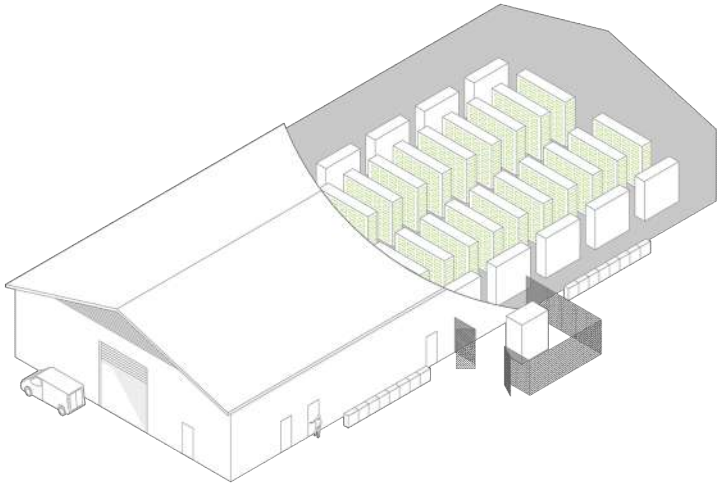


Storage opportunities

Green Hedge Energy

June 2017

Agenda

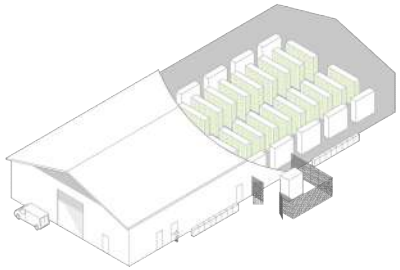
1. Green Hedge overview
2. Why storage?
3. The Energy Barn opportunity
4. The Behind-the-Meter opportunity
5. Why Green Hedge?
6. What next?

Green Hedge overview

Overview

- Since 2010 Green Hedge, has successfully developed and realised 150 MW of ground-mounted solar PV, worth a total investment of £200m
- Green Hedge has specialised in UK battery energy storage since 2015, developing both standalone “Energy Barn” storage systems and smaller behind-the-meter sites
- Both storage types have common technology and operational requirements
- Energy Barns provide a service to National Grid; behind-the-meter systems generate savings for the host site as well as providing a service to National Grid
- Green Hedge is recognised as market leader:
  - one of the few storage developers to win a 2016 Capacity Market contract
  - acknowledged understanding of the complexities of the electricity storage market, on both the technical and commercial (revenue) side

Energy Barns™



- **Largest development pipeline in Britain**
- **First 4 x 10MW projects awarded CM contracts in Dec 2016 and will be built out in 2017**

“Savings in a Box” / Behind The Meter

- **Pilot project commissioning in early 2017**
- **Pipeline of projects for installation in 2017**

Green Hedge overview: solar PV track record

Since 2010, Green Hedge has successfully developed and realised 150MW of solar PV projects in the UK which are operational, equal to a total investment of £200m

