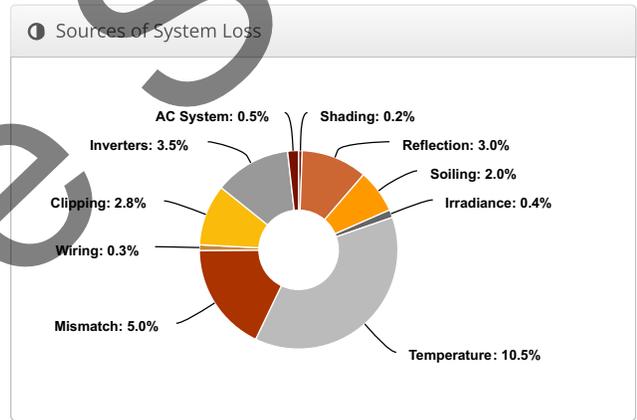
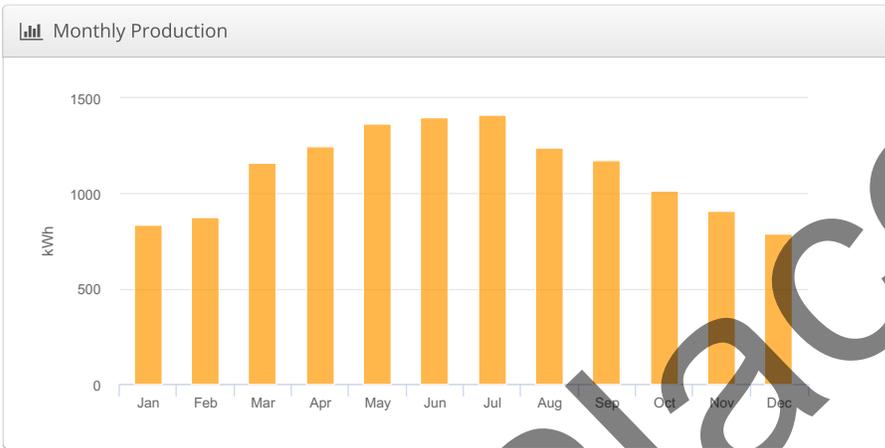
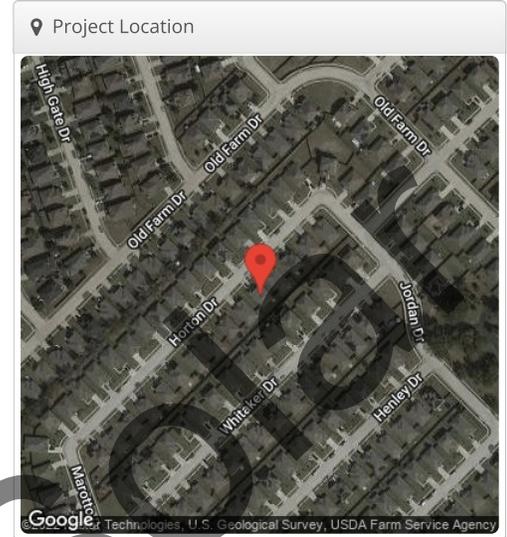


Design 1

Report	
Project Name	
Project Address	
Prepared By	

System Metrics	
Design	Design 1
Module DC Nameplate	9.59 kW
Inverter AC Nameplate	7.68 kW Load Ratio: 1.25
Annual Production	13.43 MWh
Performance Ratio	74.9%
kWh/kWp	1,400.9
Weather Dataset	TMY, 10km Grid (32.65,-96.55), NREL (prospector)
Simulator Version	7e02d8377c-9b339ea0ec-1f5b03aa72-3b96383fff



Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m ²)	Annual Global Horizontal Irradiance	1,747.4	
	POA Irradiance	1,871.5	7.1%
	Shaded Irradiance	1,868.4	-0.2%
	Irradiance after Reflection	1,811.9	-3.0%
	Irradiance after Soiling	1,775.7	-2.0%
	Total Collector Irradiance	1,775.6	0.0%
Energy (kWh)	Nameplate	17,033.7	
	Output at Irradiance Levels	16,972.5	-0.4%
	Output at Cell Temperature Derate	15,185.2	-10.5%
	Output After Mismatch	14,425.7	-5.0%
	Optimal DC Output	14,388.2	-0.3%
	Constrained DC Output	13,985.0	-2.8%
	Inverter Output	13,495.4	-3.5%
	Energy to Grid	13,427.9	-0.5%
Temperature Metrics			
	Avg. Operating Ambient Temp		21.8 °C
	Avg. Operating Cell Temp		39.8 °C
Simulation Metrics			
	Operating Hours	4702	
	Solved Hours	4702	

Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid (32.65,-96.55), 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
	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									
	LR4-60HPB-355M (2021) (Longi Solar)	Folsom Labs	Spec Sheet Characterization, PAN									
Component Characterizations	Device	Uploaded By	Characterization									
	Sunny Boy 7.7-US (240V) (SMA)	Folsom Labs	Spec Sheet									

Components

Component	Name	Count
Inverters	Sunny Boy 7.7-US (240V) (SMA)	1 (7.68 kW)
Strings	10 AWG (Copper)	3 (86.7 ft)
Module	Longi Solar, LR4-60HPB-355M (2021) (355W)	27 (9.59 kW)

Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	9-13	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Flush Mount	Portrait (Vertical)	20°	225.5°	0.0 ft	1x1	21	19	6.75 kW
Field Segment 2	Flush Mount	Portrait (Vertical)	20°	135°	0.0 ft	1x1	20	8	2.84 kW

Detailed Layout

