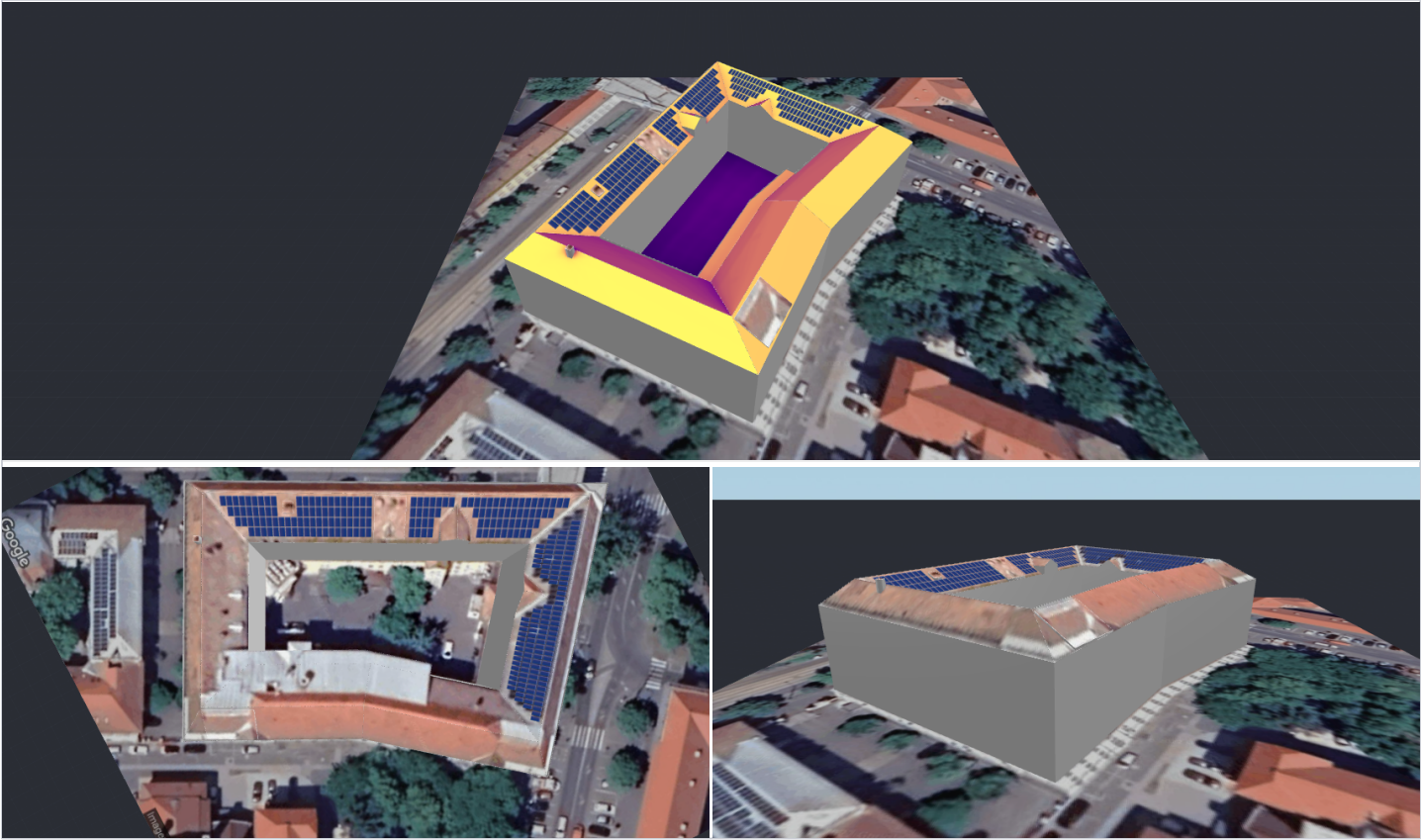


SZTE IRINYI ÉPÜLET

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SYSTEM OVERVIEW



272 PV modules



2 Inverters



272 Optimizers

SIMULATION RESULTS



Installed DC Power  
92.32 kWp



Max Achieved AC Power  
75.00 kW



Annual Energy Production  
120.15 MWh



CO2 Emission Saved  
31.24 t



Equivalent Trees Planted  
1,435



Max Achieved DC Power  
91.28 kW



DC/AC Oversizing  
122 %



Max Active AC Power  
75.00 kW



Performance Ratio  
88 %



Performance Index  
1,301 kWh/kWp

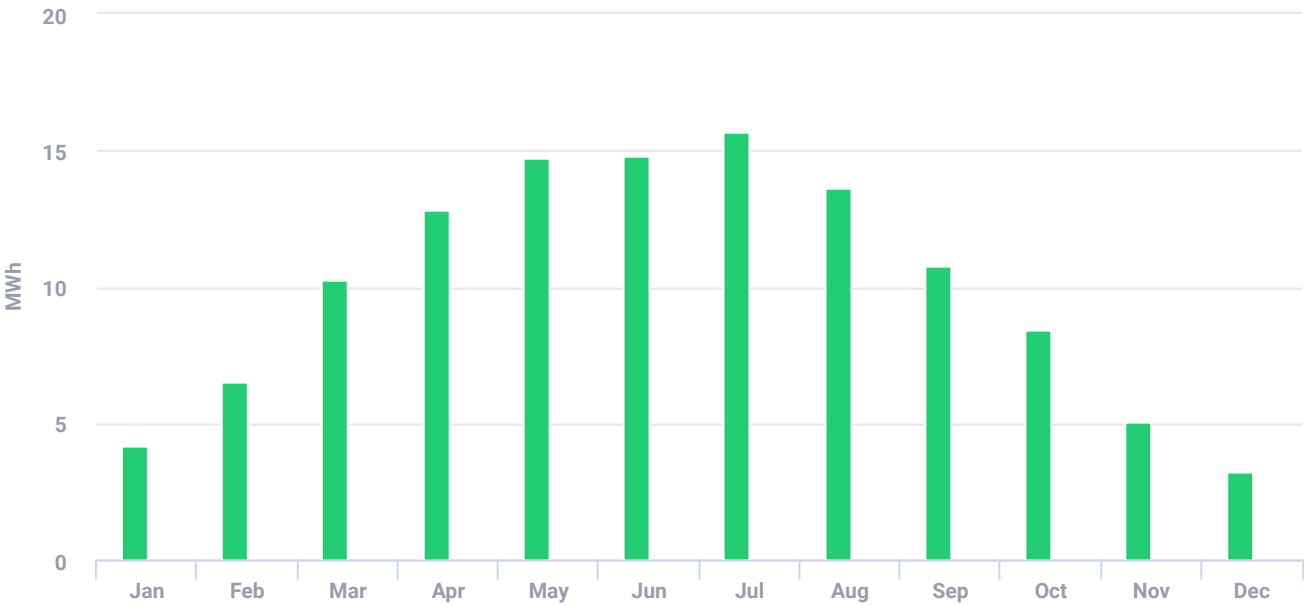
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ESTIMATED MONTHLY ENERGY

Solar Production   Clipped Energy



Total clipped energy: 0.21%

PV MODULES

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
152	Risen Energy Co. Ltd., RSM40-8-410M	62.3 kWp			118°	28°
120	SunPower, X20-250-BLK	30 kWp			220°	30°
Total:	272	92.3 kWp				

BILL OF MATERIALS (BOM)


Items	Quantity	Price (Ft)	Total (Ft)
SE25K	1	1026000.00	1,026,000.00
SE50K Manager	1		
S440	272		
X20-250-BLK	120		

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BILL OF MATERIALS (BOM) (CONTINUED)

Items	Quantity	Price (Ft)	Total (Ft)
 RSM40-8-410M	152		
Total Price: Ft 1,026,000.00			