Ayshford Court Farm

Devon, England
Operational since 2011/12
c. 5 MWp capacity

Beechgrove Farm

Devon, England
Operational since 2011/12
c. 4 MWp capacity

Causilgey

Cornwall, England
Operational since 2013
c. 5 MWp capacity

Coombeshead

Devon, England
Operational since 2015
c. 10 MWp capacity

Halse Farm

Somerset, England
Operational since 2013
c. 8.3 MWp capacity

Higher Tregame

Cornwall, England
Operational since 2012/13
c. 4.9 MWp capacity

Higher Tregame

Gloucestershire, England
Operational since 2015
c. 8 MWp capacity

Stanton Under Bardon

Leicestershire, England
Commissioned early 2016
c. 3.7 MWp capacity

Nether Mill Farm

Devon, England
Operational since 2014
c. 3.7 MWp capacity

Taunton Racecourse

Somerset, England
Operational since 2014
c. 1.8 MWp capacity

Jordanston

Pembrokeshire, Wales
Operational since 2013
c. 4.6 MWp capacity

Kingston Farm

Wiltshire, England
Operational since 2011/12
c. 5 MWp capacity

Lake Farm

Wiltshire, England
Operational since 2011/12
c. 5 MWp capacity

Lower Stanley Farm

Gloucestershire, England
Commissioned early 2016
c. 5 MWp capacity

Owls Lodge Farm

Hampshire, England
Operational since 2013
c. 10 MWp capacity

Reydon Farm

Suffolk, England
Operational since 2014
c. 5 MWp capacity

Roves Farm

Wiltshire , England
Operational since 2015
c. 12.7 MWp capacity

Sevor Farm

Wiltshire, England
Operational since 2014
c. 10.3 MWp capacity

Says Court Farm

Gloucestershire, England
Operational since 2014
c. 19.8 MWp capacity

South Marston

Wiltshire, England
Operational since 2011/12
c. 5 MWp capacity

Wormit, Scotland

Fife, Scotland
Commissioned early 2016
c. 5 MWp capacity

Germany: Borgisdorf PV roof

Borgisdorf, Brandenburg
Commissioned in 2012
c. 1 MWp capacity

Germany: Senftenberg

Senftenberg, Brandenburg
Commissioned in 2010
c. 18.5 MWp capacity

Green Hedge overview: energy storage track record

Green Hedge has concentrated on developing electricity storage systems since 2015, culminating in 40MW of grid-scale projects awarded Capacity Market contracts in Dec 2016

- "**Energy Barns™**": grid-scale energy storage systems housed in purpose-built buildings
- Designed to reduce visual impact, making it attractive to agricultural and commercial landowners as well as planners
- Capacities from 5MW to 50MW
- Connection at up to 132kV, allowing use of available capacity anywhere on the DNO's grid
- Detailed technical design from reputable EPCs
- Detailed analysis and contracting of revenues, managed and operated by Green Hedge team
- First 40MW under construction from Q3 2017
- Additional Energy Barn pipeline for 2017 of more than 100MW

- "**Savings in a Box**": behind-the-meter energy storage systems
- Of interest on sites with high energy usage (500kW or £500k p.a. electricity costs)
- Up to 20% energy cost savings
- Provide additional revenue streams to the site

Why storage?

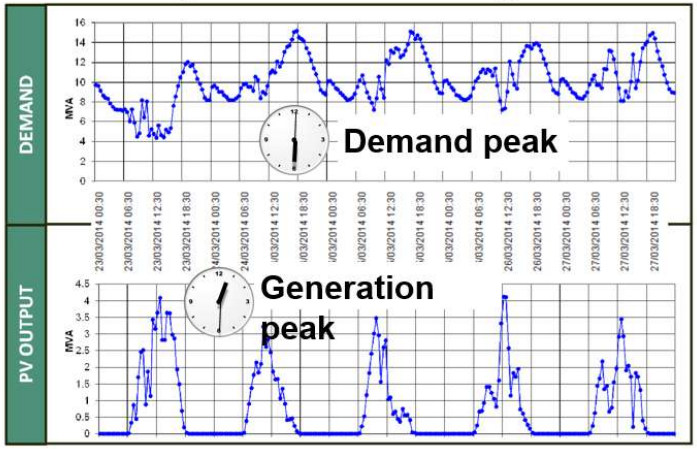
Why storage?

- Energy storage provides the missing piece of the jigsaw in an increasingly intermittent distributed energy system
- Energy storage is critical to enable the continued shift from polluting coal plants to carbon-neutral renewables while making sure that the lights stay on at all times
- Wind and solar generation is weather dependent; the ability to store electricity and export it back into the grid at times of need is increasingly valuable
- National Grid has introduced various mechanisms to encourage the development of energy storage

