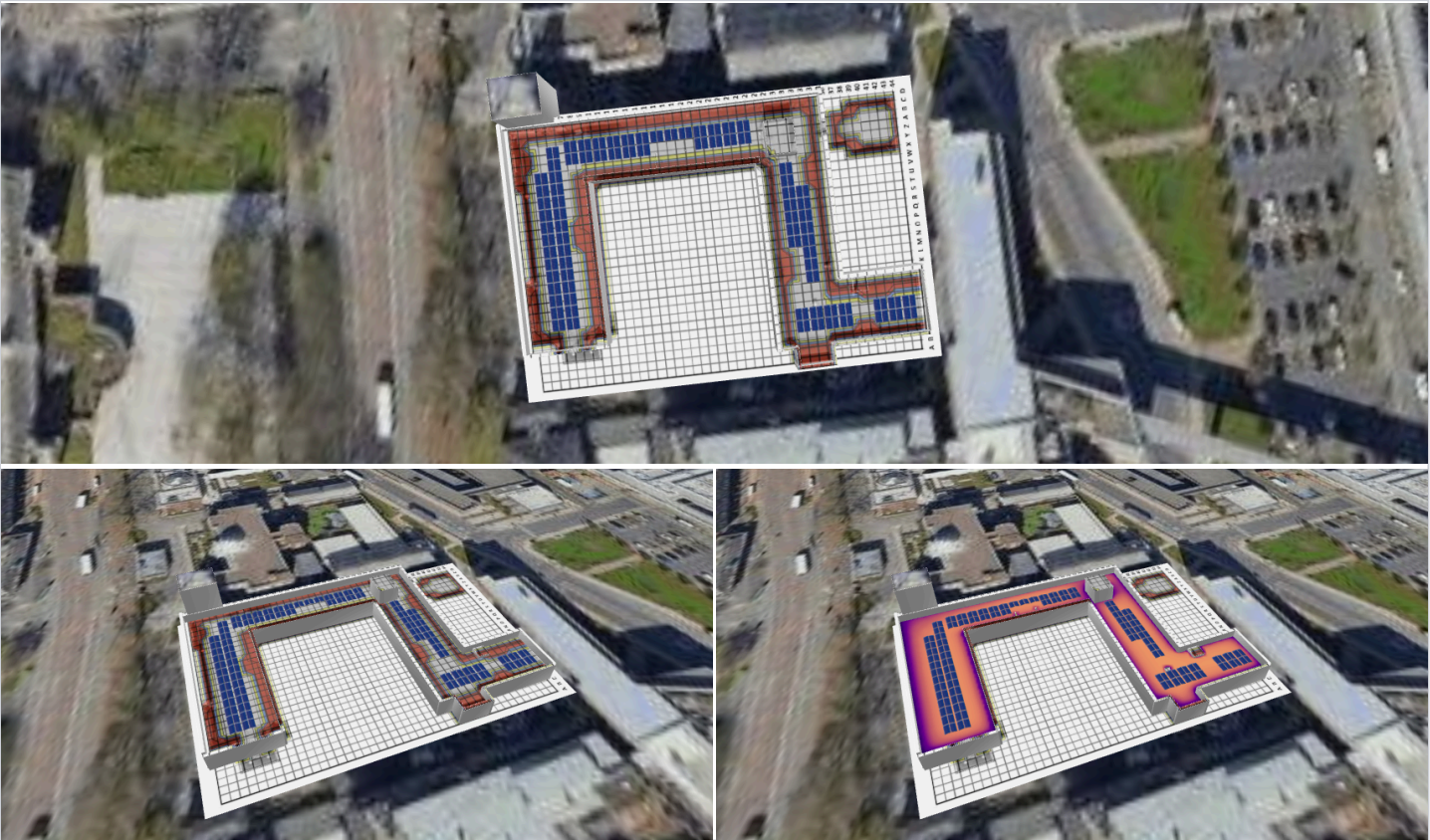


COBBETT HOUSE REDUCED SIZE
B5117 1767, Manchester, M13 9WG, United Kingdom | Oct 23, 2025