ELECTRICAL DESIGN

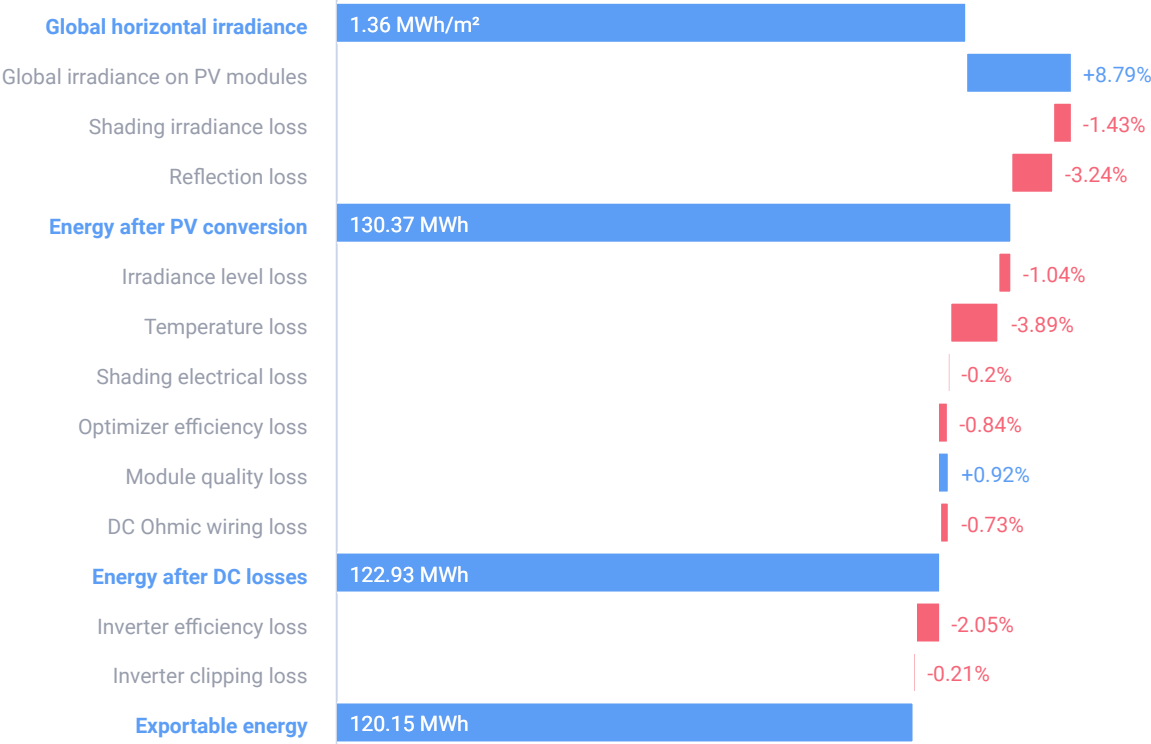
Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
 1 x SE50K Manager 61.28kW   123%	Center		
	⌋ 1 x string	 25 x S440	 25
	⌋ 2 x strings	 28 x S440	 28
	Left		
	⌋ 1 x string	 18 x S440	 18
	⌋ 1 x string	 26 x S440	 26
 1 x SE25K 30kW   120%	⌋ 1 x string	 27 x S440	 27
	⌋ 3 x strings	 40 x S440	 40

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SYSTEM LOSS DIAGRAM



SIMULATION PARAMETERS



LOCATION & GRID

Time zone	GMT+1 (Budapest)
Weather station	Szeged (3.63 km away)
Station altitude	74 m
Station data source	Meteonorm 7.1
Grid	400V L-L, 230V L-N



LOSS FACTORS

Near shading	Enabled
Albedo	0.20
Soiling/Snow	0%
Incidence angle modifier (IAM), ASHRAE b0 param.	0.05
Thermal loss factor Uc (const) Flush mount	20
Thermal loss factor Uc (const) Tilted	29
LID loss factor	0%
System unavailability	0%