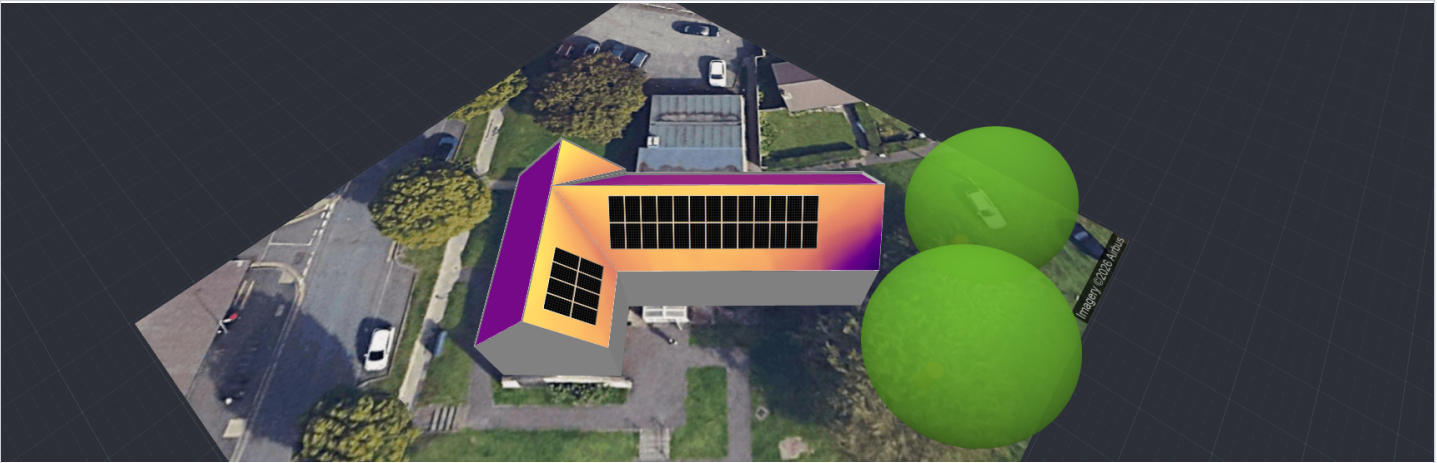


JOHN MOULTON HALL, PENHILL DRIVE, SWINDON, SN2 5
Swindon, SN2 5DU, United Kingdom | 12 Mar 2026



SYSTEM OVERVIEW



34 PV modules



1 Inverter



34 Optimizers

FINANCIAL OVERVIEW

Net Payments

£ 19,995

Lifetime Bill Savings
(NPV)

£ 59,655

System Profit (NPV)

£ 39,660

Internal Return Rate (IRR)

