V2indA DIT081_ AMBITER, 44.741855067000 ,10.152551005

Report

Project Name	DIT081_ AMBITER
Project Address	44.741855067000 ,10.152551005
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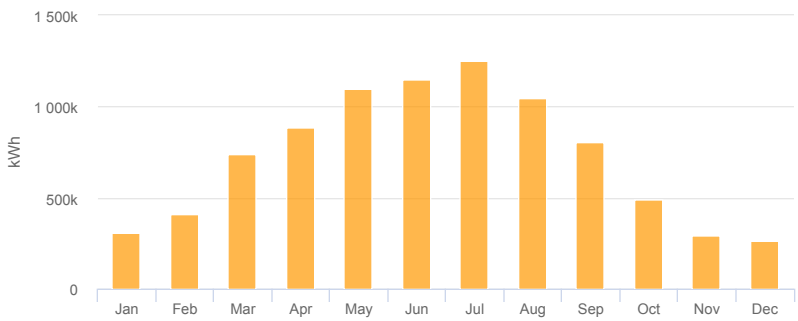
Laketricity
SOLAR POWER ON WATER
a Ciel & Terre entity

System Metrics

Design	V2indA
Module DC Nameplate	7.54 MW
Inverter AC Nameplate	6.00 MW Load Ratio: 1.26
Annual Production	8.731 GWh
Performance Ratio	81.6%
kWh/kWp	1,158.4
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	c1c5e99574-95349750fb-5f5dcca6cf-1a20a66431

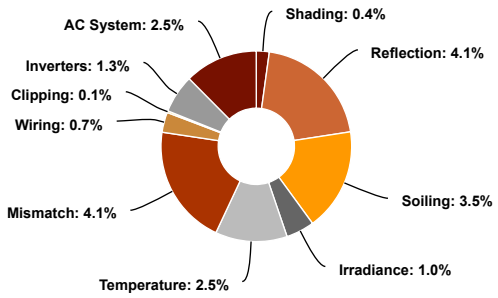
Project Location

Monthly Production



Month	GHI (kWh/m²)	POA (kWh/m²)	Shaded (kWh/m²)	Nameplate (kWh)	Grid (kWh)
January	43.8	49.3	48.1	327,274.1	304,989.5
February	59.7	64.3	63.8	440,623.8	407,677.8
March	110.0	116.4	116.0	807,747.8	738,858.3
April	136.0	139.9	139.8	978,521.0	882,783.1
May	175.4	178.1	177.9	1,248,069.4	1,096,274.4
June	188.6	190.0	189.8	1,332,712.1	1,150,035.1
July	206.0	207.8	207.6	1,459,608.8	1,253,591.6
August	168.8	173.4	173.2	1,213,198.8	1,047,747.3
September	125.3	131.2	130.8	913,345.0	806,110.1
October	74.2	79.4	78.8	544,944.1	490,546.2
November	43.1	47.4	46.5	318,179.2	290,658.1
December	37.9	42.9	41.8	283,400.2	262,167.8

Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,368.9	
	POA Irradiance	1,420.2	3.7%
	Shaded Irradiance	1,414.0	-0.4%
	Irradiance after Reflection	1,356.1	-4.1%
	Irradiance after Soiling	1,308.6	-3.5%
	Total Collector Irradiance	**1,308.6**	**0.0%**
Energy (kWh)	Nameplate	9,867,624.0	
	Output at Irradiance Levels	9,772,152.3	-1.0%
	Output at Cell Temperature Derate	9,532,708.5	-2.5%
	Output After Mismatch	9,141,678.7	-4.1%
	Optimal DC Output	9,079,011.6	-0.7%
	Constrained DC Output	9,073,932.4	-0.1%
	Inverter Output	8,955,322.0	-1.3%
	Energy to Grid	**8,731,439.0**	**-2.5%**
Temperature Metrics			
	Avg. Operating Ambient Temp		17.5 °C
	Avg. Operating Cell Temp		23.6 °C
Simulation Metrics			
	Operating Hours		4593
	Solved Hours		4593

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	Diffusion Model											
Temperature Model Parameters	Rack Type		U_{const}		U_{wind}							
	Fixed Tilt		29		1.5							
	Flush Mount		15		1.5							
	East-West		35		0							
	Carport		29		1.5							
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	2.50%											

Module Characterizations	Module	Uploaded By	Characterization
	CS7N-670MS (1500V) (CanadianSolar)	HelioScope	Spec Sheet Characterization, PAN

Component Characterizations	Device	Uploaded By	Characterization
	SUN2000-215KTL-H3 (Huawei Technologies)	Ciel et Terre USA Inc.	Default Characterization

Components

Component	Name	Count
Inverters	SUN2000-215KTL-H3 (Huawei Technologies)	30 (6.00 MW)
Strings	10 AWG (Copper)	375 (57,307.0 m)
Module	CanadianSolar, CS7N-670MS (1500V) (670W)	11,250 (7.54 MW)

Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	30-30	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Portrait (Vertical)	12°	180°	0.8 m	1x38			0
Field Segment 2	Fixed Tilt	Landscape (Horizontal)	5°	209.11249°	0.3 m	1x30	312	9,360	6.27 MW
Field Segment 2 (copy 1)	Fixed Tilt	Landscape (Horizontal)	5°	209.11249°	0.3 m	1x30	63	1,890	1.27 MW

Detailed Layout