The voice of the energy industry

Energy UK's response to NESO's Call for Input of Balancing, Settlement and Dispatch

April 2026

About Energy UK

Energy UK is the trade association for the energy industry, representing companies investing billions of pounds to secure our country's current and future energy needs.

From growing start-ups to major electricity generators, grid and infrastructure developers and energy suppliers, our members are driving change across power, heat, transport and flexibility.

We provide a collective voice for the sector working with governments, regulators, charities and other organisations to provide crucial insight that shapes policy, offers solutions and promotes best practice.

Our broad view across the whole system supports evidence-based positions which are not tied to particular technologies, and are focused on delivering strategic benefits for people, businesses and the economy.

We champion initiatives such as our Vulnerability Commitment, which pushes suppliers to go beyond regulation to support customers with additional needs, and TIDE, the industry's drive for greater inclusion and diversity. Through our Young Energy Professionals Forum, we support the development of future leaders.

We are equally committed to our team and are proud to be recognised as a 'Gold' Investors in People employer.

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Executive Summary

- In a low-carbon, renewables-led system, higher redispatch volumes are both natural and efficient, reflecting the most cost-effective way to balance variable generation and deliver value for consumers.
- NESO, working with Ofgem and DESNZ, should define an efficient level of redispatch in the future system, accounting for reductions driven by strategic planning, network plans and RNP measures. This is necessary to inform residual volumes and ensure any further interventions are targeted and deliver genuine consumer value.
- Lowering the Balancing Mechanism participation threshold and introducing shorter settlement periods could help address key challenges and deliver consumer value. However, both represent significant and complex changes; if progressed, NESO should ensure a proportionate approach to implementation.
- By contrast, the remaining proposed reforms (removing the post-Gate Closure window, PN matching, and unit-level bidding) are less likely to address the identified challenges, while materially increasing complexity and costs for market participants. Energy UK notes that moving Gate Closure closer to delivery would be a more complementary measure, particularly alongside shorter settlement periods.
- The current self-dispatch model remains the most effective way to allocate risk between NESO and market participants, helping to deliver efficient, low-cost outcomes for consumers. Any reforms should therefore focus on refining and strengthening this framework, rather than replacing it.
- NESO already has a range of options to act earlier within the existing framework, such as increasing the use of Schedule 7A trades to manage constraints more efficiently. There is also potential to develop constraint management markets, as highlighted through the Constraint Collaboration Project. NESO should fully leverage these and any other existing tools before pursuing more disruptive changes to dispatch arrangements.
- The cost-benefit analysis should adopt a whole-system approach, capturing key interactions and interdependencies between reforms, including with wider ongoing changes, to provide a clear view of cumulative system impacts.
- The analysis should be adaptive, capturing changes in underlying assumptions and updating the counterfactual as the market evolves. It should also be underpinned by robust, evidence-based modelling to identify the most effective and proportionate implementation pathways.
- NESO should, where relevant, draw lessons from international experience, while remaining mindful of the extent to which direct comparisons are appropriate.

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Principles for Balancing and Dispatch Reform

Q1. Reform principles and inherent trade-offs: Do the stated balancing and dispatch reform principles provide a coherent and achievable framework under a national pricing, self-dispatch market design?

Please consider:

- ***Whether the principles conflict (e.g. transparency vs liquidity, clear handover vs flexibility).***
- ***Which principles should take priority, or where trade-offs arise. Please provide your prioritisation of principles.***
- ***Whether any additional principles or changes to existing principles are required to ensure reforms support the future system needs.***

Energy UK broadly agrees with the proposed principles for the balancing and dispatch reform framework but considers that they should more clearly reflect value for consumers. Any reforms taken forward should deliver whole-system value, minimising avoidable system costs. In some circumstances, this may mean that the most efficient outcome for both the system and consumers is achieved through NESO taking a greater volume of residual balancing actions. Reducing balancing actions should therefore not take precedence over all other considerations, as set out below. Energy UK suggests strengthening the principles by requiring clear evidence of net consumer benefit.

