

# Call for input - LDES Cap and Floor Regime: Our Role, Plan, and response to the DESNZ publication

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To interested parties,

Great Britain (GB) is at a pivotal point in its net zero journey. Making Britain a clean energy superpower is one of the Government's five missions and will build on the work already underway to achieve net zero by 2050. We are still feeling the effects of the 2022 gas crisis and the renewed focus this has placed on energy security. At Ofgem, we have a key role to play, working with the Government, industry and others, to improve our energy systems, markets and infrastructure. I am pleased to be able to now set out some of the actions we plan to take to speed up infrastructure delivery through our work on long duration electricity storage (LDES).

The Department for Energy Security & Net Zero (DESNZ) decided to introduce a cap and floor regime to encourage investment in LDES. This regime, similar to Ofgem's interconnector cap and floor regime, ensures a minimum amount of revenue for LDES operators. This helps developers manage the high capital costs and long build times required for LDES. Conversely, the cap on revenue helps lower costs for consumers in return for their support in guaranteeing the minimum revenue. DESNZ has asked Ofgem to be the regulator for this regime, using our interconnector cap and floor experience. We are working with DESNZ to publish a joint Technical Decision Document (TDD) by Q1 2025 with the ambitious aim of approving the first projects by Q2 2026.

<sup>&</sup>lt;sup>1</sup> References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document to refer to GEMA, the Gas and Electricity Markets Authority

This aligns with Government's Clean Power 2030 Action Plan,<sup>2</sup> which sees a bigger role for LDES by 2030. To reach these goals, this open letter sets out our work plan, timelines, and initial ideas on the first allocation window and eligibility for the LDES cap and floor regime. Enabling investment in LDES supports Objective 8 of our Forward Work Programme and Multiyear Strategy 'Protect, Build, Change, Deliver', which focuses on facilitating deployment of low carbon technology.

We welcome views from stakeholders on the 14 questions in this open letter. Although this is not a formal consultation, your input is crucial for shaping our approach and driving forward the net zero transition.

Please send your views to <a href="mailto:LDES@ofgem.gov.uk">LDES@ofgem.gov.uk</a> by 8<sup>th</sup> January 2025. We will use your feedback to shape our joint TDD with DESNZ this winter.

Yours faithfully,

Beatrice Filkin
Director, Major Projects

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<sup>&</sup>lt;sup>2</sup> https://assets.publishing.service.gov.uk/media/675bfaa4cfbf84c3b2bcf986/clean-power-2030-action-plan.pdf



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## 1. Background

Following the UK Government and Ofgem Smart Systems and Flexibility Plan<sup>3</sup> in 2021, the Government consulted on using a cap and floor regime to encourage investment in LDES assets. In October 2024, the government confirmed its intention to introduce a cap and floor regime for LDES<sup>4</sup> and announced that Ofgem has agreed to be the regulator.

The consultation response noted that Ofgem and DESNZ intend to publish a joint Technical Decision Document (TDD) in the winter containing the regime details. The TDD will outline application window timelines, eligibility criteria, the approach to setting the cap and floor, and the potential LDES capacity needed, among other technical details.

This letter sets out our initial views in some key areas: the LDES programme and delivery timeline (Section 2); the approach to selecting eligible LDES projects in the first allocation window (Section 3), our expected approach to assessing whether eligible projects should receive cap and floor support (section 4) and the approach to setting the cap and floor (Section 5). We are providing this information to engage with stakeholders to help inform the decisions we expect to make in the TDD.

## 1.1 Stakeholder engagement

Ofgem's role in delivering the LDES cap and floor regime is important. We aim to make the process clear, fast, competitive, and beneficial for consumers. If time allows, we will hold more workshops with stakeholders to finalise the TDD. We plan to approve LDES cap and floor projects by Q2 2026. Please contact our team at <a href="mailto:LDES@Ofgem.gov.uk">LDES@Ofgem.gov.uk</a> with any questions or comments and check our webpage (<a href="Long Duration Electricity Storage">Long Duration Electricity Storage</a>) regularly for updates.

