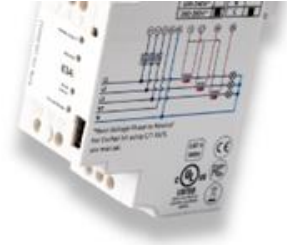
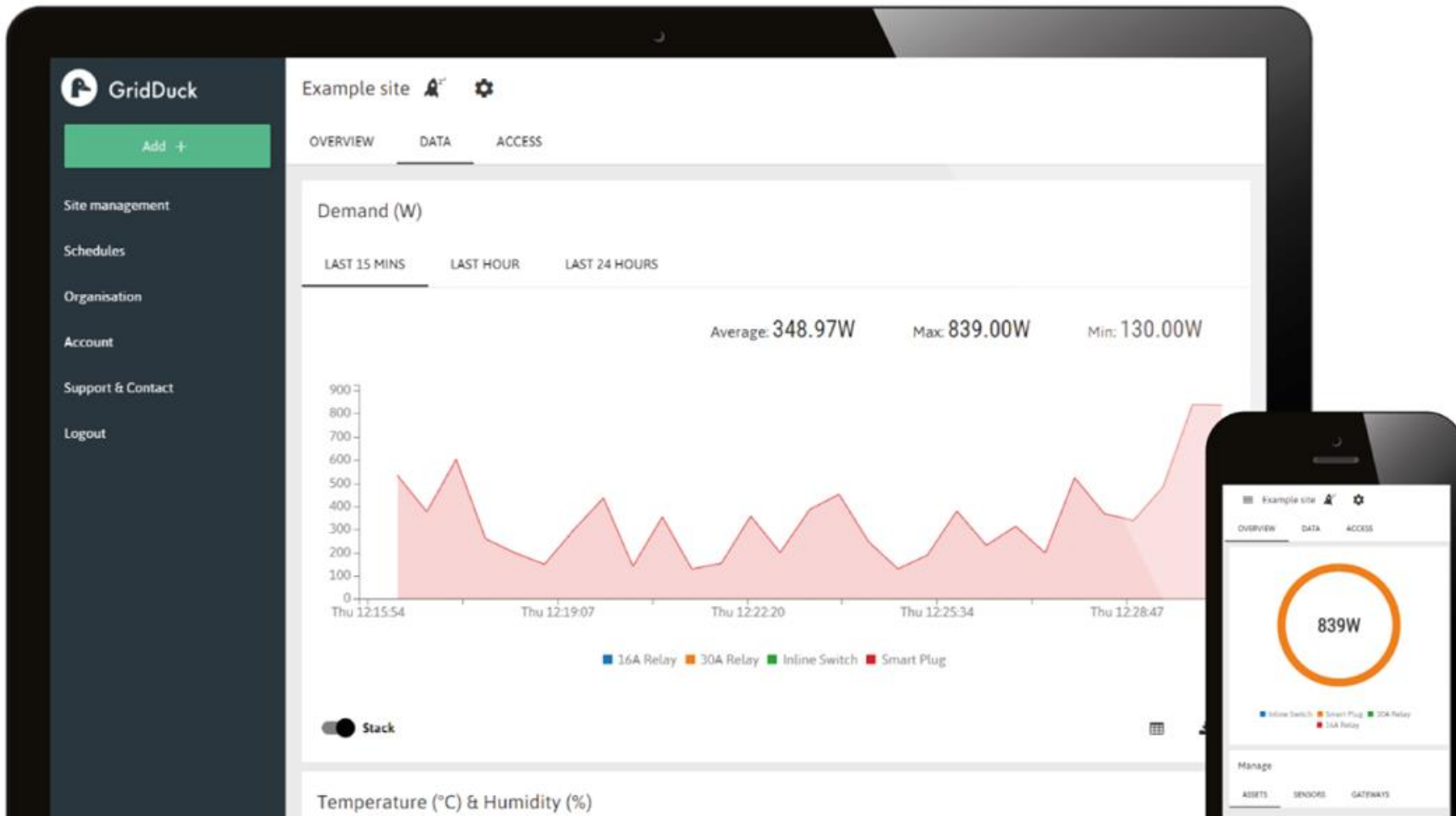




