What is the future of energy storage balancing?

EIP047

28 February 2023

Background

- Market participants that would like to operate limited storage assets are using workarounds involving manipulating data to inform the control room of their capability.
- This data manipulation does not fully consider the limited nature of their energy capacity and is more aligned to traditional thermal units.
- Participants are therefore often under-utilised or requested to provide services that are simply not possible.
- For the same reasons, connecting new assets to the wider grid can be seen as an unnecessarily complex process considering their flexibility and capability.
- **How can storage units be onboarded and utilised based on both their true limitation and flexibility, and not be treated like a conventional unit?**

Enablers

- This challenge will build on existing understanding of the technical capabilities of storage technologies and operational information for these.
- There is a storage stakeholder group recently established by the ESO to discuss and start defining storage capabilities, which this challenge will complement.

Constraints

- Historically, changes to existing control room systems has been proven to be a potentially lengthy process

Involvement and Implementation

- ESO's control room engineers, balancing mechanism (BM) and OBP (future Open Balancing Platform) teams, and storage asset operators.
- Enabling GB's net zero targets, expected uplift in both the number of storage assets and their capacity over the coming years.
- Projects addressing this challenge could recommend changes to existing ESO market designs for usage of storage assets.
- Projects could impact and influence future changes to control room systems including OBP and beyond

Energy Innovation Basecamp

28 February 2023
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