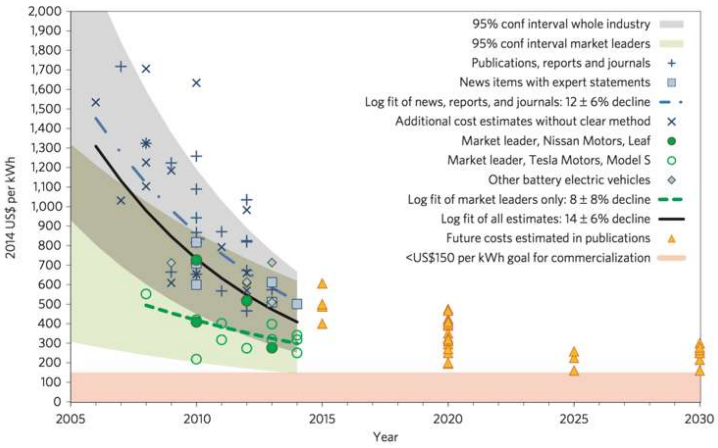
Why now?

- Significant investment in electric vehicles development has driven falling battery costs, now making energy storage economic
- Battery storage will become the most common form of electricity storage
- The operation of battery storage creates no pollution, unlike other forms of backup peak power
- Batteries can respond much more quickly than other technologies such as thermal plant to the needs of the grid (in half a second)

Example primary substation in the SW: half-hourly demand and solar generation



Falling cost of battery storage (Source: Nature, Nykvist/Nilsson study)



Grid-scale: the Energy Barn opportunity

Opportunity = rental income on spare land

Suitable sites

- Minimum 0.25 acre land requirement for 10MW scheme
- Up to 1.25 acres for largest 50MW scheme
- Simple industrial building OR containerised solution (depending on landowner's and planners' requirements)
- Dependant on availability of import and export capacity on the local network

The opportunity for landlords

- The opportunity is **rental income**
- 25 year lease (tenant break at 15)
- Annual reviews in line with RPI
- Commercial rents of up to £50,000 p.a. for 10MW site
- Agricultural rents of £20,000 p.a. for 10MW site
- Three-year option required to secure planning, grid and income contracts. Landlord may use for other purposes during option period.
- Option fees paid on signing

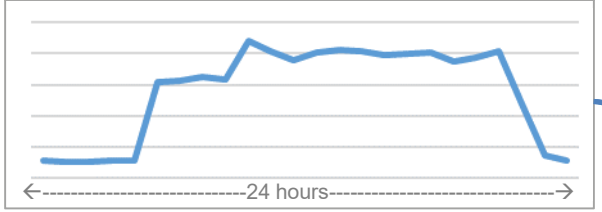
The Behind-the-Meter opportunity

Opportunity = cost avoidance + additional revenue streams

Cost avoidance: Battery storage systems allow the site to avoid network and policy costs which are levied on usage in peak periods (weekday late afternoons) and account for 25% of a typical site's electricity bill. Shifting load away from these periods can drastically lower costs

