Energy Storage for Communities

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Business overview

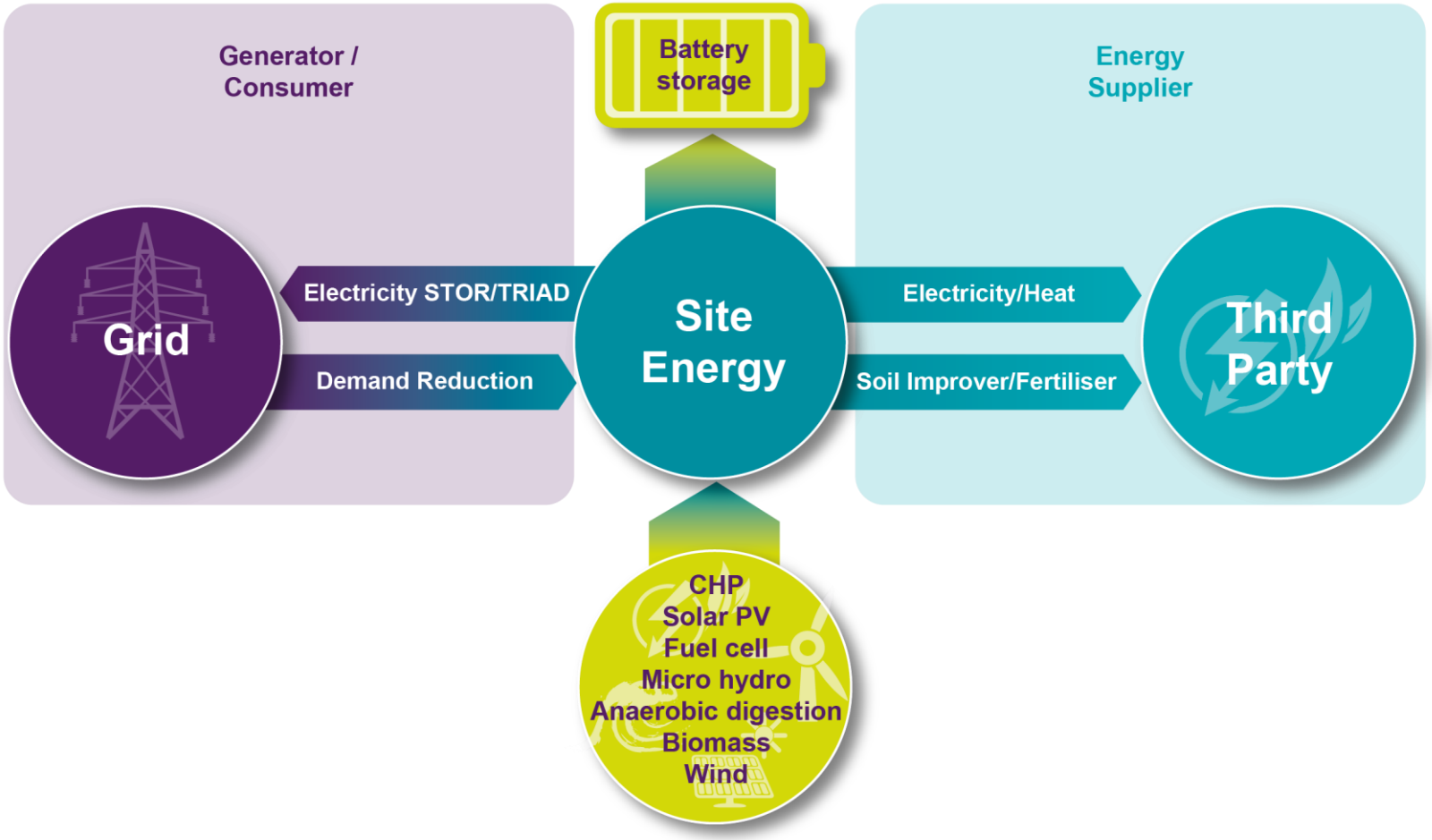
Markets

- Environment & Infrastructure
- Renewables
- Transmission and Distribution
- Oil & Gas

Offerings

- Planning and EIA
- Engineering
- Project management
- Project delivery
- Environmental management
- Waste and resource management

About Energy Storage



Energy Storage Drivers

Drivers

- Utilise intermittent renewable energy e.g. solar power at night
- Reliable and constant energy supply
- Grid stabilisation (e.g. no black outs for off grid communities)
- Avoid peak time charges, load shift
- Provide back up energy supply

Community example

- Gigha

Energy Storage for Communities

- Off-grid Communities
  - Reliable constant energy supply
  - Reduce need for diesel generators
  - Stabilise grid and provide back-up

- On-grid Communities
  - Community rooftop PV plus aggregated energy storage
  - Energy cost reduction plus third party aggregator providing dynamic pricing
  - Payback of 7 years
  - Possibly 5 year payback by adding in infrequent grid services to DNO

    (Regen SW Nov 2016)

Challenges

Financial

- Costs of units
- Demonstrating financial viability
- Support mechanisms needed?

Technological

- Emergent technology – uncertainty?

Challenges

Regulatory

- Planning and permitting
- Environmental assessments

Markets

- Emergent technology – wait for maturity and lower costs?
- Reform of energy markets to support storage

Conclusions

- Finances – costs will come down and market is changing, not as simple as it used to be
- Grid – time of change, micro-grids in future?
- Future alongside other flexible solutions? E.g:
  - Interconnectors
  - Smart grids
  - Demand-side flexibility

Contact us

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