Compound Smart Systems Summary
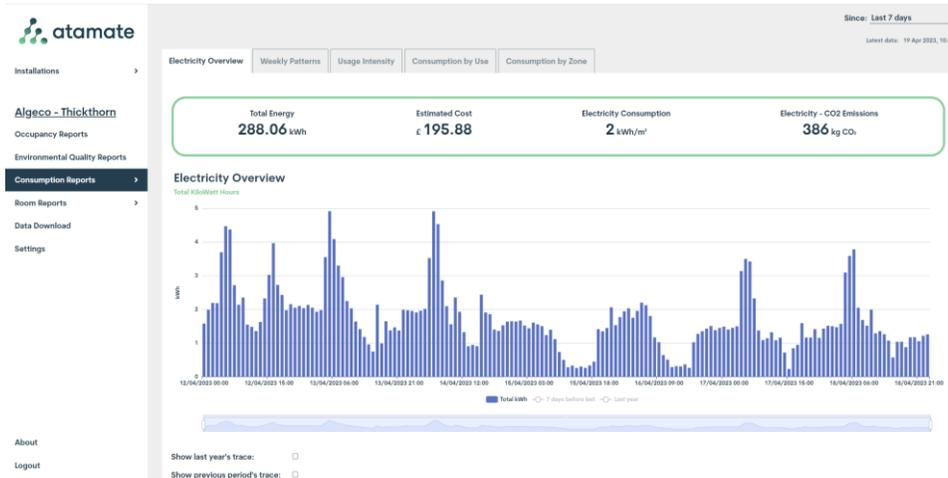
Live Monitoring and Controls

- Temperature & Humidity
- Room Occupancy
- Thermostat Controls and pre-sets
(Dry room set 05:00-08:00 & 18:00-21:00)
(Office space set 06:30-17:00)
- Power Usage
- Energy Cost

- Outlet and room usage
- Energy Cost
- Carbon Emitted from the use of smart sockets
- Carbon Intensity from the use of smart sockets
- Master sockets on and off (printer, servers, desk etc)
- Sockets to turn off automatically overnight

Assumptions: Connected to grid

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Data Capture

- From the data we can look at trends and challenge behaviour's examples are:

