

Zone 4 v2 zonder Weerden 722191 | Groningen ZP-CAES Systeem, 53.24304069572769, 6.687871594668537

Report

Project Name

722191 | Groningen ZP-CAES Systeem

Project Address

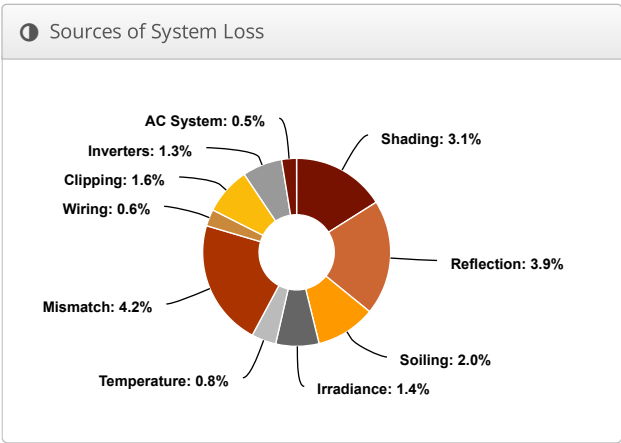
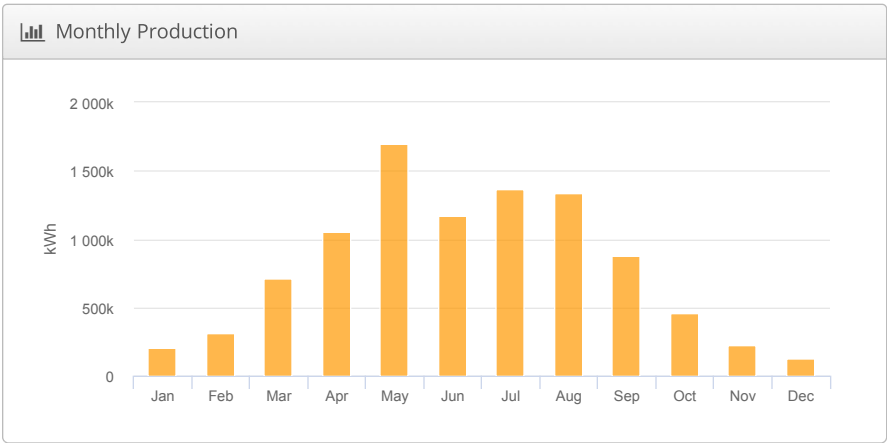
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Prepared By

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System Metrics	
Design	Zone 4 v2 zonder Weerden
Module DC Nameplate	10.5 MW
Inverter AC Nameplate	7.00 MW Load Ratio: 1.49
Annual Production	9.537 GWh
Performance Ratio	82.1%
kWh/kWp	912.3
Weather Dataset	Groningen ZP (TMY), Groningen ZP, ECMWF/ERA (custom)
Simulator Version	5aee66451a-bd835f4a09-97ab2b5119-59c665659f

Project Location



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,014.9	
	POA Irradiance	1,110.9	9.5%
	Shaded Irradiance	1,076.3	-3.1%
	Irradiance after Reflection	1,034.8	-3.9%
	Irradiance after Soiling	1,014.1	-2.0%
	Total Collector Irradiance	1,014.1	0.0%
Energy (kWh)	Nameplate	10,603,241.3	
	Output at Irradiance Levels	10,449,887.7	-1.4%
	Output at Cell Temperature Derate	10,364,055.3	-0.8%
	Output After Mismatch	9,925,983.4	-4.2%
	Optimal DC Output	9,870,391.6	-0.6%
	Constrained DC Output	9,714,444.1	-1.6%
	Inverter Output	9,585,142.0	-1.3%
	Energy to Grid	9,537,217.0	-0.5%
Temperature Metrics			
Avg. Operating Ambient Temp		13.2 °C	
Avg. Operating Cell Temp		19.0 °C	
Simulation Metrics			
		Operating Hours	4171
		Solved Hours	4171

☁ Condition Set												
Description	Groningen PVGIS-SARAH2 (TMY)											
Weather Dataset	Groningen ZP (TMY), Groningen ZP, ECMWF/ERA (custom)											
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								
	East-West	-3.56	-0.075	3°C								
	Carport	-3.56	-0.075	3°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			
	JAM72S30-550/MR (1500V) (JA Solar)						HelioScope		Spec Sheet Characterization, PAN			
Component Characterizations	Device						Uploaded By		Characterization			
	SUN2000-185KTL-H1 (@40C) (2021) (Huawei)						HelioScope		Spec Sheet			

📦 Components		
Component	Name	Count
Inverters	SUN2000-185KTL-H1 (@40C) (2021) (Huawei)	40 (7.00 MW)
Strings	10 AWG (Copper)	720 (139,683.4 m)
Module	JA Solar, JAM72S30-550/MR (1500V) (550W)	19,008 (10.5 MW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	13-27	Along Racking

🏠 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Zone 4	Fixed Tilt	Landscape (Horizontal)	15°	186.5°	3.0 m	6x11	264	17,424	9.58 MW
Field Segment 3	Fixed Tilt	Landscape (Horizontal)	15°	186.5°	3.0 m	6x11	24	1,584	871.2 kW

🌐 Detailed Layout