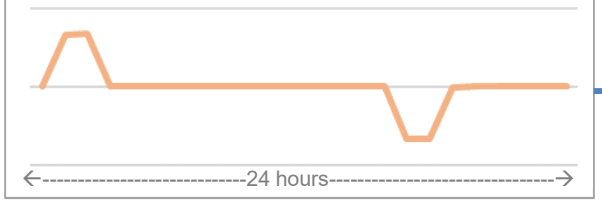
Underlying site load

Demand



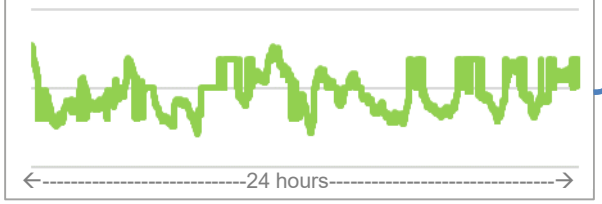
Algorithm managing state of charge

Network cost avoidance



Balancing services such as grid frequency control

Balancing services

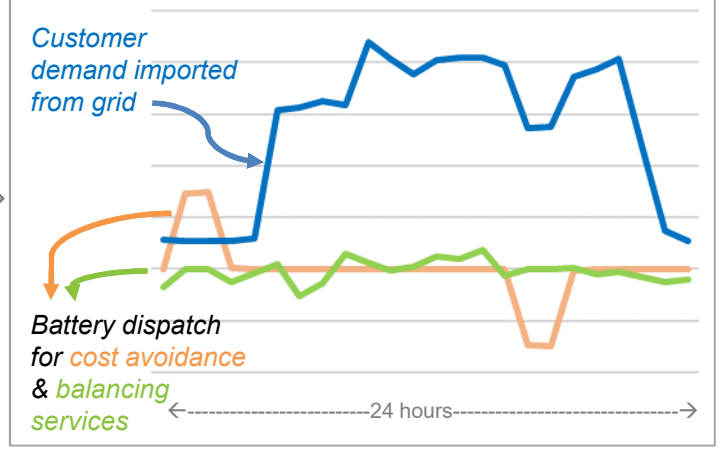


Trading optimisation

Electricity price arbitrage

GREEN HEDGE

Dispatch of storage system



Balancing services income: The storage system can be configured to generate revenues from supplying services to National Grid, for example by reducing or increasing electricity usage at the site. The business is paid for this service, but uses the battery to flex site load rather than adjusting its actual electricity demand

The Behind-the-Meter opportunity

Suitable sites

- Commercial, industrial and public sector sites
- Connected to the network at 11kV or below
- Average load of at least 500kW
- Customer owns freehold or has long leasehold on the site
- Examples sites include data centres, manufacturing operations, hospitals, large call centres

The opportunity for the customer

- Green Hedge optimises the operation of the system to maximise value from savings and revenues
- No upfront cost to the customer – Green Hedge can finance the system
- Minimum annual income from the scheme with additional upside shared between the parties
- Green Hedge will carry out a no-obligation feasibility study
- Can provide up to £200,000 p.a. of value on 1MW site

Example 200kW system

Example 1MW system

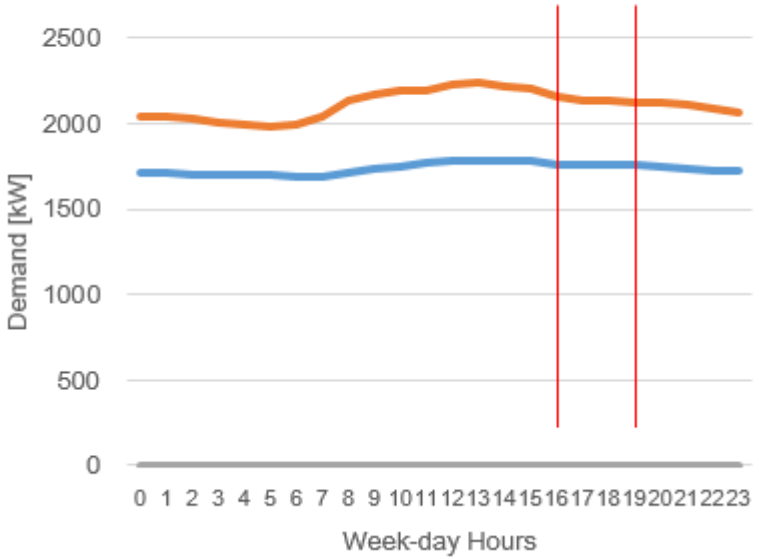
Behind-the-Meter: example profiles

Data centre: constant load, provides good for balancing services and cost avoidance

