energy convergence

Discussing the convergence of efficiency, procurement and flexibility

Convergence – case studies in combined energy strategies

Green Energy Consulting

www.greenenergyconsulting.co.uk

Session Chair

Tim McManan-Smith – Energyst Media

Speakers

Lisa Akeroyd – Sixt

Rajvant Nijjhar – BankEnergi

Sam Scuilli – Enel X

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BANKABLE ENERGY ASSETS, IN LONDON'S SOUTH BANK

Project Lead: Rajvant Nijjhar

1 May 2019, Energyst Event

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South Bank – Its great

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Partners: ‘’Prospering from the Energy Revolution’’

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Vision

Create local energy marketplace whilst achieving wider socio-economic and environmental outcomes of alleviating fuel poverty, improving air quality and reducing carbon emissions.

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Mission

ASSET SELECTION:

Identify local assets and building to trade heat, power and install EV superchargers

TECHNOLOGY DEPLOYMENT:

Optimising energy use. Maximising energy storage. Maximising generation.

LOCAL ENERGY TRADING:

Forecasting demand. Trading surpluses. Assessing capacity and balancing demand.

What's the story so far

- Limited opportunity for flex revenues on a widescale.
- What about spill from your generation.
- How do we manage the grid demand when EVs come on line?
- Moving away from a fossil fuel based future.

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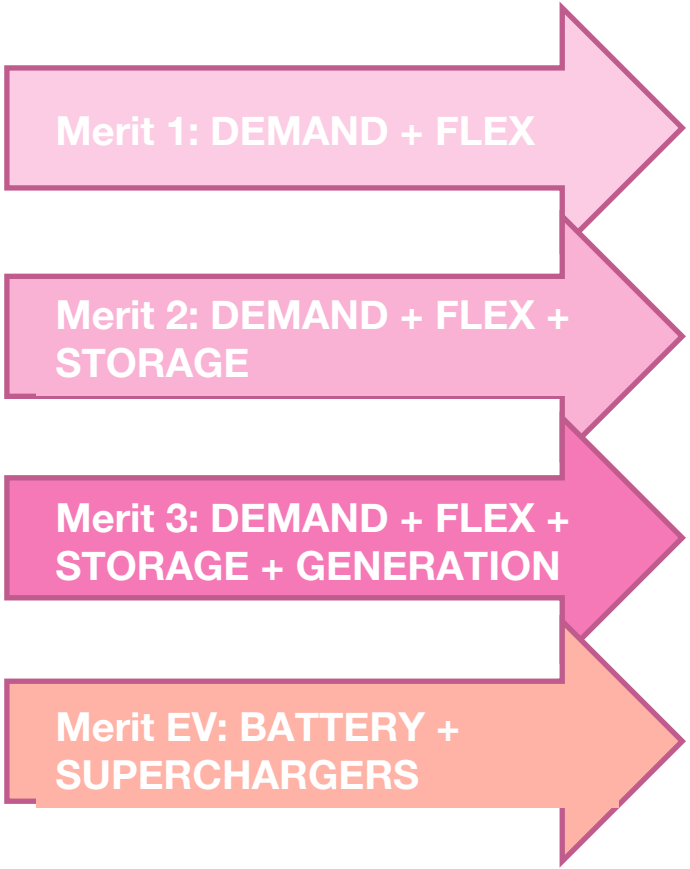
Example assets under investigation

1. University halls of residence & underground waste heat source
2. Central London carpark with disused areas for storing ‘’junk’’
3. Dis-used basement swimming pool with borehole sump pumps
4. Commercial office space next to a hospital
5. University teaching building for surplus energy generation
6. Entertainment venues along the South Bank
7. Car parks in the area in general

