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Power vs Energy Storage

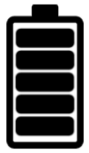
Challenges & Opportunities for the UK Market

Scott McGregor, CEO, redT energy

Power or Energy Technology?

Different technologies are better suited for providing certain services:

Battery



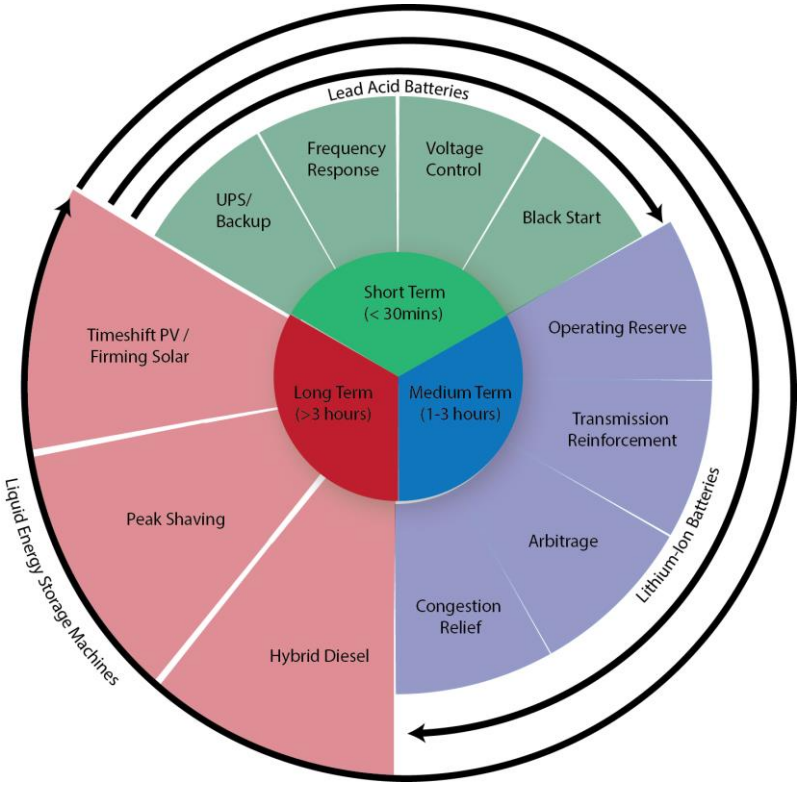
10-20% Utilisation

- Single service
- Occasional Managed Usage
- Power Focussed

Machine

60-100% Utilisation

- Multiple, Stacked Services
- Daily, Heavy Usage
- Energy-Focussed



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Making Storage Work for UK C&I Firms

Minimum 150kWp of Solar (New or Existing)**

Minimum Peak Demand 100kW

3 Primary Revenue/Savings Streams

Electricity Import Savings
Savings made by the site owner/operator related to reducing their requirement to buy electricity from the local grid

Contracted Grid Services
Revenues received by providing contracted balancing services to the local grid. E.g. Frequency Response or the Capacity Market

Merchant Grid Services
Revenues received by taking part in currently uncontracted (merchant) energy trading schemes, balancing services and future grid services

Project Economics

Scenario	High	Medium	Low
Internal Rate of Return (Unlevered)	**13% IRR**	**10.4% IRR**	**5.9% IRR**

1391% Increase in Utilisation of On-Site Generation

22% Reduction in Total Imported Electricity

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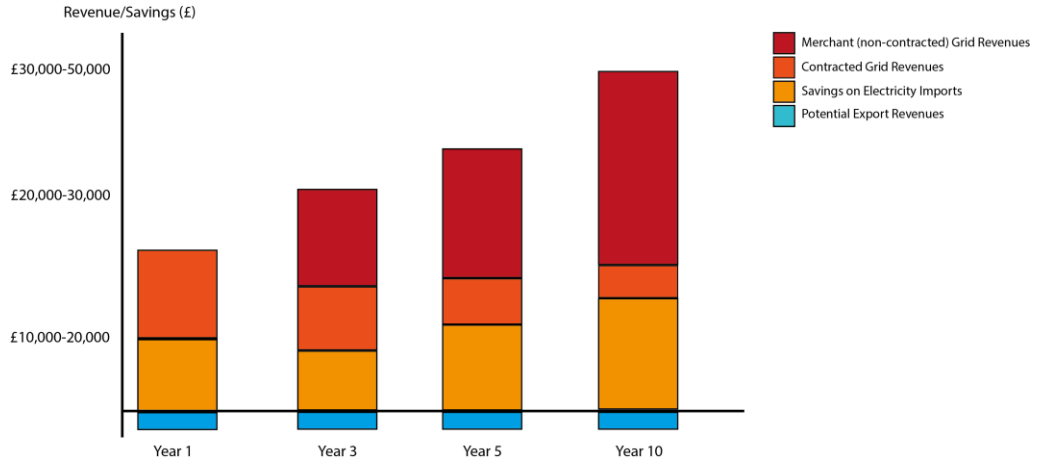
Case Study: The Olde House, Cornwall