- Carbon statistics
- Energy Usage
- Outlet and Room usage
- Carbon Emitted

- Changing heaters so generator doesn't kick in with demand
- Changing battery parameters so generator only kicks in when battery at less than 15%
- Self-closing door hinges
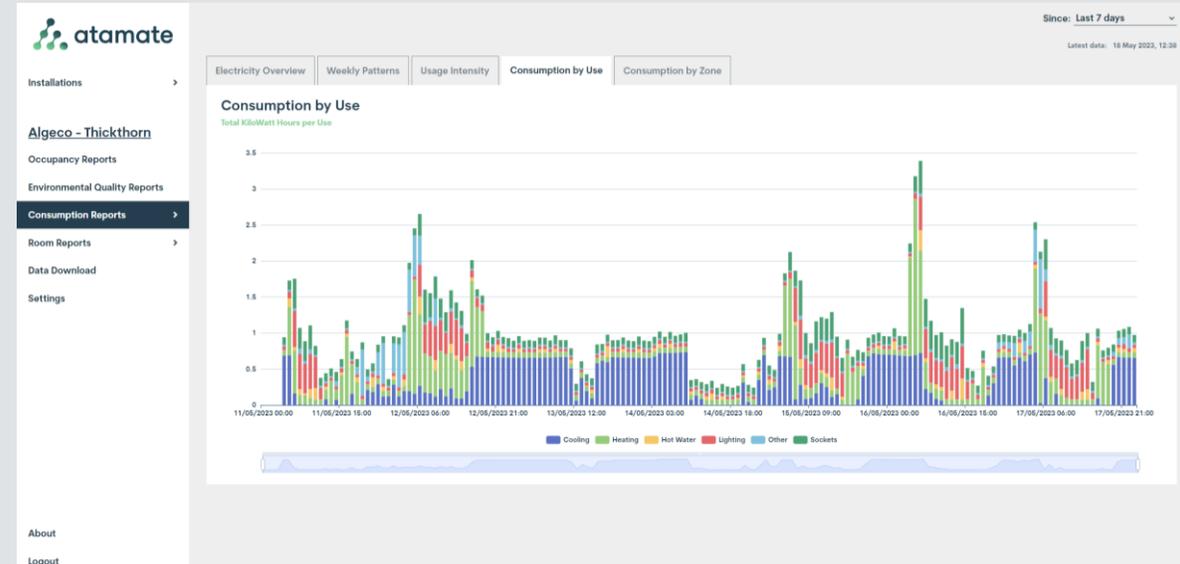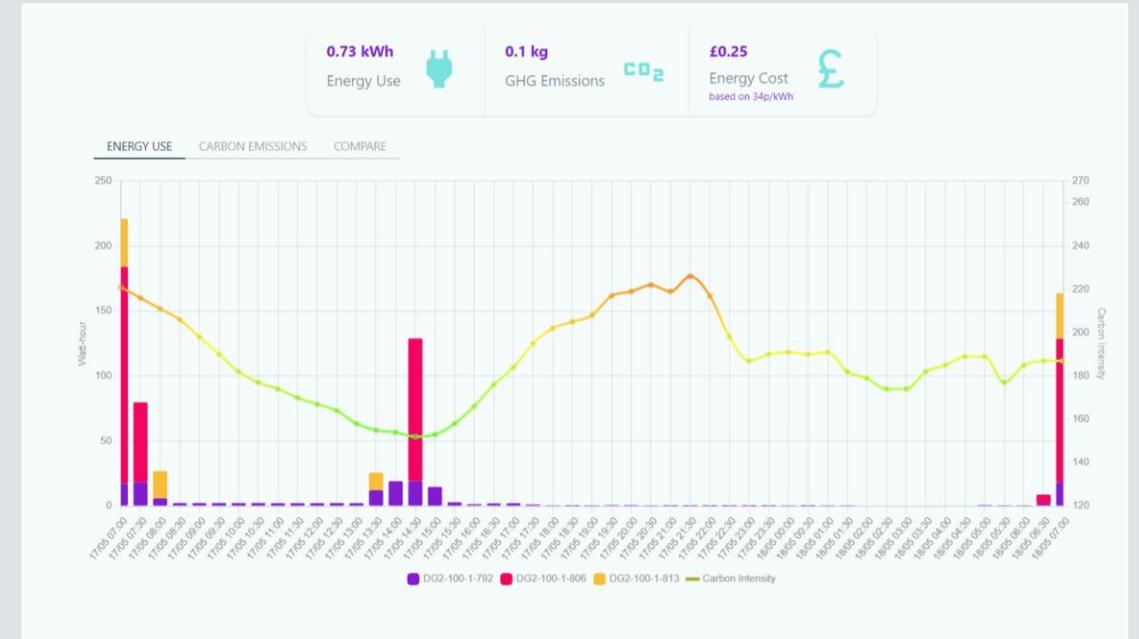
Live Monitoring