OPTIMISING ASSETS | MAXIMISING STORAGE | MAXIMISING GENERATION

Business model & Intelligent data integration



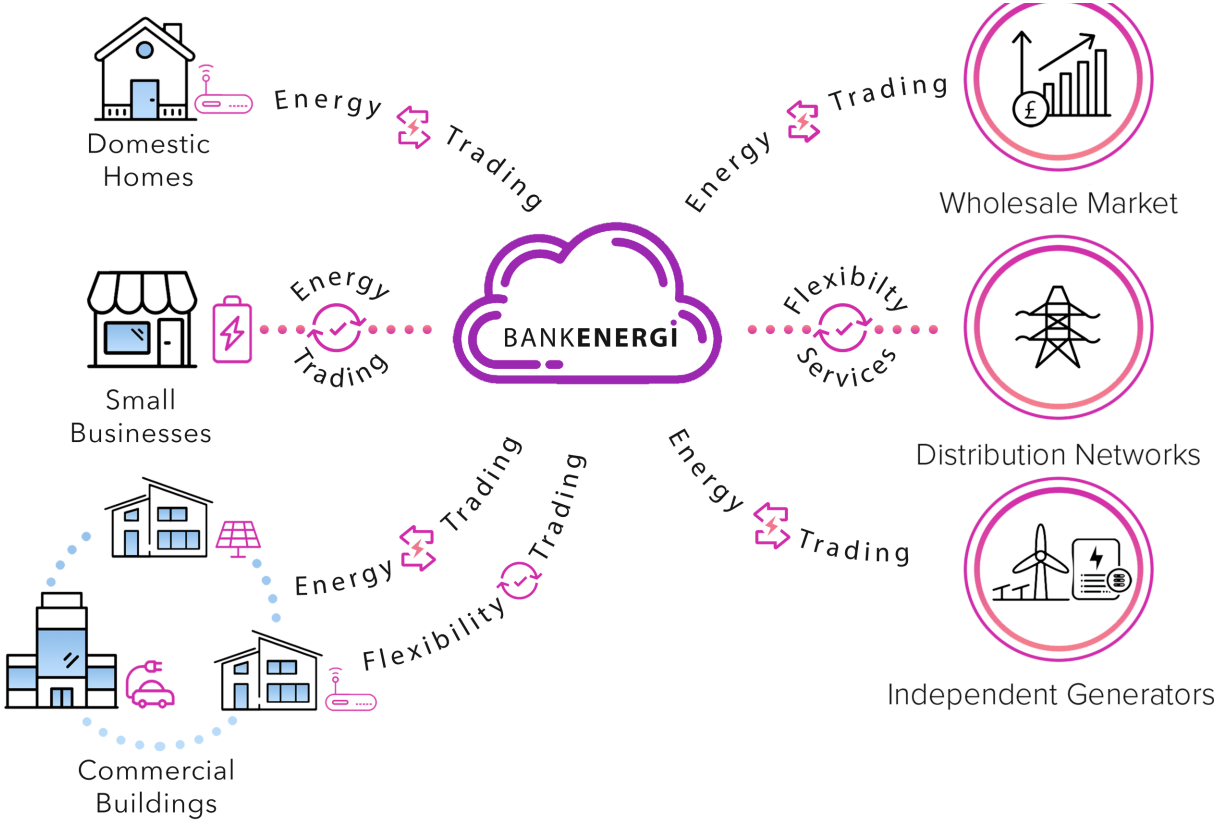
E.g. Building – level data:

- Half-hourly energy for profiling
- Peak demands
- BMS information, operational data
- Space and land for asset deployment

