

Report estimate

Workspace

Site location

UK-Gloucester (51.89, -2.19) · UTC

Battery

5kWh (5 kWh)

Inverter

Fox ESS H1-5.0-E (5 kW)

setpoints: cosy charge (6 periods)

Solar Arrays

west (Jinko Tiger Neo 54HL4R 445W, 7 panels, 3.1 kW)

east (Jinko Tiger Neo 54HL4R 445W, 7 panels, 3.1 kW)

Load profile

house (2,500 kWh/yr)

Heat pump

Heat pump (rated 5,000 W · design house 20.5 °C · design flow 43 °C)

Tariff

cosy
import: 0.15, 0.28, 0.45 · export: 0.12 · daily standing: 0.60

Summary

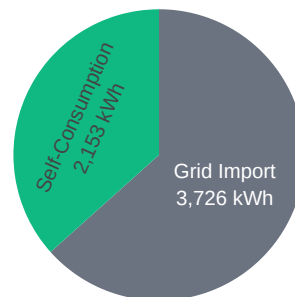
☀️ Solar Generated	5,559 kWh	(5,559 (utilised) + 0 (clipped))
📉 Load Consumed	5,879 kWh	1,563 GBP (cost without solar)
🔧 Space heating electric (heat pump)	2,697 kWh	(thermal generated 12,468)
🔧 Hot water electric (heat pump)	682 kWh	(thermal generated 2,179)
🔌 Grid Import	3,726 kWh	722 GBP
🔌 Grid Export	2,735 kWh	328 GBP
\$ Total benefit from solar & battery	1,169 GBP	
\$ New electricity bill	613 GBP	(722 (import) - 328 (export) + 219 (standing))

Self-Consumption

Share of load met from PV and batteries vs grid import.

36.6%

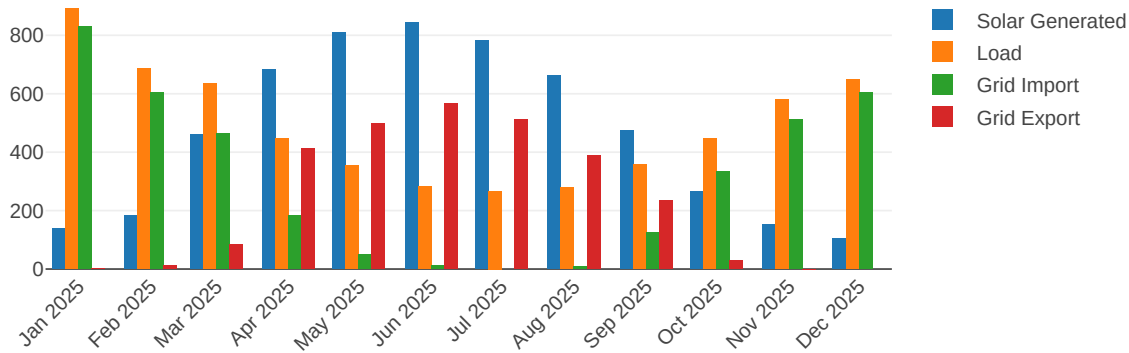
Spring: 51.6% Summer: 97.5%
Autumn: 29.9% Winter: 8.5%



Yearly Summary

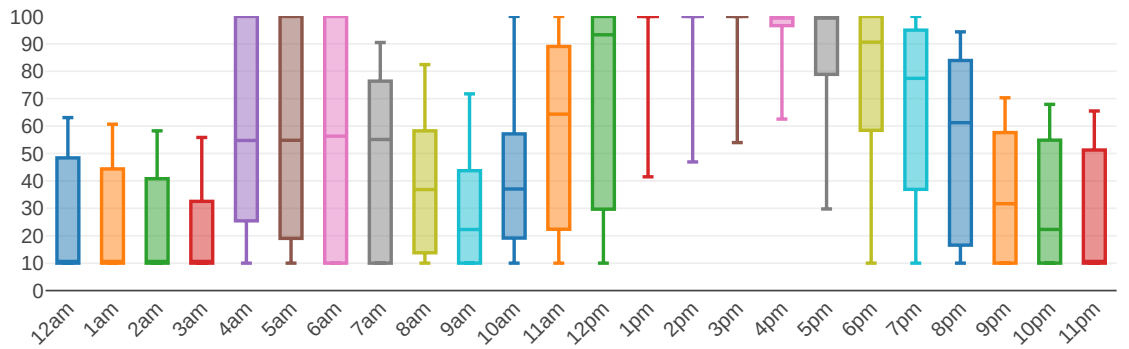
Monthly Energy Totals

Energy flows by month: solar, load, grid import, grid export.



