Sample Assured Solar, 460 Mountfort Rd. North Yarmouth Maine

Report

Project Name	Assured Solar
Project Address	460 Mountfort Rd. North Yarmouth Maine
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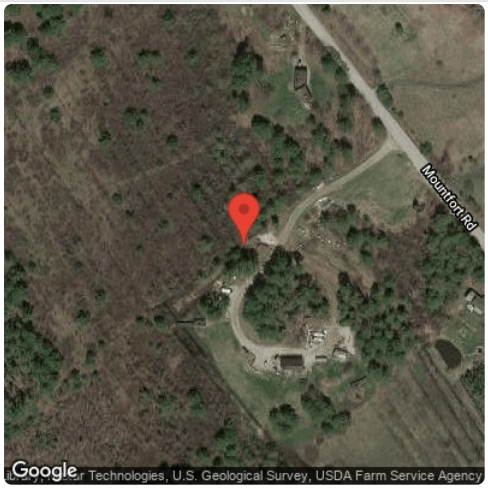
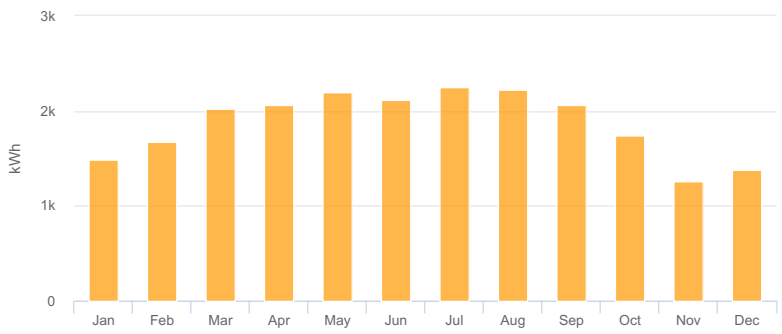
System Metrics

Design	Sample
Module DC Nameplate	15.7 kW
Inverter AC Nameplate	13.4 kW Load Ratio: 1.17
Annual Production	22.48 MWh
Performance Ratio	84.8%
kWh/kWp	1,434.0
Weather Dataset	TMY, 10km Grid (43.85,-70.25), NREL (prospector)
Simulator Version	f6d2dcc17d-2ae007fd15-c76d4d47b8-ebcb3ee7fb

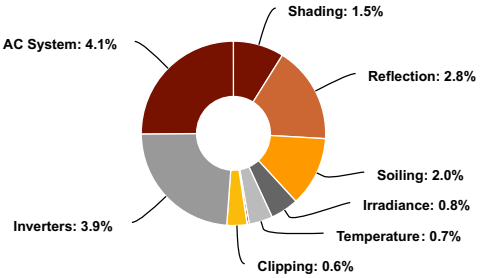
Project Location



Monthly Production



Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,394.4	
	POA Irradiance	1,691.6	21.3%
	Shaded Irradiance	1,667.0	-1.5%
	Irradiance after Reflection	1,620.7	-2.8%
	Irradiance after Soiling	1,588.2	-2.0%
	Total Collector Irradiance	**1,588.3**	**0.0%**
Energy (kWh)	Nameplate	24,914.2	
	Output at Irradiance Levels	24,713.9	-0.8%
	Output at Cell Temperature Derate	24,547.2	-0.7%
	Output After Mismatch	24,531.5	-0.1%
	Optimal DC Output	24,531.5	0.0%
	Constrained DC Output	24,390.4	-0.6%
	Inverter Output	23,445.0	-3.7%
	Energy to Grid	**22,484.9**	**-4.1%**
Temperature Metrics			
	Avg. Operating Ambient Temp		10.5 °C
	Avg. Operating Cell Temp		18.9 °C
Simulation Metrics			
	Operating Hours		4657
	Solved Hours		4657

Condition Set

Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid (43.85,-70.25), 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									
	REC280TP (REC Solar)	Folsom Labs	Spec Sheet Characterization, PAN									
Component Characterizations	Device	Uploaded By	Characterization									
	M250 (240V) (Enphase)	Folsom Labs	CEC									

Components

Component	Name	Count
Inverters	M250 (240V) (Enphase)	56 (13.4 kW)
AC Branches	8 AWG (Copper)	3 (4,509.5 ft)
Module	REC Solar, REC280TP (280W)	56 (15.7 kW)

Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	12	1-1	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Portrait (Vertical)	35°	180°	20.0 ft	2x7	4	56	15.7 kW

Detailed Layout