



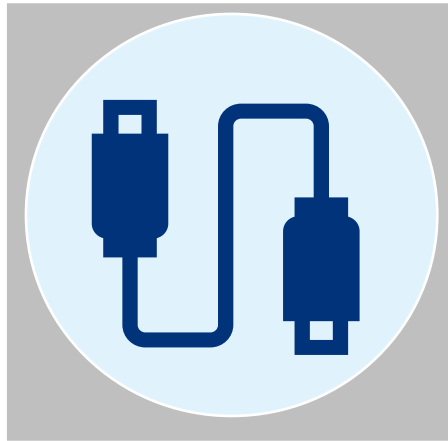
Department for
Energy Security
& Net Zero

June 2025

Long Duration Electricity Storage (LDES) UK Government Support

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Dept. For Energy Security and Net Zero (DESNZ)

We are delivering two flagship energy storage innovation programmes



Energy Storage & Flexibility

Storage at Scale Programme

Aims to demonstrate large-scale energy storage using innovative technologies, capable of operating cost-effectively with a target minimum output power of 30MW.

Longer Duration Energy Storage Programme (LoDES)

Aims to demonstrate innovative longer duration energy storage projects with a minimum 4 hours through:

- **Stream 1:** Actual demonstration in operational environments at TRL 8/9
- **Stream 2 :** Demonstration of prototypes in operational environmental at TRL 6/7

Electricity

Thermal

Power-to-X

Invinity Energy Systems – LoDES Stream 1

Longer Duration Energy Storage (LoDES) Stream 1. Funding up to £11m

Technology: Vanadium Flow Battery (VFB)

- Invinity Energy Systems has been awarded up to £11 million for the VFB LEAD project to build a VFB with capacity of up to 30 MWh
- The battery will perform a broad range of grid balancing services, providing vital flexibility to the electricity network and supporting the further buildout of renewables.
- Invinity's VFB will be one of the largest of its kind anywhere in the world.
- Will be capable of over 4 hours of charge/discharge

Invinity – Vanadium Flow Battery (VFB) Longer Duration Energy Asset Demonstrator



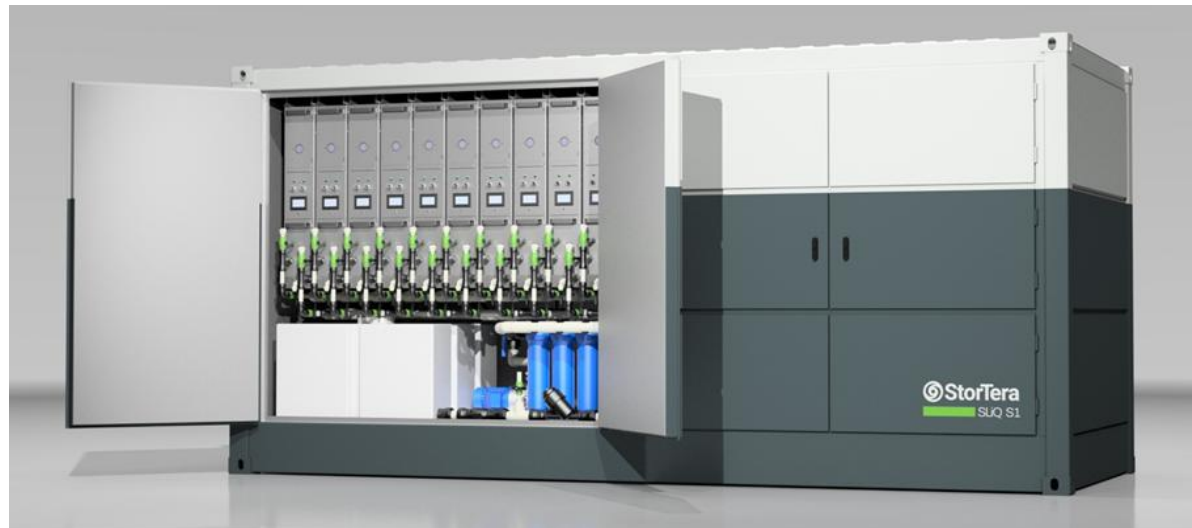
Invinity's VFB at Energy Superhub
Oxford

StorTera – LoDES Stream 2

Technology: Lithium sulphur based single liquid flow battery

Description:

