Energy-as-a-service: What's working and what's not?

Session Chair

Janet Wood - New Power

Speakers Michael Kenefick – Bloomberg New Energy Finance Ian Keen – Amber Energy Alex Perkins – Edgbaston Stadium Kelly-Marie Lovsey – Haven Power



Energy-as-a-service

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250 BloombergNEF research professionals in 17 locations



Source: BloombergNEF. Note: part of Bloomberg LP with 19,000 employees in 176 locations.

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Decentralized Energy – service overview

Business models & strategy

Future grids

- Residential Storage in Europe: Uneconomic But Growing
- Shells Adds Virtual Power Plant to Bulging Shopping Bag
- Consumer Adoption in
 Power and Transport
- Energy Service Agreements: Case Studies on Versatility
- Behavioral Economics in Energy

- BNEF Talk: Future
 Proofing the Utility
- Implications of PG&E Crisis for Clean Power in California
- BNEF Seminar: U.S. Utility of the Future
- Booming Investment, Flat Sales: a U.S. Utility Chronicle
- Grid investment gives way to distributed energy

Distributed energy integration

- Alternative Connections: Good & Bad for Renewables
- Distributed Energy Resource Management 101
- The Shrinking Scale of EU Generation
- V2G: Slow Roll from Demonstration to Commercial
- Southeast Asia Sees a Microgrid Revival

Demand-side flexibility

- Australia Residential Storage to Triple, Despite High Cost
- 2018 Global Demand Response Forecast
- Virtual Power Plant 101
- Demand Response in European Markets
- Aggregating Storage: Examples From Australia
- Demand Response in North American Wholesale Markets

Select companies' activity in distributed energy



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Annual activity by company and type



Cumulative new activity

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Why all this interest in distributed energy?



The fall in DER prices continues





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Behind-the-meter resources will be plentiful in the U.K.

Demand response



GW 2.5 2.0



Small-scale PV



Source: BloombergNEF

Source: BloombergNEF

Source: BloombergNEF

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Increasing competition means new approaches

Number of energy suppliers in the U.K. is increasing



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Added services help to lower customer churn



Source: BloombergNEF, Utility Warehouse

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How to sell distributed energy





Financing frameworks suit the different technologies

	Efficiency	On-site PV	On-site generation	Demand response	Microgrid	Storage
Debt						
Lease						
Shared benefit						
Service agreement						

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Cross selling projects with multiple technologies





A customer installs a PV array to reduce energy costs. PV self-consumption use is maximized through a battery unit. Energy management



These two systems can then be integrated with the overall facility systems. VPP



A third party then maximizes the market profitability of the overall installation.

Source: BloombergNEF

Challenges to the EaaS model

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Technical

Integrating technologies into customer's operations



Contractual Different value streams, contractors, timelines, payback periods,



Scaling operations Every project is different with long sale times

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It is still early days for this strategy

- How profitable is this business?
- Who is making it work?
- What do they need to do to be profitable?

Centrica's Distributed Energy & Power



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EDGBASTON

Over 220,000 cricket attendees in 2018

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Host to more major match cricket than any venue outside of Lords between 2019 - 2024

31 Days of Major Match Cricket 2019 - 2024 100

Host of new 100 Ball tournament team (Free to air tv) Conferences, Events And Hospitality

Over 100,000 visitors in 2018

A range of facilities to host 8 to 800 attendees

Meetings, Banquets, Weddings, Christmas Parties

Award winning venue for weddings, catering



Partnerships

Driving efficiencies through a combination of brand and venue assets

Differences in success and ROI measurement

Common goals and alignment with holistic approach

Business drivers and innovation

Improved customer experiences



Operational Excellence

98% home made food

Sustainability plan

Remove Single-use Plastics

Transport

Waste Management

Hygiene Partner







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Edgbaston & Haven Power

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Amber Energy Partnership – Energy saving projects

Power exclusively from renewable source

Use of event facilities and commercial association



IAN KEEN Sports & Leisure Relationship Manager

1st May 2019



Why amber energy®?

We deliver, we keep it simple, and maximise results

We deal with buildings at amber

Within these buildings, we work with their owners, operators and/or tenants

We make these buildings more intuitive, easier to run at lower energy costs and easier to budget for.

We provide access to wholesale energy prices whilst making billing and supply easier for owners and/or tenants.

We reduce the unit of energy used per square foot and enhance the green credentials of a building.



The benefits

Edgbaston has the ambition of being the most sustainable cricket stadium in the UK.

Clever **purchasing**, tailored **efficiency** measures, reduced **consumption** and costs.

- Consumption dropped by **29%**
- Delivered a kVA saving of £28K per annum
- Saving **547 tonnes of carbon** equivalent of flying nearly 840,000 miles on a plane



amber energy

True partnership

Identified a further 32% of energy savings

Values – Trusted, Entrepreneurial, Customer Centered

Facilitated **successful partnership** between Haven Power and Edgbaston

Supporting future ambitions on **renewable technology** and **energy reduction**

Securing over £200k of ethical sponsorship to the stadium without the need for any 'contra' arrangements





THANK YOU

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Finding the right energy partner

Kelly-Marie Lovesy Head of Third Party Relationship Management, Haven Power

May 1 2019

Enabling a zero carbon, lower cost energy future.





Finding the right energy partner May 1 2019



Partnership



edgbaston





Finding the right energy partner May 1 2019



Benefits to Edgbaston



Renewable as standard

Energy Services

Backed by Drax

Finding the right energy partner May 1 2019 We work with customers and consultants – let's talk

havenpower

Finding the right energy partne May 1 2019

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Thank you

Kelly-Marie Lovesy

Head of Third Party Relationship Management, Haven Power

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