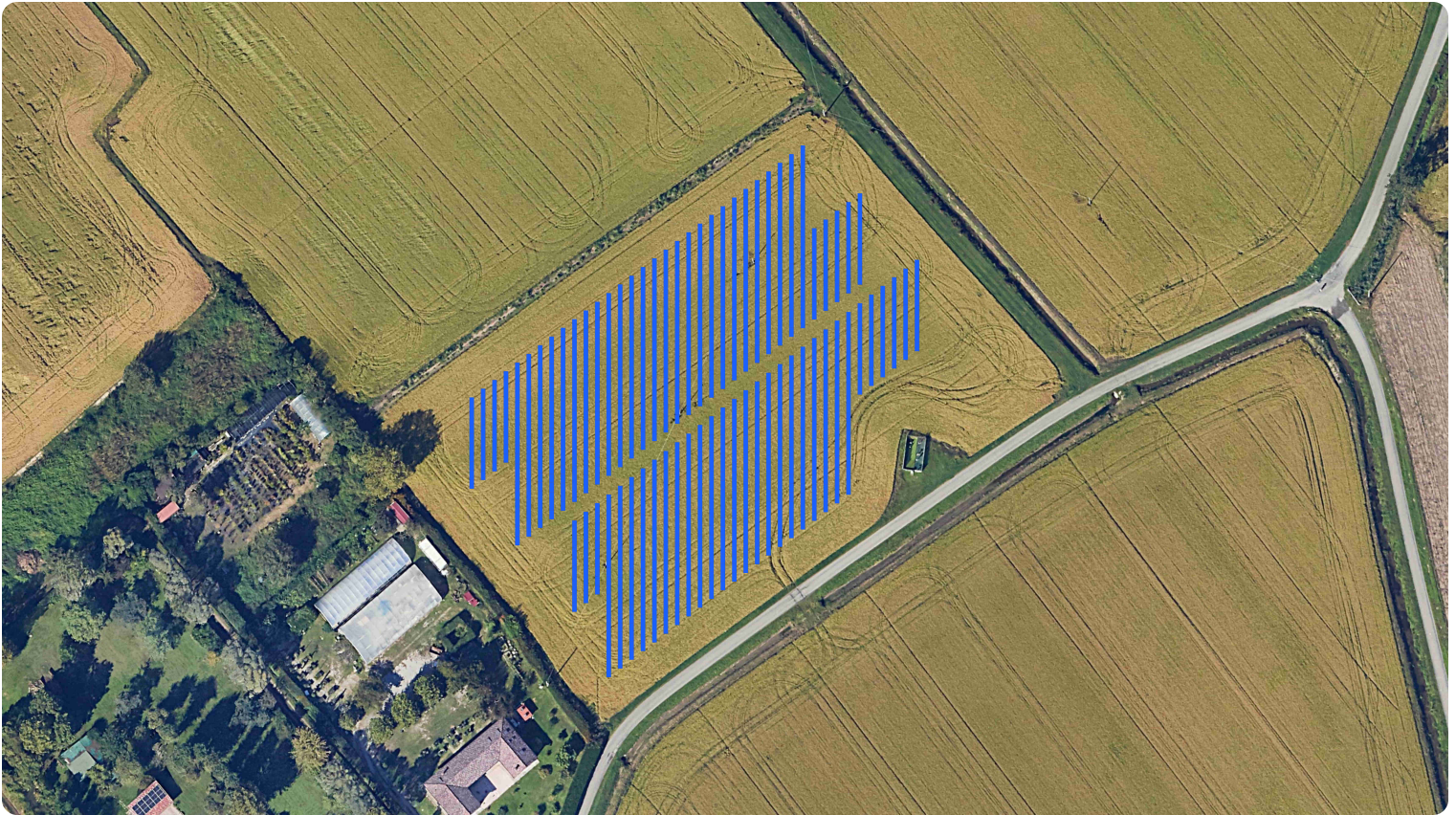




Project summary

Address

92QV+QM
, Lombardy 20083 IT

Location

(45.3894779, 9.0442416) (GMT 2)

