

AIRPORT GATE

Harmondsworth, UB7 0NA, United Kingdom | Jan 13, 2025



SYSTEM OVERVIEW

 345 PV modules

 2 Inverters

 173 Optimizers

SIMULATION RESULTS



Installed DC Power

150.08 kWp



Max Achieved AC Power

132.51 kW



Annual Solar Energy Production

136.17 MWh



Annual CO2 Emission Saved

26.33 t



Annual Equivalent Trees Planted

1,209

ANNUAL CONSUMPTION AND PRODUCTION RESULTS

Production

136.17 MWh

46%

54%

- To Building 63.11 MWh (46%)
- To Grid 73.06 MWh (54%)

Consumption

200.00 MWh

32%

68%

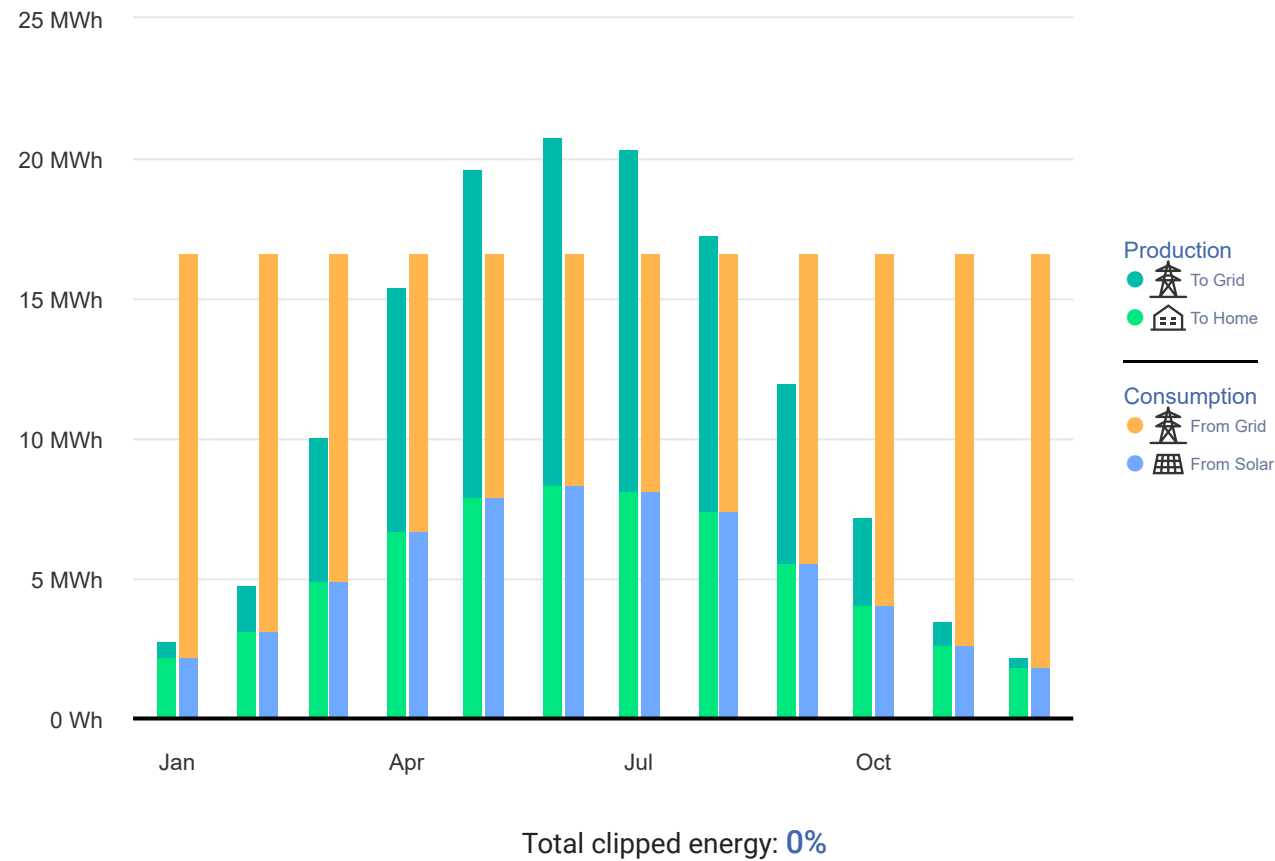
- From Solar 63.11 MWh (32%)
- From Grid 136.89 MWh (68%)