Additionally, it would be important to clearly reflect the need to sustain an investable environment. This includes ensuring that market participants can continue to transact effectively to hedge risk, as well as preserving the attractiveness of key investment frameworks such as the Contracts for Difference and the Capacity Market. While NESO's vision for the reforms recognises that balancing arrangements should support investment confidence, there appears to be limited consideration of how the proposed measures may impact these key enablers of an efficient market environment. Energy UK therefore considers it critical that any reforms taken forward by NESO are proportionate and carefully designed to avoid undermining these investment signals.

In that context, the proposed reforms involve important trade-offs between transparency, flexibility, and efficiency. Increased access to real-time operational data, particularly through a lower BM participation threshold, could improve NESO's visibility and utilisation of available resources and support stability. However, excessive transparency, through PNs matching and unit-level bidding, risks encouraging strategic behaviour and reducing market depth and liquidity. Similarly, while a rigid Gate Closure provides operational certainty for NESO, it limits

participants' ability to respond to real-time volatility, potentially increasing system costs and shifting risk onto parties less able to manage it. Finally, in a system with high penetration of intermittent renewables, NESO should place greater emphasis on forecasting, optimisation, storage, and forward contracting to manage congestion effectively.

It would also be important to more explicitly reflect the retail perspective, recognising that the impacts of these reforms are likely to flow through suppliers and customer flexibility models to end consumers.

Any reforms taken forward should also be designed to remain consistent with applicable arrangements for European TSOs, particularly in the context of ongoing negotiations on UK re-entry to the European Internal Energy Market (IEM). This would support efficient coordination of balancing across interconnectors and reduce reliance on unnecessarily complex processes.

Finally, Energy UK does not believe that a clear case has been made for the need for a distinct separation between market participants and NESO. Rather, the effectiveness of any such separation is largely contingent on the extent to which market outcomes are aligned with system needs. Addressing this underlying misalignment could reduce the need for a strict separation of responsibilities, suggesting that the second principle is, to some extent, an extension of the first rather than a standalone outcome.

Q2. On a scale of 1–5, how confident are you that the balancing and dispatch reform principles set out in Section 2.2 (efficient operational signals, clear handover of balancing responsibility, secure and efficient operation of the system) are a suitable framework for reform under a national pricing, self-dispatch market design? *(1=Not confident; 5=Very confident)*

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Balancing and Dispatch: Challenges to Address

Q3. System challenges and causal drivers: To what extent do you believe each of the challenges defined in Section 2.3 contribute to current and future redispatch volumes and costs?

In your response, please comment on:

- ***Which challenges you consider structural drivers versus secondary symptoms***
- ***Whether any challenges are over- or under-emphasised relative to the others***

- ***Evidence from your operations, experience, knowledge of the market, and empirical or anecdotal evidence that supports alternative interpretations of redispatch growth.***

Energy UK agrees with some of the challenges identified in Section 2.3.

As set out in the July 2025 REMA decision and reiterated in NESO's Call for Input, a central objective of the Reformed National Pricing (RNP) programme is to reduce the volume and cost of network constraints, which have increased in recent years. A key driver of these rising costs has been the historic lack of strategic planning of network infrastructure development required to support the transition to a renewables-led system, resulting in a mismatch between the location of generation and available network capacity. This, in turn, has led to an increasing reliance on redispatch actions. However, these issues are already being tackled through a wide set of reforms led by Ofgem, DESNZ and NESO. Initiatives such as the SSEP and strategic network plans (CSNP), which would introduce a more strategic and spatial approach to future generation and network build, together with further measures expected through the DESNZ RNP Delivery Plan and other ongoing regulatory changes.