Area

3.22 acres

Result summary

Module DC Nameplate
609.90 kW

Modules • Inverters QTY
1140 • 26

Inverter AC Nameplate
520.00 kW (DC/AC Ratio: 1.17)

Performance Ratio
78.8%

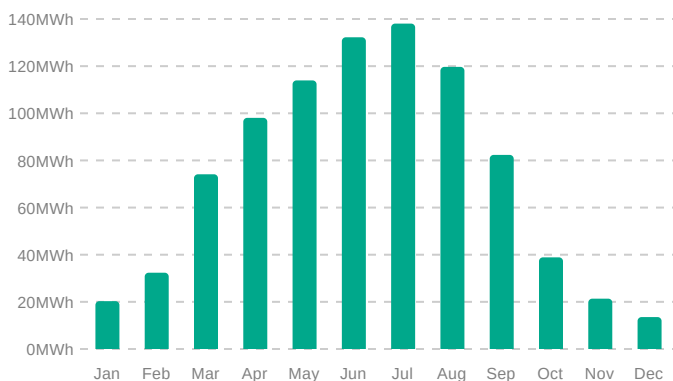
Energy production
884864.7 kWh/year

Shade loss
2.2%

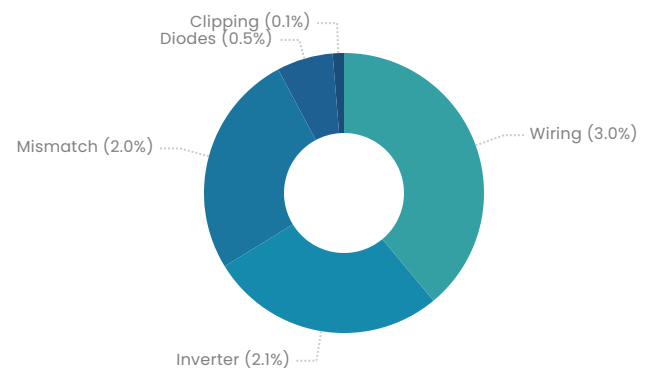
Specific yield
1450.8 kWh/kWp/year

Rear irradiance gain
7.7%

Energy production



System loss



Main results

	GHI kWh/m ²	DHI kWh/m ²	Temp °C	PoaNom kWh/m ²	PoaEff kWh/m ²	DC MWh	AC MWh	PR Ratio
Jan.	37.16	16.98	2.41	49.36	46.05	29.46	20.30	0.674
Feb.	53.35	25.10	3.78	69.00	65.41	41.24	32.36	0.769
Mar.	112.94	44.87	9.05	147.15	140.35	85.65	74.12	0.826
Apr.	157.44	67.74	13.83	196.09	185.32	111.19	98.06	0.820
May	184.59	74.66	15.50	229.93	219.34	128.21	113.94	0.813
June	214.09	71.87	22.99	271.01	259.66	146.25	132.24	0.800
July	220.02	65.55	25.33	285.02	273.15	152.59	138.05	0.794
Aug.	187.91	56.48	24.10	245.95	235.73	133.31	119.69	0.798
Sep.	127.85	47.16	20.54	169.99	162.02	93.93	82.34	0.794
Oct.	66.53	30.96	15.76	85.41	81.02	48.87	38.88	0.746
Nov.	39.66	17.34	8.03	52.05	49.08	30.29	21.35	0.673
Dec.	29.91	15.93	5.04	39.44	36.20	22.45	13.54	0.563
Year	1431.45	534.63	13.92	1840.40	1753.33	1023.44	884.86	0.788

