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Open Letter: NESO's support for Ofgem's assessment of Long Duration Electricity Storage (LDES) projects

Dear Julian,

In the Government response to the consultation on LDES, published in October 2024, the Department for Energy Security and Net Zero (DESNZ) decided to use a cap and floor regime to encourage investment in LDES. The regime will provide a baseline level of protection for investors to facilitate investment, while preserving incentives to operate efficiently in a range of relevant markets.

DESNZ has asked Ofgem to be the regulator for this regime and Ofgem have agreed. Ofgem is now taking the lead on developing the regime details and will run the application, assessment and approval process. Ofgem – jointly with DESNZ - published the Technical Decision Document (TDD) in March 2025,¹ which sets out details of the scheme and how it will operate. Ofgem confirmed that it would use a window process where developers submit their applications within a set period of time. Ofgem will use a two-stage assessment

¹ Long Duration Electricity Storage technical document | Ofgem

approach to decide which projects to award with a cap and floor regime in the first application window (i.e. Window One):

- Stage 1 assessment of the eligibility of projects (assessment over a 2-month period, starting in Q2 2025).
- Stage 2 a cost benefit analysis (CBA) and project assessment for projects that passed stage 1 (assessment over a 4-month period, starting in Q4 2025).

To inform the joint TDD, the Government asked NESO for advice on three questions relating to the design of the LDES cap and floor scheme. ^{2,3} Question 2 was a request from the Government to NESO to provide "The full range of benefits and costs of LDES for the electricity system which Ofgem should be taking into account when assessing project cap and floor applications." Question 3 was a request to NESO to provide "Analysis to support the decision on the amount of LDES capacity that Ofgem could support with cap and floor agreements through its first LDES allocation round to open in 2025. This can be expressed with a range, please provide this advice in January 2025. Further analysis to enable Ofgem to make the decision on the optimal amount of LDES will be needed in the spring (2026)."

In the NESO's response to the Government request, NESO stated that, "In addition, DESNZ stated that they would "like NESO to provide ongoing support to assess LDES projects similar to assessments for optimal interconnection capacity between GB and other markets, and the Strategic Spatial Energy Planning (SSEP) to determine optimal locations, quantities and types of energy infrastructure to meet future demand. This is likely to be required from around mid-2025 and will be taken forward through the process for identifying and agreeing new ongoing work packages and responsibilities for NESO."

In the Business Plan 3: Draft Determinations – National Energy System Operator,⁴ Ofgem set out the expectation that NESO would establish capabilities to support CBA assessment with respect to LDES.

This letter sets out the expectations of the scope of work NESO will carry out for LDES Window One to support Ofgem's assessment of projects for the cap and floor scheme. We have agreed the following through close collaboration with your Economic Assessment Team and look forward to continuing this close working relationship. The scope of work falls under two areas: (i) Eligibility assessment – connections; and (ii) CBA assessment.

² https://www.neso.energy/document/356906/download

³ https://www.neso.energy/document/356911/download

⁴ NESO's Business Plan 3: draft determinations | Ofgem

Eligibility Assessments - Connections

As part of the eligibility assessment, Ofgem is requesting NESO's support in checking the connection status of LDES applicants. This will include validating whether an LDES applicant has an existing connection date of 2033 or earlier. Where a project has a connection date later than 2033, this will include checking if an advancement request has been submitted, and whether the advancement request is for 2033 or earlier.

Project assessment

In March 2025, NESO agreed to support Ofgem with the Window One LDES Project Assessment. As part of the Project Assessment, Ofgem is requesting NESO's support in assessing the socio-economic welfare impact of each LDES project on consumers; other producers; Contracts for Difference (CfD) scheme costs; LDES and other storage owners; balancing mechanism costs; carbon emission; security of supply; and interconnector operators.

NESO's analysis will feed into Ofgem's multicriteria assessment (MCA) framework which will serve as the overarching decision-making framework for LDES Window One projects. The MCA framework enables Ofgem to assess a wider range of quantitative and qualitative impacts, considering the trade-offs each project presents. It aims to help us understand the costs and benefits across multiple categories, using various indicators. It is expected that this approach will support clear and transparent decision-making by Ofgem.

In developing and carrying out the assessments, we expect NESO to provide the following key outputs / activities:

- Validate projects' connection status, as outlined earlier in this letter
- Jointly with Ofgem, holding a stakeholder workshop on the *full range of benefits and* costs of LDES for the electricity system which Ofgem should be consider when assessing project cap and floor regime applications (April 2025).
- Produce a report on its CBA methodology, including the range of project benefits it
 will assess. This will detail the base FES pathway that will be used, other underlying
 assumptions and which other FES pathways / sensitivities will be run. It will be a
 public-facing NESO-branded document to be published as part of the Ofgem-led
 consultation (May 2025).
- NESO will produce a final report on its CBA methodology, acknowledging stakeholder feedback and incorporating changes where they meet the criteria of being beneficial,

- practical and deliverable, while taking into account their impact on delivery timelines. This report will be published alongside Ofgem's consultation response (July/August 2025).
- Provide quantified benefit component values previously listed to support the Multi-Criteria Assessment (MCA). These values will be delivered to Ofgem in a structured data workbook, to ensure consistency, transparency, and ease of integration into the overall evaluation process.
- Provide advice on the optimal amount of LDES capacity required for the GB energy system. NESO's input will be important in advising how much LDES capacity to procure in Window One of the cap and floor scheme.
- A QA-checked assumptions log will be released after the CBA stage is complete, providing full transparency on NESO's modelling approach.
- Carry out sensitivities, as outlined in the agreed scope. These sensitivities are intended to provide additional robustness to the overall assessment.
- NESO's analysis will take into account detailed technical and non-technical characteristics of projects, such as storage capacity, duration, efficiency, power rating, location, and others listed in the Consultation on NESO Assessment Methodology for LDES.
- Furthermore, NESO will support Ofgem with qualitative assessment of the system operability capability of projects, using the information provided by the projects applying to the cap and floor scheme.
- NESO will consider additional requests for analysis to support Ofgem's ongoing responsibilities in relation to LDES, including potential future work for Window Two and beyond. While this work cannot be scoped or committed to at this stage, it is expected that any such activity would align with NESO's broader programmes.

To support the production of this plan and ensure expectations are aligned between our respective organisations, Ofgem have set up regular (weekly) meetings throughout the process to monitor and steer development and in which material issues are to be raised for escalation and decision. If during production of the outputs, there are material concerns regarding meeting the expected scope or timelines for delivery, these should be raised with Ofgem as early as possible.

We would be grateful for a response by 4 July 2025 which confirms you can fulfil this scope of work by the specified deadlines.

We would like to thank you for your help and support to date and look forward to continuing to work closely as we develop and deliver the new LDES regime.

Yours faithfully,

Gordon Hutcheson