

carport

Aire de covoiturage PPG7+FV Francheville, 11 rte de paris 08000 La Francheville

Report

Project Name	Aire de covoiturage PPG7+FV Francheville
Project Address	11 rte de paris 08000 La Francheville
Prepared By	Kamar Amine kamin008@fiu.edu

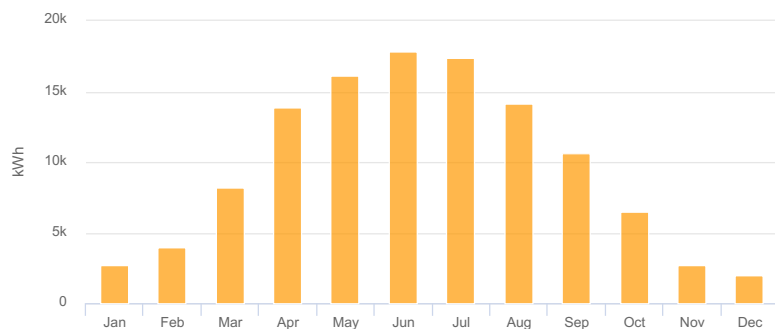
System Metrics

Design	carport
Module DC Nameplate	123.2 kW
Inverter AC Nameplate	92.8 kW Load Ratio: 1.33
Annual Production	116.1 MWh
Performance Ratio	87.2%
kWh/kWp	942.0
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	50d5c06831-179ce0ab50-98958b3e19-2f8746e66a

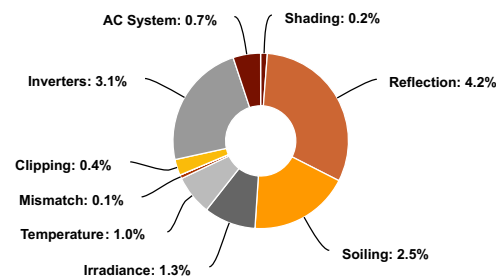
Project Location



Monthly Production



Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m ²)	Annual Global Horizontal Irradiance	1,063.9	
	POA Irradiance	1,079.8	1.5%
	Shaded Irradiance	1,078.0	-0.2%
	Irradiance after Reflection	1,032.6	-4.2%
	Irradiance after Soiling	1,006.8	-2.5%
	Total Collector Irradiance	1,006.8	0.0%
Energy (kWh)	Nameplate	124,043.9	
	Output at Irradiance Levels	122,446.8	-1.3%
	Output at Cell Temperature Derate	121,236.7	-1.0%
	Output After Mismatch	121,124.4	-0.1%
	Optimal DC Output	121,124.4	0.0%
	Constrained DC Output	120,643.6	-0.4%
	Inverter Output	116,850.0	-3.0%
	Energy to Grid	116,050.5	-0.7%
Temperature Metrics			
	Avg. Operating Ambient Temp		12.6 °C
	Avg. Operating Cell Temp		18.4 °C
Simulation Metrics			
	Operating Hours	4609	
	Solved Hours	4609	

☁ 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	
	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Irradiation Variance	5%												
Cell Temperature Spread	4° C												
Module Binning Range	-2.5% to 2.5%												
AC System Derate	3.00%												
Module Characterizations	Module					Uploaded By		Characterization					
	TARKA 126 VSBD 385 (Voltec Solar)					HelioScope		Spec Sheet Characterization, PAN					
Component Characterizations	Device						Uploaded By		Characterization				
	IQ7A-72-2-US (208V) (2019) (Enphase)						HelioScope		Spec Sheet				

📦 Components		
Component	Name	Count
Inverters	IQ7A-72-2-US (208V) (2019) (Enphase)	320 (92.8 kW)
AC Branches	1/0 AWG (Aluminum)	8 (796.8 m)
Module	Voltec Solar, TARKA 126 VSBD 385 (385W)	320 (123.2 kW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	1-2	Along Racking

🏠 Field Segments										
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power	
Field Segment 1	Carport	Landscape (Horizontal)	10°	101.83364530616069°	0.0 m	1x1	153	152	58.5 kW	
Field Segment 2	Carport	Landscape (Horizontal)	15°	101.95250748491469°	0.0 m	1x1	92	92	35.4 kW	
Field Segment 3	Carport	Landscape (Horizontal)	15°	102.60238507773067°	0.0 m	1x1	76	76	29.3 kW	

Detailed Layout

