

HISTORIC SIMULATION REPORT

10kW Solar Array with 5kW Inverter

Workspace

Site location

home (51.89, -2.19) · UTC

Battery

10 (10 kWh)

Inverter

Alpha 5 (5/5 kW)

Solar Arrays

west10 (DMEG 495, 10 panels, 5 kW)

east10 (DMEG 495, 10 panels, 5 kW)

Load profile

household load (5,500 kWh/yr)

Tariff

fixed
import: 0.28 · export: 0.12 ·
daily standing: 0.60

Summary

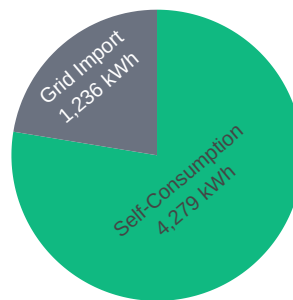
☀️ Solar Generated	7,684 kWh	
⤴️ Load Consumed	5,515 kWh	1,544 GBP (cost without solar)
🔌 Grid Import	1,236 kWh	346 GBP
🔌 Grid Export	3,326 kWh	399 GBP
\$ Total benefit from solar & battery		1,597 GBP
\$ New electricity bill		166 GBP (346 (import) - 399 (export) + 220 (standing))

Self-Consumption

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

77.6%

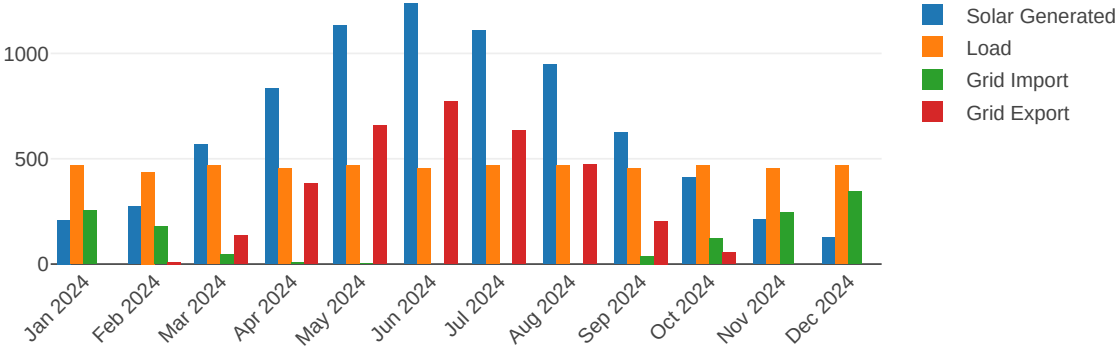
Spring: 95.8% Summer: 100.0%
Autumn: 70.7% Winter: 43.4%