SOC Distribution by Hour

Spread of battery charge levels by hour (box plot).



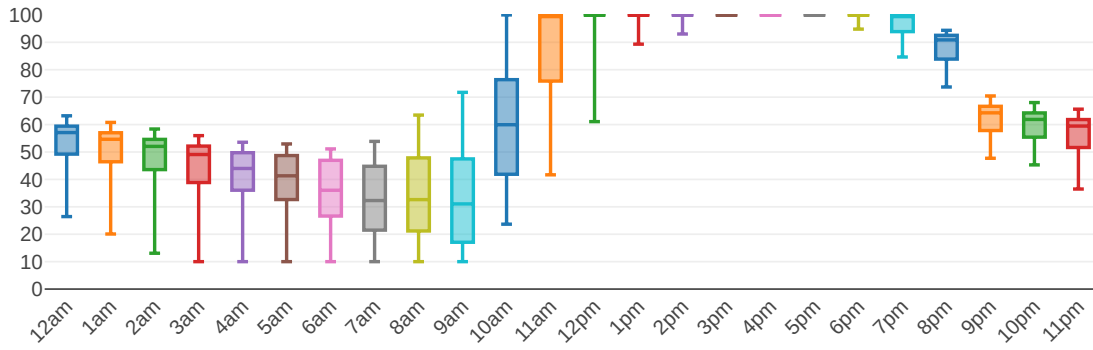
Monthly Summary

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Solar Generated kWh	138	185	461	684	809	843	783	662	473	267	152	103
Load kWh	891	687	634	448	356	281	267	280	358	445	581	650
Grid Import kWh	830	604	464	182	50	11	0	10	125	335	511	606
Grid Export kWh	1	11	83	412	497	568	512	388	236	28	0	0
Average SOC %	44	48	60	48	60	69	72	61	46	61	51	47

Summer Monthly Summary

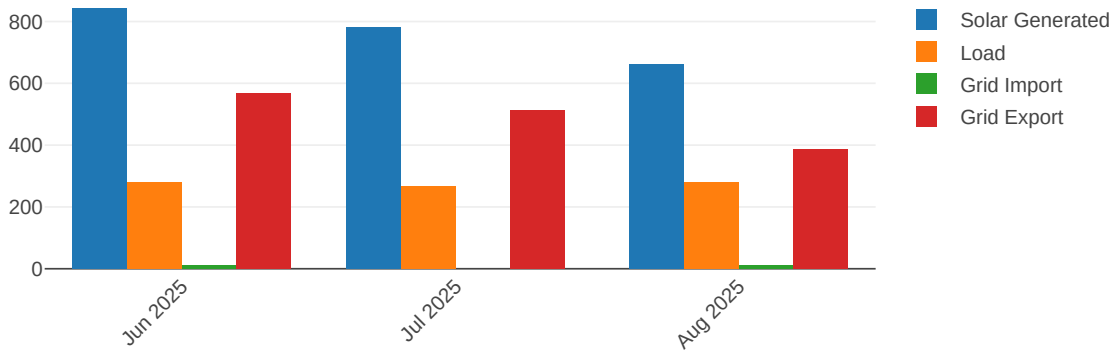
Summer SOC Distribution by Hour

Spread of battery charge levels by hour for June, July, August.



Summer Energy Totals by Month

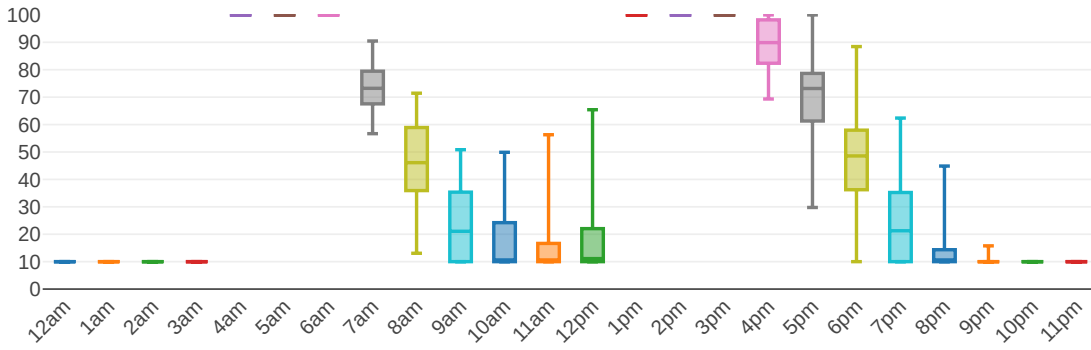
Energy flows for June, July, August: solar, load, grid import, grid export.