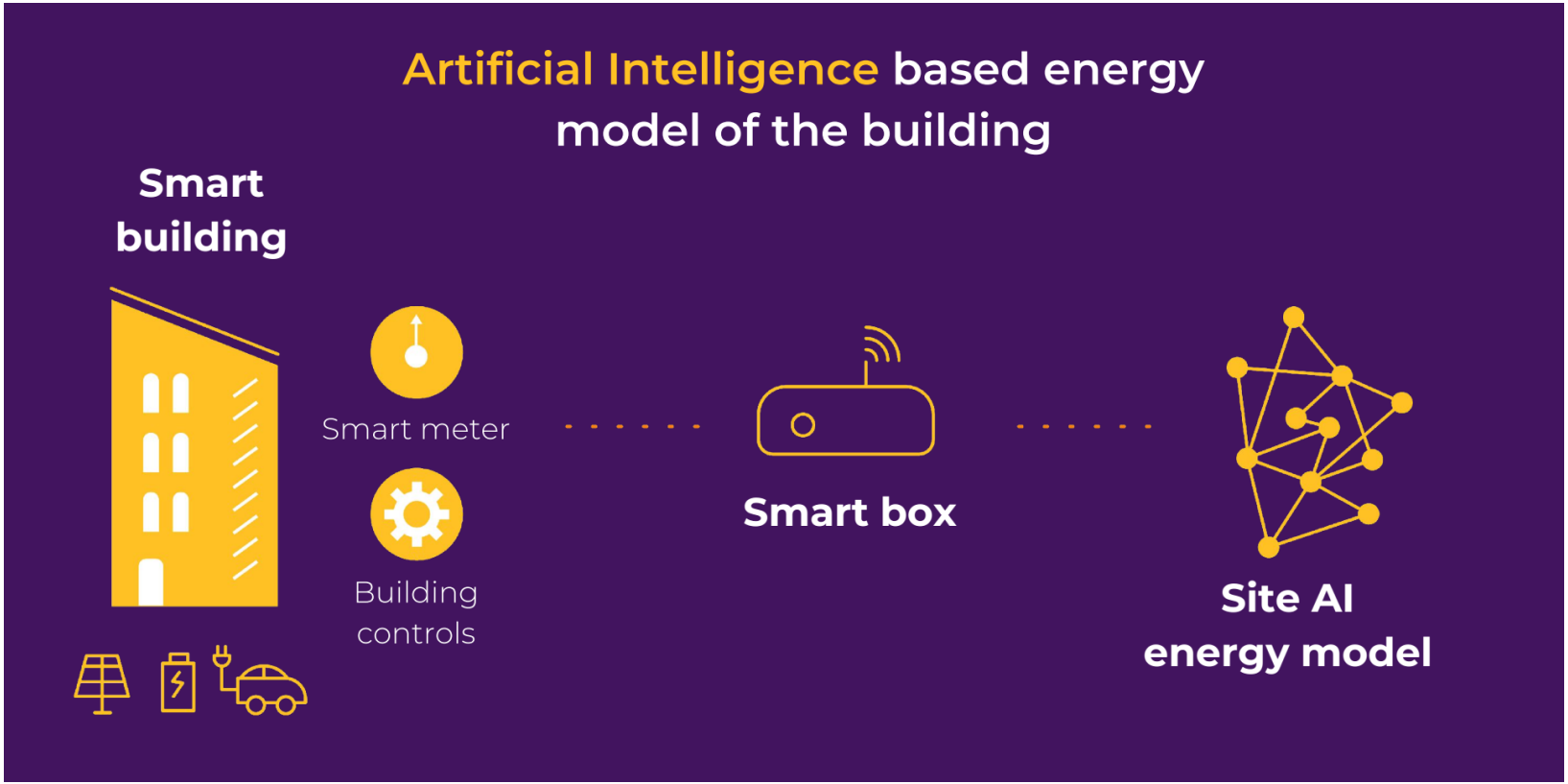
E.g. Grid – level data:

- Forecasting demand to half hour.
- Substation level data e.g. headroom
- Generation assets data
- EVs : Likely time, routes & length of use
- Locations of charge points