## 2. LDES Programme

We expect to manage the delivery of the LDES cap and floor regime in application windows. We recognise that many projects may be eligible for LDES cap and floor regime now and in the future and that these are at various stages of development. Regular windows will enable developers to submit proposals for consideration once projects are sufficiently progressed. This mirrors the approach we have taken for both Offshore Electricity Transmission (OFTO) and electricity interconnectors and we consider this generally works well.

<sup>&</sup>lt;sup>3</sup> https://www.gov.uk/government/publications/transitioning-to-a-net-zero-energy-system-smart-systems-and-flexibility-plan-2021

<sup>&</sup>lt;sup>4</sup> <a href="https://www.gov.uk/government/consultations/long-duration-electricity-storage-proposals-to-enable-investment">https://www.gov.uk/government/consultations/long-duration-electricity-storage-proposals-to-enable-investment</a>

If a project is unsuccessful in one application window it will be able to re-submit proposals in a subsequent window, and we would expect to provide developers with feedback to help facilitate future consideration. We expect that, following the initial window, we will reflect on the eligibility criteria and approach to project assessment to see whether we can make improvements to how this process works.

Given the Government's clear desire to accelerate the delivery of clean power by 2030, we propose that the first LDES window ("Window 1") will prioritise projects that can be delivered by 2030. However, we also recognise that there may be some projects in development that are ready, or nearly ready, to start construction, but have build times that may make a hard 2030 delivery deadline unfeasible. Given the need to deploy additional LDES capacity beyond 2030 we do not consider it would benefit consumers to unnecessarily restrict potentially viable projects from coming forward. As such we propose for Window 1 to allow a degree of flexibility on delivery date, allowing developers to indicate in their eligibility submissions whether they expect to deliver by the end of 2030 or instead by the end of 2033. We expect this approach can accommodate a range of technologies with different build times as part of Window 1.

In practice, given the importance of the Government's Clean Power Plan and 2030 targets, if we have a high volume of eligible projects in Window 1 (for both the 2030 track and 2033 track) we may look to prioritise our assessment for projects in the 2030 track. This would likely result in us making decisions on awarding a cap and floor for these projects before those on the 2033 track. We would look to minimise any delay to our assessment of 2033 track projects as much as possible.

The timeline below for Window 1 spans from now to 2026, with key milestones and deadlines given by quarter:

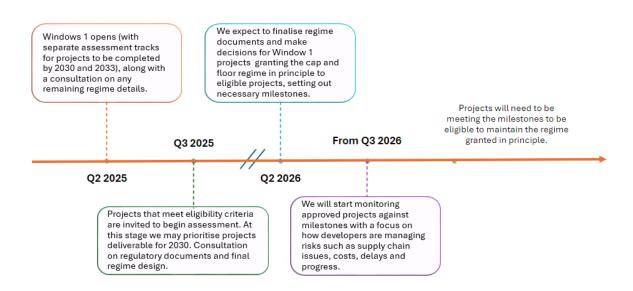


Figure 1: Timeline for LDES Window 1 approval

We expect to publish application guidance for Window 1 when we open the application window in Q2 2025. This guidance will include details similar to the Application Guidance for Window 3 interconnectors.<sup>5</sup> It will cover timing and processes from the project assessment (PA) to the post construction review (PCR) and project commissioning.

Between now and Q2 2026 we will work with stakeholders to develop project documents including the licence (a modified form of the Electricity Generation Licence: Standard Conditions<sup>6</sup> with Special Conditions<sup>7</sup> to enable the cap and floor), regulatory instructions and guidance (RIGs), and other relevant changes to codes and guidance for the regime, based on the information above.

