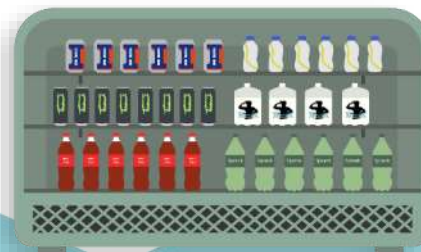
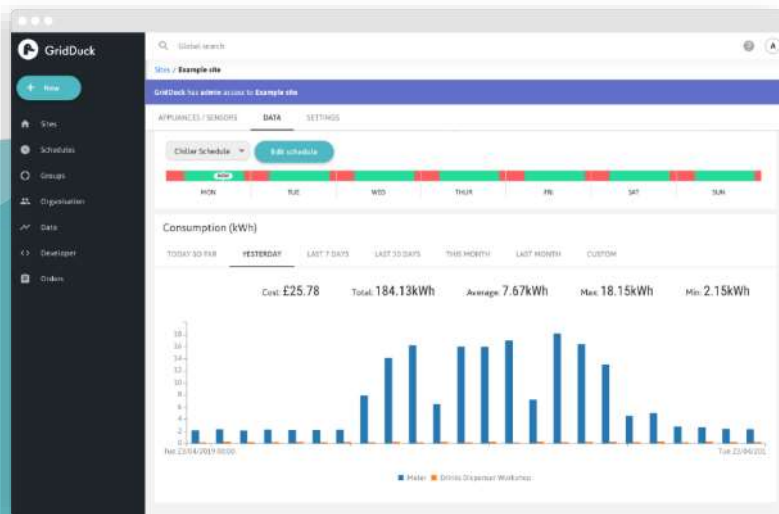




An IoT energy management system



Set timeswitch
OFF 1 - 5am

Gregor Hoefter - Founder / CEO

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Backed by

Innovate UK



Department for
Business, Energy
& Industrial Strategy



Commercial buildings waste a huge amount of energy...

...wasting money and causing unnecessary CO2 emissions.



Energy wasted by offices in the City of London could power over 65,000 homes.

That waste produces carbon emissions equivalent to those emitted by 46,000 cars annually.

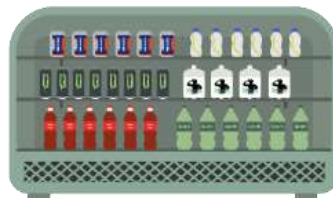
UK businesses could save £6bn a year from energy efficiency by 2030.

Simple thing to do:

**Automatically switch off appliances
off when not in use.**

Save 15% to 30% of your energy bill.

BUT...



Set timeswitch
OFF 1 - 5am



Set timeswitch
ON 3 - 4pm



Set timeswitch
OFF 8pm - 5am

Only 10% of commercial buildings have a building management system.

Large office buildings, shopping centres, airports etc.

Building management systems automatically switch off lights, heating, air con etc.



For 90% of buildings these systems seem too expensive to install.

Schools, restaurants, offices, factories and many more.



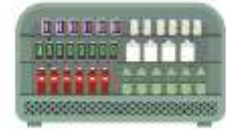
They are our target market.



GridDuck's platform monitors and controls hundreds of appliances



Dashboard and API



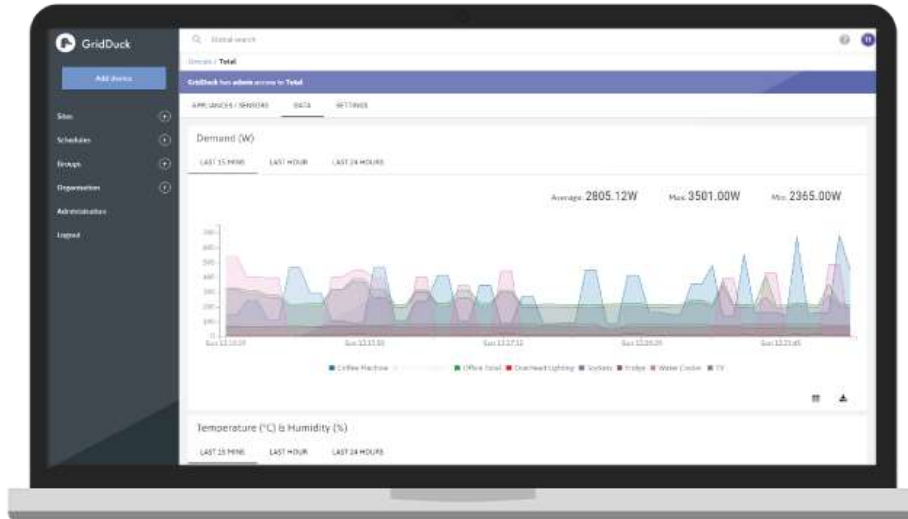
Wireless Hub

Wireless Relay

Fridge

We have integrated over 10 wireless sensors and switches from 3rd party manufacturers

