

Flex Assure

www.flexassure.org



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Industrial and Commercial Scheme

- **Code of Conduct and Compliance scheme for Industrial and Commercial Flexibility Service Providers.**
- **Aim: Setting best standards of practice in the industrial and commercial flexibility marketplace.**
- **Guidance for business energy users.**

national**grid**ESO Funding

- A reduction in scheme membership fees.
- Change to the scheme membership requirements to reduce time spent on the audit process.



HOMEflex



Thank You

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How to make money from Grid services

EMEX 2023

Hannah Rochford

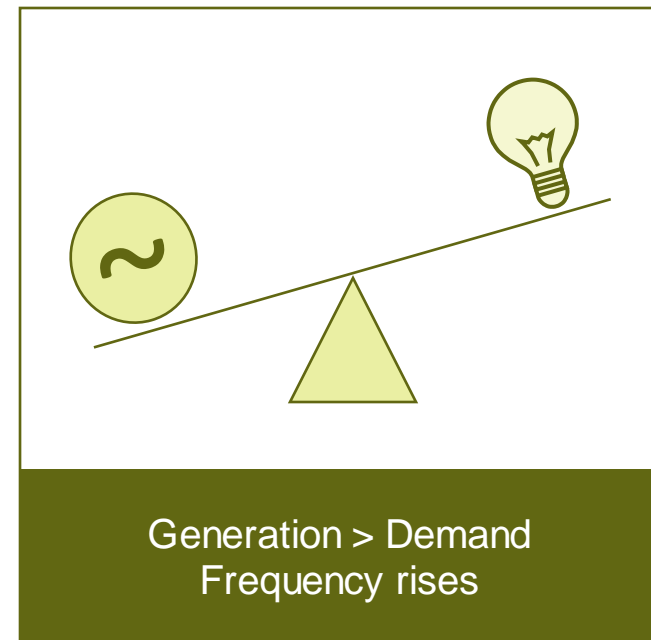
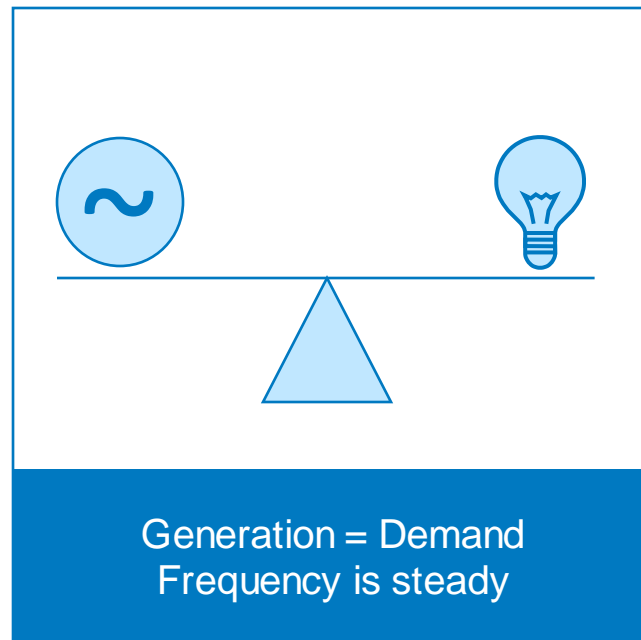
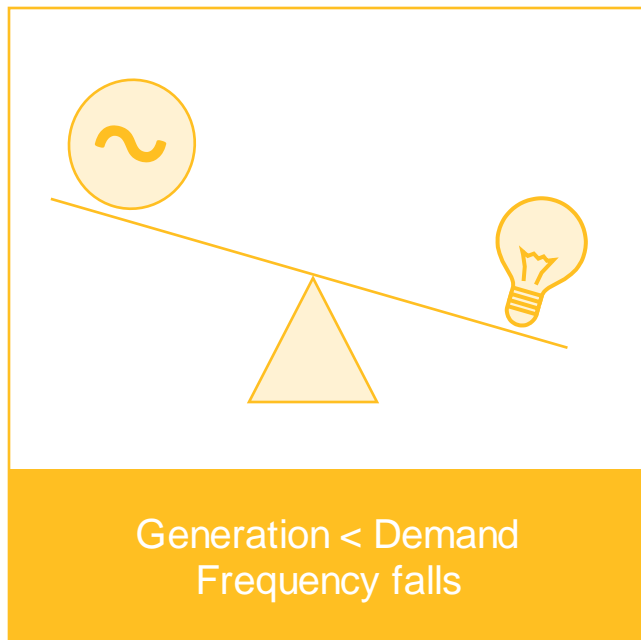
Ancillary Services Development Manager

