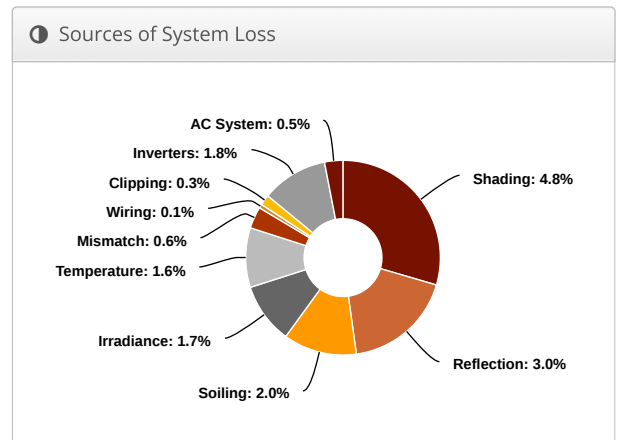
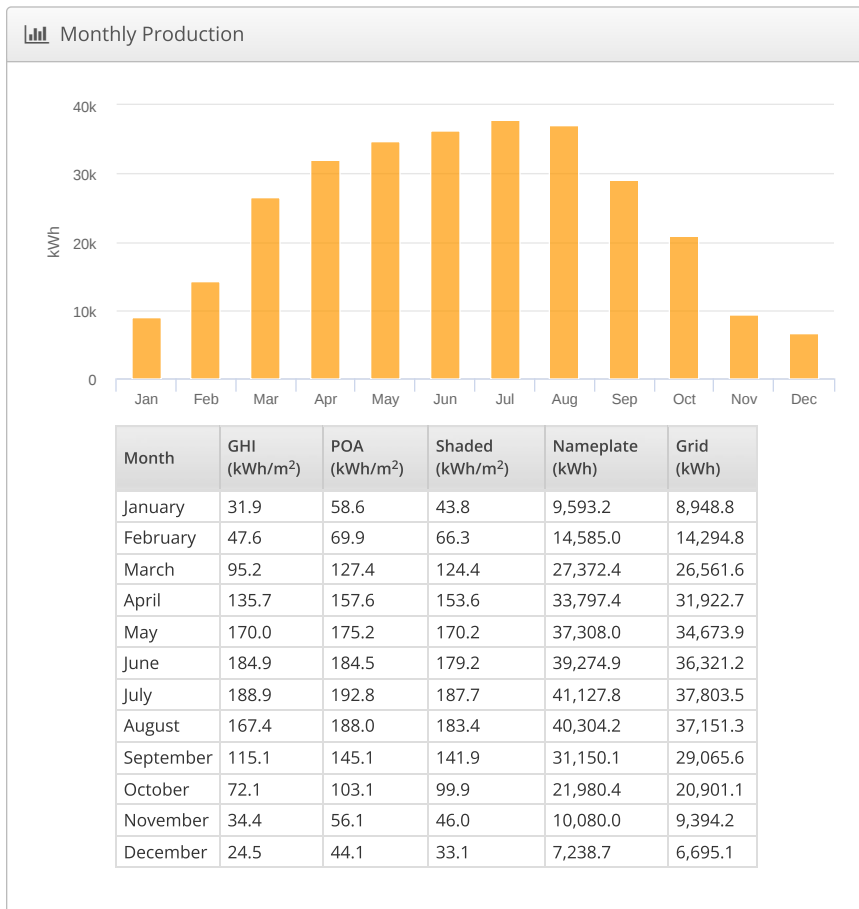
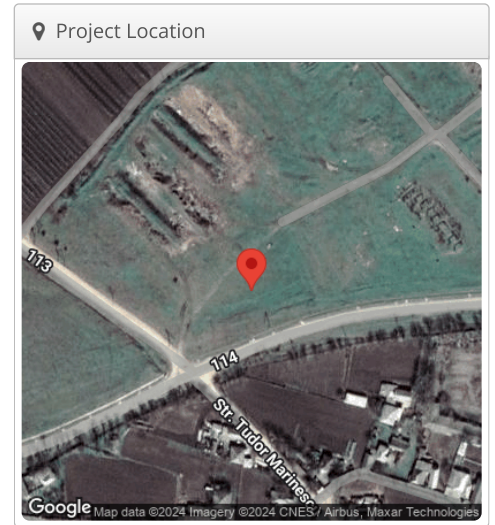


