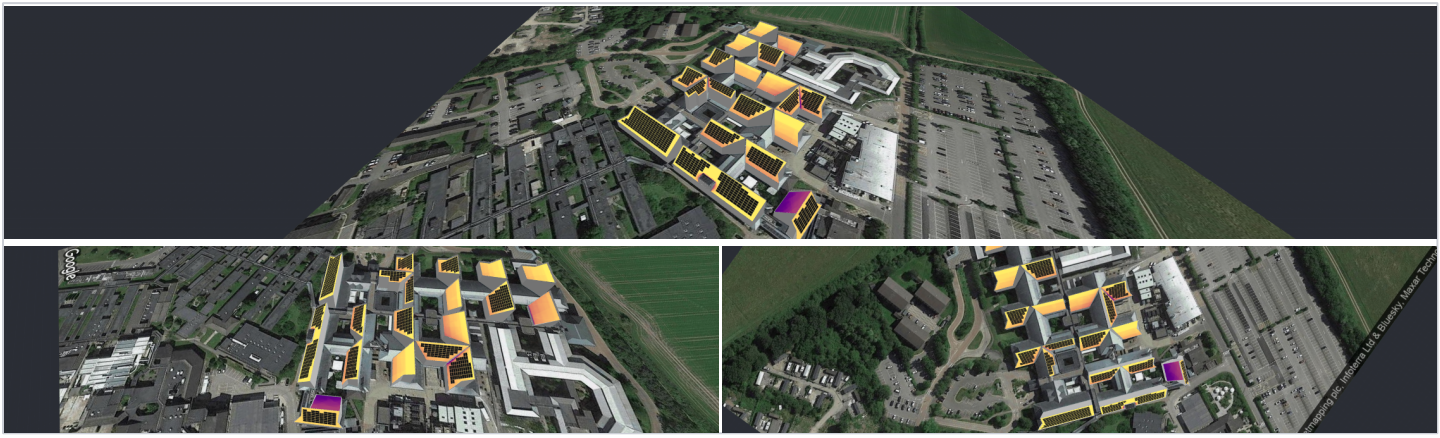
SDH - NORTH BLOCK

Salisbury, SP2 8QL, United Kingdom | 6 Nov 2023

Asset+ energy performance



SYSTEM OVERVIEW

1010 PV modules | 7 Inverters | 508 Optimizers

SIMULATION RESULTS

Installed DC Power	Max Achieved AC Power	Annual Energy Production	CO2 Emission Saved (Annually)	Equivalent Trees Planted (Annually)
515.10 kWp	393.26 kW	507.10 MWh	98.06 t	4,504

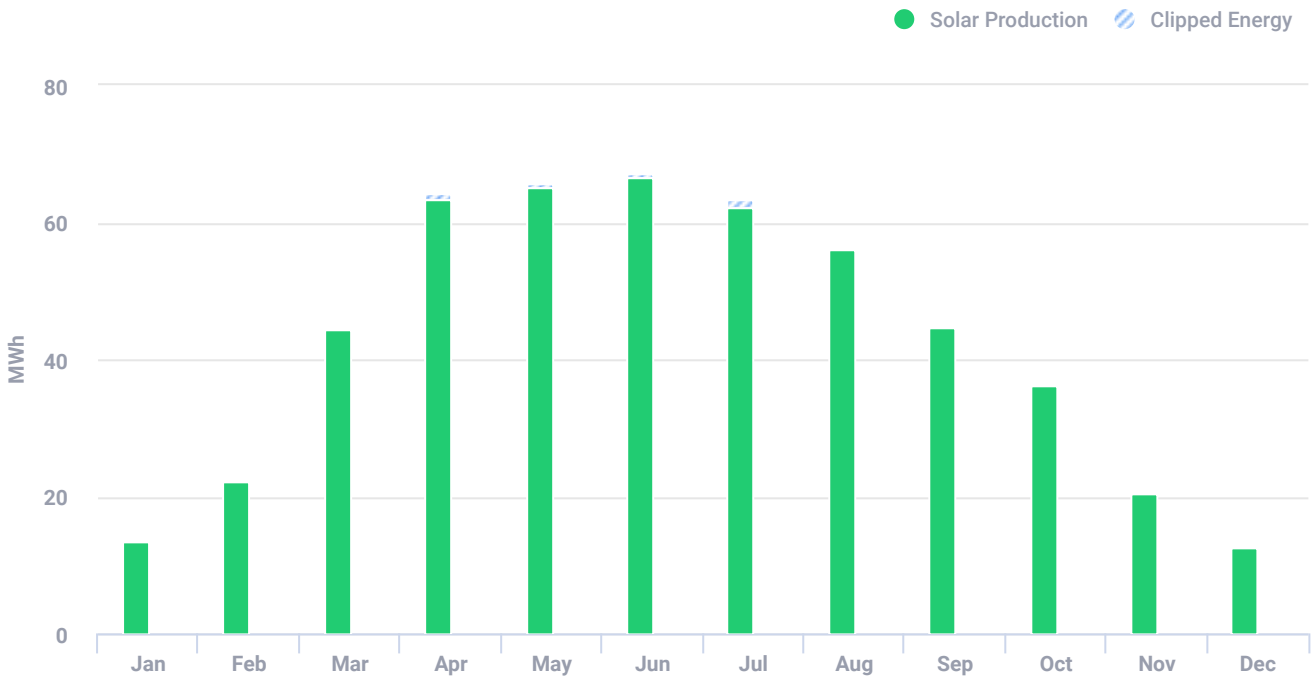
Max Achieved DC Power	DC/AC Oversizing	Max Active AC Power	Performance Ratio	Performance Index
487.80 kW	122 %	399.80 kW	87 %	984 kWh/kWp