THE ESO EXISTS TO

- Ensure reliable, secure system operation to deliver electricity when customers need it
- Transform participation in smart and sustainable markets
- Unlock consumer value through competition
- Drive towards a sustainable, whole energy future

Energy balancing 101

- One of the most fundamental requirements of an electricity system is that supply and demand are always balanced, to preserve the overall integrity of the system for everyone
- For us to achieve this energy balancing we need flexibility, in both supply and demand, adjusting both sides to ensure they always match
- The wholesale market currently provides the majority of system balancing during the day, with the ESO performing the residual balancing and balancing on a second-by-second basis



What are the services the ESO procures?

Frequency

Dynamic Containment (DC)
Dynamic Moderation (DM)
Dynamic Regulation (DR)
Static Firm Frequency Response (SFFR)

Requirements:

Initiation < 2 seconds for Dynamic services and
< 30 seconds for SFFR
Ramp time between 1-10 seconds
Sustain for 15-60 minutes
Minimum volume 1MW (can be aggregated)

Reserve

Short Term Operating Reserve (STOR)
Demand Flexibility Service (DFS)

STOR:

Minimum volume
3MW
Initiation < 20
minutes
Sustain for 2 hours

DFS:

Minimum volume
1MW
Initiation ~24, ~8 or
~5 hours ahead
Sustain for > 1 hour

We want to understand more about your ability to participate in balancing services