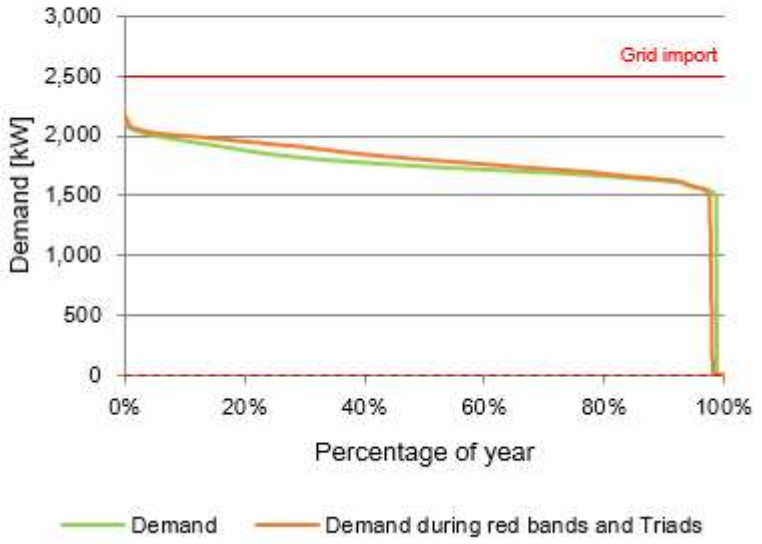
Key Data

Max demand	kW	2,243
Max demand during TRIADS	kW	2,164
Average Demand	kW	1,737
Total Energy Consumption	kWh p.a.	15,211,888

Week-days - max, min and avg



Load Duration Curve



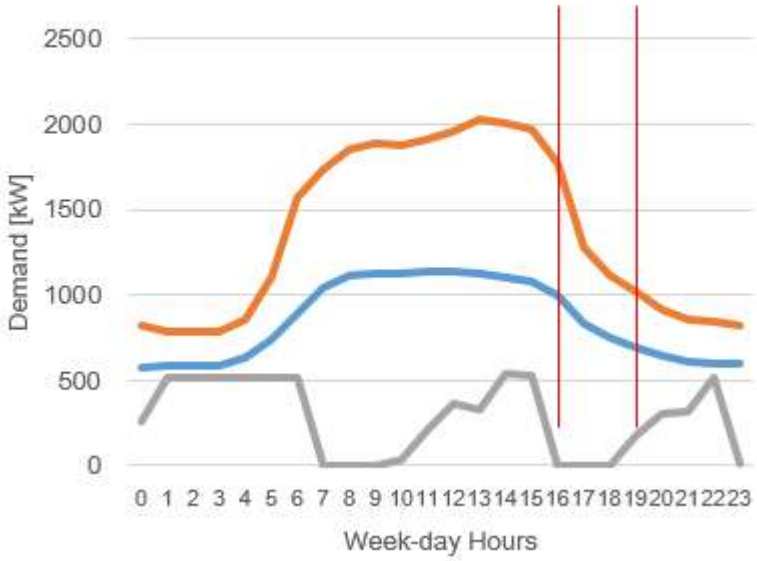
Behind-the-Meter: example profiles

Large call centre: variable load, less good for balancing services and cost avoidance

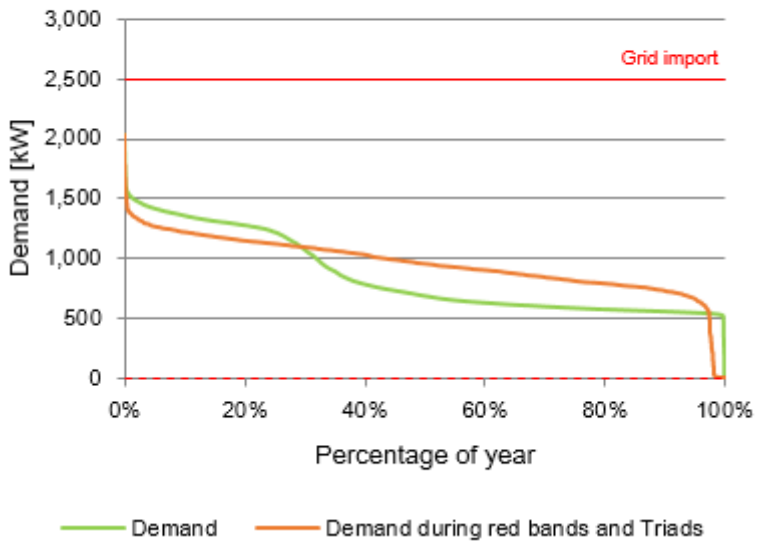
Key Data

Max demand	kW	2,025
Max demand during TRIADS	kW	1,774
Average Demand	kW	846
Total Energy Consumption	kWh p.a.	7,414,339

