Examples of UK domestic DSM activities

Smart Energy Policies
Upgrading our Energy System: Smart Systems & Flexibility Plan
Our energy system is undergoing fundamental change

- Carbon intensive
- Centralised generation
- Predictable supplies

- Low carbon
- Interconnectors
- More distributed
- Storage
- Demand-side response
- Electric vehicles/heat
- Smart grids
- A smart system
Rapid technology change, new business & consumer opportunities

Lithium-ion battery costs have fallen by more than 50% since 2012.

Smart meter roll out underway – more choice and control in the home.

EV sector growing; charging hardware deploying, and can help manage grid demands with V2G.

Aggregators working with market leaders to deliver / monetise demand response.
Ensure markets allow the best flexible solutions to emerge and compete fairly

- Improve access to markets (e.g. Balancing Mechanism & Ancillary Services)
- Enable value stacking from different markets
- Create new markets for network requirements

Enable greater demand response participation among domestic and non-domestic consumers

- Deliver smart meters
- Enable time of use pricing
- Appliance standards to enable automation & ensure cyber security
- Consumer protections

Deliver regulatory clarity and ensure fair charges to create a level playing field

- Define storage and ownership rules
- Deliver a storage licence
- Planning reform
- Recalibrate policy/network charges
- Enable co-location with renewables

Removing barriers to smart technologies

Smart homes and businesses

Markets that work for flexibility

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Smart Energy Market Barriers

The chicken and egg problem

The smart energy market needs smart offers (such as smart tariffs) and appliances which enable DSR (such as smart appliances) benefits.

Figure 1