Power Responsive
Industrial & Commercial
Survey 2023



power
responsive

DSO

DISTRIBUTION SYSTEM OPERATOR

**UK Power Networks
Flexibility**

Introduction to UK Power Networks



8.4M homes and businesses

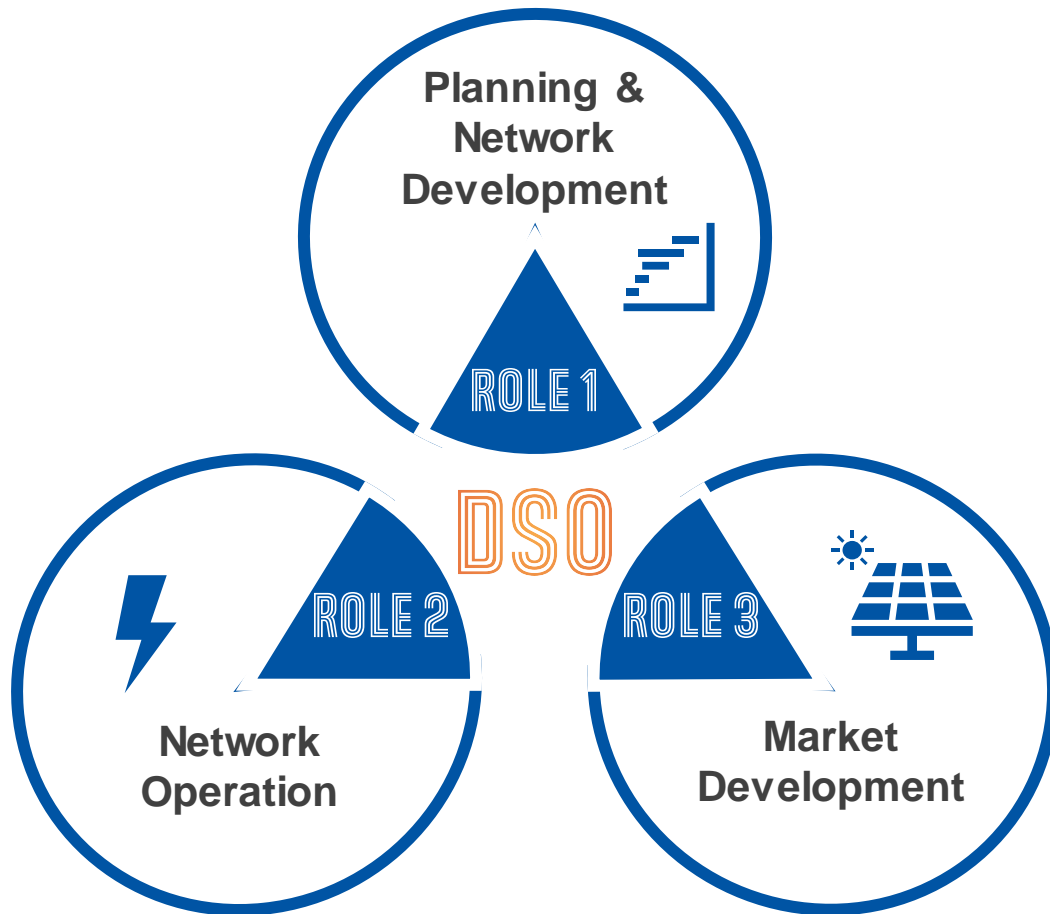
9.7GW distributed generation

14GW peak demand

189,822km of network

More than 120,000 substations

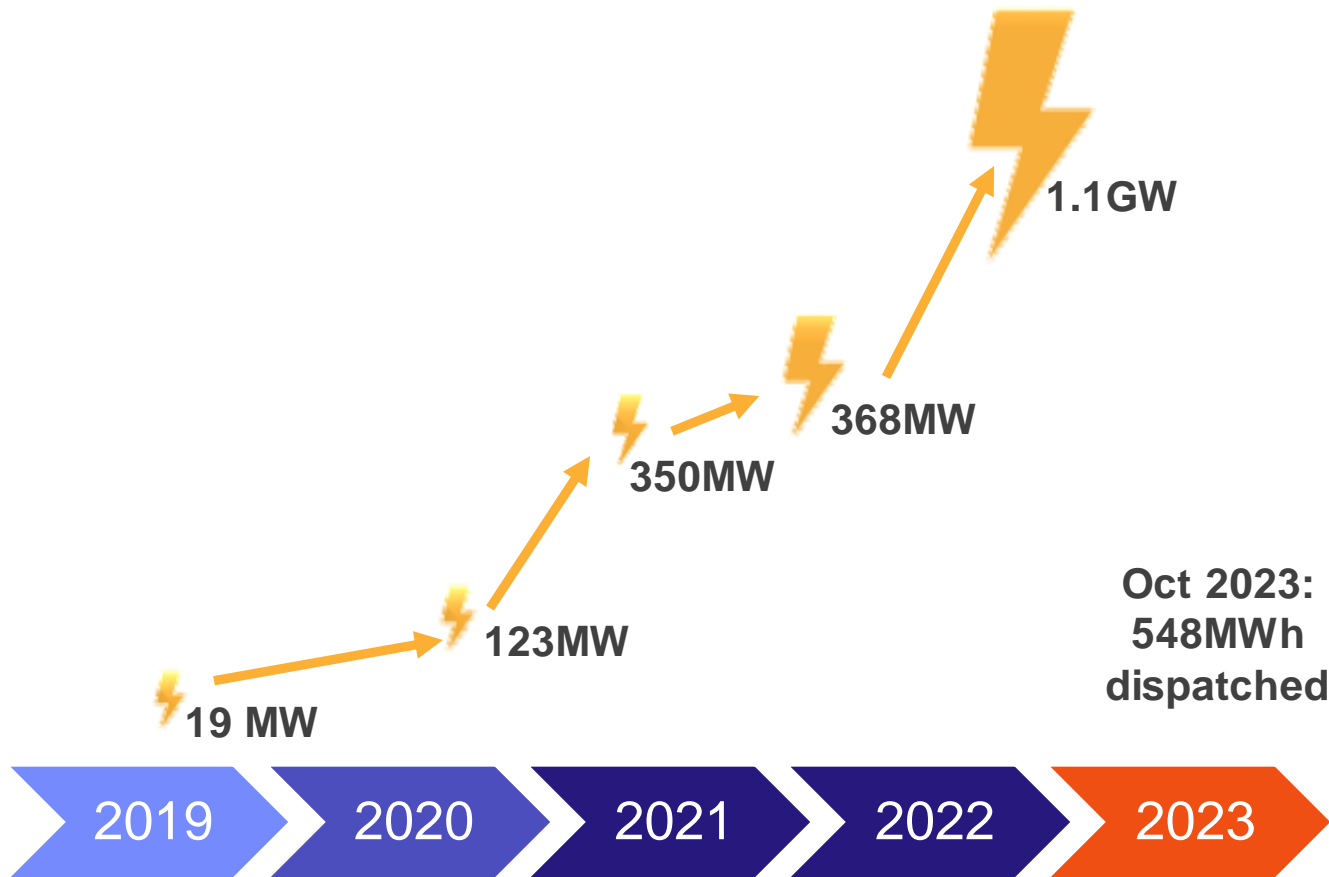
DSO founded April 2023



DSO

- Delivers capacity required efficiently and on time
- Manages connections
- Improves health of the network
- Delivers good customer service
- Improves reliability and resilience
- Ensures safety of employees and members of public

Now is the time to start participating

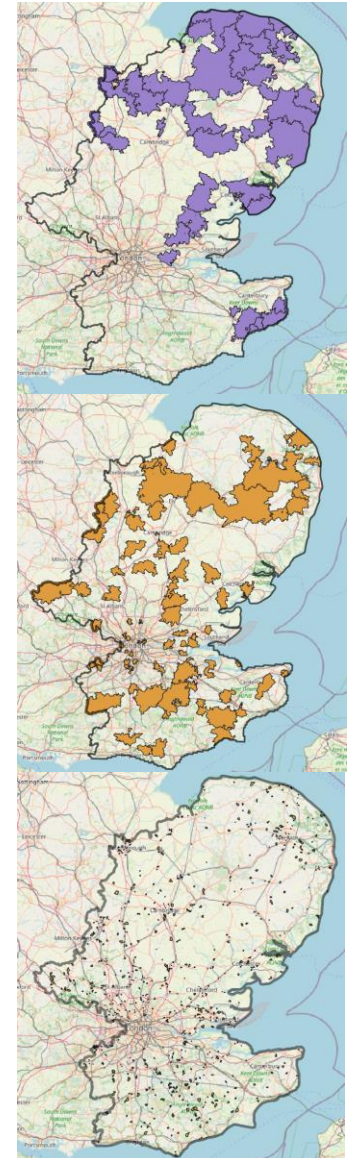


Budget of £33m