Dashboard



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

API – software interface



GET	/asset/{asset_id}/consumption/{start}/{end}/{granularity}	Retrieve an asset's historic consumption data	🔒
GET	/asset/{asset_id}/aggregated_consumption/{end}/	Retrieve an asset's aggregated consumption at this time	🔒
GET	/asset/{asset_id}/demand/{start}/{end}	Retrieve an asset's historic demand data	🔒
GET	/asset/{asset_id}/event/{start}/{end}	Retrieve all events associated with an asset	🔒
GET	/sensor	Retrieve a list of all sensors	🔒
DELETE	/sensor/{sensor_id}	Delete a sensor from GridDuck	🔒
PUT	/sensor/{sensor_id}	Modify a sensor	🔒
GET	/timeswitch	Retrieve all timeswitch rules	🔒
POST	/timeswitch	Create a new timeswitch rule	🔒
GET	/timeswitch/{timeswitch_id}	Retrieve a specific timeswitch	🔒
PUT	/timeswitch/{timeswitch_id}	Modify a timeswitch rule	🔒
DELETE	/timeswitch/{timeswitch_id}	Delete a timeswitch rule	🔒

<https://v1.api.gridduck.com/>

Wireless hardware & pricing



Communication



Wireless Hub

Collects real-time data and executes automation rules
£ 190 plus £5/month

(with 3G SIM card
£250 + data fee)

Monitoring



Meter pulse reader

Monitors electricity meters
£ 55 plus £1/month



3-Phase Clamp

Monitors electricity of up to three cables
£100 plus £1/month



Single Phase Clamp

Monitors electricity of up to two cables
£90 plus £1/month



Temperature & Humidity Sensor
More sensors available
£ 35 plus 50p/month

Monitoring & Control



16A Relay

DIN rail mounted relay in distribution board
£ 65 plus £1/month



13A Smart Plug
Versions for UK, EU, Asia etc. available
£ 40 plus £1/month



30A Relay

DIN rail or outdoor mounted relay
£ 70 plus £1/month



13A Inline Switch
Can be spliced into a standard power cable
£45 plus £1/month

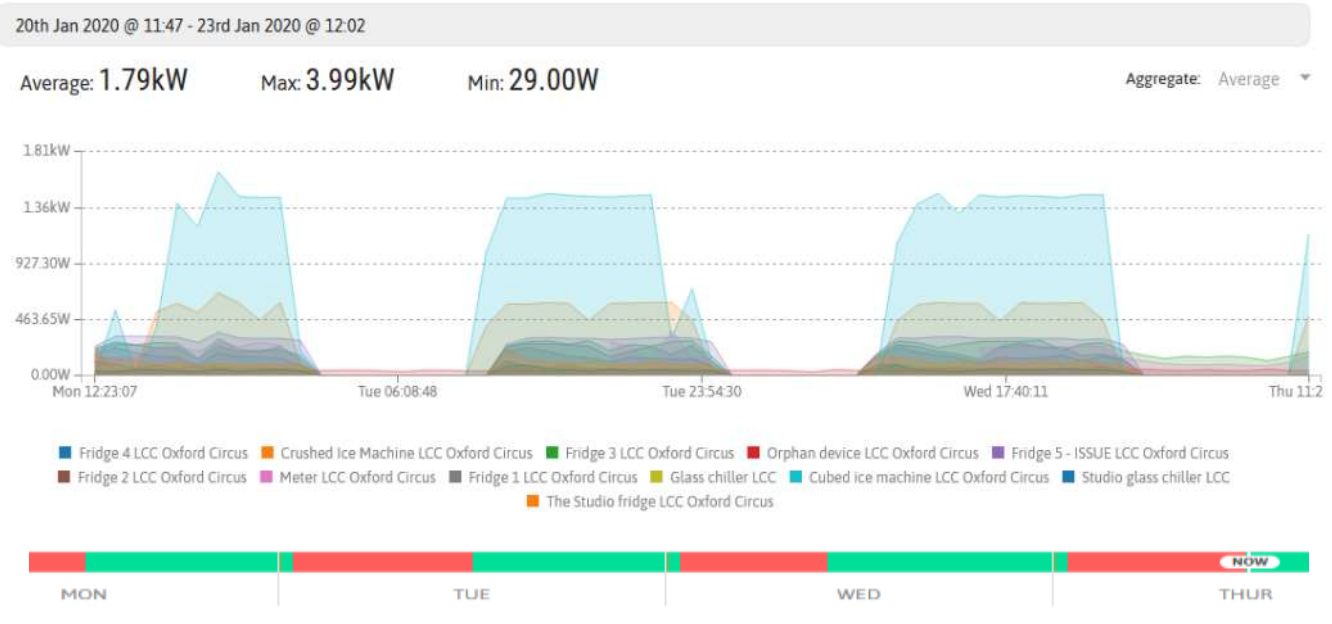
Example: The London Cocktail Club saves 28%



