Solar Butter

HISTORIC SIMULATION REPORT

10kW Solar Array South with 10kW Inverter

Created by admin | Account: alex

home | 2024-01-01 to 2024-12-31 | UTC

Workspace

Site location
home (51.89, -2.19) · UTC

Battery
10 (10 kWh)

Inverter
Generic10 (10/10 kW)

Solar Arrays
Southx20 (DMEG 495, 20 panels, 9.9 kW)

Load profile
household load (5,500 kWh/yr)

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

Summary

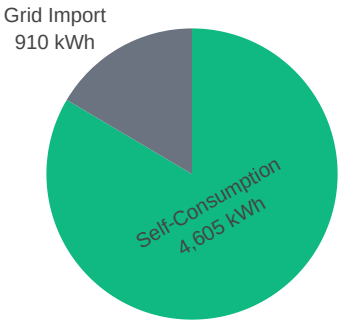
Solar Generated	**9,620 kWh**	
Load Consumed	**5,515 kWh**	**1,544 GBP** (cost without solar)
Grid Import	**910 kWh**	**255 GBP**
Grid Export	**4,931 kWh**	**592 GBP**
$ Total benefit from solar & battery		**1,881 GBP**
$ New electricity bill		**-117 GBP** (**255** (import) - **592** (export) + **220** (standing))

Self-Consumption

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

83.5%

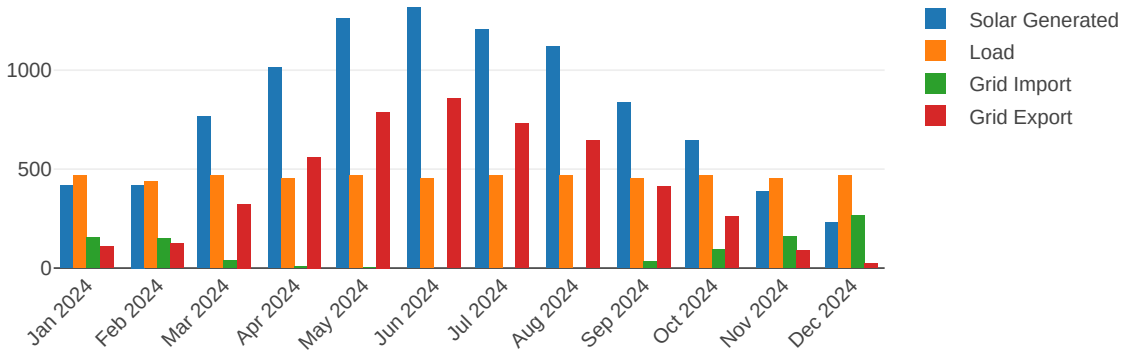
Spring: 96.3% Summer: 100.0%
Autumn: 79.0% Winter: 58.4%