Demand Turn Up
(Low & High Voltage)
600MW need

Demand Reduction
(Low & High Voltage)
250MW need

Demand Reduction
(Low Voltage only)
7MW need



Which product is right for me?

Annual value –
dependent on zone

Firm dispatchable

We pay for availability during certain windows and then utilisation

Secure

Av: £90k/MW

Enduring peak reduction

Flex providers reduce peak load for set time windows

Sustain

Av: £80k/MW

Day ahead service

Price and capacity to turn down is agreed at day ahead

Day ahead

Variable

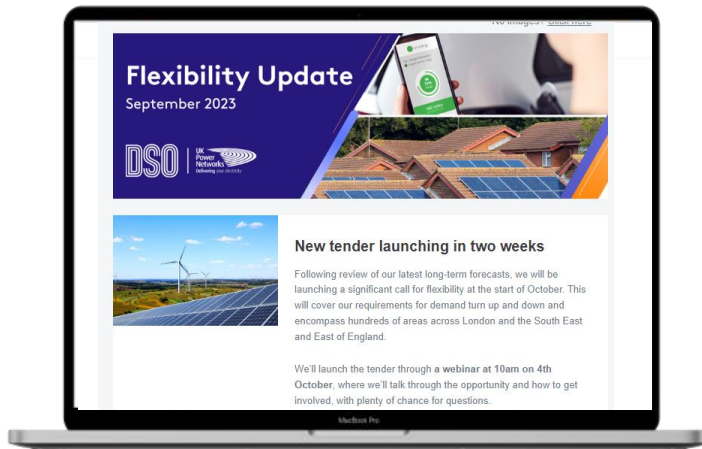
- **Minimum capacity:** 10kW per zone (can be aggregated)
- **Minimum delivery:** Sustainable for 30 mins
- **Contract length:** Up to multiple years
- Can be automated or manual turn down

