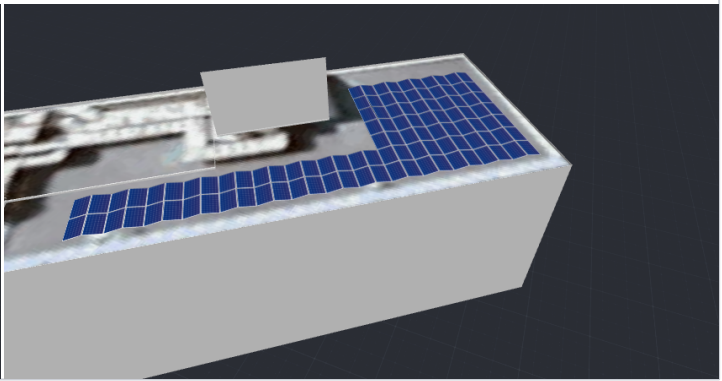
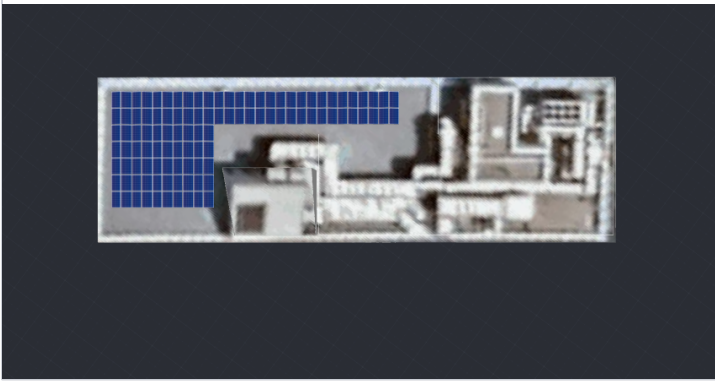
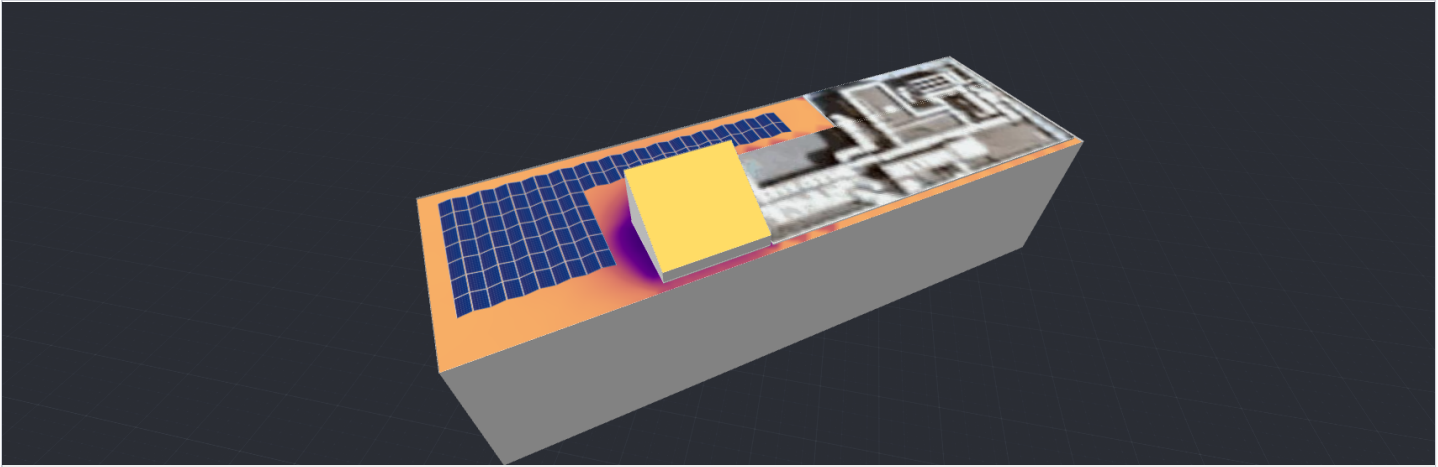