While the wider RNP programme is expected to support the improved coordination between generation and network infrastructure through strategic plans via locational signals over the medium to long term, accelerating network build-out in the near term will be essential to deliver meaningful reductions in constraint volumes and costs in the run-up to 2030. As demonstrated by NESO, accelerating the delivery of three critical network projects to before 2030 (from their currently planned later delivery dates) could prevent the possible escalation of constraint costs in 2030 should certain generation projects connect ahead of required network upgrades (representing up to £4bn in cost savings). This would effectively half the projected peak of constraint costs in 2030. Energy UK therefore reiterates that, alongside delivering an effective RNP programme, it is essential to accelerate network infrastructure delivery.

Additional near-term measures are also available to reduce constraint costs by 2030. Recent analysis by LCP Delta indicates that there is significant scope to reduce constraint costs, which form a substantial component of overall balancing costs.[1] Building on the role of network investment discussed above, further reductions could be achieved through a range of additional measures within a national pricing model, including increased participation from smaller assets in the BM, greater use of forward contracts, and more efficient utilisation of existing network capacity, among others. These measures have the potential to reduce projected 2030 costs by up to £3.8 billion. Energy UK therefore considers that NESO should explore the measures

[1] LCP Delta (2026), From Bottlenecks to Balance: Impact of Reformed National Pricing (RNP) Measures on GB Grid Constraint Costs

proposed by LCP Delta, as they could deliver many of NESO's objectives without the complexity and risks associated with some of the reforms outlined in this Call for Input, including wider dispatch reform.

Another challenge not considered in this Call for Input, but which is relevant, is the current CfD design, which incentivises CfD-contracted generators to maximise output regardless of system conditions. In REMA's analysis of CfD design and reform, Energy UK expressed support for further work to be done on CfD designs which decouple payment from output, such as deemed CfDs and capacity-based CfDs. Energy UK believes that CfD reform should continue to be explored under Reformed National Pricing as alternative designs could address system challenges resulting from the current design. NESO should therefore continue to work with DESNZ and Ofgem as this work progresses.

As acknowledged in the Call for Input, changes in the type and location of generation have led to a fundamental shift in the operating environment, driven by the growth of intermittent renewables, fast-acting flexible assets and embedded generation, requiring market arrangements to evolve accordingly. NESO identifies a set of challenges arising from this transition. However, there appears to be limited / no quantitative assessment of their scale and materiality. This lack of evidence makes it difficult to determine whether the proposed reforms are proportionate and effectively targeted at delivering consumer value, and risks interventions being misaligned or imposing unnecessary costs on market participants.

As a starting point, it should be recognised that in a renewables-led system, a certain level of constraints is inevitable and forms part of a cost-efficient outcome. As renewable capacity is rapidly deployed and network reinforcement progresses, the system is likely to pass through a 'bottleneck period', during which higher constraint costs and more frequent NESO interventions represent a necessary transitional outcome on the path to a decarbonised system; response to these challenges must therefore be proportionate.

It is important to establish what constitutes an efficient level of constraint volumes, alongside a clear understanding of the level of redispatch that NESO would be expected to undertake to manage them in a future energy system. This should be supported by improved transparency on redispatch volumes by location, technology type and root cause, enabling a clearer understanding of whether reforms should address structural challenges, operational behaviours, or market rules. As stated above, reforms should be proportionate to the issues identified and grounded in the needs of the future energy system, rather than being driven primarily by short-term or transitional challenges.

Energy UK considers that only a limited number of the identified challenges constitute material issues that warrant intervention through the proposed reforms.

While we recognise the operability and cost challenges associated with increasing redispatch requirements, as discussed above, these are likely to be more effectively addressed through wider, ongoing reforms, with the proposed balancing reforms instead focused on delivering nearer-term, incremental savings.

We agree that NESO's limited visibility of and access to smaller assets represents a critical challenge that should be addressed. The recent analysis by LCP Delta indicates that increasing the participation of such assets in the BM could deliver savings of up to 0.5bn in 2030.[2] Energy UK also understands that NESO has recently commenced work under the security of supply requirement, which is expected to support improvements in visibility in the nearer term, alongside other workstreams that will contribute to enhanced system operability. This further reinforces the importance of addressing this challenge.