Next steps: Contact us

Join our mailing list

Arrange an introductory call

Ask us for a list of aggregators / suppliers who can support you



Thank you

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Rachel.Stanley@ukpowernetworks.co.uk



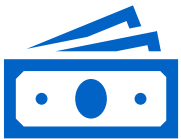
Turning business energy users into **smart, flexible, low carbon** consumers.



What are the opportunities?

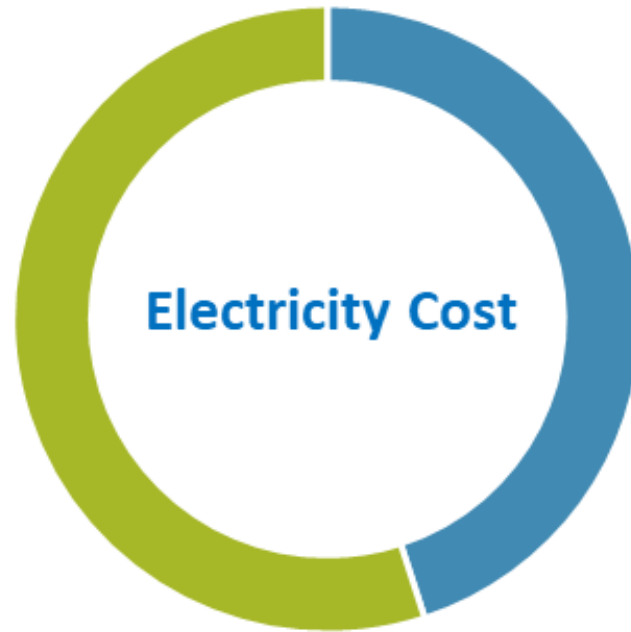


Save – tariff Arbitrage

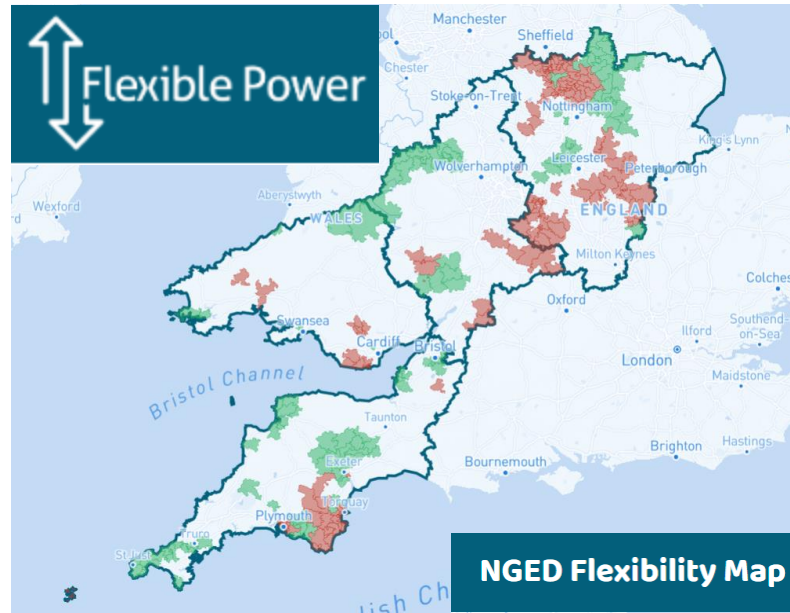


Earn – Flex Response

nationalgridESO



■ Energy ■ Non-Energy





Home

Add MPAN

Consent Form

Technologies

Tariff Comparison

User Guide





Account Settings

End User Interface

Choose Technologies

We want to incorporate the value of flexibility into your new tariff options so you can access cheaper energy.