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ESTIMATED MONTHLY ENERGY



PV MODULES



# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
70	Longi Solar, LR5-54HTB-435M Scientists	30.5 kWp			89°	9°
92	Longi Solar, LR5-54HTB-435M Scientists	40 kWp			89°	9°
91	Longi Solar, LR5-54HTB-435M Scientists	39.6 kWp			269°	9°

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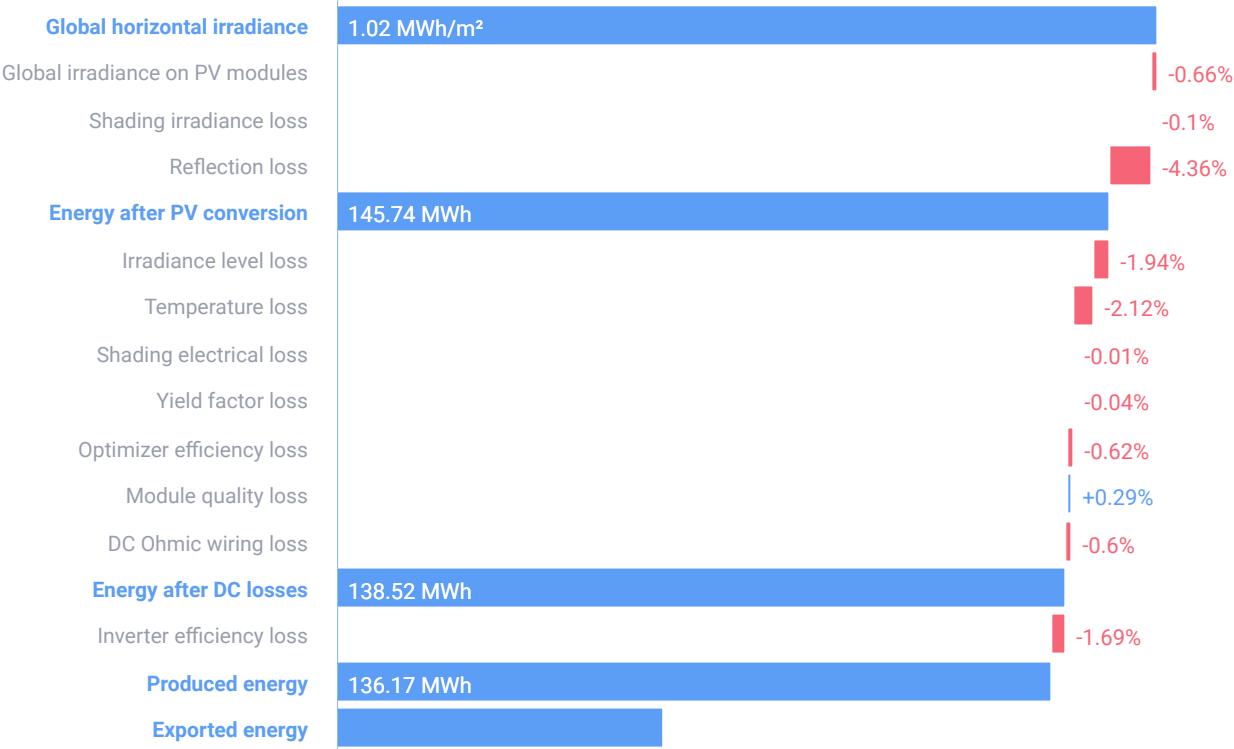
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PV MODULES (CONTINUED)

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
92	Longi Solar, LR5-54HTB-435M Scientists	40 kWp			269°	10°
Total: 345		150.1 kWp				

SYSTEM LOSS DIAGRAM



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SIMULATION PARAMETERS



LOCATION & GRID

Time zone	GMT (London)
Weather station	London/Heathrow (0.79 km away)
Station altitude	24 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 U_c (const) Flush mount	20
Thermal loss factor U_c (const) Tilted	29
LID loss factor	0%
System unavailability	0%