Design 1 Vasilcau, 4CR5+3V3 Trifăuți, Moldova

Report	
Project Name	Vasilcau
Project Address	4CR5+3V3 Trifăuți, Moldova
Prepared By	Catalin Sirbu sirbucatalin@term.md



System Metrics	
Design	Design 1
Module DC Nameplate	229.1 kW
Inverter AC Nameplate	200.0 kW Load Ratio: 1.15
Annual Production	293.7 MWh
Performance Ratio	85.3%
kWh/kWp	1,282.2
Weather Dataset	TMY, 10km Grid, Meteonorm 8 (meteonorm_v8)
Simulator Version	4d9cf46c7b-77b2ed58a4-ef1e56ccf3-c6a216cc9b



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m ²)	Annual Global Horizontal Irradiance	1,267.6	
	POA Irradiance	1,502.5	18.5%
	Shaded Irradiance	1,429.6	-4.8%
	Irradiance after Reflection	1,386.8	-3.0%
	Irradiance after Soiling	1,359.0	-2.0%
	Total Collector Irradiance	1,359.0	0.0%
Energy (kWh)	Nameplate	313,812.0	
	Output at Irradiance Levels	308,623.0	-1.7%
	Output at Cell Temperature Derate	303,608.0	-1.6%
	Output After Mismatch	301,820.3	-0.6%
	Optimal DC Output	301,496.8	-0.1%
	Constrained DC Output	300,636.9	-0.3%
	Inverter Output	295,210.0	-1.8%
		Energy to Grid	293,733.9
Temperature Metrics			
	Avg. Operating Ambient Temp		13.4 °C
	Avg. Operating Cell Temp		20.5 °C
Simulation Metrics			
	Operating Hours	4611	
	Solved Hours	4611	

