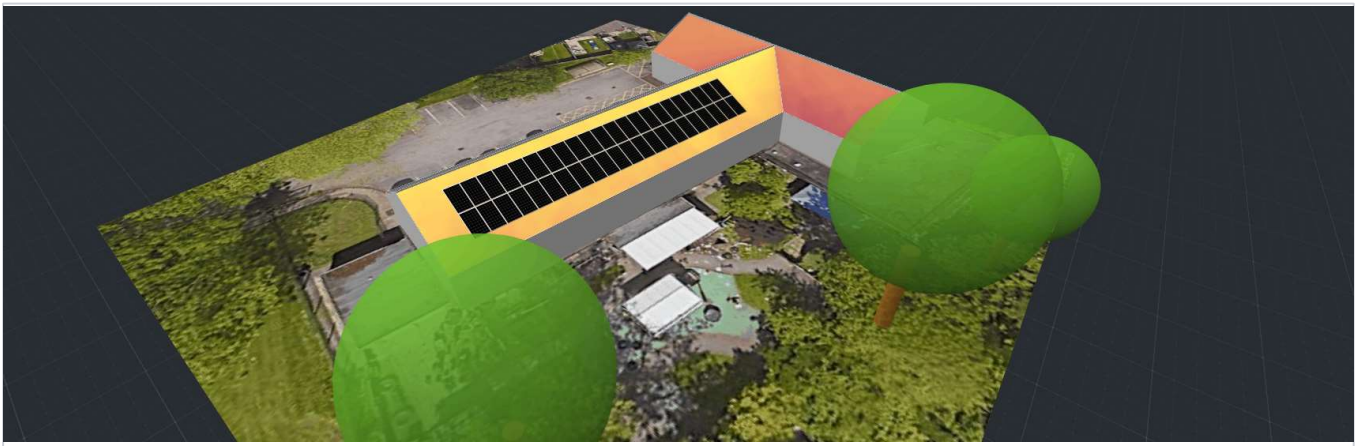
CWC MCC - WOODVILLE SURE START

Shirley Road, Manchester, M8 0NE, United Kingdom | 10 Oct 2024

SYSTEM electrical group







SYSTEM OVERVIEW

44 PV modules | 1 Inverter | 44 Optimizers

SIMULATION RESULTS

Installed DC Power	Max Achieved AC Power	Annual Energy Production	CO2 Emission Saved (Annually)	Equivalent Trees Planted (Annually)
22.00 kWp	20.00 kW	18.41 MWh	3.56 t	163

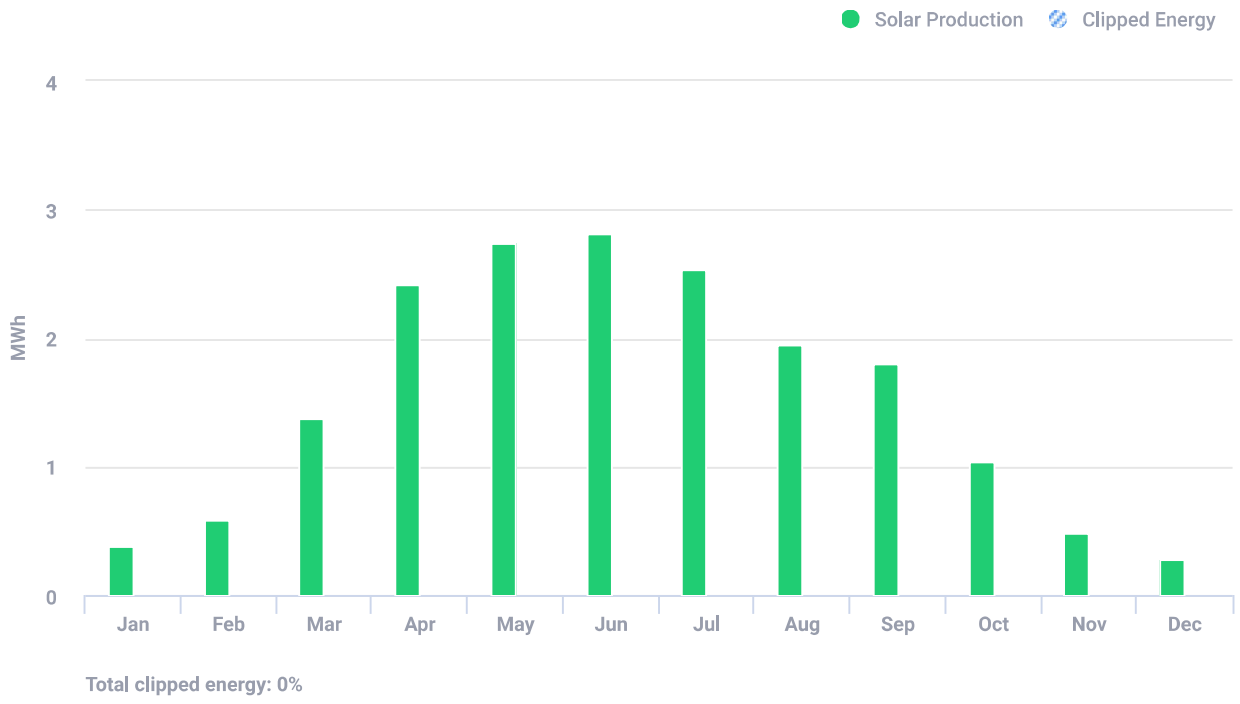
Max Achieved DC Power	DC/AC Oversizing	Max Active AC Power	Performance Ratio	Performance Index
21.75 kW	109 %	20.00 kW	83 %	837 kWh/kWp