Energy UK agrees, although to a lesser extent, that distorted wholesale price signals can create incentives that exacerbate constraints. However, such effects are inherent in any market design with congestion. In that context, and as noted above, it is important to understand both the scale of the issue and its impact on the efficient level of constraints in a future energy system. While not directly targeted at addressing these price signal distortions, improving NESO's visibility of, and access to, smaller assets could nonetheless materially mitigate the resulting balancing actions and associated costs. This would be achieved by increasing the pool of resources available to NESO in the BM and enabling a more efficient response to system conditions.

It is also worth highlighting that the analysis, as presented, on locational optimisation of flexible assets risks oversimplifying asset behaviour and the role of storage in driving re-dispatch costs. Much of what is identified as problematic dispatch reflects legitimate compliance with ancillary service obligations under a national pricing, self-dispatch market, which the Government has chosen to retain. The wider system benefits of storage, including wholesale price reduction and displacement of more expensive generation are not captured, meaning costs are assessed in isolation rather than on a net basis. When viewed holistically, the consumer impact is considerably more nuanced than headline figures suggest.

The more fundamental point is that locational investment signals are a market design and policy question, not a balancing one, and are already being actively considered through Ofgem's Call for Input on locational charging and other regulatory workstreams. Attempting to address them through dispatch interventions risks duplicating that work, creating conflicting signals, and undermining investment in constrained regions. NESO's role should remain focused on efficient system

[2] LCP Delta (2026), From Bottlenecks to Balance: Impact of Reformed National Pricing (RNP) Measures on GB Grid Constraint Costs

operation, using targeted operational tools to manage constraints within the existing framework. The separation of short-term operational decisions from longer-term investment signals is essential to ensure reforms remain coherent, proportionate and effective.

Energy UK does not consider that NESO has provided sufficient evidence to substantiate the challenges it attributes to the overlap between the wholesale market and balancing. While we agree that instances of these challenges can arise, it is important to understand their materiality in exacerbating constraints relative to other identified issues. For example, in relation to NIV chasing, the events of 8 November 2025 cited in the Call for Input appear to indicate that NESO's instructions were driving repetitive NIV chasing behaviour in real time, resulting in imbalances in the opposite direction and a need for additional balancing actions. However, given that market participants' visibility of NESO's balancing actions is limited until after the event, this raises questions about the extent to which such behaviour occurs in practice and the overall materiality of these challenges. Energy UK therefore reiterates that these challenges would benefit from clearer articulation and stronger evidence to better understand their true impact before any decisions are taken to progress the proposed reforms.

Q4. On a scale of 1–5, how impactful do you consider the operability and cost challenge from increasing redispatch to be for the GB system over the next 5–10 years?

2

Q5. On a scale of 1–5, how impactful do you consider the challenge of insufficient visibility of and access to balancing resources (particularly distributed and flexible assets) to be for secure and efficient system operation?

4

Q6. On a scale of 1–5, how impactful do you consider the challenge of misalignment and overlap between the wholesale market and balancing (including overlapping timeframes and conflicting signals) to be for market functioning and NESO's role as residual balancer?

2

Q7. On a scale of 1–5, how impactful do you consider the challenge of distorted wholesale price signals and incentives to exacerbate system constraints (including opportunities for strategic positioning around congestion) to be for investment and consumer outcomes?

3

Assessment of the Balancing Reform Package

Q8. Impact on redispatch volumes, actions, costs: Do you agree with the interactions and dependencies in the reform package defined in Section 3 to manage redispatch volumes, actions, and costs, do you see any gaps?

In your response, please comment on:

- ***The volume, timing, cost, and predictability of redispatch actions.***
- ***NESO's ability to act as a residual balancer, rather than a de facto central scheduler?***
- ***Interactions with other reforms, such as P462 or other RNP reforms, that could amplify or diminish their impact on redispatch***

Please distinguish between expected impacts in the early transition period and the enduring state.