GridDuck

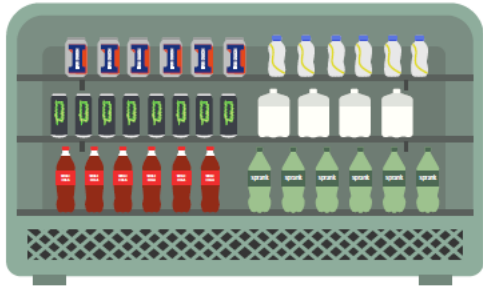
Cloud based energy automation



Problem: Organisations want to reduce their energy spend...



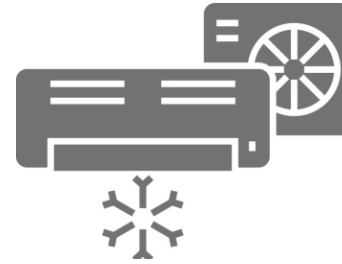
...but the highest consuming appliances are often out of their control



Display fridge



Hot water tank

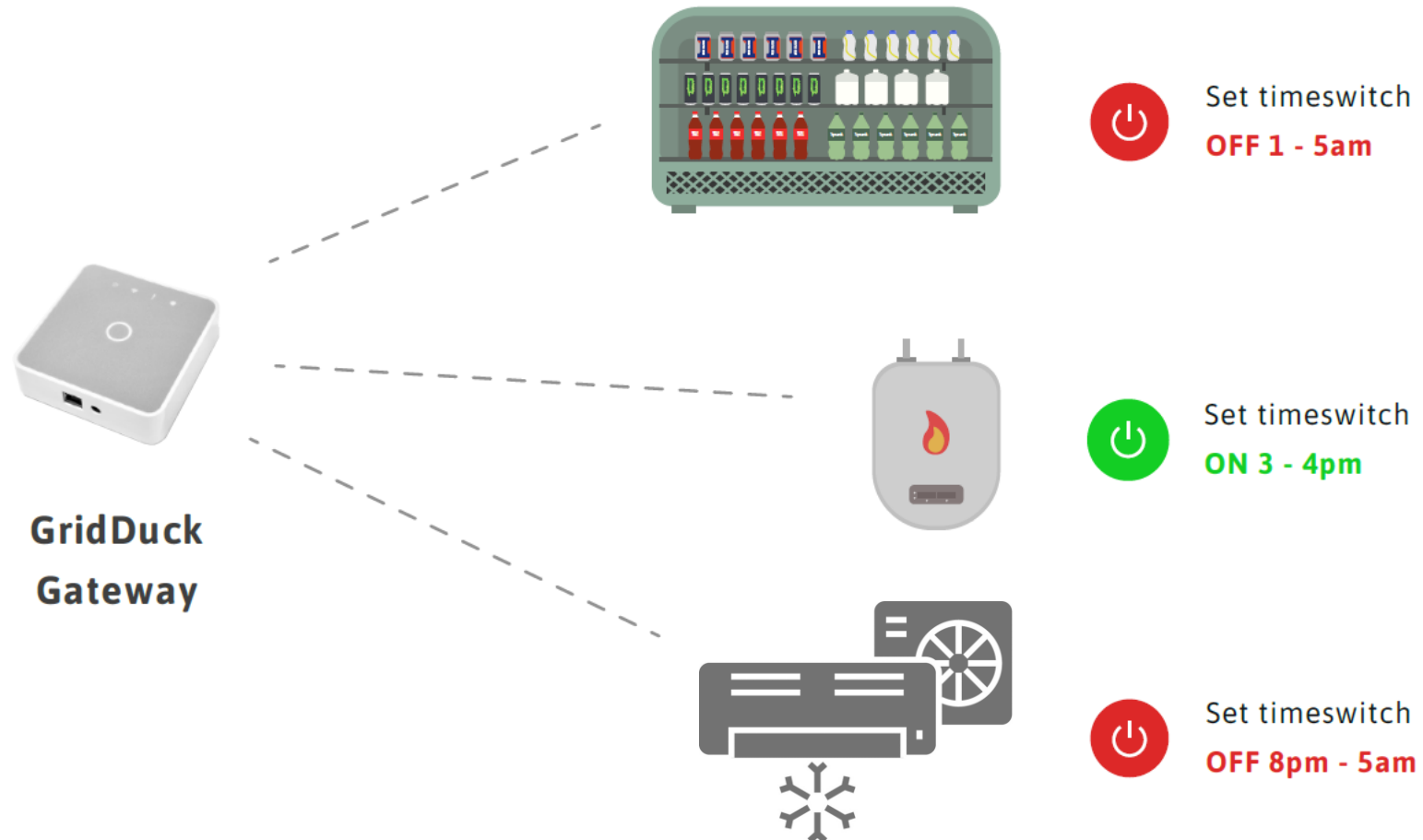


Air conditioning

Solution



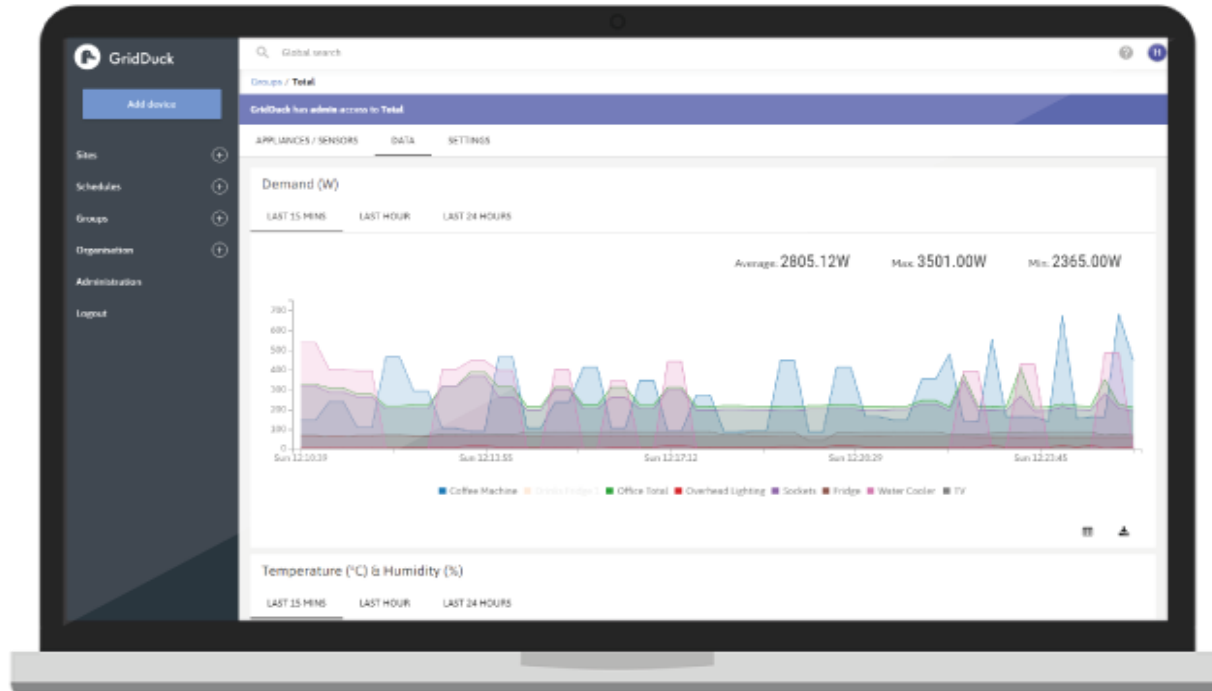
Wireless IOT system that allows you to control any appliance



Dashboard & API



Monitor, control, automate and share permissions



1^s

Per-second monitoring

Real time and historic data



Remote switching

Switch appliances on and off from anywhere in the world



Time switching

Set the exact times at which appliances switch on an off



Permission sharing

Share 'view' and 'manage' permissions for the same appliance

Wireless hardware



Control any appliance – from a simple kettle to industrial machinery



Gateway

Collects real-time demand and consumption data. Executes remote control and automation rules

£ 110



Smart plug

Can be placed into a standard plug socket. UK and EU versions available

£ 45, plus
10p/month



Inline-switch

Can be spliced into a standard power cable

£45, plus 10p/month



16A Relay

Standard DIN rail mounted relay in distribution board

£ 65
plus £1/month



Temperature / Humidity Sensor

Monitors temperature and humidity levels in buildings

£ 35



Meter interface

Monitors electricity, water, gas or heat meter

£ 55
Plus £1/month

Who are we for?