17.04 %

Payback Period

5.9 years

SIMULATION RESULTS



Installed DC Power

17.34 kWp



Max Achieved AC Power

15.99 kW



Annual Usable Solar
Production

17.77 MWh



Annual CO₂ Emission Saved

3.44 t



Annual Equivalent Trees
Planted

158



Max Achieved DC Power

15.70 kW



DC/AC Oversizing

78 %



Max Active AC Power

20.00 kW



Performance Ratio

85 %



Annual Specific Production

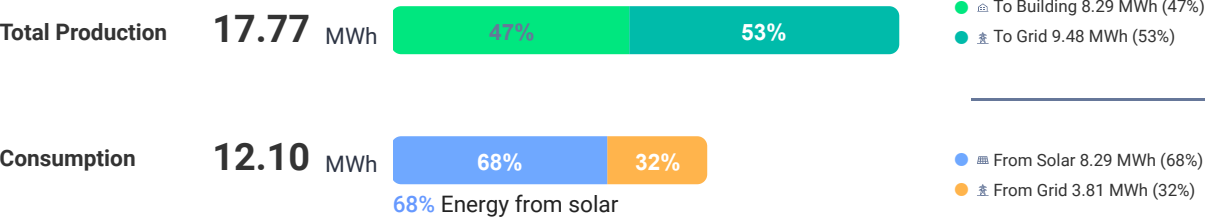
1,025 kWh/kWp

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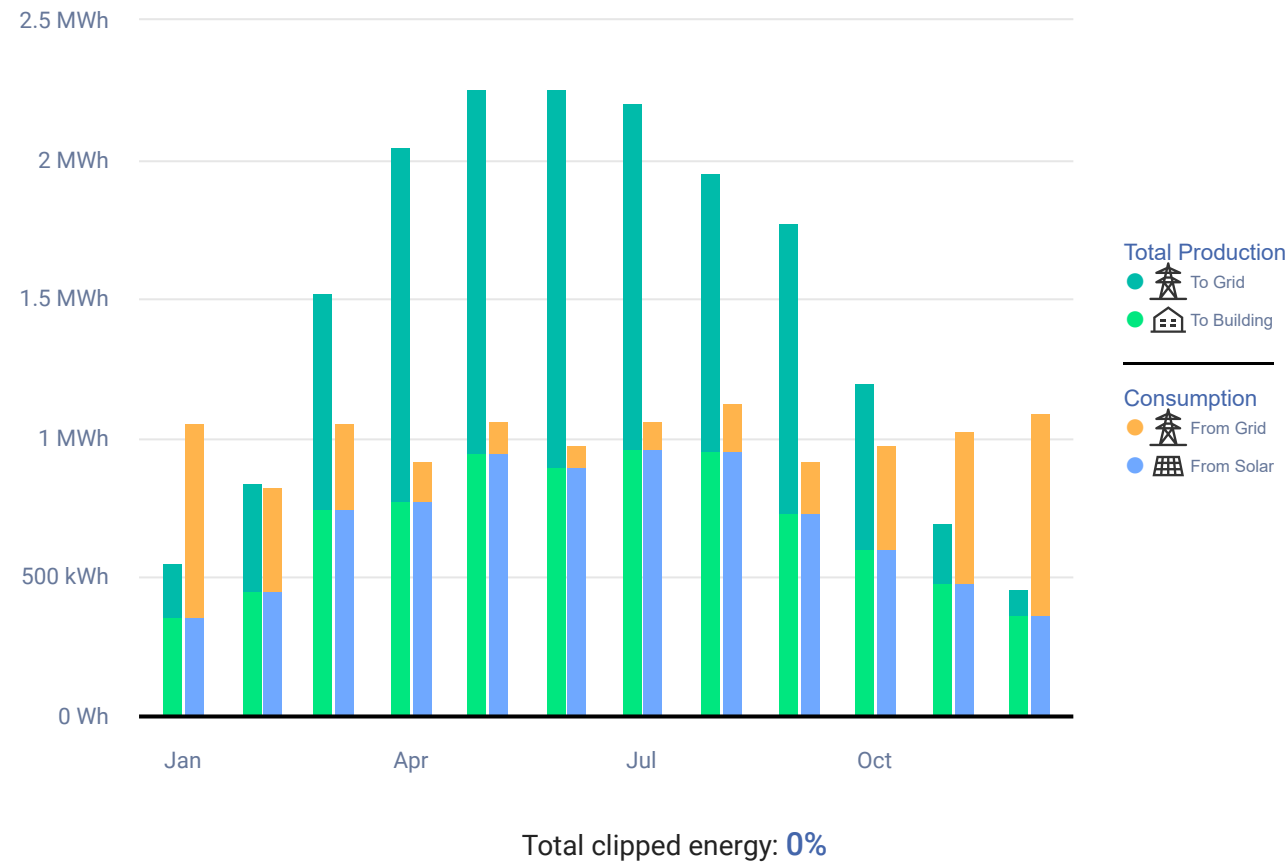
ANNUAL CONSUMPTION AND PRODUCTION RESULTS