SYSTEM OVERVIEW

 160 PV modules

 1 Inverter

 80 Optimizers

SIMULATION RESULTS



Installed DC Power
84.80 kWp



Max Achieved AC Power
60.30 kW



Annual Usable Solar
Production
72.01 MWh



Annual CO₂ Emission Saved
13.93 t



Annual Equivalent Trees
Planted
640



Max Achieved DC Power
72.85 kW



DC/AC Oversizing
109 %



Max Active AC Power
66.60 kW



Performance Ratio
86 %



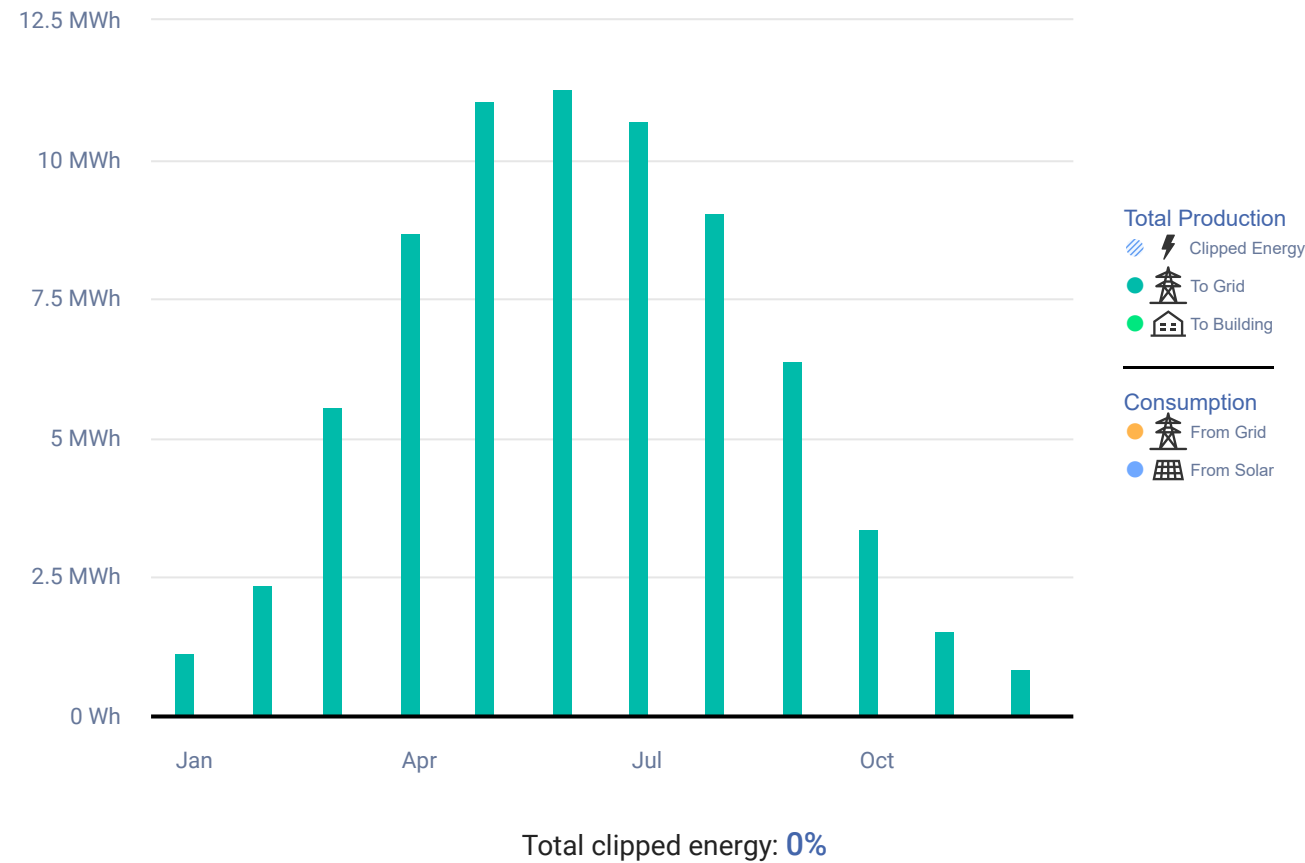
Annual Specific Production
849 kWh/kWp

COBBETT HOUSE REDUCED SIZE

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ESTIMATED MONTHLY ENERGY



Month	Production (kWh)		Clipped Energy (kWh)		Consumption (kWh)		From Grid (kWh)
	To Home (kWh)	To Grid (kWh)			From PV (kWh)		
Jan	1,134	-	1,134	-	-	-	-
Feb	2,353	-	2,353	-	-	-	-
Mar	5,562	-	5,562	-	-	-	-
Apr	8,692	-	8,692	-	-	-	-
May	11,076	-	11,076	2	-	-	-
Jun	11,265	-	11,265	-	-	-	-
Jul	10,718	-	10,718	-	-	-	-
Aug	9,040	-	9,040	-	-	-	-
Sep	6,391	-	6,391	-	-	-	-
Oct	3,380	-	3,380	-	-	-	-
Nov	1,533	-	1,533	-	-	-	-
Dec	868	-	868	-	-	-	-

