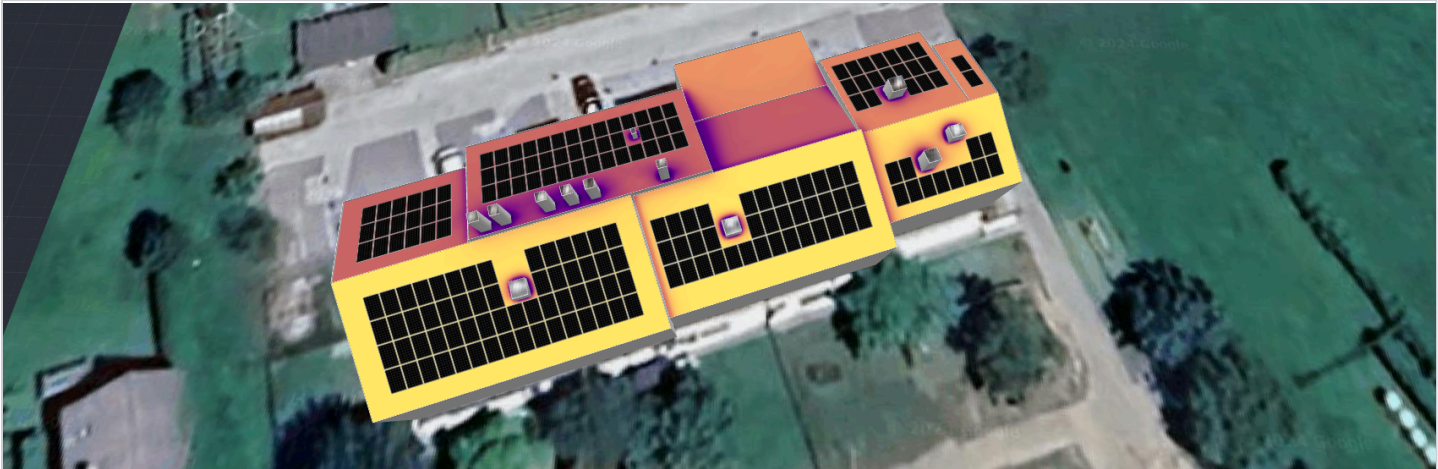


MFE - OŠ PODRUŽNICA DOLSKO

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SYSTEM OVERVIEW



190 PV modules



1 Inverter



96 Optimizers

SIMULATION RESULTS



Installed DC Power

85.50 kWp



Max Achieved AC Power

66.60 kW



Annual Solar Energy
Production

90.75 MWh



Annual CO2 Emission Saved

23.05 t



Annual Equivalent Trees
Planted

1,059



Max Achieved DC Power

77.51 kW



DC/AC Oversizing

116 %



Max Active AC Power

66.60 kW



Performance Ratio

87 %



Annual Specific Production

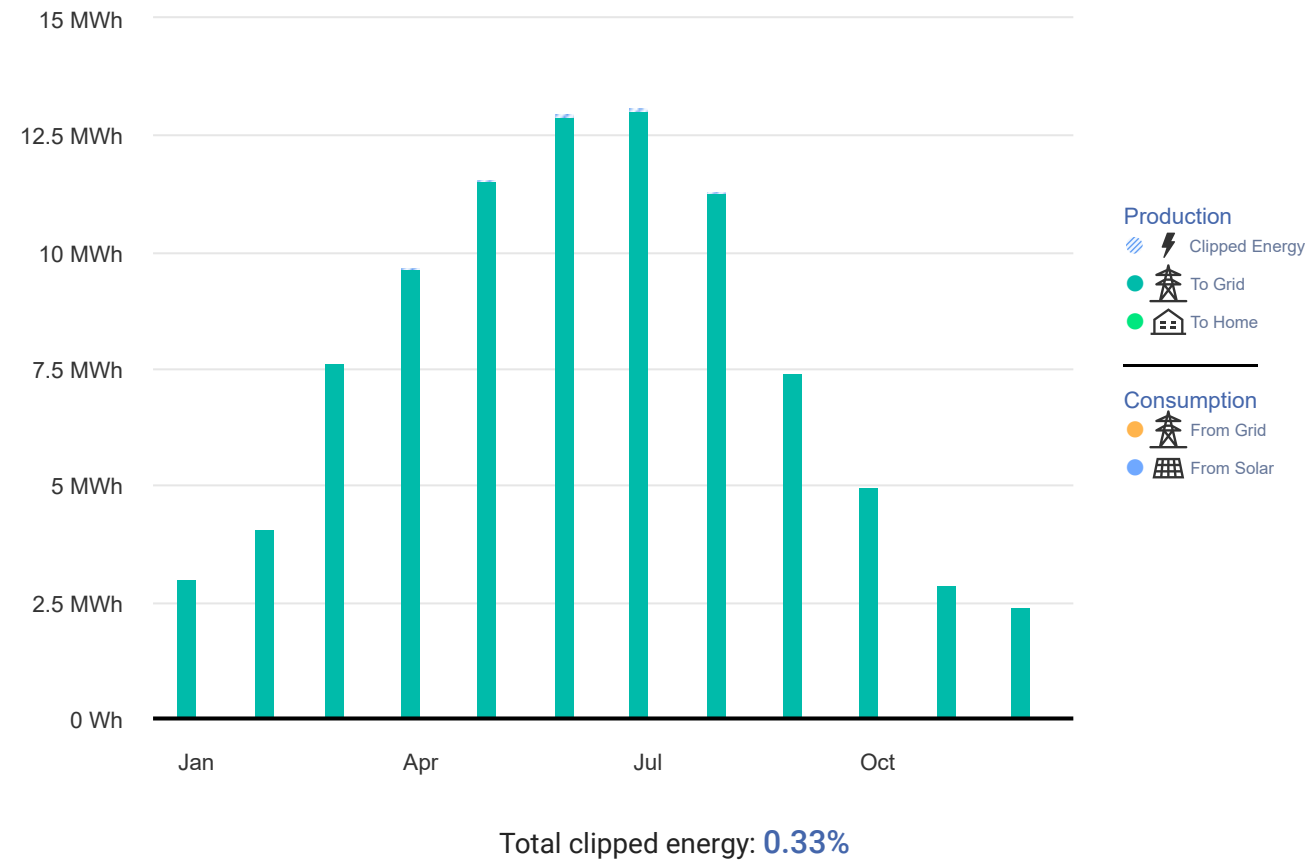
1,061 kWh/kWp

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ESTIMATED MONTHLY ENERGY



PV MODULES

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
41	Trina Solar Energy, TSM-450NEG9R.28 (user-defined)	18.5 kWp			341°	19°
12	Trina Solar Energy, TSM-450NEG9R.28 (user-defined)	5.4 kWp			161°	15°
18	Trina Solar Energy, TSM-450NEG9R.28 (user-defined)	8.1 kWp			341°	20°

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PV MODULES (CONTINUED)

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
38	Trina Solar Energy, TSM-450NEG9R.28 (user-defined)	17.1 kWp			161°	15°
21	Trina Solar Energy, TSM-450NEG9R.28 (user-defined)	9.5 kWp			341°	14°
60	Trina Solar Energy, TSM-450NEG9R.28 (user-defined)	27 kWp			161°	15°
Total: 190		85.5 kWp				

BILL OF MATERIALS (BOM)

Items	Part Number	Quantity	Price (€)	Total (€)
SE66.6K Synergy Manager		1		
S1000		96		
TSM-450NEG9R.28		190		

