DSO

DISTRIBUTION SYSTEM OPERATOR

Indian Delegation – UCL

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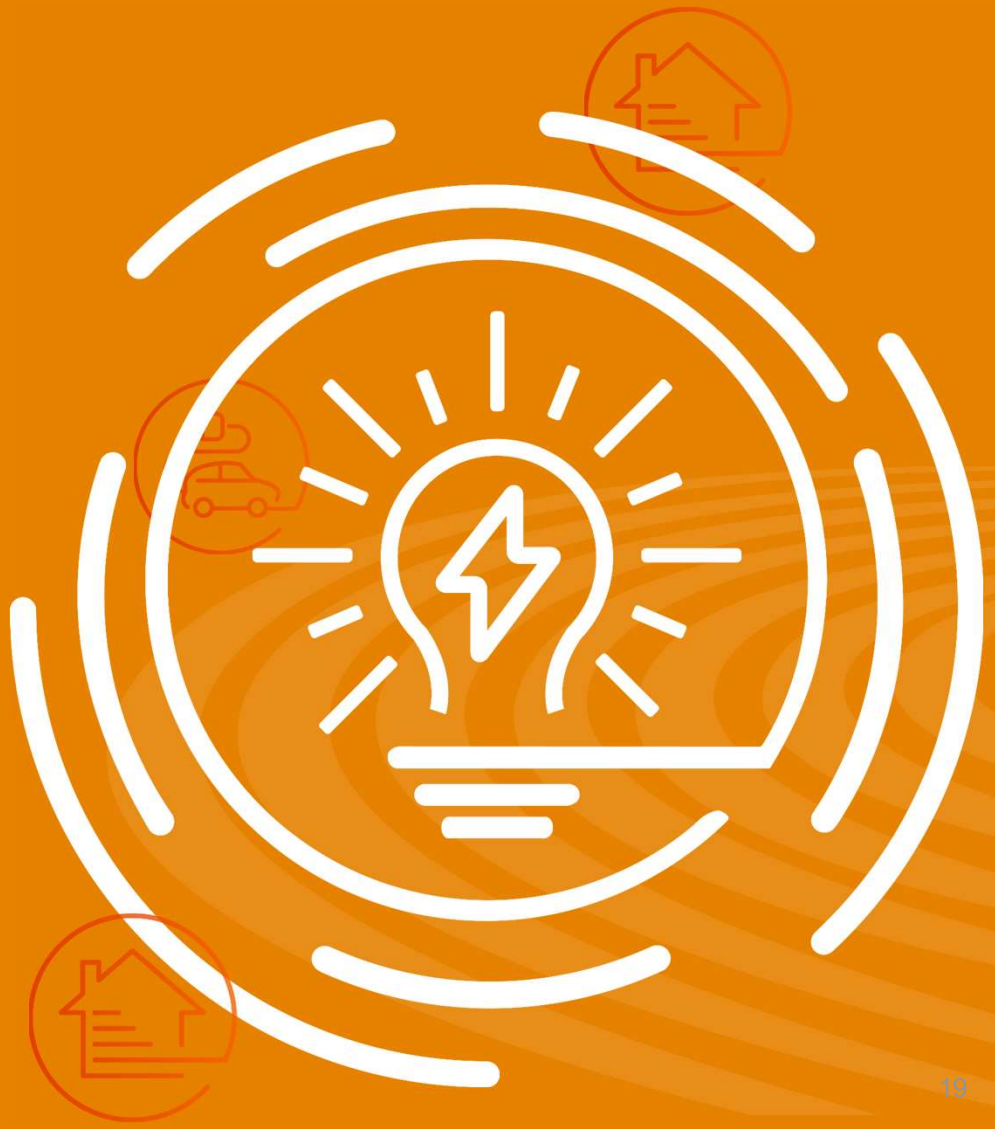
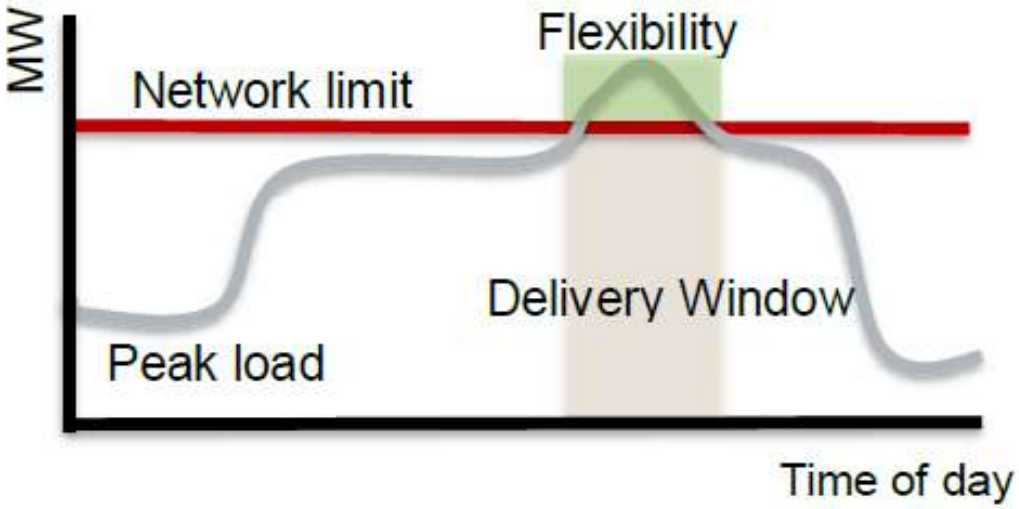
Flexibility Markets



Flexibility services

We buy **flexibility** from organisations that can **turn up** or **down** electricity **generation** or **consumption** as a service.