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ESTIMATED MONTHLY ENERGY



Month	Production (kWh)	To Home (kWh)	To Grid (kWh)	Consumption (kWh)	From PV (kWh)	From Grid (kWh)
Jan	556	361	195	1,053	361	692
Feb	837	455	382	823	455	368
Mar	1,523	747	776	1,053	747	306
Apr	2,049	778	1,271	920	778	142
May	2,256	951	1,305	1,065	951	114
Jun	2,253	898	1,355	980	898	82
Jul	2,203	960	1,243	1,065	960	105
Aug	1,954	953	1,000	1,125	953	172
Sep	1,778	730	1,048	920	730	189
Oct	1,201	607	595	980	607	374
Nov	697	484	213	1,029	484	545
Dec	463	363	99	1,089	363	726

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PV MODULES

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
26	Shenzhen Aiko Digital Energy Technology Co. Ltd., Aiko Neostar-510W N-Type-60 Cell-All Black-Gen 2 (user-defined)	13.3 kWp			231°	44°
8	Shenzhen Aiko Digital Energy Technology Co. Ltd., Aiko Neostar-510W N-Type-60 Cell-All Black-Gen 2 (user-defined)	4.1 kWp			141°	45°
Total:	34	17.3 kWp				

ESTIMATED BILL SAVINGS YEAR 1

Avg. Monthly			
Current Monthly Bill	Monthly Bill with SolarEdge	Net Bill Monthly Savings	Bill Offset
£ 258.44	£ -13.37	£ 271.81	105.18 %
Estimated Net Lifetime Bill Savings			
£ 59,655			
Utility Provider: UK provider Utility Rate: 25.63p (0.2563 £/kWh)			
Export Rate: 12p export (0.12 £/kWh)			

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DETAILED FINANCIAL ANALYSIS

System Price	Maintenance Cost (NPV)	Returns from Incentives (NPV)	Net Payments	Lifetime Bill Savings (NPV)
£ 19,995	£ N/A	£ N/A	£ 19,995	£ 59,655
System Profit (NPV)	Internal Return Rate (IRR)	Return Of Investment (ROI)	Levelized Cost Of Energy (LCOE)	Payback Period
£ 39,660	17.04 %	198.35 %	£/kWh 0.076	5.9 years



YEARLY CASH FLOW

# Year	System Price	Net Bill Savings	Annual Cash Flow	Cumulative Cash Flow
0	£ -19,995.00	£ 0.00	£ -19,995.00	£ -19,995.00
1		£ 3,261.72	£ 3,261.72	£ -16,733.28

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YEARLY CASH FLOW (CONTINUED)

# Year	System Price	Net Bill Savings	Annual Cash Flow	Cumulative Cash Flow
2		£ 3,317.39	£ 3,317.39	£ -13,415.89
3		£ 3,374.02	£ 3,374.02	£ -10,041.87
4		£ 3,431.61	£ 3,431.61	£ -6,610.26
5		£ 3,490.19	£ 3,490.19	£ -3,120.07
6		£ 3,549.77	£ 3,549.77	£ 429.70
7		£ 3,610.38	£ 3,610.38	£ 4,040.07
8		£ 3,672.02	£ 3,672.02	£ 7,712.09
9		£ 3,734.72	£ 3,734.72	£ 11,446.81
10		£ 3,798.49	£ 3,798.49	£ 15,245.30
11		£ 3,863.35	£ 3,863.35	£ 19,108.66
12		£ 3,929.32	£ 3,929.32	£ 23,037.98
13		£ 3,996.43	£ 3,996.43	£ 27,034.41
14		£ 4,064.68	£ 4,064.68	£ 31,099.09
15		£ 4,134.10	£ 4,134.10	£ 35,233.19
16		£ 4,204.72	£ 4,204.72	£ 39,437.91
17		£ 4,276.55	£ 4,276.55	£ 43,714.46
18		£ 4,349.60	£ 4,349.60	£ 48,064.06
19		£ 4,423.90	£ 4,423.90	£ 52,487.97
20		£ 4,499.47	£ 4,499.47	£ 56,987.44
Total:		£ 76,982.44	£ 56,987.44	

BILL OF MATERIALS (BOM)

Items	Part Number	Quantity	Price (£)	Total (£)
Base Price		1	14436.00	14,436.00

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BILL OF MATERIALS (BOM) (CONTINUED)