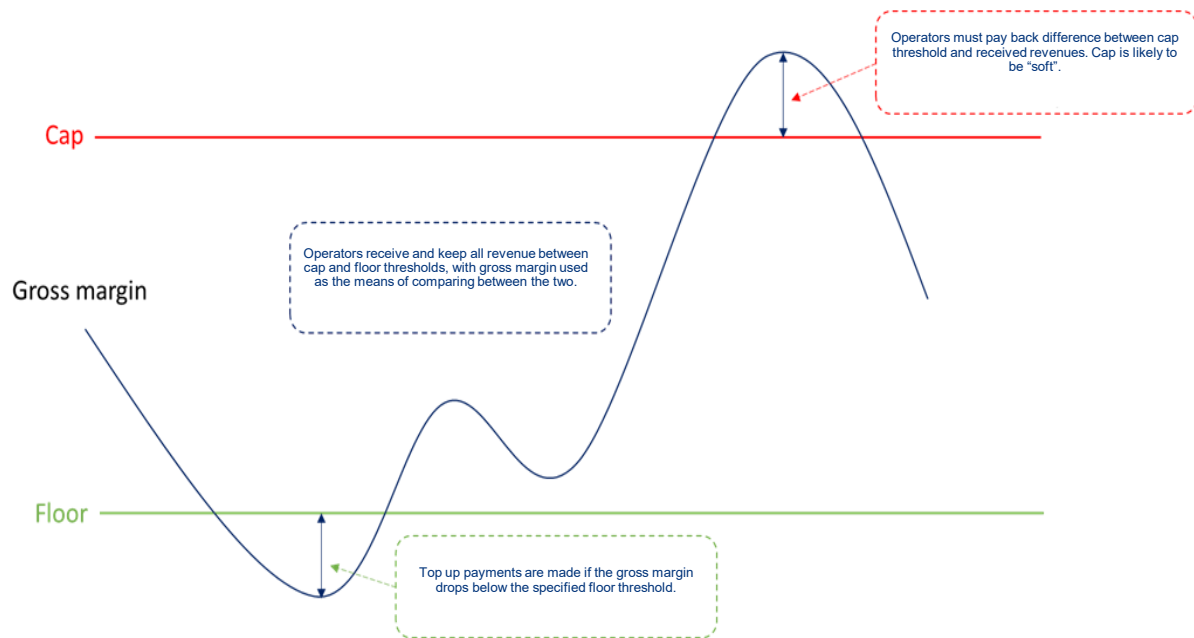
- High energy density
- Long life (over 30 years)
- Efficient (round trip efficiency more than 90%)
- Low-cost manufacturing
- Sustainable raw materials
- Modular system



Demonstrator location:
Edinburgh



Cap and Floor Scheme



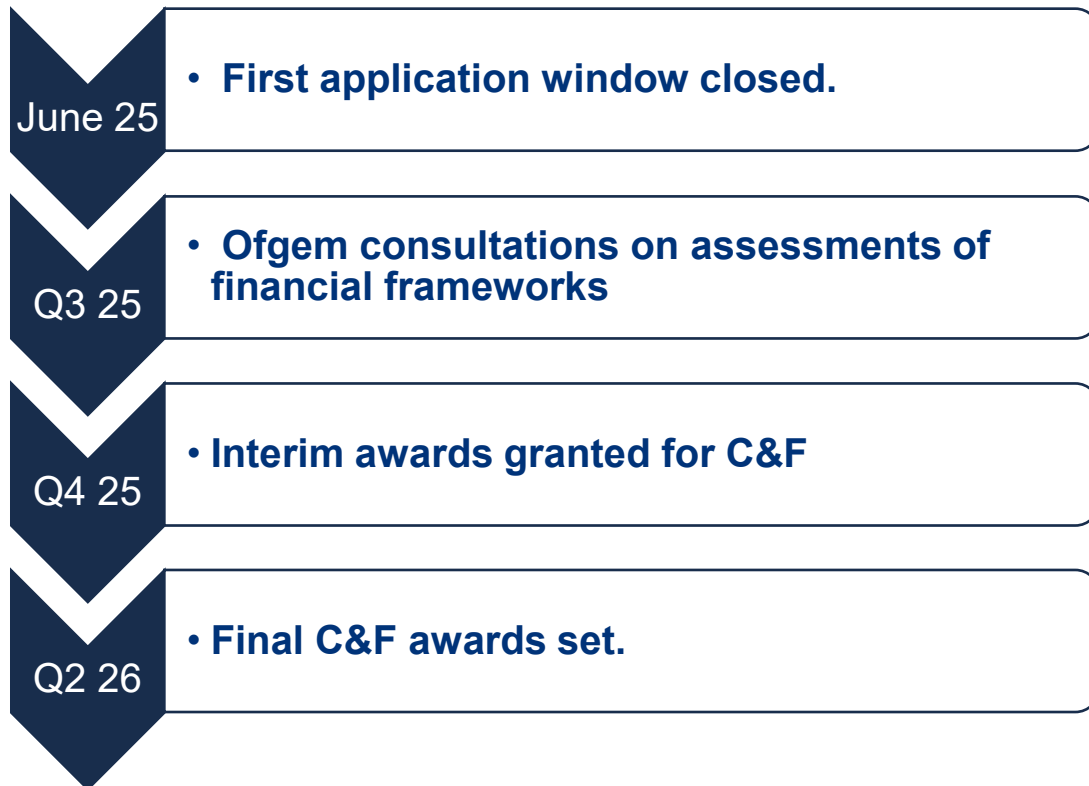
How it works:

- Provides a **minimum revenue guarantee** at the “floor” giving investors confidence to invest.
- Partial return on revenues above the “cap”, in return for the consumer underwriting the floor.
- Administered by energy regulator, **Ofgem**.

What can be supported:

- Minimum output duration of **8 hours**, with a minimum power output of **50 or 100MW**.
- Supporting novel (TRL 8) and mature technology (TRL9) technology.
- **Technology agnostic**, with focus on projects that can be **operational by 2030**.

Future timeline



First window:

- March – June 2025.
- 2.7 – 7.7GW initial capacity range (up to 2035).
- 171 application received.

Next steps:

- Ofgem consulting on several assessment parameters and details of the support package.
- Will confirm interim awards by end of 2025, with final awards confirmed end of Q2 2026.
- Need for future windows to be reviewed when capacities confirmed.