Your existing technologies (without demand control):

- | | | | |
|--------------------------|---|----------------------|--|
| <input type="checkbox"/> |  Solar | <input type="text"/> | kW-Peak |
| <input type="checkbox"/> |  Heat Pump | <input type="text"/> | kW-Output |
| <input type="checkbox"/> |  Electric Vehicle Charging | <input type="text"/> | kW <input type="button" value="Calc"/> |
| <input type="checkbox"/> |  Battery Energy Storage | <input type="text"/> | kW <input type="text"/> kWh |

New technologies, that you may want to purchase:

- | | | | |
|--------------------------|---|----------------------|---|
| <input type="checkbox"/> |  Solar | | |
| <input type="checkbox"/> |  Heat Pump | <input type="text"/> | Annual Gas Usage <input type="button" value="m3 or kWh ↕"/> |
| <input type="checkbox"/> |  Electric Vehicle Charging | <input type="text"/> | Annual Combined Mileage [miles] |
| <input type="checkbox"/> |  Battery Energy Storage | | |

Those who have or want plant that can be flexible



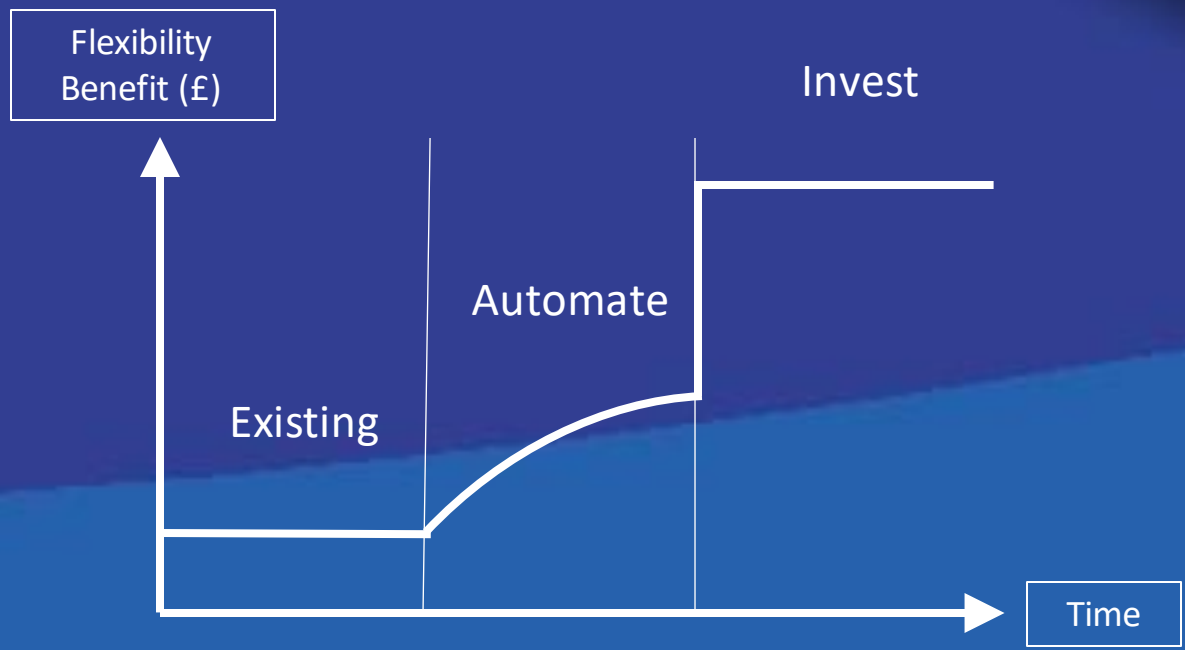
gridimp

SIMPLE FLEX

MONITORING & ANALYTICS

FLEX AUTOMATION

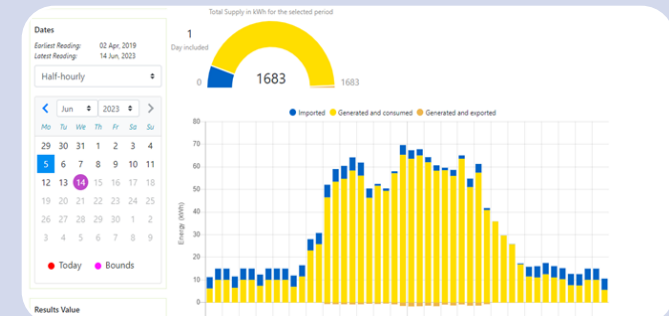
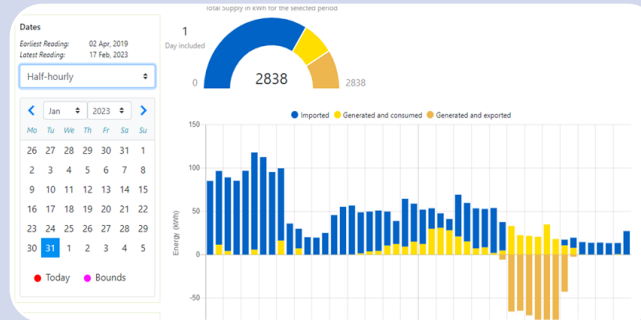
INVESTING IN FLEX



Flexibility Revenue as you invest



Client Example demand 1.5MWh/day



Investment

Confidence to invest over £400k, clean generation & storage with Sub 4-year payback

Winter Response

Participation in Flex Markets, delivered stacked revenue paid for actions > £400 per workday

Summer profile

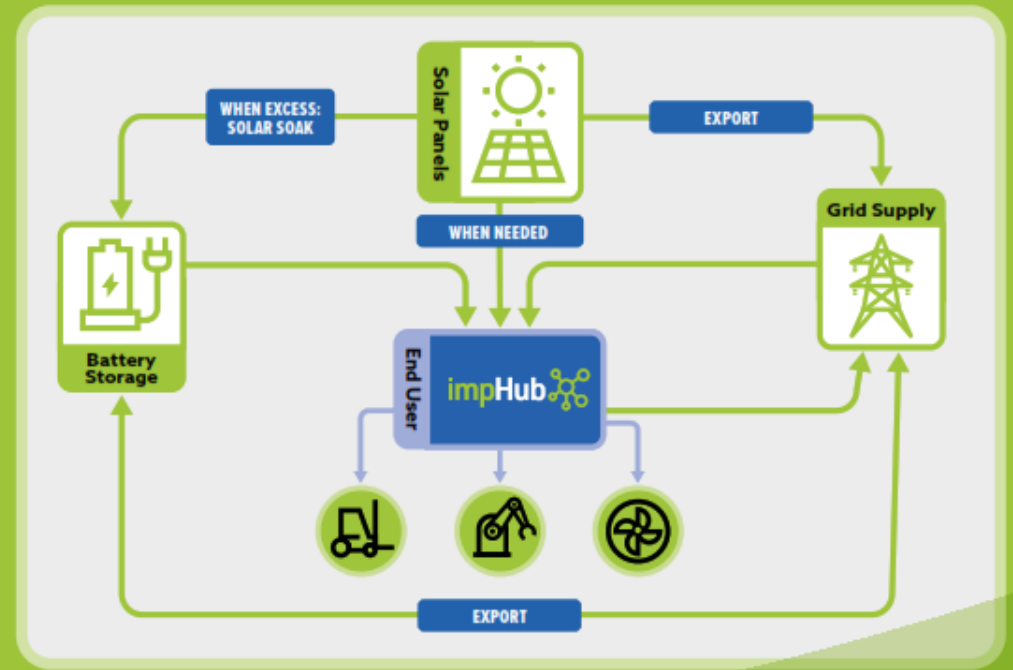
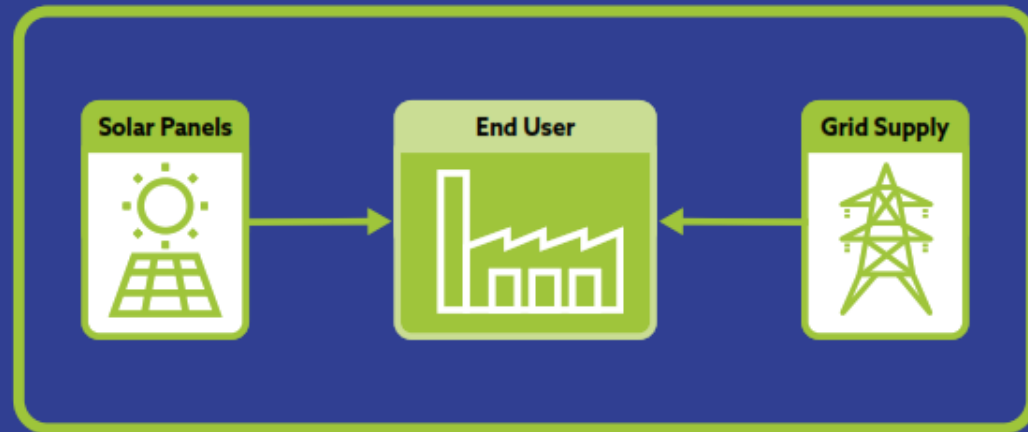
≥ 90% energy independence
> 50% reduction in energy spend
Carbon negative

