



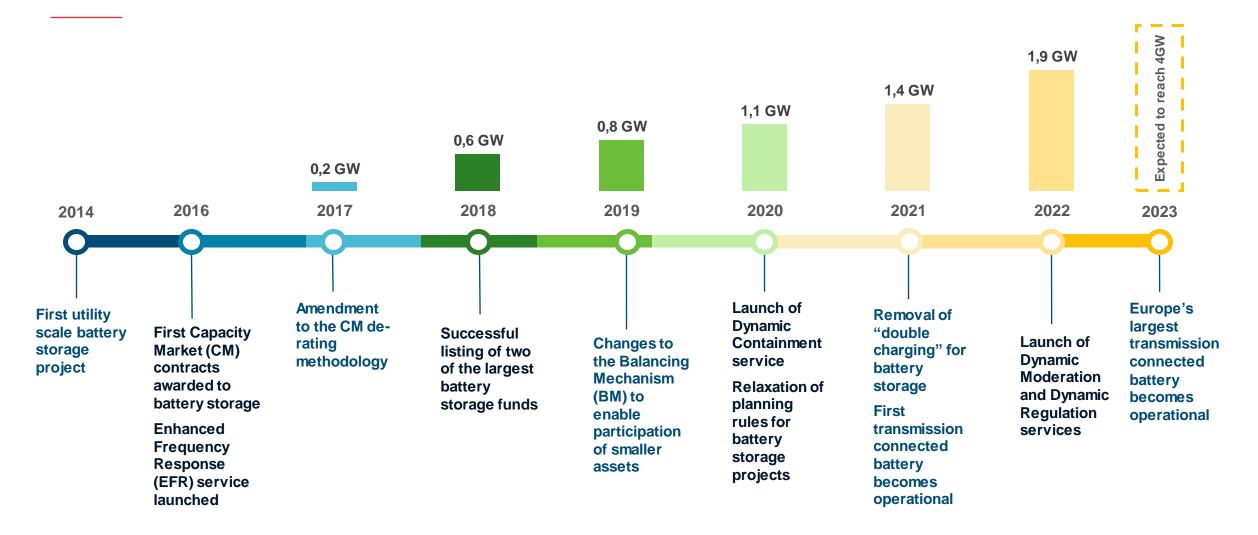
Policy, regulation and markets for battery storage in the UK

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As intermittent power generation has expanded rapidly in the UK, battery storage capacity has also grown at pace...





... in particular, because well-developed market rules have enabled revenues to be stacked, making projects bankable...

Closer to real time

Capacity Market

- The UK government's main policy support scheme for ensuring security of supply
- Contracts are awarded either one or four years ahead, with agreements up to 15 years awarded for new build assets
- Payments are made on a £/kW/year basis and derated based on equivalent firm capacity (EFC)

ESO Electricity Market Reform Delivery Body

Wholesale Market

- Platform for generators and suppliers to buy and sell electricity.
- Under the current trading arrangements, contracts for electricity are agreed in forwards and futures markets from several years up to 24 hours ahead of a given half hour delivery period

> epexspot

NORD POOL

Ancillary Services

 Services procured by the ESO to ensure the security and quality of electricity supply including frequency response (e.g. Dynamic Containment), voltage management, inertia, reserve power.¹ Procured in advance on daily - yearly basis

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Balancing Mechanism

• The Balancing Mechanism (BM) is the ESO's primary tool to balance supply and demand. Procured over a range of timescales, including within settlement periods.

national**gridESO** E L E X O N

DNO Flexibility Markets

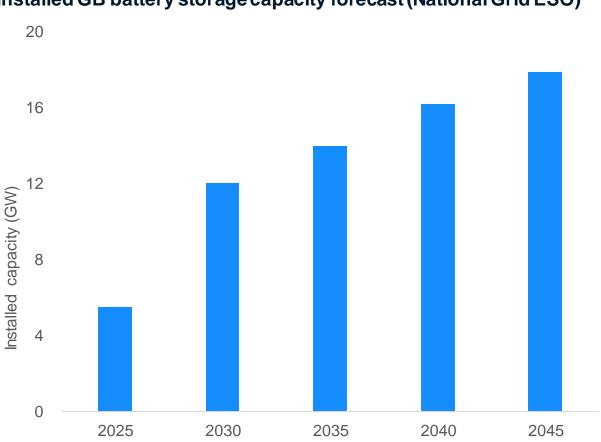
- UK Power Networks Delivering your electricity
- Services procured by DNOs to maintain network operability (demand turn-up and turn-down). However, assets must be in the right location and at the required voltage level to enter these markets. Procured on a monthly to yearly basis.



Lessons learned in the UK battery storage market can be transferred to drive more successful integration of battery storage in emerging markets

Several key factors have been crucial in supporting the growth of the UK battery storage market:

- Growth of flexibility and ancillary service markets, with transparent bidding rules and a level playing field
- Recognition of the characteristics of battery storage in regulatory and fiscal frameworks
- Clarity on ownership of battery storage assets
- Implementing market structures that reward services that can be provided by battery storage
- Allowed batteries to enter the Capacity Market, offering long term revenue certainty
- Removal of double charging of batteries for transmission and distribution charges



¹National Grid ESO Future Energy Scenarios 2022 – System Transformation

Installed GB battery storage capacity forecast (National Grid ESO)¹

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