As noted in Q3, in a renewables-based system it is both natural and efficient for balancing volumes to be higher than in a system dominated by fossil fuels. NESO should therefore work with Ofgem, DESNZ and industry to define what constitutes an efficient level as the system evolves and as wider reforms, such as network delivery, strategic plans and the broader RNP package, amongst other, gradually reduce the impact of increasing redispatch actions. This would provide a basis for identifying any residual volumes that remain once these planned interventions have taken effect.

In this context, while the Call for Input appears to consider the balancing reform package as a single package, Energy UK considers it unlikely that the full set of measures will need to be implemented. Instead, a more targeted subset is likely to be sufficient to address any remaining inefficiencies, complementing wider reforms and ultimately helping to optimise the current self-dispatch framework, without imposing disproportionate adverse impacts in other parts of the system.

Broadly, there is a concern that future volumes of redispatch may be overemphasised in the Call for Input, and it is therefore important that any assumptions used to inform NESO's cost-benefit analysis of the balancing reform package are appropriately quantified to ensure that the assessment reflects an accurate baseline and overall impact, alongside their proportionality.[3]

It would also be important to ensure that more immediate, incremental efficiencies are delivered to further support optimisation of the self-dispatch model. These should not be focused solely on market participants, but also on enhancing NESO's capabilities in making effective use of existing processes and available information. NESO should, therefore, identify areas where such improvements can be realised.

[3] EDF (2026), UK constraint costs in 2026: why we need a better map for the energy transition

For example, this could include improving demand and interconnector forecasts and reviewing whether Schedule 7A trades could be more effectively utilised.

NESO could also explore the potential for introducing constraint management markets, as identified under the Constraint Collaboration Project (CCP). Alongside the indicative assessment of these options under the CCP, and as previously noted, the recent LCP Delta analysis also highlights the benefits of increased forward contracting of flexible capacity outside the BM. Energy UK reiterates its view that these and other measures identified by LCP Delta warrant further exploration, given their potential to deliver many of NESO's objectives without the complexity and risks associated with some of the reforms outlined in this Call for Input, including wider dispatch reform.

Finally, NESO's legacy systems and processes were not designed for a system dominated by intermittent generation and therefore limit the efficiency with which these residual actions can be taken. While NESO is already developing new operational tools that can significantly improve the management of this remaining redispatch volume, many of the proposed changes would introduce additional new data processing requirements. It is therefore important that this work is progressed further to identify where improvements can support the efficient operation of a more flexible, decentralised system.

NESO should be able to demonstrate its capability to manage this increased data effectively before reforms are progressed. This would avoid any unnecessary costs on system upgrades that may require further modifications once implementation challenges become apparent.

Requiring FPNs to match traded positions would also change bidding incentives in a way that would increase risk for CfD generators. NESO should consider this interaction, as well as the interaction with P462, in its overall assessment of the reform.

Q9. Market behaviour and strategic response: How do you expect market participants' behaviour to change in response to the balancing reform package defined in Section 3?

Please reflect on:

- ***Changes in trading, scheduling, and risk-management strategies***
- ***Potential new optimisation, arbitrage, or strategic behaviours that could emerge***
- ***Which design features are most important to mitigate unintended outcomes***

Broadly, Energy UK considers that implementation of the full balancing reform package would have significant adverse impacts on market liquidity, the value of existing contracts, and investment signals. It is unclear why the package is considered in the Call for Input on the basis that all proposed reforms would be implemented together. As noted in Q28, the CBA should assess the benefits of individual reforms, as well as different combinations of these, taking into account industry feedback on the Call for Input, before deciding which reforms to progress.

Overall, Energy UK believes that a more targeted set of proposals, alongside relevant wider reforms, would better optimise the current self-dispatch framework and deliver a more effective and proportionate outcome.