The Energy Relationship of the Future.

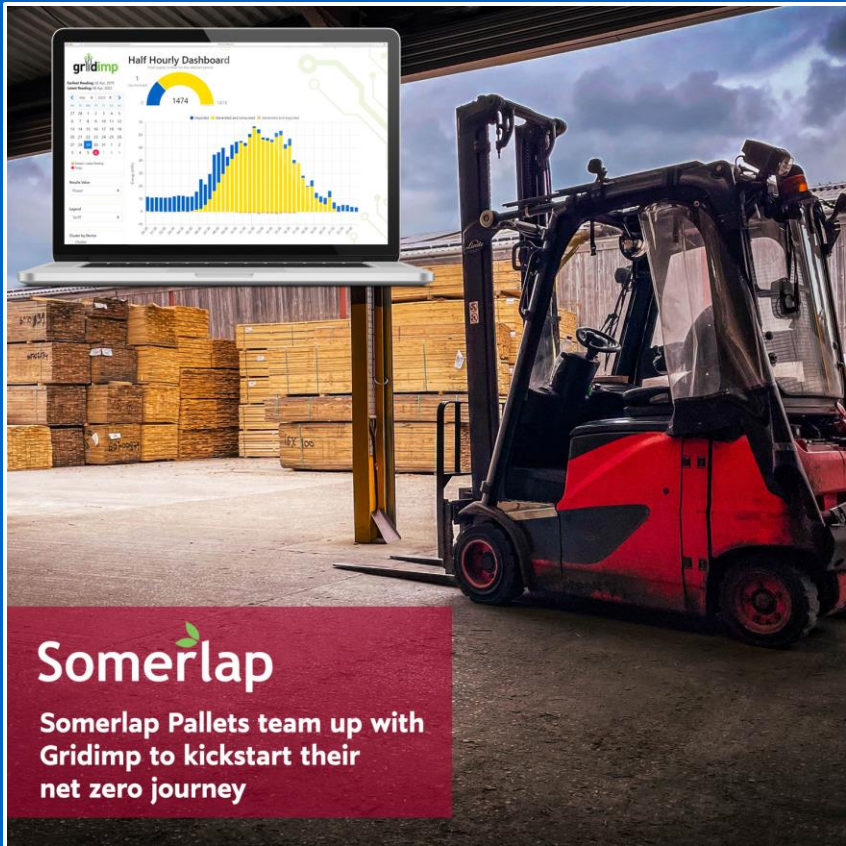
The Future:

Interactive Flexible Energy Relationship...

Passive approach: The old model...



Thank you...



gridimp

Smart Microgrids and Automated Flexibility Trading

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