The programme aims to support LDES projects and achieve the 2030 clean power target and Net Zero by 2050, but the timeline poses challenges for both Ofgem and developers. We must use our resources effectively and collaborate with NESO, who will advise DESNZ and us, to stay on schedule. Developers have limited time to prove their projects meet the eligibility criteria for Window 1. To meet these ambitious timelines, we must work together to navigate challenges and avoid delays.

https://www.ofgem.gov.uk/sites/default/files/2022-10/ApplicationGuidance ThirdWindow%20v2.pdf

<sup>&</sup>lt;sup>6</sup> https://www.ofgem.gov.uk/sites/default/files/2023-

 $<sup>\</sup>underline{03/Electricity\%20Generation\%20Standard\%20Licence\%20Conditions\%20Consolidated\%20-\%20Current.pdf}$ 

<sup>&</sup>lt;sup>7</sup>https://www.ofgem.gov.uk/sites/default/files/2021-06/schedule 2a - nbl specials.pdf

Question 1: We have outlined an ambitious timeline for Window 1. Do you have any comments or suggestions on how we can streamline application submissions by developers and our project assessment process to make it more efficient?

Question 2: Do you have any comments on our proposed approach to split Window 1 into two distinct delivery tracks?

#### 2.1 NESO's role

As mentioned in the DESNZ LDES consultation response from October 2024, NESO has been asked to provide advice on the following:

- The minimum duration to be used in both stream 1 (the most mature technologies) and stream 2 (other high-maturity technologies), and the capacity limit for stream 2.
- The range of LDES capacity that Ofgem could approve under the cap and floor regime in Window 1.
- Analysis and advice to support Ofgem to assess eligible individual and combined LDES projects in Window 1 against the full range of electricity system benefits and consumer benefits.

We expect NESO will play a key role in determining the eligibility criteria for the regime and supporting our assessment of projects. We look forward to working closely with them over the coming months.

#### 3. Project eligibility criteria

To determine which projects can progress to Project Assessment (and therefore to be subject to more detailed scrutiny on their suitability for a cap and floor) we will use a range of criteria to assess projects' eligibility. If projects do not meet these criteria, they will not progress. The aim of this process is to ensure that we only dedicate resource to projects that are sufficiently progressed and credible. We set out below our initial thinking on the eligibility criteria that we expect to use for Window 1.

#### 3.1 Deliverability

We aim to ensure that only projects deliverable by specific dates are eligible for each window. This is in line with the approach we have taken for electricity interconnectors.

As set out above we propose having two distinct tracks in Window 1: a 2030 delivery track and another 2033 delivery track. Developers must decide which track they wish to

be considered against before submitting their eligibility applications to us. All relevant information must be provided with the initial application; there will not be opportunities to revise submission or provide additional evidence during the eligibility assessment process.

To ensure we can assess if projects can be delivered on time against these required delivery dates, we propose that projects should have the following in place:

- FEED studies with sufficient technical content and detailed engineering to define the project's technical needs and procurement planning, as well as the description of a comprehensive risk management and assessment process for the project.
- Economic viability studies that provide detailed financial models showing costeffectiveness over their lifecycle and / or regime duration. This includes capital and operational costs (based on a robust estimate of capex, at a minimum Class 3 cost estimates), 8 and projected revenue.
- Timeline and milestones setting out detail project development and implementation plans. This should include key stages such as planning, construction, commissioning, and operational phases.
- Stakeholder engagement plans and progress with local communities hosting projects, consent and planning boards (if planning has not been granted).
- Evidence of a developer's plan to raise necessary financing.

We will base our assessment on deliverability on the strength of evidence provided by developers against these requirements.