Energy UK considers that lowering the mandatory BM participation threshold would deliver significant benefits by increasing NESO's visibility of, and access to, balancing resources. This should, in turn, improve coordination of resources to meet system needs, reduce balancing costs through more efficient dispatch and increased competition, and enhance system security.

Energy UK does not support reforms requiring PNs to match traded positions or the introduction of unit-level bidding, as these would have material impacts on market participants while delivering limited overall system and consumer benefits. This concern also applies to the proposed alignment of market trading deadlines with Gate Closure. However, Energy UK considers that the alternative approach set out in Q15, coupled with shorter settlement periods, could deliver some system benefits by providing more accurate market signals.

Given the material impacts associated with this alternative approach and shorter settlement periods, it is essential that NESO's subsequent assessment through the CBA demonstrates a clear and robust case for their implementation, alongside a proportionate approach to delivery.

Please refer to our responses to the questions relating to each of NESO's proposals.

Q10. Distributional and competitive impacts: What distributional impacts would you expect across different participant types and technologies as a result of implementing the full balancing reform package defined in Section 3?

Please consider:

- ***Impacts on generators (by technology), suppliers, storage, aggregators, DSOs, interconnectors, and consumers.***
- ***How this change would affect your business operations (operational practices, trading strategies, and risk management).***
- ***Whether impacts are temporary (transition-related) or enduring for the market operation.***

- ***Where targeted transitional measures may be justified, and where they could create longer-term distortions.***

There is concern that the balancing reform package could reallocate costs from NESO to market participants without materially addressing the underlying problems, particularly if implemented in full. Energy UK considers that the uncertainty introduced by some of these changes could offset any benefits delivered as they would result in reduced liquidity and increased risk, costs and forecasting and compliance burdens for market participants, with impacts varying depending on which reforms are implemented and how they interact with wider system reforms and/or existing rules and requirements.

In particular, some of the proposed changes would require significant upgrades by market participants, with associated costs. It is unclear whether the costs would be passed through or ultimately born by the market participant. NESO, as well as other organisations, such as Elexon, would also have to make changes to their systems which would likely further increase costs for market participants and potentially consumers.

As a principle, Energy UK considers that risks should sit with the party best able to manage them. Careful consideration of the proposed reforms is therefore required, supported by robust, quantified evidence that clearly demonstrates the net value for consumers. This should ultimately inform decisions on which reforms to progress by identifying where genuine efficiency gains can be achieved.

Please refer to our responses to the questions relating to each of NESO's proposals.

Q11. On a scale of 1–5, how confident are you that the balancing reform package as described in Section 3 will materially improve operational efficiency and support NESO in managing the four challenges identified in Section 2.3?

2

Reform 1 Lower Mandatory Balancing Mechanism Threshold

Q12. Cost, benefits and implementation impacts: What implementation and ongoing costs should NESO consider associated with lowering the mandatory BM threshold reform, and what operational benefits or opportunities do you expect?

Please comment on:

- ***Implementation timelines and associated costs, including feasibility of phased rollout, retrospective application and target BM threshold.***

- ***Which asset types or business models face the most material implementation and operational cost impacts, and where the reform may generate net benefits across your portfolio.***
- ***How the reform would change your cost exposure when providing or using flexibility services***
- ***Interactions with DSO flexibility arrangements or flexible connection agreements that may increase or decrease costs or benefits.***

Energy UK supports lowering the BM participation threshold, as this would improve NESO's visibility of, and access to, smaller, embedded assets. This would enhance transparency and strengthen competition, putting downward pressure on BM prices by increasing the pool of resources available to NESO and reducing reliance on more costly turn-up or turn-down actions. It could also have a material impact on mitigating the levels of NIV-chasing, particularly by non-BMU units that can currently adjust their physical output in real time in response to system conditions without being subject to BM requirements.

