

Design 1 Hyperion 2, I349en

Report

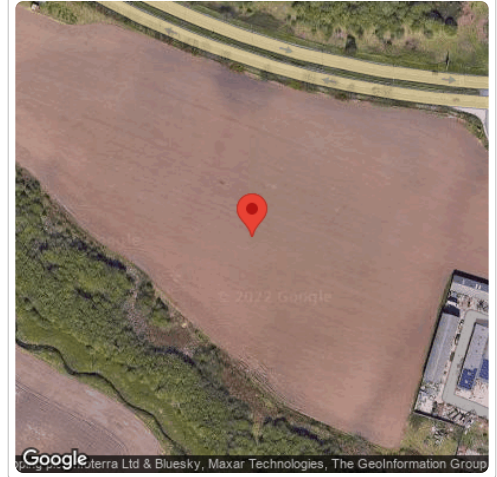
Project Name	Larkins Farm 2
Project Address	I349en
Prepared By	Greig Dyet greig@hyperionzero.co.uk

HyperionZero

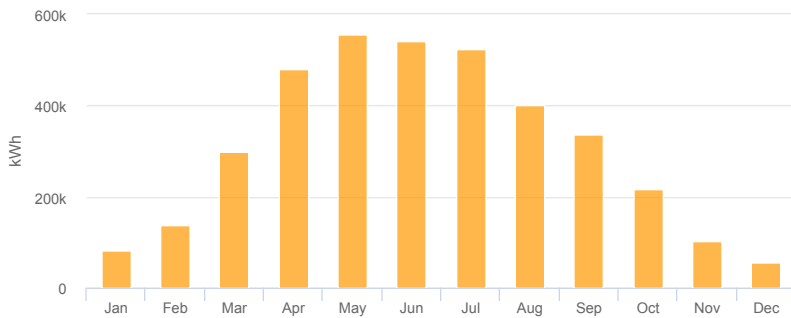
System Metrics

Design	Design 1
Module DC Nameplate	4.49 MW
Inverter AC Nameplate	3.00 MW Load Ratio: 1.50
Annual Production	3.731 GWh
Performance Ratio	81.6%
kWh/kWp	830.3
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	564ee0cdc4-623802da71-ee32b20c60-f7827927af

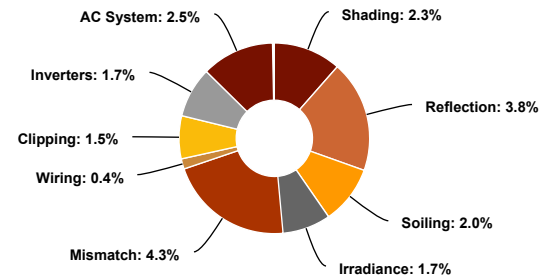
Project Location



Monthly Production



Sources of System Loss



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	912.8	
	POA Irradiance	1,018.1	11.5%
	Shaded Irradiance	994.5	-2.3%
	Irradiance after Reflection	956.4	-3.8%
	Irradiance after Soiling	937.3	-2.0%
	Total Collector Irradiance	937.2	0.0%
Energy (kWh)	Nameplate	4,212,659.3	
	Output at Irradiance Levels	4,140,900.8	-1.7%
	Output at Cell Temperature Derate	4,143,315.0	0.1%
	Output After Mismatch	3,965,531.1	-4.3%
	Optimal DC Output	3,951,595.9	-0.4%
	Constrained DC Output	3,893,541.2	-1.5%
	Inverter Output	3,826,364.4	-1.7%
	Energy to Grid	3,731,161.9	-2.5%
Temperature Metrics			
Avg. Operating Ambient Temp		12.5 °C	
Avg. Operating Cell Temp		17.3 °C	
Simulation Metrics			
Operating Hours			4580
Solved Hours			4580

☁ Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)											
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				
	LR5-66HBD-500M (Longi Solar)					HelioScope		Spec Sheet Characterization, PAN				
Component Characterizations	Device		Uploaded By					Characterization				

📦 Components		
Component	Name	Count
Inverters	S5-GC50K (380V) (Solis)	60 (3.00 MW)
AC Home Runs	70 mm2 (Copper)	60 (64,731.7 m)
Strings	6 mm2 (Copper)	432 (33,931.2 m)
Module	Longi Solar, LR5-66HBD-500M (500W)	8,988 (4.49 MW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	5-22	Along Racking

🏠 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Landscape (Horizontal)	15°	180°	3.0 m	4x1	2,247	8,988	4.49 MW

🌐 Detailed Layout