# Question 3: Do you have any comments on our proposed approach to assessing deliverability?

#### 3.2 Grid connection

We expect Window 1 projects to have a firm Grid Connection Agreement (GCA) in place or demonstrate that they can have a connection agreement ready for delivery by the relevant date (i.e. 2030 or 2033). If you have any wider views on how the regulatory framework around grid connections could be improved, please feed these into our Connections end-to-end review of the regulatory framework.<sup>9</sup>

<sup>&</sup>lt;sup>8</sup> https://www.gov.uk/government/publications/cost-estimating-guidance

<sup>&</sup>lt;sup>9</sup> https://www.ofgem.gov.uk/consultation/connections-end-end-review-regulatory-framework

## 3.3 Planning consent

We expect projects to have the necessary planning consents in place before we start project assessment (i.e. for Window 1, by Q3 2025). Planning consents are likely needed to finalise cost estimates and ensure we can undertake a rigorous Cost Benefit Analysis (CBA). If projects do not have planning consents in place when applying for our assessment of eligibility, we will require evidence that planning applications have been submitted and are likely to be granted in time to avoid speculative projects.

Question 4: Do you agree with our approach of requiring planning consents before starting project assessment, and of asking for evidence of submitted planning applications and expected decision dates to avoid speculative projects?

# 3.4 Capacity and duration limits

In October, DESNZ proposed that only projects capable of discharging at full power for six hours or more would be eligible for the cap and floor regime. Ofgem and DESNZ are also considering a longer minimum duration, based on analysis showing that longer storage provides greater system benefits.<sup>10</sup> Additionally, we are working with DESNZ to test the requirement that eligible projects must be rated at least 100MW for stream 1 or 50MW for stream 2.

We are considering potentially increasing the discharge duration limit to 8 or 10 hours for stream 1 projects in Window 1, while maintaining the 100 MW requirement. A final decision will be made in the TDD following further advice from NESO.

Question 5: For stream 1 only, if your project would be affected by an increase in the minimum duration requirement to 10 hours, would you re-scope the project to meet the new requirement or discontinue it?

Question 6: Do you have views on the potential differences in system and consumer benefits between longer and shorter minimum duration requirements, including how these differences might affect LDES asset operation?

https://assets.publishing.service.gov.uk/media/659be546c23a1000128d0c51/long-duration-electricity-storage-scenario-deployment-analysis.pdf

## 3.5 Technology readiness level requirement

As noted in the DESNZ LDES consultation response, it is intended that the LDES cap and floor regime is split into two streams:

- Stream 1: For mature technologies at Technology Readiness Level (TRL) 9 with a
  power rating of at least 100MW. Applicants do not need to prove their TRL, as our
  assessment of deliverability will be sufficient. However, we reserve the right to
  reject applications from technologies that have not been deployed at scale
  anywhere.
- 2. **Stream 2:** For advanced but less mature technologies with TRL 8 and a power rating of at least 50MW. If there is compelling evidence we may consider lowering this capacity threshold in the TDD. This stream has slightly relaxed criteria to help near-mature technologies deploy in GB. Developers must provide detailed evidence of TRL 8. We won't publish a definitive list of technologies due to rapid changes in the field, but will use current judgments. Again, we reserve the right to reject projects that do not meet our expectations for TRL 8.

Window 1 will be open to both stream 1 and stream 2 projects. We expect to assess both stream 1 and stream 2 against the same criteria and parameters, and both must show consumer benefits. To be eligible, projects in both streams must meet the eligibility criteria, including deliverability.

Question 7: Do you agree with our initial view to not require detailed evidence for TRL9 projects?

Question 8: If you are a potential stream 2 applicant, what information do you think you would need to provide to demonstrate TRL 8 status?

#### 3.6 Extension and refurbishment of existing LDES assets

Since DESNZ's LDES consultation response was published, there have been questions about whether only new projects would qualify for a cap and floor, or if major upgrades to existing assets (like expanding current pumped storage hydropower, converting conventional hydropower, or refurbishing mechanical parts) would also be eligible. Given our ambition to support LDES where it can provide consumer benefits, we think it might be beneficial to include significant refurbishments that expand the capacity or change the purpose of existing assets. Such refurbishment may face similar barriers and provide similar benefits to new projects. We do not believe that ongoing maintenance or minor equipment refurbishments should be supported by the cap and floor regime.