Energy UK agrees with NESO's intention to adopt a phased approach to implementation. As highlighted in the recent LCP Delta analysis, prioritising incremental reductions in the threshold would be most appropriate, with their modelling indicating that bringing the first 50% of additional assets into the BM could deliver around 70-80% of the total expected benefits from this reform.[4]

Energy UK therefore supports the proposed approach of initially setting the mandatory threshold at a higher level, as this would strike a proportionate balance between capturing the majority of system benefits and avoiding unnecessary burdens on smaller assets that could otherwise be material to investment and operational decisions.

This would also enable the wider changes required to facilitate implementation of the reform. This includes updates to IT systems to reflect new threshold levels and increased data handling requirements, as well as changes to staffing and system capabilities to manage the larger volume of participants. Power Purchase Agreements (PPAs) and BM service agreements would also likely need to be amended to reflect the new requirements.

Energy UK agrees that the reform should apply retrospectively, subject to careful consideration of the minimum threshold and implementation approach to avoid undermining the commercial case for smaller assets, including those referred to in

[4] LCP Delta (2026), From Bottlenecks to Balance: Impact of Reformed National Pricing (RNP) Measures on GB Grid Constraint Costs

the Call for Input as pre-2019. This would help capture a greater proportion of embedded capacity and the associated benefits.

The cost-benefit analysis should therefore assess alternative implementation pathways, including sensitivities around potential threshold levels, to identify the approach that delivers these benefits most quickly and efficiently, without imposing disproportionate risk on smaller assets. This should include consideration of the appropriate balance between mandatory participation and enhanced visibility, taking into account capacity and technology type. The assessment should also be supported by greater clarity on how the ~33GW of distributed assets break down across threshold levels, as well as a clear assessment of participation barriers and associated costs, including the implications for licence-exempt generation.

The cost-benefit analysis should also be informed by international examples such as the experience of the Australian Energy Market Operator (NEMO). Their incentive mechanism for Voluntarily Scheduled Resources could provide real-world data on the balance between participation costs and system benefits.

In addition to the above considerations, the cost-benefit analysis should also incorporate the outcomes of NESO's recently commenced work on security of supply, within the counterfactual, which we understand is intended to provide more immediate visibility of non-BMU assets ahead of wider reforms, such as lowering the BM threshold, alongside improvements targeting supplier BMUs and interconnectors.

Finally, as highlighted in the Call for Input, there is a risk of overlap between NESO's balancing actions and those taken within DSO flexibility markets to resolve imbalances, potentially exacerbating constraint volumes and costs. It is therefore important to ensure that a robust coordination framework is established ahead of implementation, to avoid such inefficient outcomes.

NESO and DNOs should maintain a common and comprehensive register of all non-BM assets operating across GB, which should be updated iteratively as the reform is implemented in phases. This would help inform decisions on subsequent phases of implementation, as further reductions to the participation threshold may not be justified where only a limited volume of assets remains, and the benefits of integrating these into the BM are unlikely to outweigh the associated costs.

Q13. Proportionality and implementation: What barriers or challenges might smaller participants encounter with lowering the BM threshold? What steps could be taken to manage impacts, while ensuring the stated objectives of enhanced visibility and access are achieved?

Please comment on:

- ***Proportionality of compliance requirements.***

- ***The role of aggregators or alternative access routes.***
- ***Transitional arrangements/incentives to support parties in meeting BM obligations.***
- ***Any specific risks to competition or market access that we should consider.***

Energy UK has concerns that some smaller market participants may face increased costs and complexity in complying with the requirements for entry into the BM, such as registration, metering, and related obligations, which could in some cases be a significant barrier to participation. Lowering the BM threshold may also create operational challenges for NESO, as the resulting increase in the number of units in the BM would lead to higher volumes of bid-offer submissions and increased data flows, potentially exacerbating existing issues related to dispatch performance and skip rates.

As noted, it is therefore important to ensure a clearly defined scope and a proportionate approach to implementation, so that the associated costs do not ultimately outweigh the expected benefits of this reform. Between phases of implementation, NESO should undertake a review to identify and address any challenges encountered or barriers, both for NESO and asset owners, before progressing to subsequent phases.