COBBETT HOUSE REDUCED SIZE

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PV MODULES

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
80	JA Solar, JAM60D-42-530-LB-TS-BF (user-defined)	42.4 kWp			69°	10°
80	JA Solar, JAM60D-42-530-LB-TS-BF (user-defined)	42.4 kWp			249°	10°
Total: 160		84.8 kWp				

BILL OF MATERIALS (BOM)

Items	Part Number	Quantity
	SE66.6K Synergy Manager	1
	S1000	80
	JAM60D-42-530-LB-TS-BF	160

ELECTRICAL DESIGN

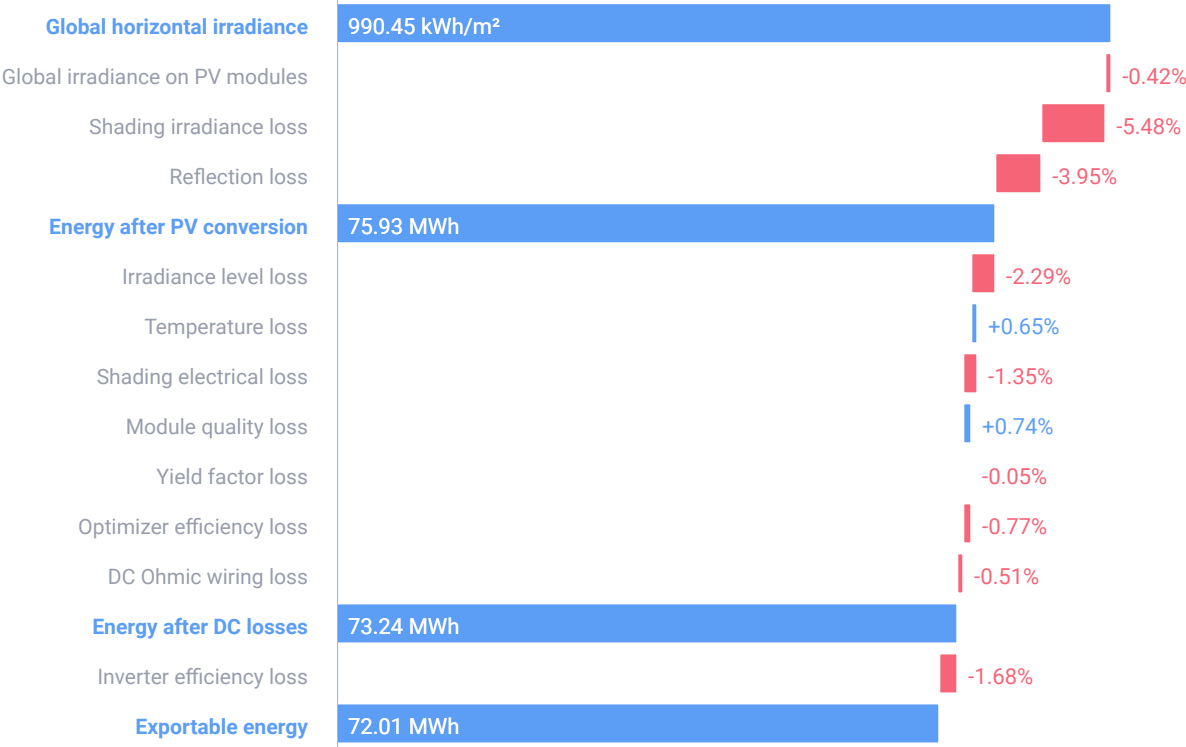
Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
1 xSE66.6K Synergy Manager 72.85kW 109% Oversizing	Center Unit		
	1 x string	18 x S1000 (2:1)	36
	2 x strings	14 x S1000 (2:1)	28
	Left Unit		
	2 x strings	17 x S1000 (2:1)	34

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SYSTEM LOSS DIAGRAM



SIMULATION PARAMETERS



LOCATION & GRID

Time zone	GMT+1 (London)
Weather station	Manchester-Ringway (12 km away)
Station altitude	69 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%