Question 9: How might we include significant refurbishments that expand the capacity or change the purpose of existing LDES assets? What criteria and processes would ensure these refurbishments provide comparable benefits to new projects?

## 4. Project assessment and cost assessment

Eligible shortlisted projects will progress to project assessment. Should any projects not succeed through the eligibility stage, we will notify all developers who submitted applications of the outcome.

Project Assessment will involve us assessing project costs and benefits to approve projects for the cap and floor regime. As set out above, depending on the numbers of projects that we decide are eligible for both the 2030 track and the 2033 track, we *may* prioritise project assessment for the 2030 track over the 2033 track. This is to ensure that we focus resources on the projects likely to deliver earliest.

At the start of the project assessment process we expect that developers will provide us with all relevant information and analysis. We will set out guidance on the information we will require ahead of submission. We do not envisage that there would be opportunities for developers to update or revise submitted information during the process, as this would make objective assessment much more challenging and likely lead to delays in project assessment which we are keen to avoid.

We expect our CBA approach for the LDES cap and floor regime to follow the framework developed for electricity interconnectors. This involves a multi-criteria assessment focusing on a broad set of impact categories. These categories include socio-economic welfare, system operability, balancing market, decarbonisation, and security of supply. Similar to the interconnector approach, we propose that the CBA for LDES focuses on three main areas:

- **Consumer Benefits**: Changes in wholesale market prices, payments under the cap and floor mechanism, capacity market costs, and CfD scheme costs etc.
- **Producer Benefits**: Changes in wholesale prices, CfD revenues, etc.
- **LDES Developer Benefits**: Revenues from arbitrage, capacity market revenues, revenue cannibalisation, construction and operating costs, etc.

The benefits should be expressed in net present value (NPV) terms over the regime duration. Additionally, the CBA may account for renewable integration, variations in CO2 emissions, and other hard to monetise impacts, where possible.

We are considering whether to set a firm 'upper limit' on capacities eligible in Window 1. Our assessment process will ensure that only projects likely to benefit consumers are approved for the LDES cap and floor regime, however there may also be merit in having a clear target window capacity to help manage the process. We expect to assess projects individually and collectively. Individually, they must show positive benefits. Under this approach we would establish an ordering of projects based on their consumer and system benefits. Collectively, each project in Window 1 would have to show benefits if it were the last to be operational from that application window (i.e. by assuming all other projects being assessed are already successful and looking at the marginal benefits of the project in question). This approach, similar to the first addition and marginal addition method used for the interconnector cap and floor, can be adapted for LDES assessment, if deemed appropriate.

**First Addition Method:** This method evaluates the impact of each proposed Window 1 LDES project as if it were the only one built.

**Marginal Addition Method:** This method assesses the impact of each LDES project by treating it as if it were the last project to be built in the Window 1 group. It assesses the benefits of each project individually, assuming it's the final one to become operational.

These assessment methods help determine the value and effectiveness of new LDES projects by comparing their individual and incremental contributions to the energy system, similar to our interconnector CBA. We invite views from stakeholders on how to assess projects.

Question 10: What are your views on the proposed CBA approach for the LDES cap and floor regime? Are there additional factors or impacts that you believe should be considered in the CBA?

#### 4.1 Cost Assessment

We will carefully assess developers' cost submissions and use this information to set preliminary cap and floor values. We will work with NESO to determine if a project is likely to provide benefits to consumers and the system during the regime duration.

We expect to build on our approach for electricity interconnectors where we determine cap and floor levels by assessing project costs to ensure they are economic and efficient. This involves reviewing procurement processes and detailed cost evaluations of bids (at least three) and reasoning for selecting a particular vendor or contractor. More details

are available in our Electricity Interconnectors Cost Assessment Guidance Document<sup>11</sup> which outlines our approach to ensure transparency in the process.