SDH - NORTH BLOCK

Salisbury, SP2 8QL, United Kingdom | 6 Nov 2023

Asset+ energy performance

ESTIMATED MONTHLY ENERGY



Total clipped energy: 0.85%

Month	Solar Production (kWh)	Consumption (kWh)	Self-consumption (kWh)	Clipped Energy (kWh)
Jan	13,400	-	-	-
Feb	22,224	-	-	-
Mar	44,285	-	-	455
Apr	63,358	-	-	852
May	65,103	-	-	512
Jun	66,545	-	-	593
Jul	62,102	-	-	1,370
Aug	56,000	-	-	153
Sep	44,733	-	-	361
Oct	36,233	-	-	63
Nov	20,562	-	-	-
Dec	12,557	-	-	-

PV MODULES

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
62	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	31.6 kWp			220°	40°

SDH - NORTH BLOCK

Salisbury, SP2 8QL, United Kingdom | 6 Nov 2023

Asset+ energy performance

PV MODULES (CONTINUED)

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
76	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	38.8 kWp			219°	40°
60	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	30.6 kWp			221°	40°
54	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	27.5 kWp			131°	49°
152	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	77.5 kWp			219°	40°
34	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	17.3 kWp			130°	40°
60	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	30.6 kWp			130°	40°
63	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	32.1 kWp			219°	40°
46	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	23.5 kWp			220°	40°
88	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	44.9 kWp			220°	40°
64	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	32.6 kWp			220°	40°
191	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	97.4 kWp			220°	39°
60	Trina Solar Energy, TSM-510DE18M.08(II) (Vertex)	30.6 kWp			220°	40°
Total: 1010		515.1 kWp				

BILL OF MATERIALS (BOM)

Items	Part Number	Quantity	Price (£)	Total (£)
SE50K Manager		1		
SE66.6K Manager		3		

SDH - NORTH BLOCK

Salisbury, SP2 8QL, United Kingdom | 6 Nov 2023

Asset+ energy performance

BILL OF MATERIALS (BOM) (CONTINUED)

Items	Part Number	Quantity	Price (£)	Total (£)
SE90K Manager		1		
SE30K		2		
P1100		508		
TSM-510DE18M.08(II) (Vertex)		1010		

ELECTRICAL DESIGN

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
1 xSE66.6K Manager 95.97kW | 144% Oversizing	**Center Unit**		
	2 x strings	16 x P1100 (2:1)	32
	1 x string	15 x P1100 (2:1)	30
	Left Unit		
	1 x string	18 x P1100 (2:1)	36
	1 x string	15 x P1100 (2:1)	30
	1 x string	15 x P1100 (2:1), 1 x P1100 (1:1)	31
1 xSE66.6K Manager 95.25kW | 143% Oversizing	**Center Unit**		
	1 x string	20 x P1100 (2:1)	40
	1 x string	16 x P1100 (2:1)	32
	1 x string	17 x P1100 (2:1)	34
	Left Unit		
	1 x string	16 x P1100 (2:1)	32
	2 x strings	17 x P1100 (2:1)	34

SDH - NORTH BLOCK

Salisbury, SP2 8QL, United Kingdom | 6 Nov 2023

Asset+ energy performance

ELECTRICAL DESIGN (CONTINUED)