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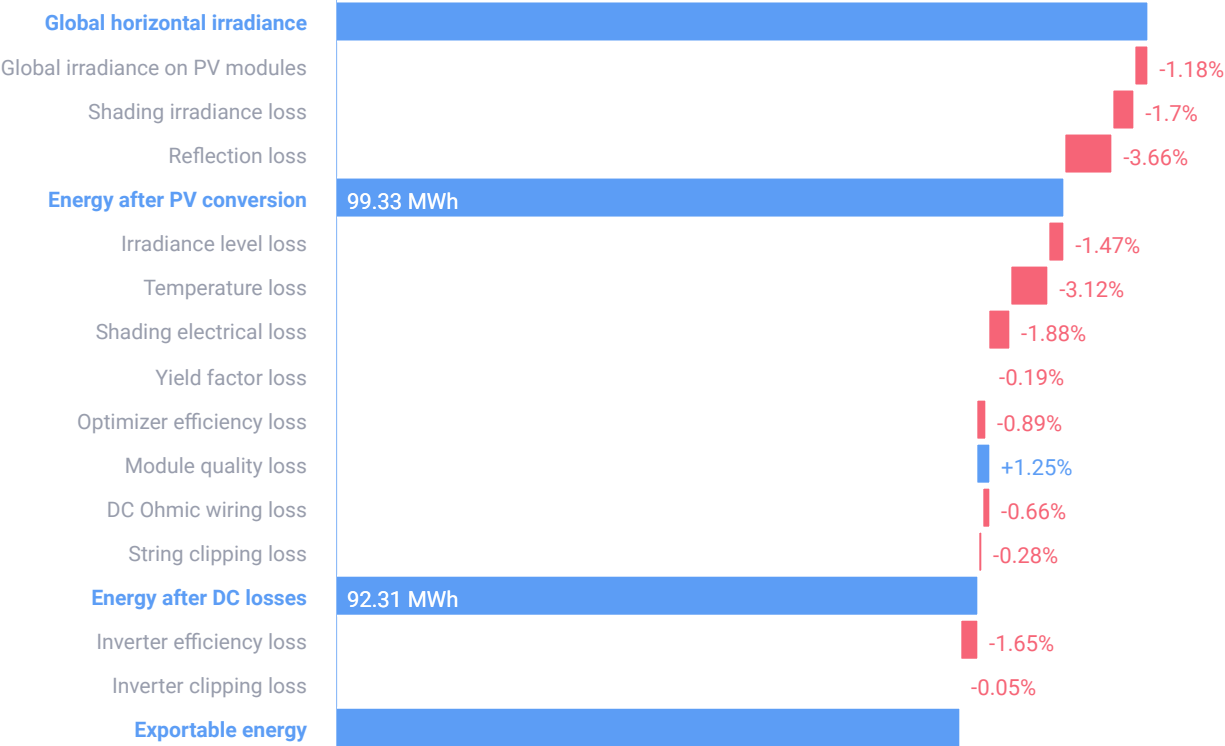
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ELECTRICAL DESIGN

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
<div><div></div><div>1 xSE66.6K Synergy Manager Center Unit</div><div>77.51kW 116% Oversizing</div></div>	1 x string	16 x S1000 (2:1), 1 x S1000 (1:1)	33
	1 x string	15 x S1000 (2:1)	30
	1 x string	14 x S1000 (2:1)	28
	Left Unit		
	1 x string	20 x S1000 (2:1)	40
	1 x string	15 x S1000 (2:1)	30
	1 x string	14 x S1000 (2:1), 1 x S1000 (1:1)	29

SYSTEM LOSS DIAGRAM



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SIMULATION PARAMETERS



LOCATION & GRID

Time zone	GMT+1 (Ljubljana)
Weather station	Ljubljana (12.6 km away)
Station altitude	299 m
Station data source	Meteonorm 8.2
Grid	400V L-L, 230V L-N



LOSS FACTORS

Near shading	Enabled
Albedo	0.20
Bi-Facial Albedo	0.30
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%