Yearly Summary

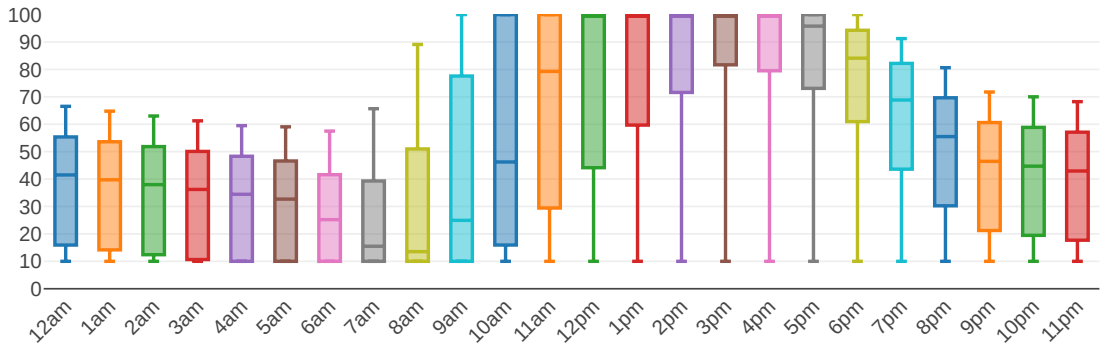
Monthly Energy Totals

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



SOC Distribution by Hour

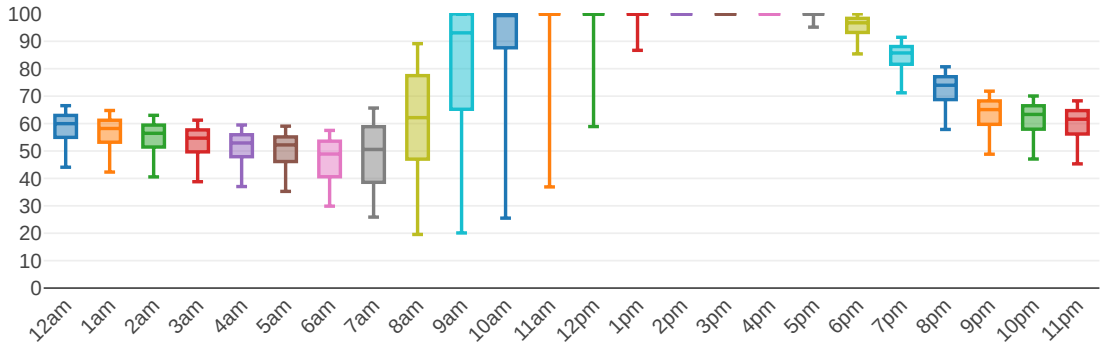
Spread of battery charge levels by hour (box plot).



Summer Monthly Summary

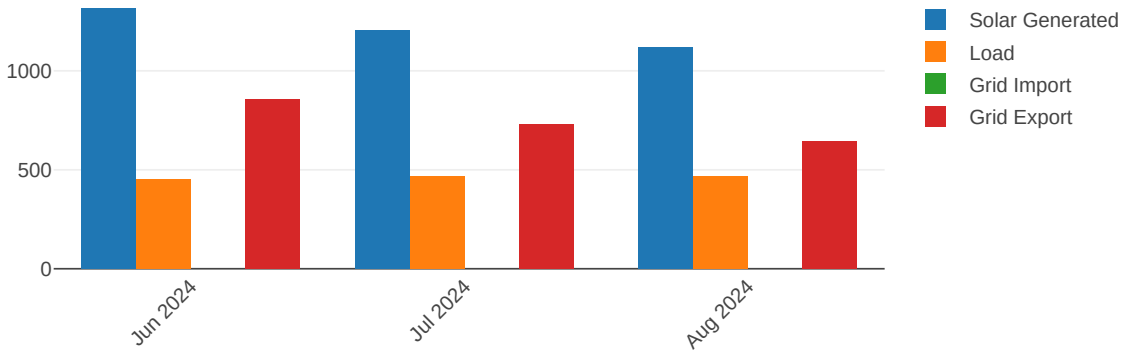
Summer SOC Distribution by Hour

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



Summer Energy Totals by Month

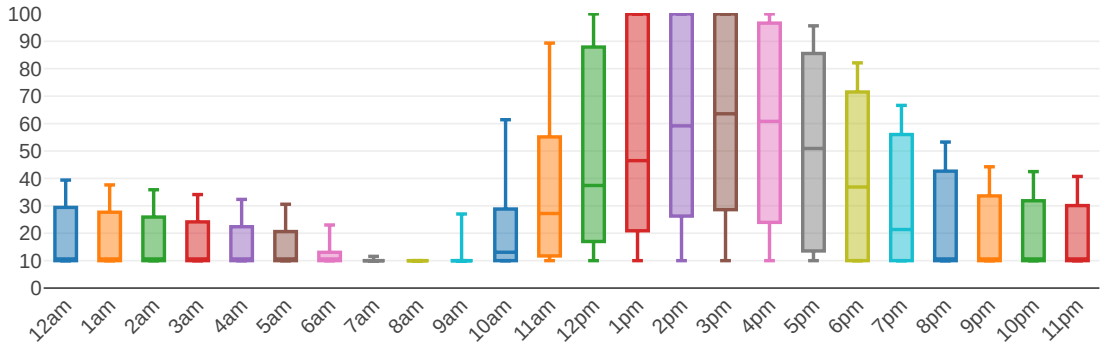
Energy flows for June, July, August: solar, load, grid import, grid export.