Yearly Summary

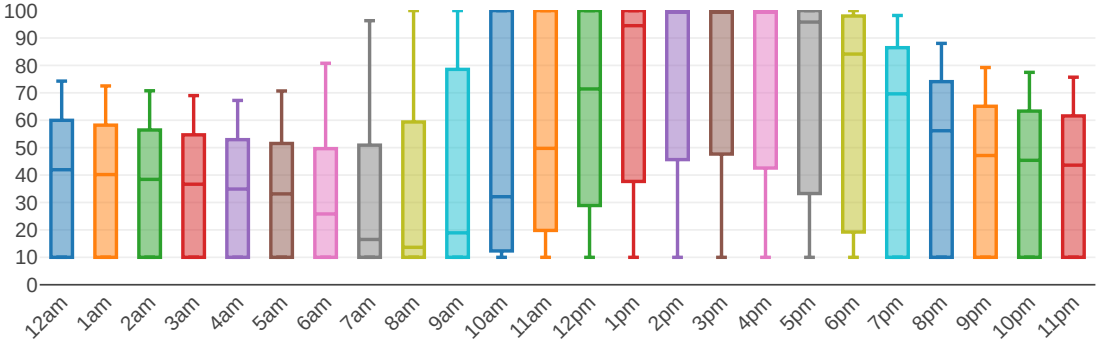
Monthly Energy Totals

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



SOC Distribution by Hour

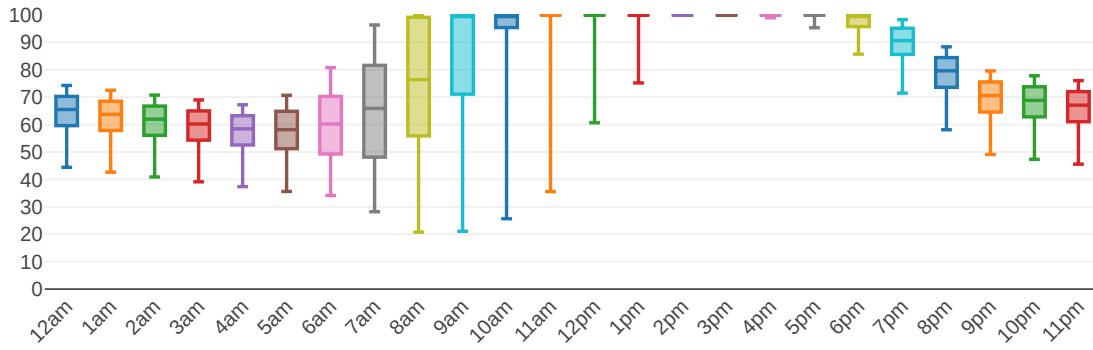
Spread of battery charge levels by hour (box plot).



Summer Monthly Summary

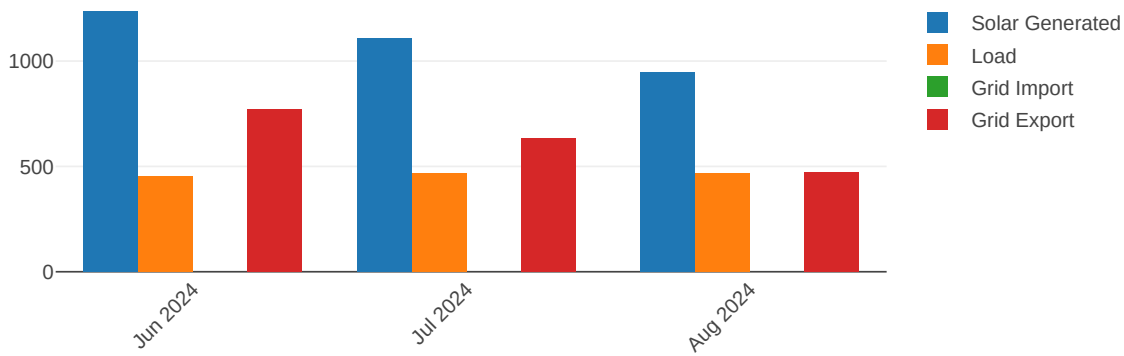
Summer SOC Distribution by Hour

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



Summer Energy Totals by Month

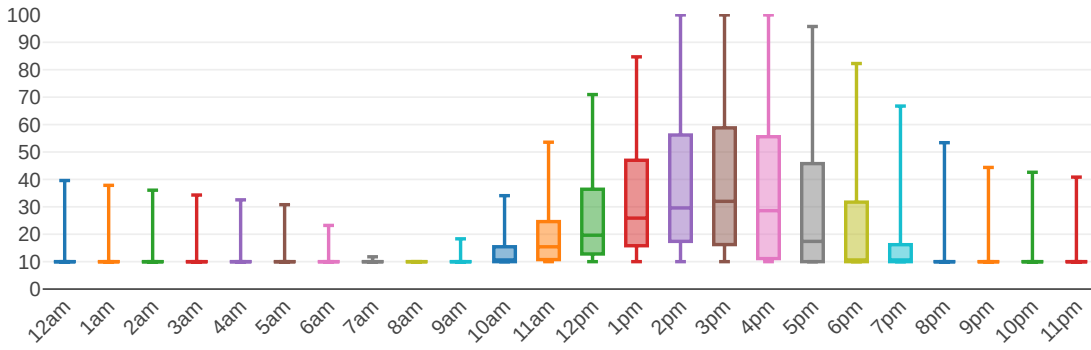
Energy flows for June, July, August: solar, load, grid import, grid export.



