

Can we more accurately model electricity storage?

EIP039

28 February 2023

Background

Electricity storage can play an important role as enabler of renewable energy penetration and facilitate the transition to **Net Zero**.

Presently a **conservative approach to modelling Electricity Storage in connection assessment** is adopted across **Transmission Networks**. This approach along with the oversubscribed contracted generation background is resulting in late connection dates.

The aim of the innovation project is to better reflect the operation of energy storage assets in the modelling assumptions during connection assessments and would explore some of the following areas:

- How assets of different fuel types operate when co-located with storage e.g., PV and/or wind
- How the assets operate when providing energy arbitrage and other services and what factors determine when the storage assets would charge or discharge.

This could be achieved by looking at existing operational data for storage assets but also at future data collected once new storage projects are connected on the both the transmission and distribution networks.

Enablers

- Knowledge share & collaboration across Transmission & Distribution companies & electricity storage developers
- Sharing of operational data from existing electricity storage units
- ESO's non-firm connection proposal for BESS would allow gathering of further information about operational profiles

Related Innovation Projects:

- Explore related projects

Constraints

- Challenges in aligning modelling of the storage during connection assessments across Transmission & Distribution.
- Lack of visibility to access clear/existing data

Involvement and Implementation

- ESO – Network Operability team, TOs, DNOs, electricity storage developers and optimisers
- Target Market – Battery Developers
- Target implementation date: 2025

Energy Innovation Basecamp

28 February 2023
ICC Birmingham

#Basecamp28

Participant joining code
[Slido.com](https://www.slido.com)

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