Winter Monthly Summary

Winter SOC Distribution by Hour

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



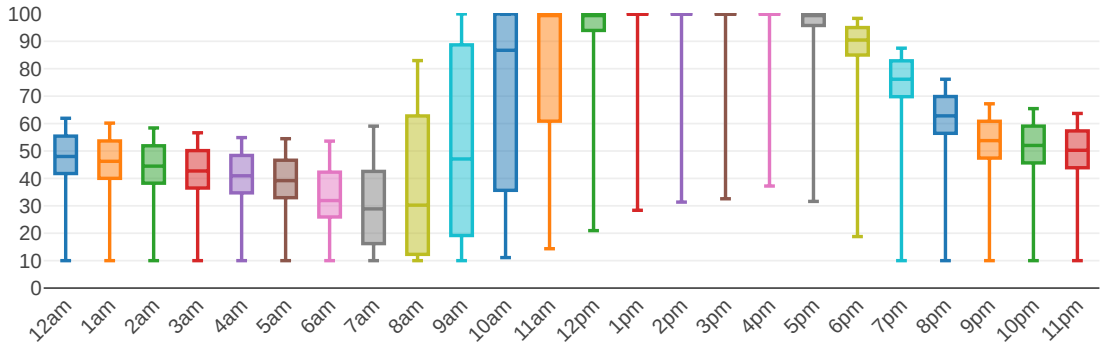
Winter Energy Totals by Month

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

Spring Monthly Summary

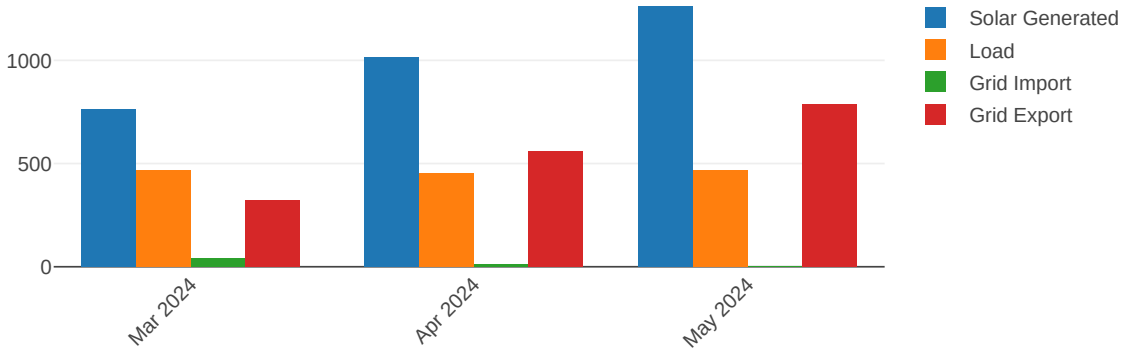
Spring SOC Distribution by Hour

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



Spring Energy Totals by Month

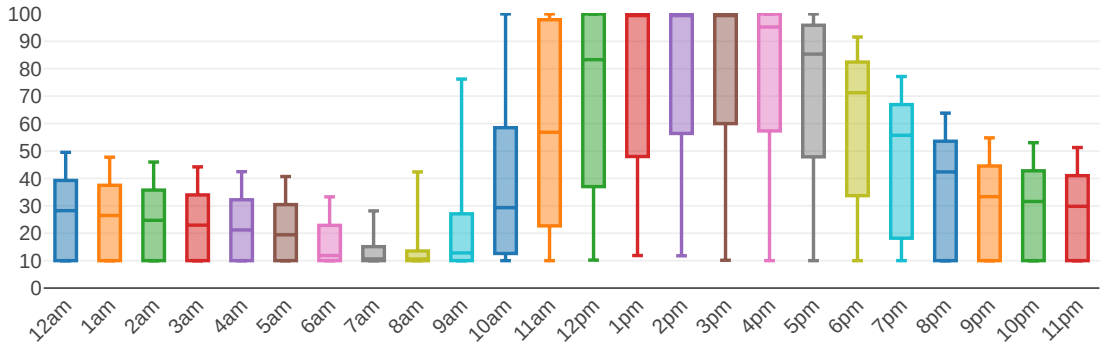
Energy flows for March, April, May: solar, load, grid import, grid export.



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.