GHI
Global horizontal irradiance

DHI
Diffuse horizontal irradiance

Temp
Dry-bulb ambient temperature

PoaNom
POA front tot. irr. nominal

PoaEff
POA irr. tot. after shade & soil

DC
DC energy

AC
AC energy gross

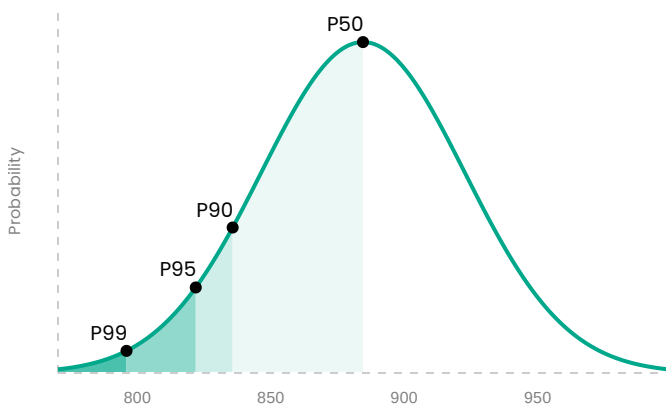
PR
Performance ratio

General parameters

Weather dataset

NSRDB MSG 2022 TMY Physical Solar Model (PSM) v4.0.0 (45.37, 9.06)

P50 - P99 evaluation



	Annual production (MWh)	Specific yield (kWh/kWp/year)
P50	884.9	1450.8
P90	836.0	1370.8
P95	822.2	1348.1
P99	796.3	1305.6

Global variability (weather data)
 σ : 4.3%

Array composition

Array 1

Field 1

Array 1 • Layout

GCR 0.4	Racking Single-axis tracking	Module height 5.000 ft	Field height 0.000 ft
Pitch 9.301 ft	Mods per string 13	Frame • up 1	Frame • wide 10, 20
Row spacing 5.581 ft	Frame spacing 15.000 ft	Vert. mod. spacing 0.000 ft	Horiz. mod. spacing 0.000 ft
Module azimuth 180.0°	Field setback 25.000 ft	Tracker rotation limit 45°	Orientation Landscape

Array 1 • Characteristics

PV Module		Inverter	
Manufacturer CSI Solar Co., Ltd.		Manufacturer Canadian Solar	
Model CS6W-535MS 1500V		Model CSI-20KTL-GI-FL	
Unit nom. power 535.00 W	Number of PV modules 1140 units	Unit nom. power 20.00 kW	Number of inverters 26 units
Total nom. power 609.90 kW	Stringing 88 strings x 13 in series	Total nom. power 520.00 kW	Phom ratio (DC:AC) 1.200
Bifacial True	Bifaciality 0.75		
Bif. transmission factor 0.013			

Array 1 • Simulation settings

Diffuse sky model Perez	Shade mode Standard Non-Linear
----------------------------	-----------------------------------

Array 1 • General losses

Array soiling/snow losses

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%

DC wiring 2.0%	Light-induced degradation 0.0%	Module quality 0.0%	Module mismatch 2.0%
Diodes and connections 0.5%	DC optimizer 0.0%	Rear soiling 0.0%	Bifacial electrical mismatch 0.0%
Tracking error 0.0%			

Array 1 • AC losses

Transmission
0.0%

AC wiring
1.0%

Inverter clipping
0.1%

Inverter power consumption
0.4%

Inverter night tare
0.0%

Inverter efficiency
1.7%

Transformer (no load)
2.0%

Transformer (load)
2.0%

System unavailability
0.0%

Array 1 • Shade losses

Shade losses
2.2%

	Plane of array irradiance (POA) MWh	Shaded POA MWh	Percentage ratio
Jan.	144.3	139.4	96.6
Feb.	201.7	196.8	97.6
Mar.	430.1	420.9	97.9
Apr.	573.2	556.0	97.0
May	672.1	657.3	97.8
June	792.2	777.7	98.2
July	833.1	817.5	98.1
Aug.	718.9	705.6	98.2
Sep.	496.9	485.5	97.7
Oct.	249.7	243.4	97.5
Nov.	152.1	148.6	97.7
Dec.	115.3	110.5	95.9
Year	5379.37	5259.23	97.77