SZTE INKUBÁTORHÁZ

Szeged, 6728, Hungary | Nov 8, 2022



SYSTEM OVERVIEW

 106 PV modules

 1 Inverters

 106 Optimizers

SIMULATION RESULTS



Installed DC Power
43.46 kWp



Max Achieved AC Power
40.30 kW



Annual Energy Production
49.60 MWh



CO2 Emission Saved
12.9 t



Equivalent Trees Planted
592

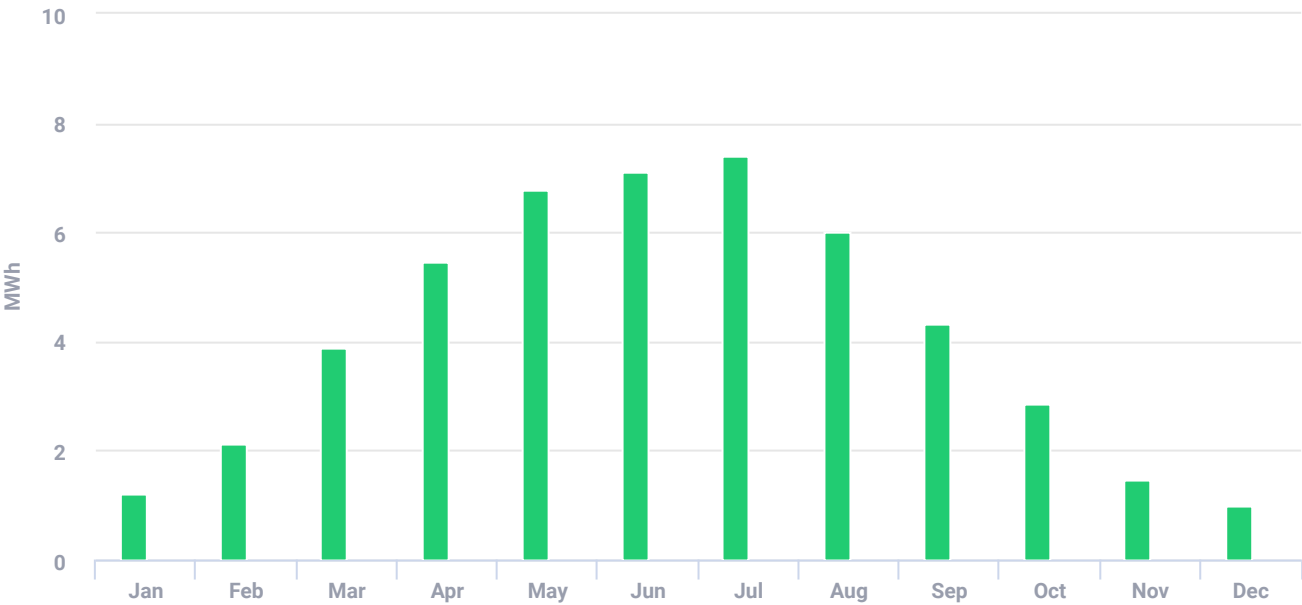
SZTE INKUBÁTORHÁZ

Szeged, 6728, Hungary | Nov 8, 2022



ESTIMATED MONTHLY ENERGY

Solar Production



Total clipped energy: 0%

PV MODULES

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
53	Risen Energy Co. Ltd., RSM40-8-410M	21.7 kWp			144°	10°
53	Risen Energy Co. Ltd., RSM40-8-410M	21.7 kWp			324°	10°
Total: 106		43.5 kWp				

BILL OF MATERIALS (BOM)



Items	Quantity	Price (Ft)	Total (Ft)
SE50K Manager	1		
S440	106		
RSM40-8-410M	106		

SZTE INKUBÁTORHÁZ

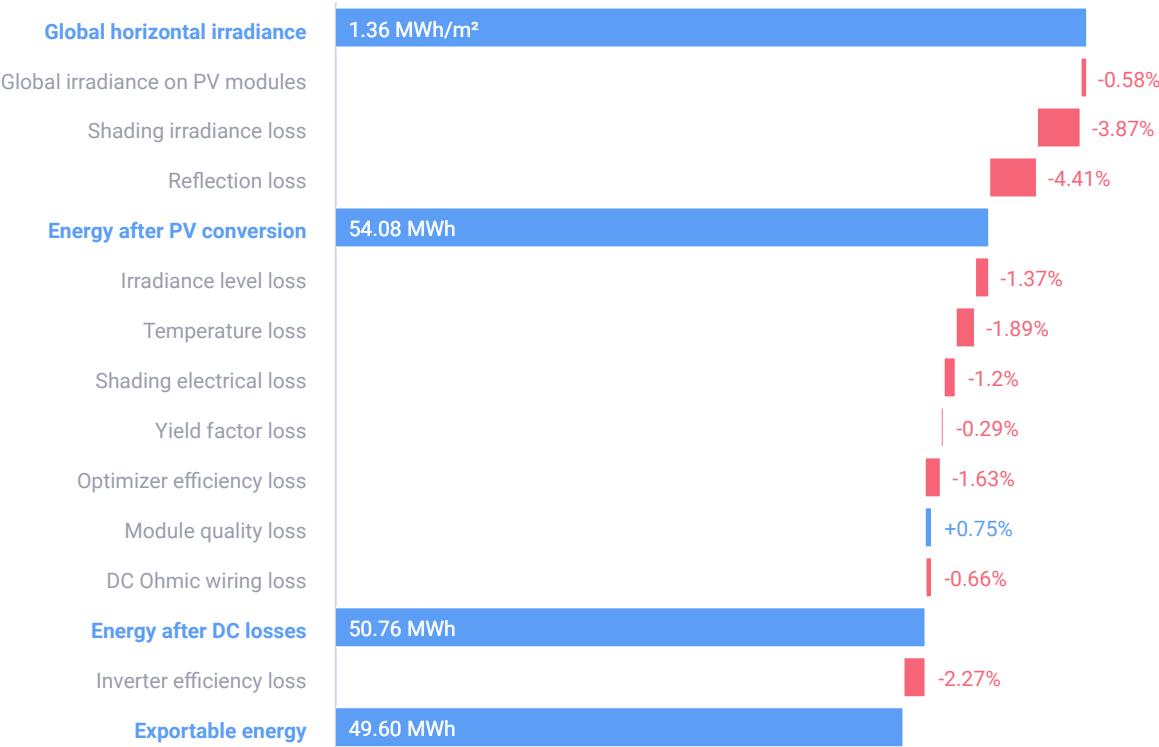
Szeged, 6728, Hungary | Nov 8, 2022



ELECTRICAL DESIGN

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
 1 x SE50K Manager 40.12kW 80%	Center		
	⌚ 1 x string	 18 x S440	 18
	⌚ 2 x strings	 17 x S440	 17
	Left		
	⌚ 3 x strings	 18 x S440	 18

SYSTEM LOSS DIAGRAM



SZTE INKUBÁTORHÁZ

Szeged, 6728, Hungary | Nov 8, 2022



SIMULATION PARAMETERS



LOCATION & GRID

Time zone	GMT+1 (Budapest)
Weather station	Szeged (3.33 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%