Winter Monthly Summary

Winter SOC Distribution by Hour

Spread of battery charge levels by hour for December, January, February.



Winter Energy Totals by Month

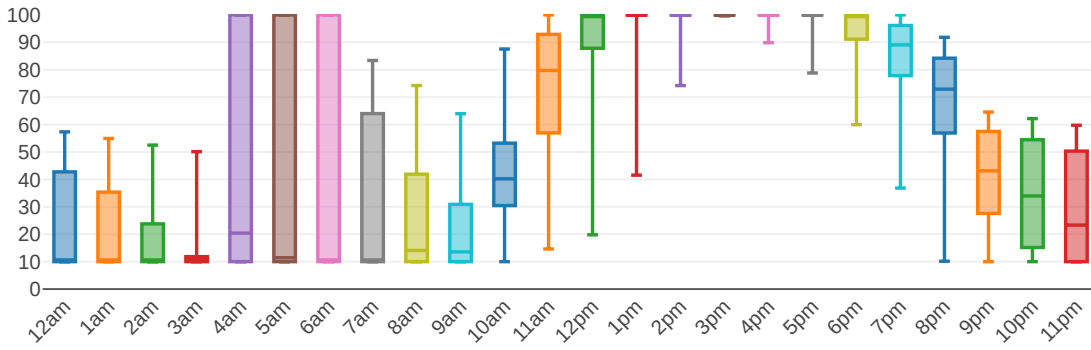
Energy flows for December, January, February: solar, load, grid import, grid export.



Spring Monthly Summary

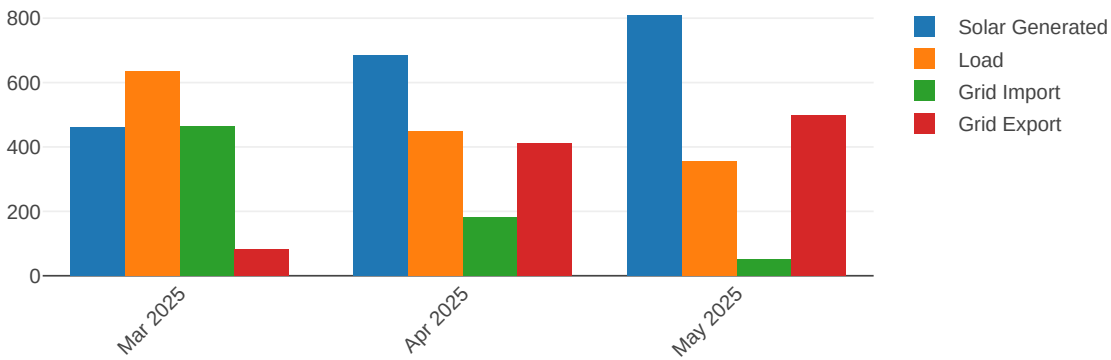
Spring SOC Distribution by Hour

Spread of battery charge levels by hour for March, April, May.



Spring Energy Totals by Month

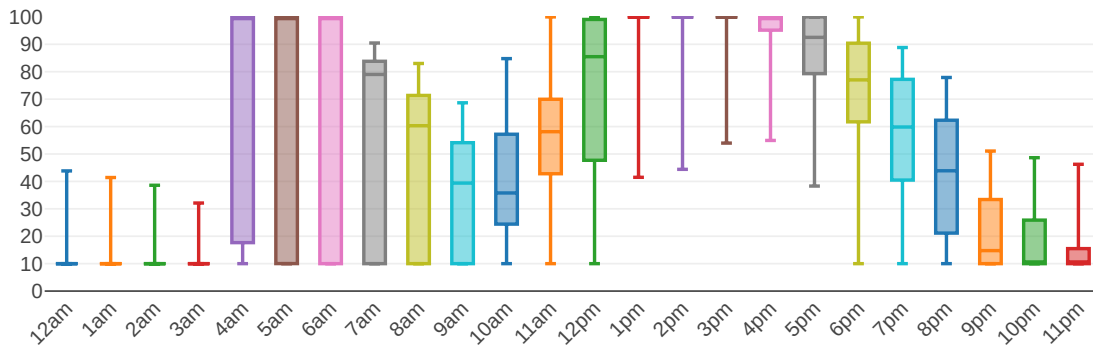
Energy flows for March, April, May: solar, load, grid import, grid export.



Autumn Monthly Summary

Autumn SOC Distribution by Hour

Spread of battery charge levels by hour for September, October, November.



Autumn Energy Totals by Month

Energy flows for September, October, November: solar, load, grid import, grid export.