Items	Part Number	Quantity	Price (£)	Total (£)
 SE20K Three Phase Inverter, 20kW, DC SPD	SE20K-RW00IBNM4	1	0.00	0.00
 S500B (verify waiver conditions) SolarEdge Optimisers	S500b-1GM4MRM	34	0.00	0.00
 Aiko Neostar-510W N-Type-60 Cell-All Black-Gen 2		34	0.00	0.00
Scaffold		1	1950.00	1,950.00
Labour		1	3609.00	3,609.00
Total Price: £ 19,995.00				

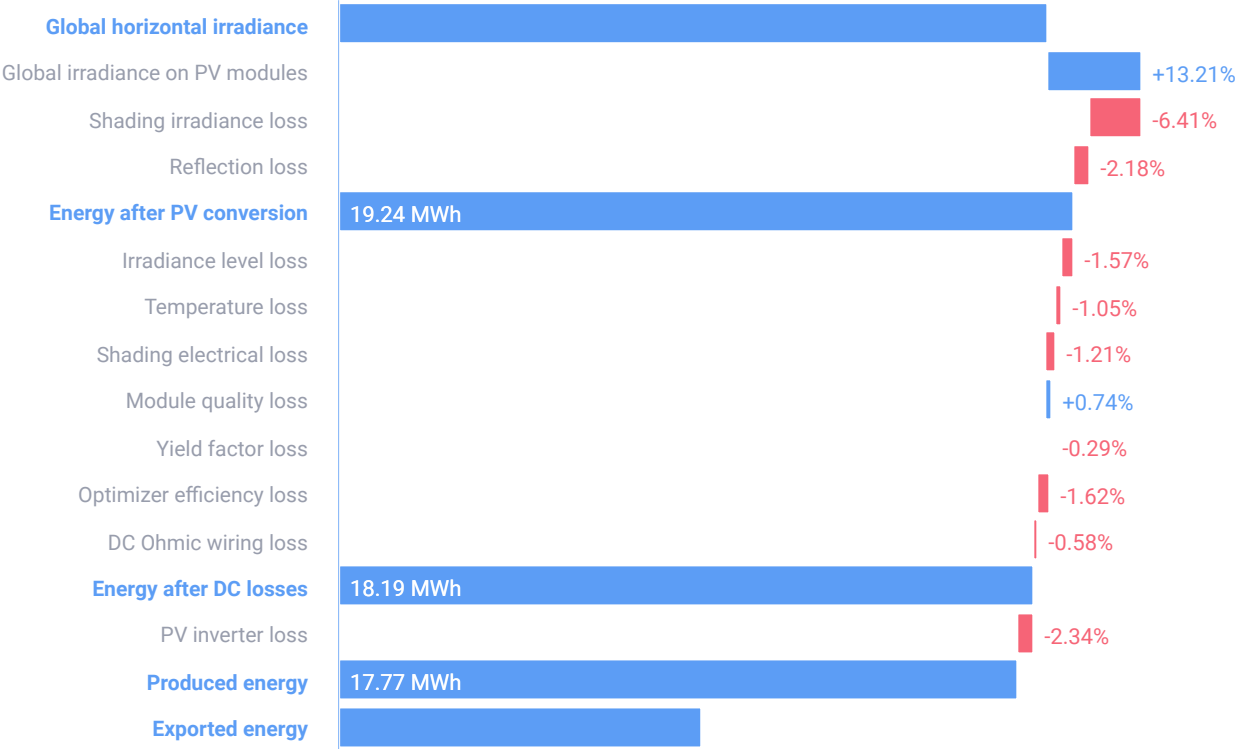
ELECTRICAL DESIGN

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string	Cabling
 1 xSE20K 15.7kW 78% Oversizing	⌚ 1 x string	 18 x S500B (verify waiver conditions)	 18	
	⌚ 1 x string	 16 x S500B (verify waiver conditions)	 16	

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SYSTEM LOSS DIAGRAM



SIMULATION PARAMETERS



LOCATION & GRID

Time zone	GMT (London)
Weather station	Lyneham (17 km away)
Station altitude	145 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%