Week-days - max, min and avg



Load Duration Curve

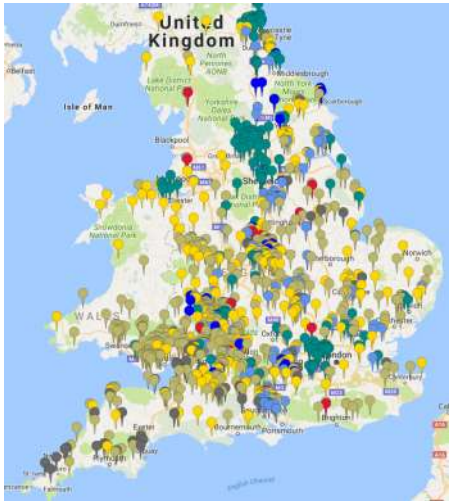


Why Green Hedge?

Experienced developer with strong manufacturer relationships

- **Experienced developer and operator** of renewable energy assets (150MW solar O&M contracted)
- **In-depth grid understanding** enables us to identify grid capacity opportunities early in the process
- Green Hedge is a **market leader**:
  - one of the few storage developers to win a 2016 Capacity Market contract
  - acknowledged understanding of the complexities of the electricity storage market, enhancing the revenue potential and commercial viability
- **Strong relationships** with battery manufacturers and system integrators enables Green Hedge to deliver well-specified systems on time
- **Successful development:** both Energy Barns and Savings-in-a-Box pilots being built out in 2017

Grid knowledge



Battery manufacturers

LG Chem BYD SAMSUNG Panasonic

System integrators

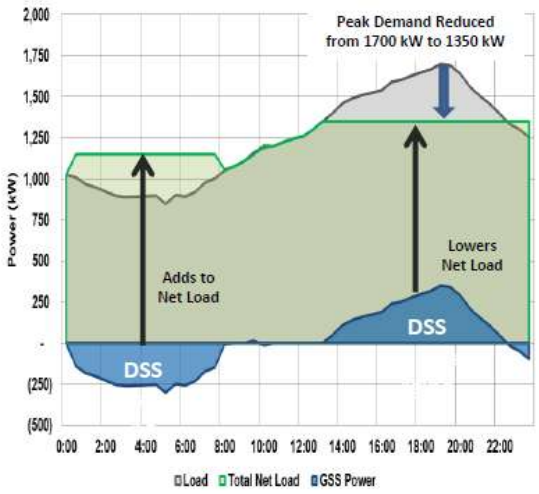
NEC NEC ENERGY SOLUTIONS TESLA Younicos powerstar VIRTUE TESVOLT SPEICHERTECHNOLOGIE

What next?

Green Hedge would welcome the opportunity to work with you to:

- **Identify opportunities in your land ownership portfolio**
  - assess for grid capacity
  - assess for site suitability
  - apply for grid capacity

- **Consider behind-the-meter opportunities for high energy consumption sites**
  - financial feasibility study
  - site visit to assess siting and connection
  - variation of existing grid connection agreement



Contacts

Tim Marsters
Commercial Director
GREEN HEDGE

19 Nassau Street
London W1W 7AF
07711 816960
tim.marsters@green-hedge.com

Disclaimer

While the information in this presentation and any associated documents has been prepared in good faith, no representation, undertaking or warranty, express or implied, is or will be made and no responsibility or liability is or will be accepted by Green Hedge Energy UK Limited (’Green Hedge’) or any member of its group (being any subsidiary or holding company of it, or any subsidiary of any such holding company (as such terms are defined in the Companies Act 2006 (UK))) or by any of their respective officers, employees or agents (each an 'Green Hedge Person'), in relation to the accuracy or completeness of this information or for reliance on it and any such liability is expressly disclaimed. No undertaking is given by any Green Hedge Person to provide the recipient with access to any additional information or to update the information in this presentation or any associated documents, or to correct any inaccuracies in it which may become apparent. No information set out or referred to in this presentation or any associated documents shall form the basis of any contract. This presentation and any associated documents do not constitute an offer or invitation by any Green Hedge Person in respect of any sale or purchase of securities, or any businesses or assets, in any jurisdiction. By accepting this presentation and any associated documents, the recipient agrees to be bound by the foregoing limitations.