To incentivise developers to keep costs down and progress projects in a timely manner, we are considering several approaches:

- Performance based incentives: We may introduce performance-based incentives where developers who meet or exceed cost-efficiency and project timeline targets could receive financial bonuses. This might include milestone allowances added to the floor for achieving specific project stages on time and within budget, encouraging developers to focus on cost control and early delivery.
- 2. Penalties for delays and cost overruns: Conversely, we expect to consider penalties for significant delays and cost overruns. Developers who fail to meet agreed timelines or exceed budget estimates without justifiable reasons might face financial penalties applied to equity. This approach aims to ensure accountability and motivate developers to adhere to their project plans and budgets without excessively penalising developers.

We also expect to have delivery 'backstop' dates for projects in the 2030 track and the 2033 track. If a project is delayed beyond the backstop date it would lose cap and floor support. We initially consider that setting the backstop date two years after the required delivery date should provide a degree of flexibility to accommodate potential schedule delays while incentivising projects to complete in a timely manner.

Unlike electricity interconnectors, we propose to follow two project assessment stages: Project Assessment (PA) followed by a Post Construction Review (PCR). We expect to set preliminary cap and floor levels for successful projects at PA or financial close - the same point that we make final decisions on which projects will receive the cap and floor regime. We will finalise these levels at the PCR at project commissioning. During construction, developers must submit annual reports, which will inform the PCR. The PCR sets final cap and floor levels based on eligible cost changes and final cost assessments. After construction, developers must submit yearly operational reports on revenues and specific costs, such as market-related costs and uncontrollable operational expenses.

Contingency allowances manage cost uncertainties from the PA until the PCR submission. Preliminary cap and floor levels are set at PA with placeholders for expected risk

<sup>11</sup> 

allowances, updated at the PCR based on actual spending. We may also consider wider project benchmarking including, for example, using Reference Class Forecasting to help our cost and benefit modelling. These levels exclude inefficiency-related risks, and developers must have mitigation plans for any consumer-underwritten risks. High Impact Low Probability (HILP) risks are reviewed separately if they occur and are justified as outside the control of a competent developer. Developers must submit a risk register and management strategy for periodic review. Annual updates on the contingency budget are required, showing changes in risk items. The project's risk profile and costs will be monitored during construction, with explanations needed for cost increases like variation orders.

# Question 11: Do you have any views on the proposed approach to project cost assessment?

## 5. Overview of LDES cap and floor regime

We are keen to work with stakeholders to develop the LDES cap and floor regime, building on the interconnector cap and floor model. Our goal is to finalise as many aspects as we can in the TDD and then move forward with implementation in Q3 2025.

Our overall aims in developing our approach to setting the cap and floor are to:

- 1. Build on the existing interconnectors cap and floor model to speed up delivery.
- 2. Protect consumers by ensuring cap and floor levels reflect efficient project costs based on strong delivery plans and efficient financing structures and costs.
- 3. Allow developers flexibility in their financing process, encourage competition and innovation, and recognise options including balance sheet and project finance.
- 4. Minimise the work required from us and developers in setting cap and floor levels.
- 5. Create a repeatable model that supports multiple LDES windows over time, with separate financing for each project.

# 5.1 Approach to cap and floor

For LDES cap and floor, we are considering two broad options:

- Administrative (notional) cap and floor set by Ofgem
- Market and competitively derived cap and floor for project finance (or equivalent for balance sheet financing).

The approach we are considering for LDES cap and floor reflects the nature of the asset class, being stand alone, long-term investments, with financing raised once for that

specific purpose. We consider that, like the interconnector regime, we can maintain multiple models for the LDES regime. We aim to reach a 'minded to' position in the TDD.

