

CUSC Alternative Form – Non Charging

CMP434 Alternative Request 7:

Overview: To provide greater certainty to all Long Duration Energy Storage (LDES) projects, requesting regulatory alignment between future connection reforms, consents, and procurements by considering further provisions for LDES beyond pumped hydro.

Proposer:

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☒ I/We confirm that this Alternative Request proposes to modify the non - charging section of the CUSC only

What is the proposed alternative solution?

Hydrostor requests that the ESO and its working groups consider further provisions for LDES beyond pumped hydro. These provisions include:

1. A 4 GW interconnection allocation to LDES technologies by 2030. The figure aligns with those quoted by the new Labour government and industry reports.
2. All LDES projects require a DCO.
3. Harmonizing timelines across the forthcoming LDES Cap-and-Floor competition, DCO, and interconnection reforms.

The government will be pressured to deliver its expedited 2030 net zero goals, which include deploying new, bankable LDES technologies. Aligning timelines ensures that LDES projects remain viable and provides developers with certainty when delivering these often-large-scale infrastructure projects.

Separately, Hydrostor advocates that the ESO and DESNZ apply an 8+ hour duration threshold to LDES technologies. Other jurisdictions with LDES mandates, such as New York, California, and New South Wales, determined that an 8-hour storage allowed grid operators to maintain system reliability while retiring fossil fuel-fired generation. Market forces reinforce longer durations. The ESO's January 2023 T-4 Auction applied de-rating factors of 95.25% (9.5+ hours) and 58.97% (6 hours) to energy storage applicants.

What is the difference between this and the Original Proposal?

Provides greater certainty to all LDES projects, through regulatory alignment between interconnection reforms, consents, and procurements.

What is the impact of this change?

Proposer's Assessment against CUSC Non-Charging Objectives	
Relevant Objective	Identified impact
(a) The efficient discharge by the Licensee of the obligations imposed on it by the Act and the Transmission Licence;	None
(b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity;	Positive: This will provide LDES projects with greater certainty, ensure future system reliability, and stabilize electricity prices as the UK's grid integrates significant volumes of intermittent renewable resources.
(c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency *; and	None

(d) Promoting efficiency in the implementation and administration of the CUSC arrangements.	None
*The Electricity Regulation referred to in objective (c) is Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast) as it has effect immediately before IP completion day as read with the modifications set out in the SI 2020/1006.	

When will this change take place?

Implementation date:

1 January 2025 – As per the Original

Implementation approach:

ESO to mandate:

1. Only designate energy storage projects with 8+ hour of duration as LDES.
2. All LDES projects require a DCO.
1. Allocate interconnection capacity for LDES projects that will reach commercial operations by 2030.
2. Harmonize timelines across government agencies for LDES' project DCO, connection, and procurement.

Acronyms, key terms and reference material

Acronym / key term	Meaning
LDES	Long duration energy storage
DESNZ	Department for Energy Security and Net Zero
DCO	Development Consent Order
ESO	Electricity System Operator

Reference material:

1. National Grid ESO Capacity Market Auction Guidelines, pp. 6, January 2023. Reference: [Link](#).
2. Ember: A path out of the gas crisis, pp. 22, September 2022. Reference: [Link](#).