Toolkit for facility managers, energy consultants, energy suppliers and DR aggregators



Facility managers

Remotely monitor and control all your sites from anywhere



Energy consultants

Analyse energy consumption, set time switch schedules and make financial and carbon savings



Energy suppliers & Demand Response aggregators

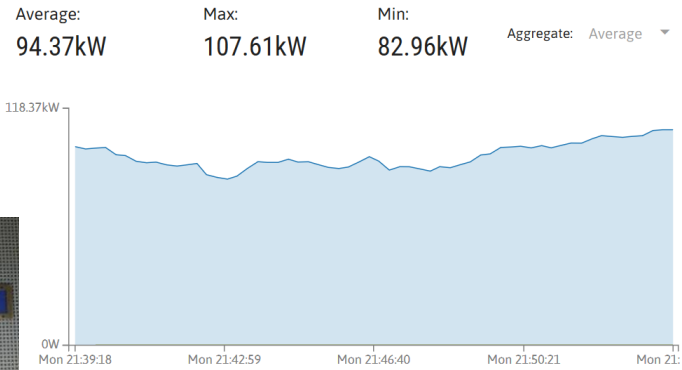
Set automation rules to enable Time of Use tariffs, Demand Response and Red Band avoidance

Example sites



Hotels

Whole-building measurements

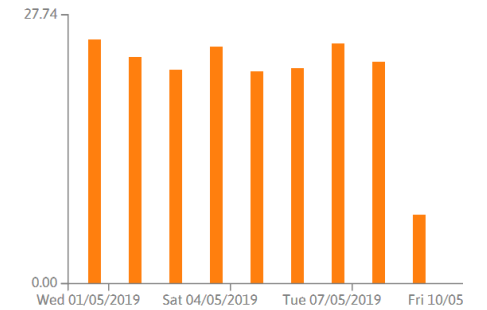


Cold store manufacturer

Energy management for walk-in chillers

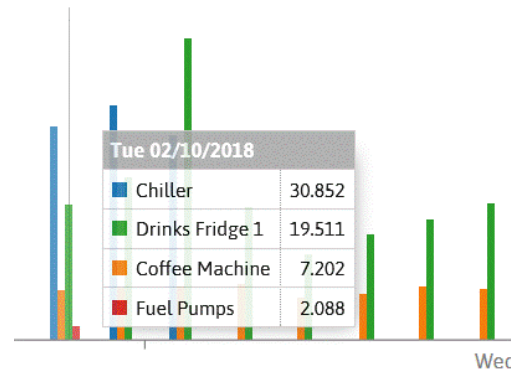


Cost: £27.17 Total: 194.04kWh



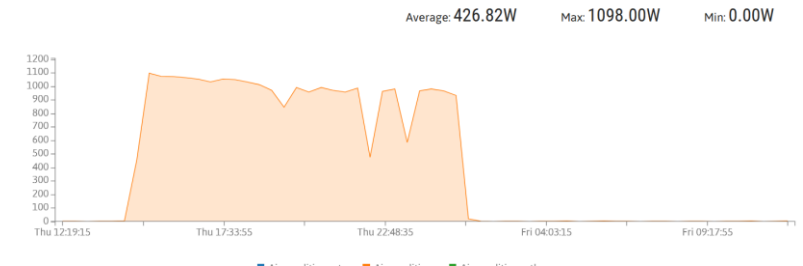
Forecourts

Fuel pump, water heater, drinks fridge, food chiller, coffee dispenser



Air Conditioning

Project with Thai university & grid operator



Case Study: Fuel station



- 1. Monitor & analyse**
2. Automate
3. Share permissions

First the energy consultant connected high-consuming appliances that consume electricity over 24 hours