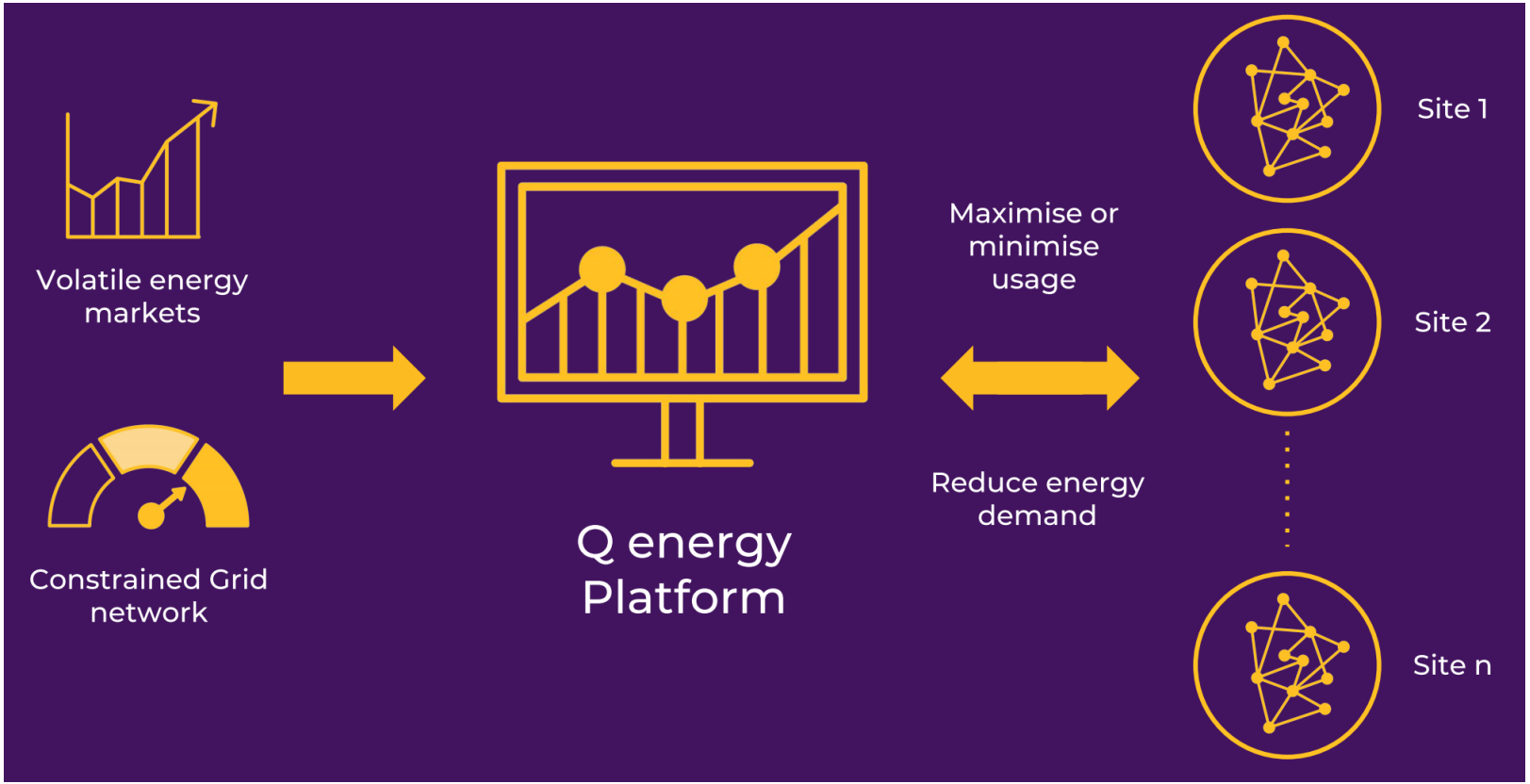
Intelligent data will allow energy trading



Site – level approach



Grid – level architecture



Why data integration is important

Consumer view:

- All information delivered on one bill
- Simple to understand
- Single bill pricing to support the transition of energy and EV as a service

Supplier view:

- Multitude of data is required: Building and Grid level.
- Accurate forecasting required for balancing

Leads to local economies and growth – supporting the VISION of BankEnergi

Why we are different

- Expertise from demand side to supply side in group
- Engagement of an industry interest group (SBEG)
- Creating the economy first rather than technology
- Looking to optimise, store max & generate max
- Working in the constrains of a congested urban area
- Sweating the assets; clustering the assets
- Being fair and equitable with all parties
- Incentivising asset owners
- Working with the regulators of Code to understand change

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