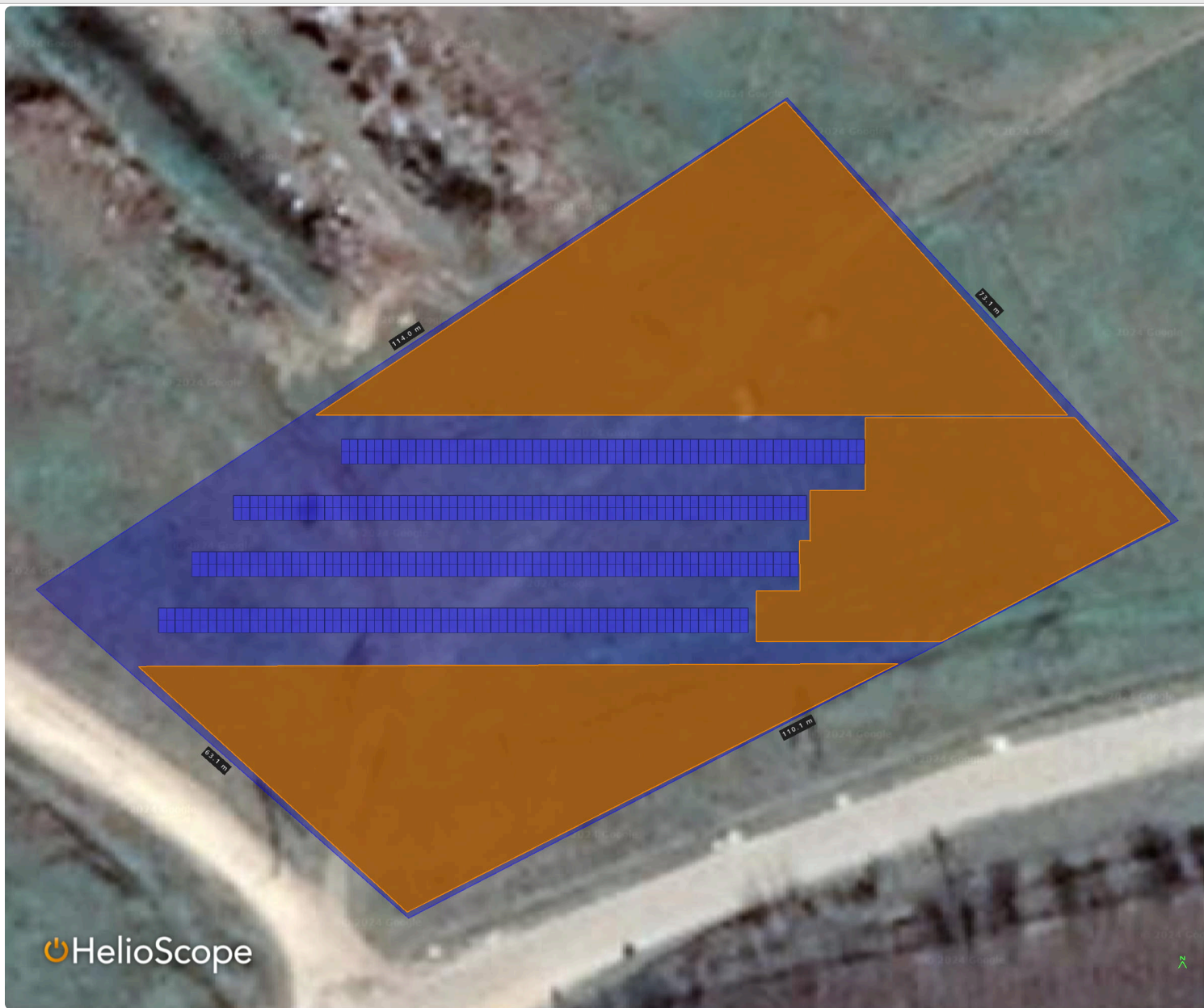
☁ Condition Set													
Description		Condition Set 2											
Weather Dataset		TMY, 10km Grid, Meteonorm 8 (meteonorm_v8)											
Solar Angle Location		Meteo Lat/Lng											
Transposition Model		Perez Model											
Temperature Model		Diffusion Model											
Temperature Model Parameters	Rack Type	U _{const}				U _{wind}							
	Fixed Tilt	29				0							
	Flush Mount	15				0							
	East-West	29				0							
	Carport	29				0							
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		1%											
Cell Temperature Spread		1° C											
Module Binning Range		0% to 1.5%											
AC System Derate		0.50%											
Module Characterizations	Module	Uploaded By		Characterization									
	SPR-MAX3-415 (SunPower)	HelioScope		Sunpower_SPR_MAX3_415.PAN, PAN									
Component Characterizations	Device	Uploaded By		Characterization									
	SOFAR 50KTLX-G3 (Sofar Solar)	HelioScope		Spec Sheet									

📦 Components		
Component	Name	Count
Inverters	SOFAR 50KTLX-G3 (Sofar Solar)	4 (200.0 kW)
Strings	10 AWG (Copper)	52 (2,276.5 m)
Module	SunPower, SPR-MAX3-415 (415W)	552 (229.1 kW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	3-11	Along Racking

🏠 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Portrait (Vertical)	Module: 30°	Module: 180°	4.0 m	2x1	276	552	229.1 kW

Detailed Layout2



Analiza Productiei Anuale

Year	Energy (kWh)		
0	0.0		
1	293,733.9		
2	292,265.2		
3	291,126.1		
4	289,327.9		
5	287,859.2		
6	286,390.6		
7	285,244.8		
8	283,453.2		
9	281,984.5		
10	280,515.9		
11	279,363.4		
12	277,578.5		
13	276,109.9		
14	274,641.2		
15	273,482.1		
16	271,703.9		
17	270,235.2		
18	268,766.5		
19	267,600.8		
20	265,829.2		
21	264,360.5		
22	262,891.8		
23	261,719.4		
24	259,954.5		
25	258,485.8		
	6,904,624.1		