- Generator usage
- Battery charge
- Battery load
- Solar panel production
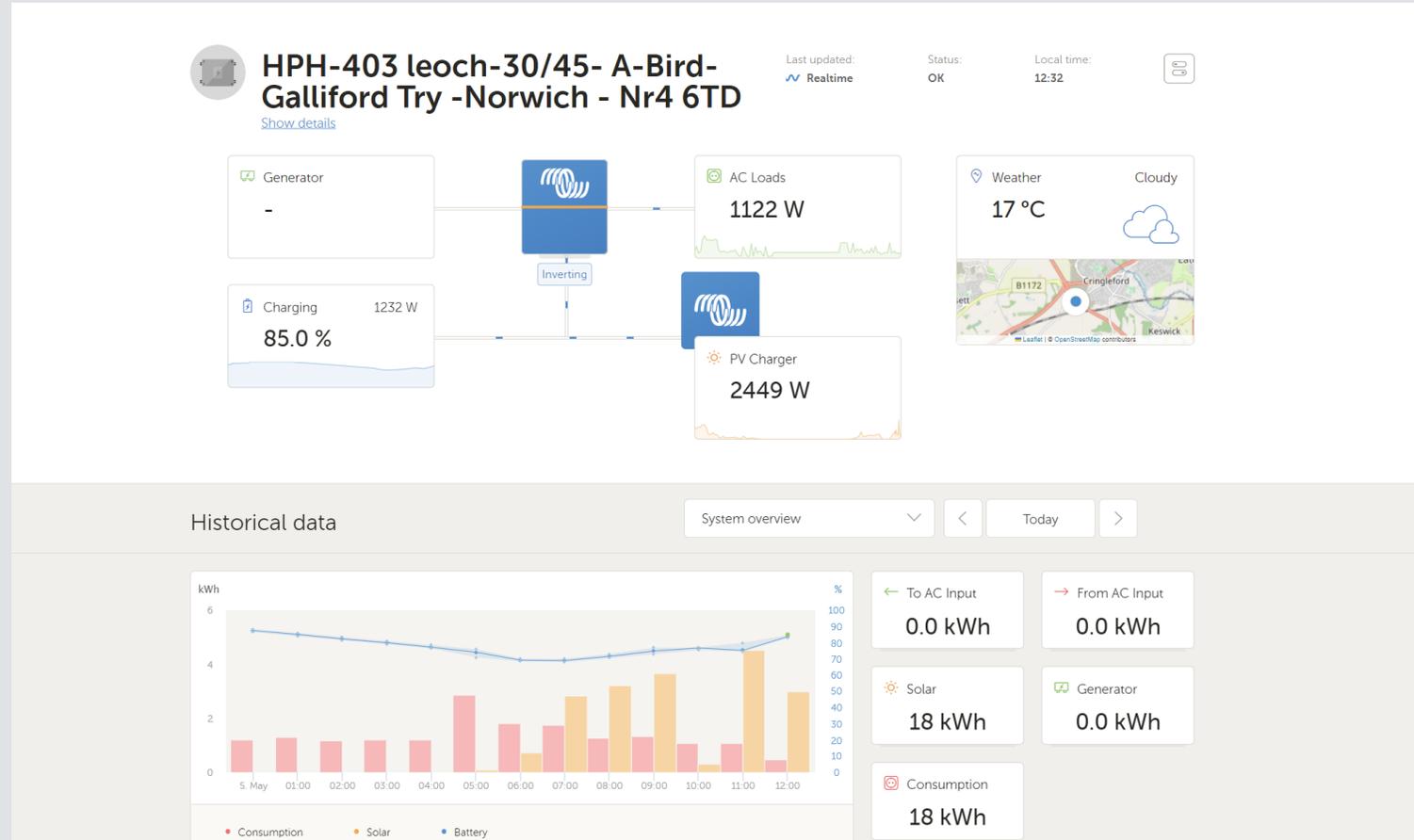
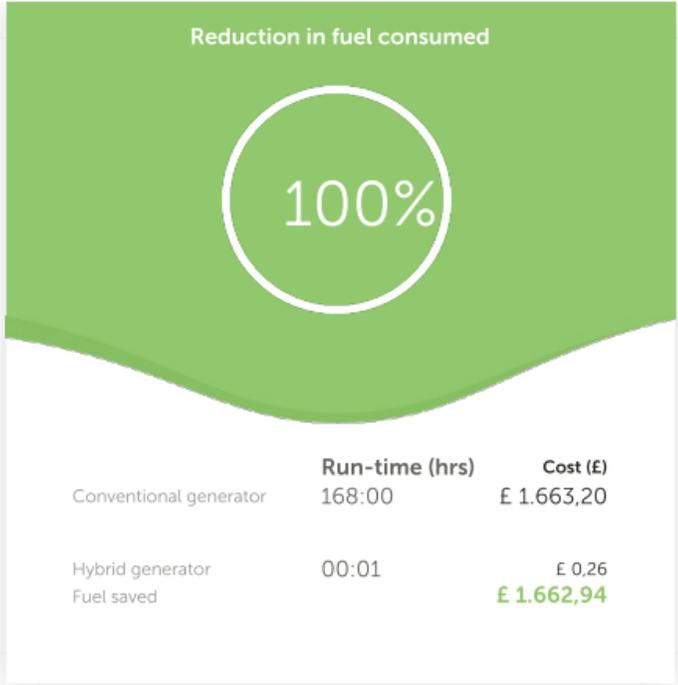Since the installation of the solar panels and battery there has been a 100% reduction in generator run time.

In a week this has saved over 924L in HVO equalling £1663 and 180kg in CO_2.

Total Running costs: £986/w

Net saved: £677/w

POWER SAVING SOLUTIONS

victron energy BLUE POWER

Breakdown of Savings in Engine Hours and Fuel

Reduction in run-hours

100%

Number of days	7
Fuel consumption per hour	5.5
Cost of Fuel per Litre	£ 1,80
Normal run-hours for this period	168:00
Actual run-hours for this period	00:01
Reduction in run-hours for this period	167:58

Reduction in fuel consumed

100%

	Run-time (hrs)	Cost (£)
Conventional generator	168:00	£ 1.663,20
Hybrid generator	00:01	£ 0,26
Fuel saved		£ 1.662,94

Assumptions: Generator runs 24/7.
195kg of CO2/ 1000L of HVO

Running Costs: Generator £120/w
Battery £500/w
Fuel Cube £120/w
Solar Panels £286/w