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ESTIMATED MONTHLY ENERGY



Total clipped energy: 0%

Month	Solar Production (kWh)	Consumption (kWh)	Self-consumption (kWh)	Clipped Energy (kWh)
Jan	384	-	-	-
Feb	590	-	-	-
Mar	1,377	-	-	-
Apr	2,416	-	-	1
May	2,745	-	-	-
Jun	2,807	-	-	-
Jul	2,533	-	-	-
Aug	1,948	-	-	-
Sep	1,798	-	-	-
Oct	1,034	-	-	-
Nov	489	-	-	-
Dec	285	-	-	-

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PV MODULES

# Module		Model	Peak power	Racking type	Orientation	Azimuth	Tilt
	44	JA Solar, JAM66S30-500/MR (1000V)	22 kWp			191°	25°
Total:	44		22 kWp				

BILL OF MATERIALS (BOM)

Items	Part Number	Quantity	Price (£)	Total (£)
SE20K		1		
S500 input up to 500Wp, Max Isc 15A	S500-1GM4MRM	44	0.00	0.00
JAM66S30-500/MR (1000V)		44		

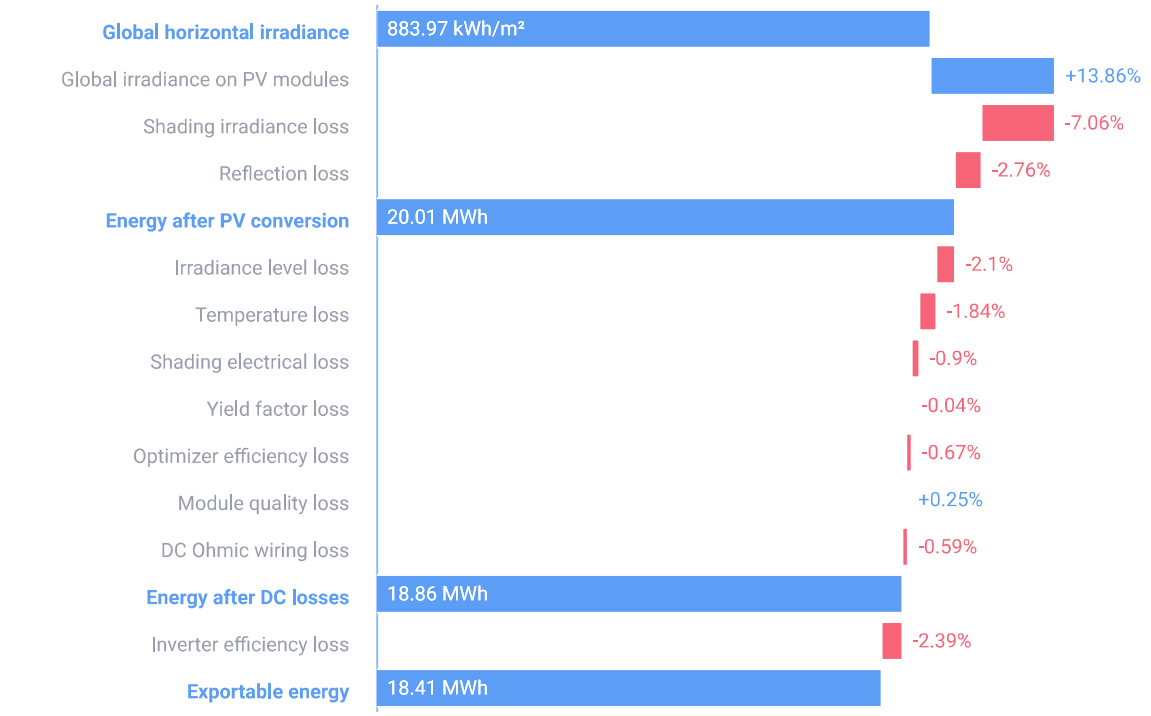
ELECTRICAL DESIGN

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
1 xSE20K 21.75kW | 109% Oversizing	2 x strings	22 x S500	22

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SYSTEM LOSS DIAGRAM



SIMULATION PARAMETERS

LOCATION & GRID

Time zone	BST (London)
Weather station	Manchester (17.98 km away)
Station altitude	67 m
Station data source	Meteonorm 7.1
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%