The evidence from electricity interconnector projects demonstrates that the floor does not need to cover 100% of allowable project costs. Recent projects have received a floor of 80% which incentivises developers to innovate in asset construction and operation by exposing them to more risk at the floor, and bringing in due diligence from lenders to set the floor level at financial close or final investment decision. The review of capex at PCR is very limited, focusing only on risk allowance adjustments to reflect unused risk allowance. Consumers also bear less risk under this approach.

The evidence shows that this is an investable proposition for these types of project under a cap and floor regime. Similar to the minded to position in the DESNZ LDES consultation response, we expect projects to outline how they intend to operate their LDES asset to exceed the floor as part of the assessment process. This should ensure that only economically viable projects come forward, increasing the chance for equity to recover their full investment over the regime duration.

While we recognise that LDES assets are different from interconnectors, and have different risks during both construction and operations, we consider that there is a strong rationale to explore setting the floor for LDES projects at lower than 100% of allowable project costs, potentially also at 80% as with electricity interconnectors. In particular, we consider that the revenue certainty provided by the cap and floor regime provides significant risk protection for developers irrespective of the asset type. We welcome stakeholder view on this point.

We are also considering two models for how we set the financial parameters of the cap and floor (i.e. the cost of capital relevant to each).

The first model sets the cap and floor levels administratively using a notional method. This would involve Ofgem making determinations, based on available market evidence including that provided by project developers, of the costs of debt (CoD) and equity capital (CoE) for LDES projects and equity internal rate of return (IRR). We have experience of making these determinations for electricity interconnectors and other sectors we regulate. However, this approach can introduce 'basis risk' at the floor, where lenders and developers might face a mismatch risk if the floor does not cover the required debt costs, potentially affecting their ability to raise necessary debt. This risk depends on how developers finance these projects and can be mitigated if the floor is set generously; however, doing so may not be in the best interest of consumers.

Alternatively, we could set the floor through competition, similar to the interconnector cap and floor regime for Greenlink and NeuConnect. This market-driven approach removes the 'basis risk' for equity and lenders at the floor. Competition among lenders would set the floor to fully cover debt. However, debt can only finance up to 80% of the efficient (allowable) project cost. This debt financing must be raised through a competitive market process, ensuring fair and efficient pricing. We would scrutinise the debt raise process to ensure transparency and accountability as we did with both Greenlink and NeuConnect. Developers who choose to finance on balance sheet would need to be as competitive as those who raise funds through debt. They would need to ensure their financing approach is cost-effective and attractive compared to borrowing money. We would seek to benchmark such costs.

We are considering setting the cap through a competitive process, allowing developers to bid their expected returns for CoE and IRR as part of their application. This approach could benefit consumers by revealing efficient costs if there is robust competition. However, there are potential risks depending on the number of projects being assessed. If we proceed with this option, we may need to implement benchmarking to ensure consumers are not exposed to undue costs and risks at the cap.

Notwithstanding the above, we expect that the LDES licence will contain provisions to ensure the financial resilience of LDES operators. We may seek to adopt some recent requirements for network companies, such as setting minimum equity requirements. We will consult on this in the TDD.

Question 12: What are you views on the calibration of the cap and floor levels? Do you consider setting the floor at, for example, 80% of projects' costs is a viable model for LDES assets, potentially alongside a higher cap?

Question 13: Do you support exploring methods to lower consumer costs, including more use of competitive mechanisms when setting cap and floor rates? If you have any suggestions on how we can improve the cap and floor setting using a competitive process, please share them with us.

#### 5.2 Gaming risk and mitigation

Responses to DESNZ 's LDES consultation raised concerns about potential 'gaming' of the cap and floor regime, such as:

• Gaming of Gross Margin: manipulating trade bookings to report lower LDES gross margins, increasing floor payments or avoiding cap payments.

 Market manipulation: withholding LDES capacity or offering it at inflated price to benefit other assets in a company's portfolio, leading to losses from LDES asset which are compensated via higher floor payments or reduced cap payments.