2x large drinks fridges



1x coffee machine



2x large open chillers



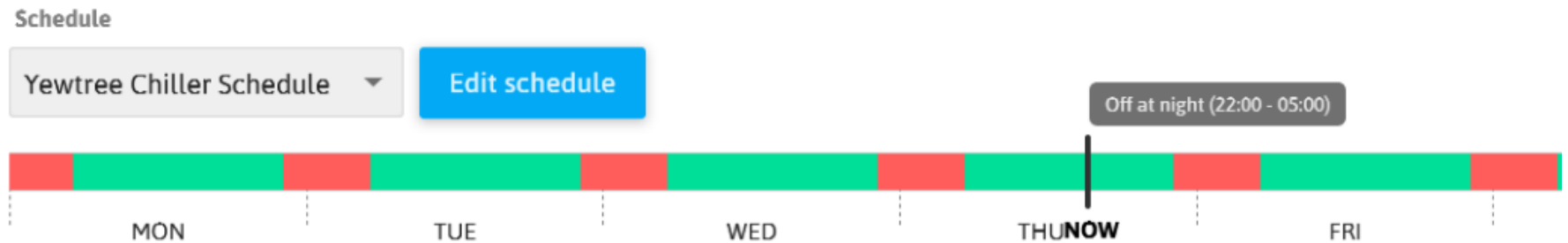
1x electric boiler

Case Study: Fuel station



1. Monitor & analyse
- 2. Automate**
3. Share permissions

The energy consultant recognized that the drinks fridge could be switched off at night and set a timeswitch "off 10pm to 5am".



The client made an **annual saving of 23%** (£387).

With one-time costs of £375 (£175 hardware and £200 electrician) and annual software fee of £12,

payback is exactly 1 year, 3-year ROI 2.8x.



1. Monitor & analyze
2. Automate
- 3. Share permissions**

Once the timeswitch had been applied, access to the data and the ability to override the appliance were allocated to staff members and the energy consultant. Other roles (DR aggregators) have been provided for.



Petrol station staff

Boost or Snooze an appliance for 15 to 30 mins

View the data



Energy consultants

Control the timeswitch

View the data



Energy suppliers & DR aggregators

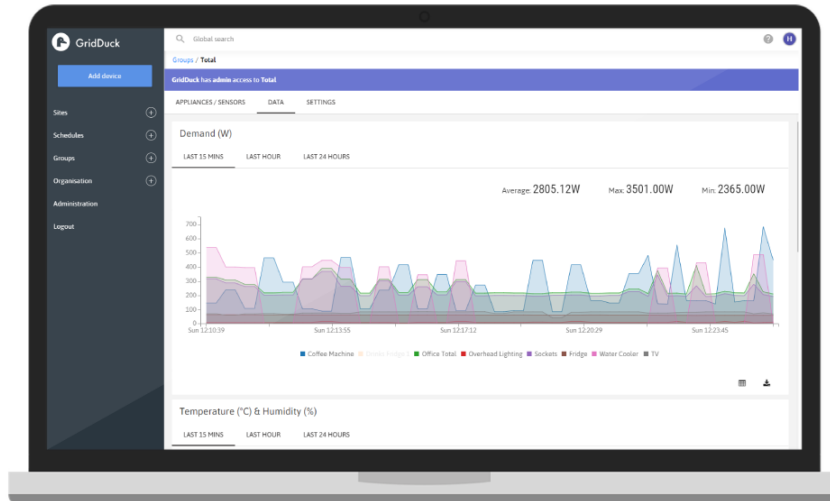
Manage the appliance at peak times

View the data

30-day trial offer



£210 (ex VAT), but free when returned within 30 days



Software

- Real time control
- Second by second data monitoring
- Ability to create on / off time schedules



Wireless hardware

- GridDuck gateway
- Smart plug
- Meter reader

<https://dashboard.gridduck.com/trial-kit>



Thank you

www.gridduck.com

gregor@gridduck.com