98,033.7	-0.7%
	Output at Cell Temperature Derate	97,168.8	-0.9%
	Output After Mismatch	96,079.8	-1.1%
	Optimizer Output	94,371.3	-1.8%
	Optimal DC Output	93,846.8	-0.6%
	Constrained DC Output	91,790.4	-2.2%
	Inverter Output	90,396.2	-1.5%
	Energy to Grid	89,939.3	-0.5%
Temperature Metrics			
	Avg. Operating Ambient Temp		12.2 °C
	Avg. Operating Cell Temp		19.2 °C
Simulation Metrics			
	Operating Hours	4715	
	Solved Hours	4715	

Condition Set													
Description	Condition Set 2												
Weather Dataset	TMY, 10km Grid (35.55,-82.55), 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	
	5	5	5	5	5	5	5	5	5	5	5	5	
Irradiation Variance	5%												
Cell Temperature Spread	4° C												
Module Binning Range	-2.5% to 2.5%												
AC System Derate	2.00%												
Module Characterizations	Module								Uploaded By	Characterization			
	Q,PEAK DUO XL-G10.3/BFG 480 (2021) (Hanwha)								HelioScope	Spec Sheet Characterization, PAN			
Component Characterizations	Device				Uploaded By				Characterization				

Components		
Component	Name	Count
Inverters	SE30KUS (SolarEdge)	2 (60.0 kW)
AC Home Runs	4 AWG (Copper)	2 (1,220.3 ft)
Strings	10 AWG (Copper)	5 (1,475.4 ft)
Optimizers	P1101 (SolarEdge)	75 (82.5 kW)
Module	Hanwha, Q.PEAK DUO XL-G10.3/BFG 480 (2021) (480W)	146 (70.1 kW)

Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	13-34	Along Racking

Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Landscape (Horizontal)	10°	164.81416°	1.4 ft	1x1	50	50	24.0 kW
Field Segment 2	Fixed Tilt	Landscape (Horizontal)	10°	164.81416°	1.4 ft	1x1	36	36	17.3 kW
Field Segment 3	Fixed Tilt	Landscape (Horizontal)	10°	164.76273°	1.4 ft	1x1	17	17	8.16 kW
Field Segment 4	Fixed Tilt	Landscape (Horizontal)	10°	164.76273°	1.4 ft	1x1	43	43	20.6 kW