While some safeguards exist in the electricity generation licenses, additional regulations may be needed in the standard and special licence conditions to protect consumers. For example, implementing a 'soft' cap with profit-sharing above the cap could be considered. We welcome stakeholder views on potential requirements, including:

- Detailed reporting and inspection requirements, for in-house managed LDES
  assets, to ensure that trades are allocated accurately; LDES asset owners can
  alternatively opt for arms-length outsourcing to third party optimisers: these third
  parties will be responsible for commercial decision making and executing trades.
- Mandating LDES cap and floor projects to participate in the Capacity Market as
  price takers and bidding their full capacity into auctions (both of which are
  required for interconnectors).
- Prohibiting LDES structured transactions between supported LDES and other assets, requiring standard products with well-defined market reference prices.
- Requiring detailed cost allocation information, including fixed and variable costs and with collocated assets, and setting a minimum efficiency requirement for each project.

There are additional specific considerations for some LDES projects that must be addressed. These include projects that are either collocated with other electricity generation (sharing the same metering point, such as with a windfarm) or part of a larger corporate group with an in-house trading arm managing market operations.

To address these potential concerns, we initially consider that each LDES asset should have its own metering point, meaning any collocated LDES assets must have a dedicated metering point.

We welcome views on the potential benefits of LDES assets being managed by in-house trading teams and how to mitigate any potential risks of gaming. We are currently considering whether clear regulatory obligations, combined with ongoing reporting requirements, will be sufficient to mitigate these risks, or whether it would better protect consumers to prohibit this activity and instead require LDES assets to be traded via third parties. We expect to engage further and come to a minded-to decision in the TDD.

Question 14: Do the potential benefits of allowing LDES assets to be managed by in-house trading teams outweigh the potential risks? How can we effectively mitigate any potential risks of gaming, such as manipulating trade bookings or market manipulation?

# **List of Questions**

Question 1: We have outlined an ambitious timeline for Window 1. Do you have any comments or suggestions on how we can streamline application submissions by developers and our project assessment process to make it more efficient?

Question 2: Do you have any comments on our proposed approach to split Window 1 into two distinct delivery tracks?

Question 3: Do you have any comments on our proposed approach to assessing deliverability?

Question 4: Do you agree with our approach of requiring planning consents before starting project assessment, and of asking for evidence of submitted planning applications and expected decision dates to avoid speculative projects?

Question 5: For stream 1 only, if your project would be affected by an increase in the minimum duration requirement to 10 hours, would you re-scope the project to meet the new requirement or discontinue it?

Question 6: Do you have views on the potential differences in system and consumer benefits between longer and shorter minimum duration requirements, including how these differences might affect LDES asset operation?

Question 7: Do you agree with our initial view to not require detailed evidence for TRL9 projects?

Question 8: If you are a potential Stream 2 applicant, what information do you think you would need to provide to demonstrate TRL 8 status?

Question 9: How might we include significant refurbishments that expand the capacity or change the purpose of existing LDES assets? What criteria and processes would ensure these refurbishments provide comparable benefits to new projects?

Call for input - Call for input - LDES Cap and Floor Regime: Our Role, Plan, and response to the DESNZ publication

Question 10: What are your views on the proposed CBA approach for the LDES cap and floor regime? Are there additional factors or impacts that you believe should be considered in the CBA?

Question 11: Do you have any views on the proposed approach to project cost assessment?

Question 12: What are you views on the calibration of the cap and floor levels? Do you consider setting the floor at, for example, 80% of projects' costs is a viable model for LDES assets, potentially alongside a higher cap?

Question 13: Do you support exploring methods to lower consumer costs, including more use of competitive mechanisms when setting cap and floor rates? If you have any suggestions on how we can improve the cap and floor setting using a competitive process, please share them with us.

Question 14: Do the potential benefits of allowing LDES assets to be managed by inhouse trading teams outweigh the potential risks? How can we effectively mitigate any potential risks of gaming, such as manipulating trade bookings or market manipulation?