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
1 xSE90K Manager 93.12kW | 103% Oversizing	**Center Unit**		
	1 x string	20 x P1100 (2:1)	40
	1 x string	18 x P1100 (2:1)	36
	Left Unit		
	1 x string	16 x P1100 (2:1)	32
	1 x string	15 x P1100 (2:1), 1 x P1100 (1:1)	31
	Right Unit		
	2 x strings	15 x P1100 (2:1)	30
1 xSE66.6K Manager 74.25kW | 111% Oversizing	**Center Unit**		
	2 x strings	15 x P1100 (2:1)	30
	Left Unit		
	1 x string	16 x P1100 (2:1)	32
	2 x strings	14 x P1100 (2:1)	28
1 xSE50K Manager 65.96kW | 132% Oversizing	**Center Unit**		
	1 x string	17 x P1100 (2:1)	34
	1 x string	17 x P1100 (2:1), 1 x P1100 (1:1)	35
	Left Unit		
	1 x string	18 x P1100 (2:1)	36
	1 x string	17 x P1100 (2:1), 1 x P1100 (1:1)	35
1 xSE30K 32.12kW | 107% Oversizing	1 x string	14 x P1100 (2:1), 1 x P1100 (1:1)	29
	1 x string	17 x P1100 (2:1), 1 x P1100 (1:1)	35

SDH - NORTH BLOCK

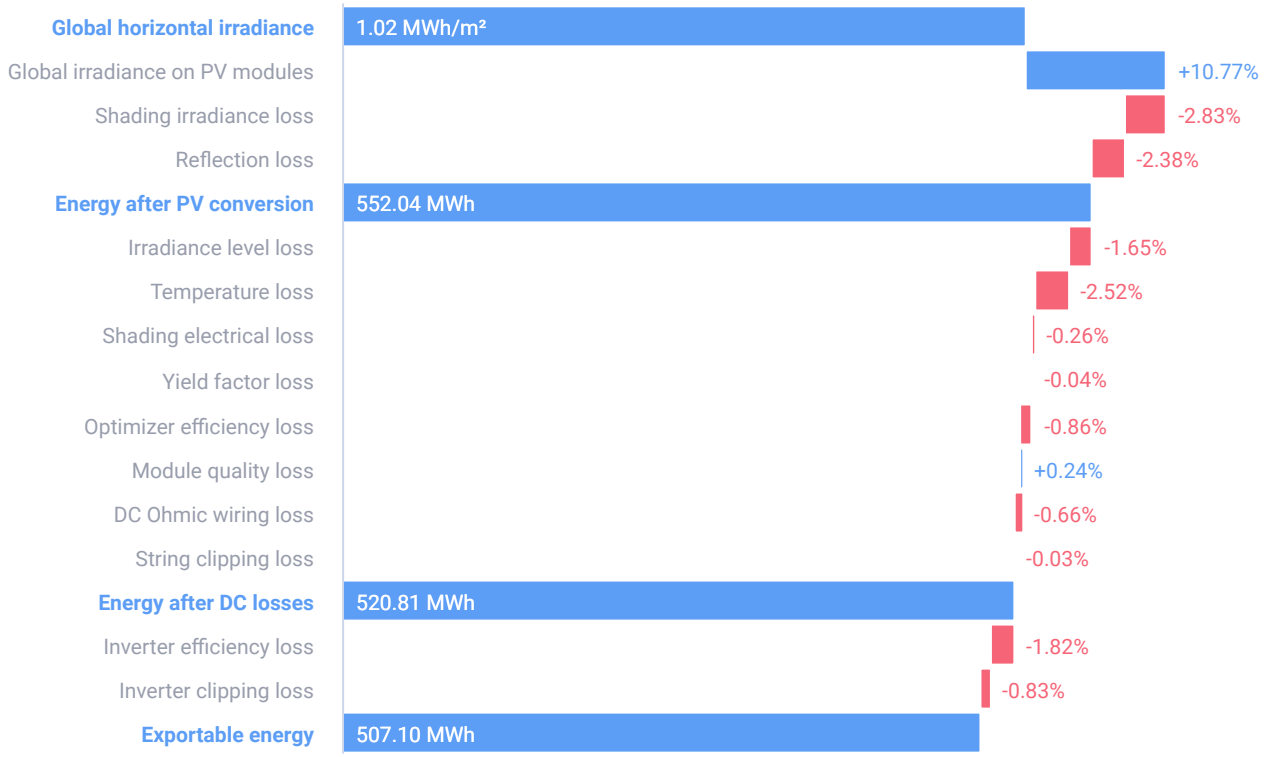
Salisbury, SP2 8QL, United Kingdom | 6 Nov 2023

Asset+ energy performance

ELECTRICAL DESIGN (CONTINUED)

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
1 xSE30K 31.12kW | 104% Oversizing	1 x string	16 x P1100 (2:1)	32
	1 x string	15 x P1100 (2:1)	30

SYSTEM LOSS DIAGRAM



SDH - NORTH BLOCK

Salisbury, SP2 8QL, United Kingdom | 6 Nov 2023

Asset+ energy performance

SIMULATION PARAMETERS

LOCATION & GRID

Time zone	GMT (London)
Weather station	Salisbury (4.16 km away)
Station altitude	63 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%