Switching off drinks fridges and ice machines from 1am to 10am or noon.
Payback just under a year



Sustainability
case study for



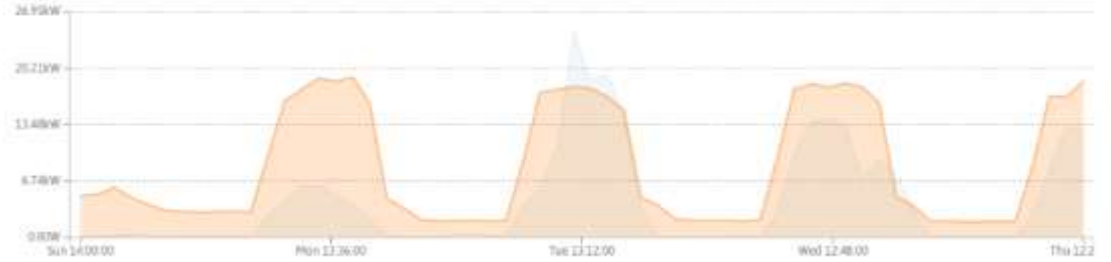
Consumption on Wed 15 January was 66.82 kWh, on Wed 22 January 47.95 kWh. Reduction 18.87 kWh, or 28%. On 14p/kWh the reduction was £2.64 per day, or £964 per year. Costs were £850, payback 11 months

Other Examples



Car Dealership

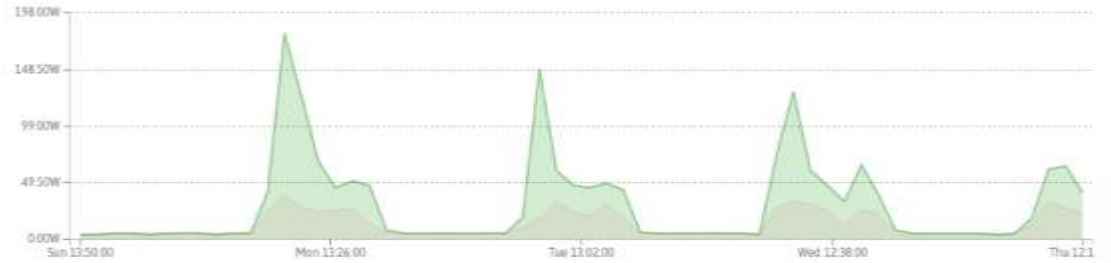
ROY TOLLEY
MOTOR GROUP



Secondary School



The Skinners' School
www.skinners.org.uk



Factory



Team

Blend of cutting-edge technology skills with business and sector experience



Gregor Hoefter - CEO + Founder
T-Mobile, Vodafone & BlackBerry,
eCommerce Marketing, Financial Analyst

BA UCL & Pisa University, MBA Insead



Richard Tolley - CTO + Co-Founder
Head of Platform, WIREWAX
Warehouse Systems Engineer, Ocado

MMath Durham (machine learning)



Alex Jefferies - CPO
CTO, UTC Hub
Head of Customer Success, WIREWAX

BA Music Tech, London College of Music



Hugh Dunphy - Software Engineer
Building Engineer, Aecom

MEng Liverpool University



Nick Butlin, Non-Executive Advisor
Ex-CTO Tempus Energy
Ex-COO Kiwi Power
MEng Nottingham University



John Greenall PhD, Non-Exec Advisor
Director AI Investments, AIG
Head of Machine Learning, WIREWAX
PhD Computer Vision, Leeds University

Why am I here?



- Customers
- Partnerships for R&D
- Looking for £300k seed round. SEIS/EIS pre-approved





Thank you

Gregor Hoefter - Founder / CEO

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