Site Details

600 Acre Farm & Holiday Retreat, Cornwall, UK
Peak Demand: 130kW, Average Demand: 30kW

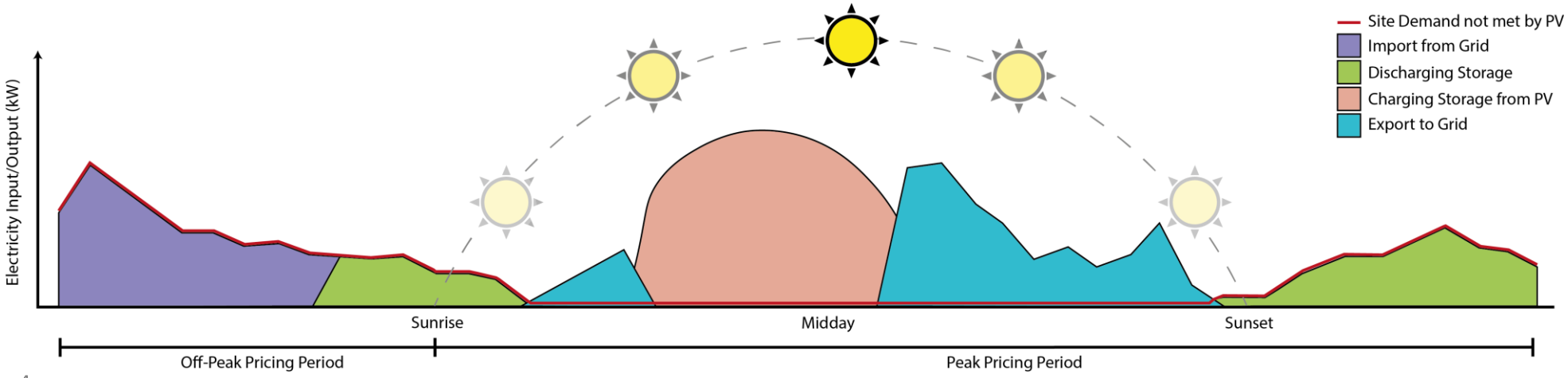
350kWp Solar Panels (Grid-Connected)

90kW, 1,080kWh redT energy storage system



1822% Increase in Utilisation of On-Site Generation

34% Reduction in Total Imported Electricity



10% Internal Rate of Return (IRR) (Unlevered)

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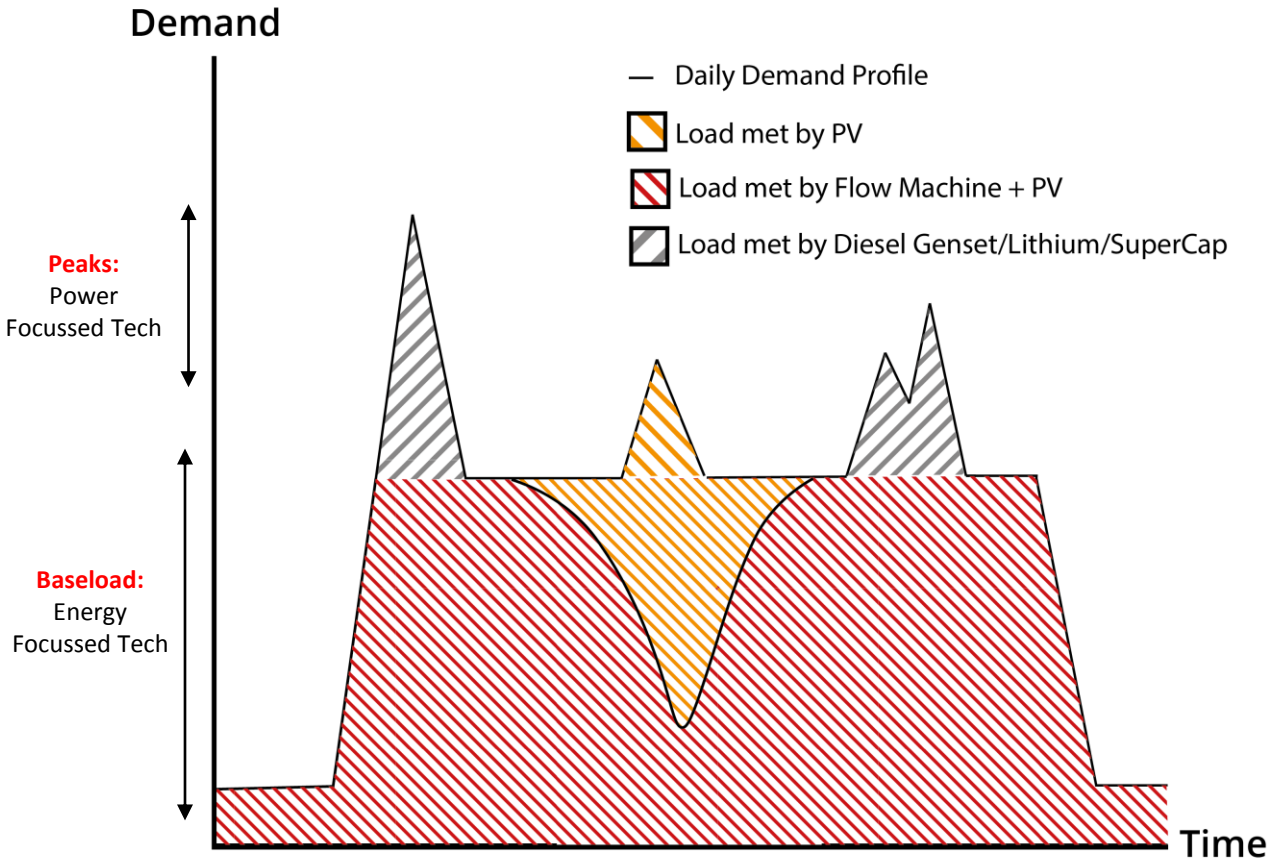
The Future of Energy Storage…



Use flow machines for 80% of demand and/or solar

- Does not degrade - suited to daily, heavy cycling

Use power-focussed technology to cover short term spikes in demand

- Power focussed tech, more suitable for occasional usage

Resulting Hybrid system capable of serving entire market

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Questions?

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