

Storage and the Smart Systems and Flexibility plan

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Ofgem

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Ofgem's regulatory strategy for the energy system transition

Principles

- **Aligning incentives**, so that monopoly network operators and the gas and electricity system operator act in the interests of consumers.
- **Cost reflective** charges for monopoly services that reflect the incremental costs and benefits of how consumers and other parties use the system. This includes minimising harmful distortions arising from the recovery of residual charges for using the networks.
- **A level playing field**, so that all technologies and business models can compete equally, without barriers to entry to the market.
- **Efficient allocation of risk**, so that those best placed to manage the uncertainty inherent in a rapidly changing system shoulder the risks involved.
- **Harnessing markets** and competition where it can bring benefits to consumers.

The right incentives for

- System users
- System operation
- Networks

29
point
plan:
under
way,
most
done
by
2019

Removing barriers to smart technologies

Regularity clarity and fair charges

Define storage in regulation, planning reform, health&safety standards, innovation funding, **deliver a storage licence, unbundling rules, update network charges, enable colocation with renewables.**



Smart homes and businesses

Infrastructure and system enablers

Deliver smart meters, **half hourly settlement**, smart appliance standards, cyber security, EV legislation, **consumer protections**, Crown Commercial Service support for DSR, DSR trial funding, **Power Responsive**.



Markets that work for flexibility

Access to markets and new markets

DSO/TSO evolution, SO incentives, Capacity Market amendments, rule changes; BM access of aggregators, SO simplification of Ancillary Services, TCR, Access reforms, ENA Open Networks project, network standards, trial funding
Smart **Systems Forum**



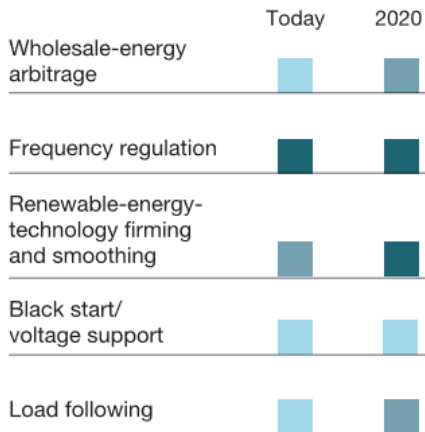
Where does storage fit into the market?

Battery storage economic value varies by application and is expected to evolve and grow.

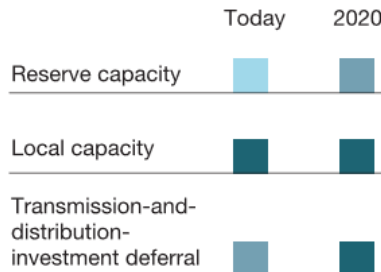
Economic value of application Low Medium High

Utility and market applications

Energy and ancillary services market, revenue

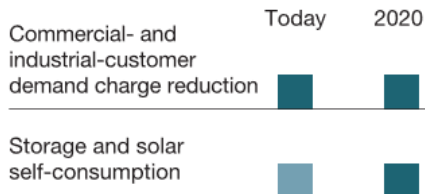


Capacity payments

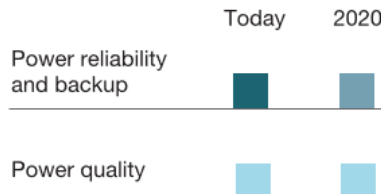


Customer and business-transaction-management applications

Customer rate arbitrage



Customer reliability benefits



McKinsey&Company

- ❖ Storage is a technology that can participate in multiple existing and emerging markets
- We expect storage to compete in the markets alongside existing and other emerging parties and technologies
 - No such thing as a “storage market” or “storage service”
- Economic value of storage (and flexibility more generally) in the markets is expected to evolve overtime (as markets and technology change)

Regulatory Clarity

- issue of where and how storage sits in legislation and licensing.

Ownership

- issue of who can or should own and operate storage.

Network Charging

- issue of 'double-charging' on import and export.

Connections

- issues of priority, cost, duration and status of existing generators installing storage

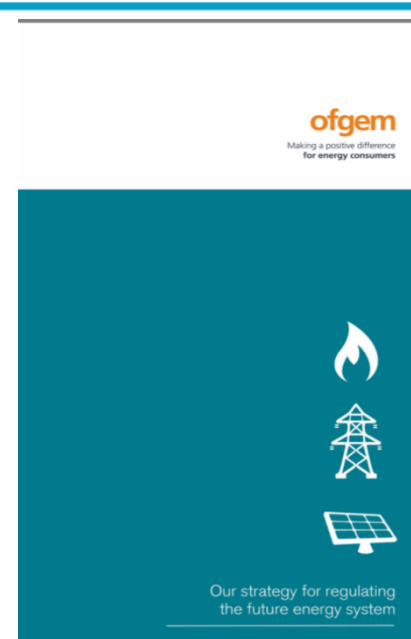
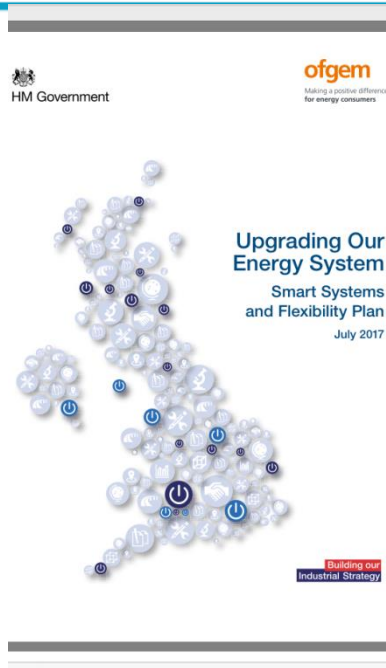
Final consumption levies

- issue of application of policy charges (RO, FiTs, CCL) to distribution-sited storage

Planning

- issues of time, scale and boosting investor confidence

More detail



- <https://www.ofgem.gov.uk/publications-and-updates/upgrading-our-energy-system-smart-systems-and-flexibility-plan>
- <https://www.ofgem.gov.uk/publications-and-updates/our-strategy-regulating-future-energy-system>