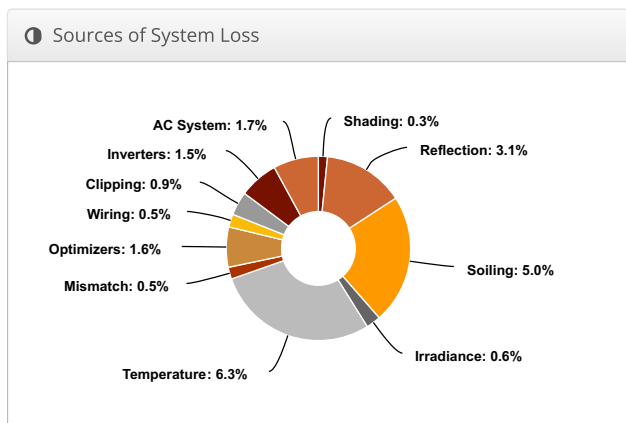
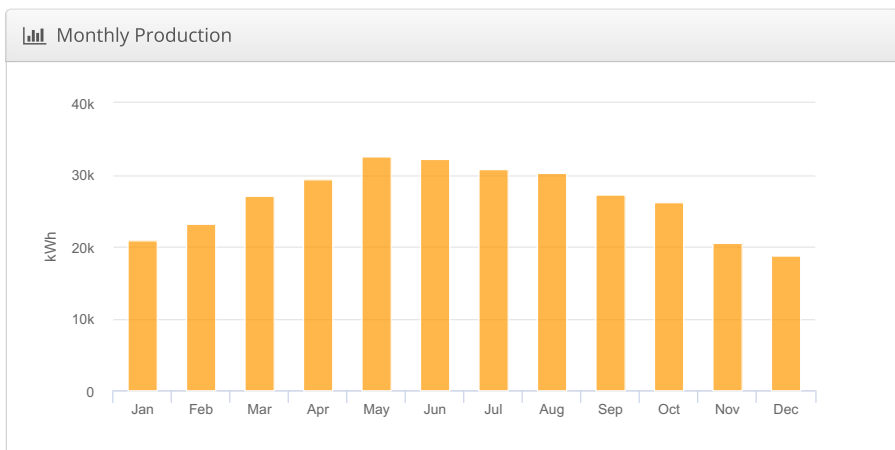
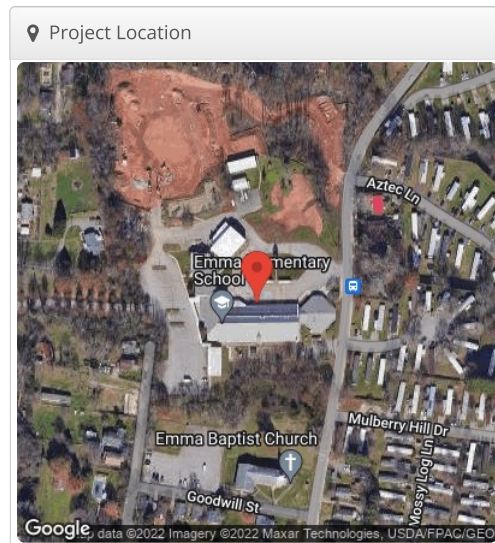


Meter #324748008 BCS - Emma Elementary - 37 Brickyard Rd, 37 Brickyard Rd, Asheville NC 28806

Report	
Project Name	BCS - Emma Elementary - 37 Brickyard Rd
Project Address	37 Brickyard Rd, Asheville NC 28806
Prepared By	Jay Radcliffe ops@renewenergysolutions.com

System Metrics	
Design	Meter #324748008
Module DC Nameplate	229.9 kW
Inverter AC Nameplate	180.0 kW Load Ratio: 1.28
Annual Production	319.5 MWh
Performance Ratio	79.9%
kWh/kWp	1,389.6
Weather Dataset	TMY, 10km Grid (35.55,-82.55), NREL (prospector)
Simulator Version	0cee300acc-3b7092d7ff-41629a9a21-c717987783



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	1,733.2	-0.3%
	Irradiance after Reflection	1,678.8	-3.1%
	Irradiance after Soiling	1,594.8	-5.0%
	Total Collector Irradiance	1,594.8	0.0%
Energy (kWh)	Nameplate	366,688.6	
	Output at Irradiance Levels	364,626.3	-0.6%
	Output at Cell Temperature Derate	341,741.7	-6.3%
	Output After Mismatch	340,173.9	-0.5%
	Optimizer Output	334,892.8	-1.6%
	Optimal DC Output	333,213.6	-0.5%
	Constrained DC Output	330,165.8	-0.9%
	Inverter Output	325,168.3	-1.5%
	Energy to Grid	319,493.4	-1.7%
Temperature Metrics			
	Avg. Operating Ambient Temp		12.2 °C
	Avg. Operating Cell Temp		28.7 °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-G10.3 480 (Hanwha Q Cells)	HelioScope										Spec Sheet Characterization, PAN
Component Characterizations	Device	Uploaded By								Characterization		

Components		
Component	Name	Count
Inverters	SE100KUS (SolarEdge)	1 (100.0 kW)
Inverters	SE80KUS (SolarEdge)	1 (80.0 kW)
AC Panels	1 input AC Panel	1
AC Home Runs	12 AWG (Copper)	1 (151.9 ft)
AC Home Runs	4 AWG (Copper)	1 (170.8 ft)
AC Home Runs	8 AWG (Copper)	1 (102.7 ft)
Strings	10 AWG (Copper)	17 (6,598.4 ft)
Optimizers	P1101 (SolarEdge)	241 (265.1 kW)
Module	Hanwha Q Cells, Q,peak DUO XL-G10.3 480 (480W)	479 (229.9 kW)

Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	13-31	Along Racking
Wiring Zone 2	-	13-31	Along Racking

Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Flush Mount	Portrait (Vertical)	30°	179.21239°	0.1 ft	1x1	282	282	135.4 kW
Field Segment 2	Flush Mount	Landscape (Horizontal)	30°	359.21933°	2.0 ft	1x1			0
Field Segment 3	Flush Mount	Portrait (Vertical)	30°	269.01382°	0.1 ft	1x1	83	83	39.8 kW
Field Segment 4	Flush Mount	Portrait (Vertical)	30°	89.01815°	0.1 ft	1x1	24	24	11.5 kW
Field Segment 5	Flush Mount	Portrait (Vertical)	30°	269.0454°	0.1 ft	1x1	34	34	16.3 kW
Field Segment 6	Flush Mount	Portrait (Vertical)	30°	89.04708°	0.1 ft	1x1	28	28	13.4 kW
Field Segment 7	Flush Mount	Landscape (Horizontal)	8°	179.14584°	2.0 ft	1x1			0
Field Segment 8	Flush Mount	Landscape (Horizontal)	8°	359.06082°	2.0 ft	1x1			0
Field Segment 9	Flush Mount	Portrait (Vertical)	8°	223.23694°	0.1 ft	1x1			0
Field Segment 10	Flush Mount	Portrait (Vertical)	8°	134.62372°	0.1 ft	1x1	28	28	13.4 kW
Field Segment 11	Flush Mount	Landscape (Horizontal)	8°	44.66168°	2.0 ft	1x1			0
Field Segment 12	Flush Mount	Landscape (Horizontal)	8°	314.68155°	2.0 ft	1x1			0
Field Segment 13	Flush Mount	Landscape (Horizontal)	30°	89.04708°	2.0 ft	1x1			0
Field Segment 14	Flush Mount	Landscape (Horizontal)	30°	268.99963°	2.0 ft	1x1			0

📍 Detailed Layout