This allows us to avoid network constraints, and **optimise the utilisation** of our network assets, to **defer network reinforcement**.



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Typical flexibility providers

Thermal ‘peakers’
A gas generator can turn up generation at times of peak demand

Renewable generation
A wind farm can ramp down at times of excess generation

B2C aggregators - DSR
Electric vehicles can charge when there is excess network capacity

Grid scale batteries
A large battery can change its generation and consumption

B2B aggregators – large scale DSR
A supermarket can schedule their operation based on network signal

Suppliers - DSR
Energy suppliers are in a unique position to enable DSR

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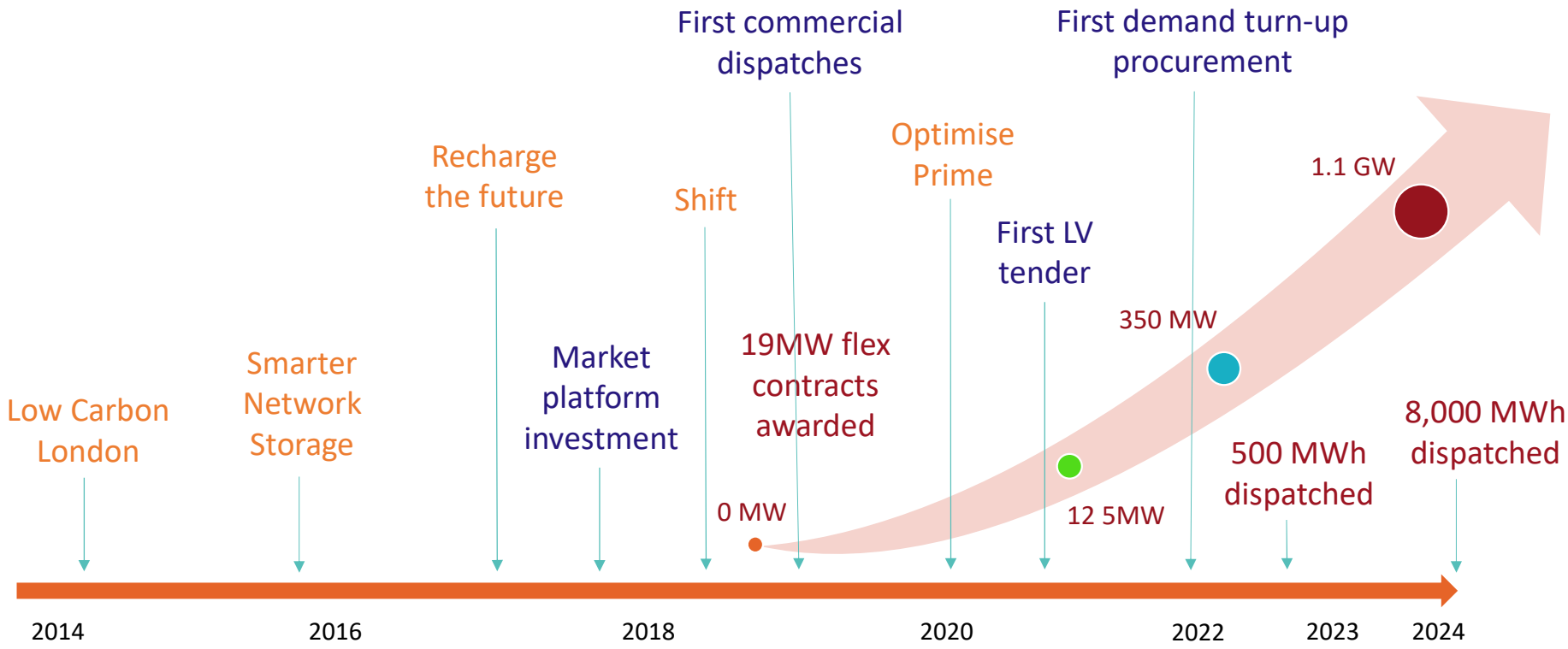
The evolution of our flexibility market



We know it works, our next step is to grow the market further

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Practical market participation

We run long-term and day-ahead auctions

Long-term auctions

- Run **twice a year**
- Informed by strategic **forecasts of network utilisation**
- Cover situations where **demand is forecasted to exceed capacity**
- Give us **confidence in the availability** of flexibility
- **Allow providers to secure revenue** in advance

Day-ahead auctions

- **Run daily**, for delivery the next day
- Informed by automated **short-term network forecasts**
- Used for **demand turn up and down**
- **Enable additional providers** of flexibility to participate
- **Timelines aligned with wholesale and transmission system** market opportunities

Day-ahead dispatch

Standard framework agreement

Full set of APIs, from registration to metering