Winter Monthly Summary

Winter SOC Distribution by Hour

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



Winter Energy Totals by Month

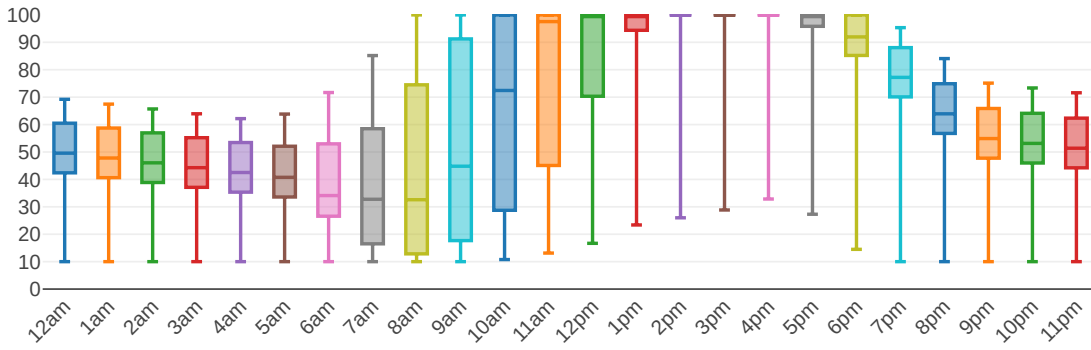
Energy flows for December, January, February: solar, load, grid import, grid export.



Spring Monthly Summary

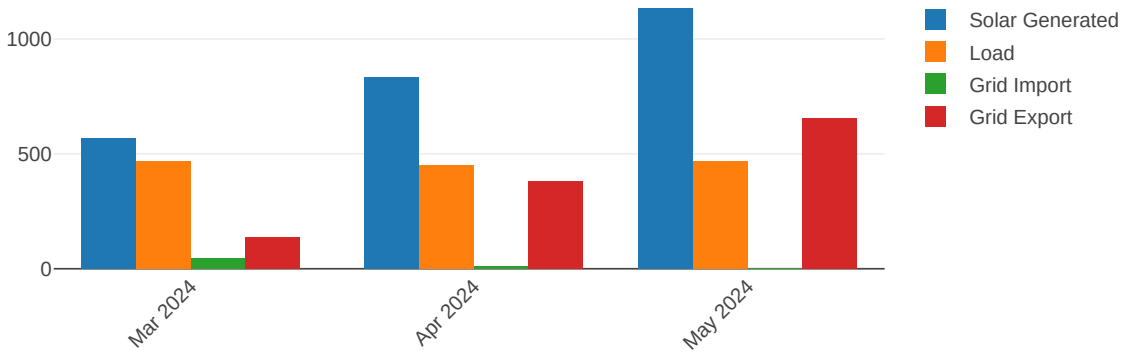
Spring SOC Distribution by Hour

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



Spring Energy Totals by Month

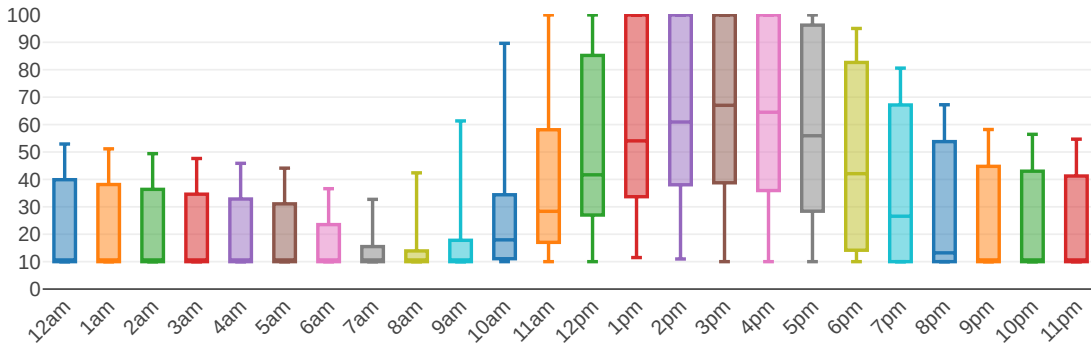
Energy flows for March, April, May: solar, load, grid import, grid export.



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.