Energy UK supports NESO reviewing, and where appropriate simplifying, BM access and registration requirements for smaller assets. However, it is important that competition within the BM remains on a level playing field. NESO should complete the migration of its BM registration process to the Single Markets Platform ahead of any implementation of this reform to ensure a smooth transition for impacted assets. Once complete, NESO and Elexon should establish an enduring process to enable market participants to register new assets and update existing ones, while ensuring clear and transparent visibility of asset data for industry.

It is also anticipated that aggregators could play an increasingly important role for smaller market participants, particularly where the complexity of participation increases as a result of the proposed changes, requiring reliance of third parties. NESO should consider this interaction carefully, as it could increase both costs and complexity for smaller market participants, particularly where these costs are passed through by aggregators.

Additionally, NESO should consider how any mandatory submission into the BM would be administered. Increased participation via the Supplier Volume Allocation (SVA) route can reasonably be expected, as participants seek to avoid the complexities associated with the connections process. The implications of this on

competition as well as costs for participants would need to be carefully considered as part of the cost-benefit analysis.

Q14. On a scale of 1–5, how confident are you that lowering the mandatory BM participation threshold will significantly improve visibility and access to balancing resources, while remaining proportionate in terms of costs and obligations?

5

Reform 2 Aligning Market Trading Deadline with Gate Closure

Q15. Risk allocation and market functioning: How would aligning the market trading deadline with gate closure reallocate forecast, imbalance, and operational risk between market participants and NESO?

Please consider:

- ***Impacts on trading liquidity and intraday risk management.***
- ***Current use of post-gate-closure trading.***
- ***Effects on different technologies and business models.***
- ***Whether the reform strengthens or weakens the clarity of balancing responsibility.***

Energy UK does not believe that NESO has justified or demonstrated the appropriateness of reversing P342 and therefore does not support this proposal.

Instead, Energy UK would support moving Gate Closure closer to delivery, as this would improve FPN accuracy by enabling market participants to adjust their positions using more accurate forecasts and operational information. This, in turn, would allow the wholesale and intraday markets to play a greater role in balancing, strengthening market-led self-balancing by providing participants with increased opportunities to correct positions through trading.

Energy UK has concerns that aligning market trading deadline with Gate Closure would significantly limit the ability of certain market participants to self-balance, effectively shifting forecast error risk from NESO to market participants. This is particularly the case for intermittent generators, such as wind and solar, as well as demand, which face a higher risk of forecast errors at Gate Closure compared to more controllable assets such as thermal generation and storage. Their ability to self-balance post-Gate Closure is therefore an important risk management tool, enabling them to mitigate uncertainty arising from weather variability, embedded generation behaviour and increasing price responsive demand. Removing this ability would, in turn, place greater imbalance risk on those assets, despite NESO being better placed

to manage residual forecast error, given its access to system-wide data, forecasting capabilities and operational role. The reform would also reduce strategic flexibility for storage assets, whose profitability often depends on very short-term price movements.

There is also a concern about the impact removing the post-Gate Closure trading window would have on intraday liquidity. Current windows enable participants to narrow position in the intraday market to perform residual balancing before NESO acts. Closing this window would remove the degree of corrective trading and price discovery, thereby reducing intraday market liquidity.

Energy UK considers that, taken together, these factors weaken the clarity of balancing responsibility, rather than strengthening it, and risk worsening the aggregate system imbalance position that NESO has to manage.

The implications of UK's integration into the EU market and the compatibility of this reform with EU intraday market design would also be an area to pay closer attention to. In that context, it is important to note that intraday trading has been increasing significantly across European markets. Given ongoing negotiations for the UK to re-join the IEM, it would appear counterintuitive to implement a reform that would move in the opposite direction. This risks undermining progress toward EU market integration and could reduce opportunities for intraday trading, weakening alignment with wider European market design.

Energy UK therefore considers that NESO should instead focus on reforms that support increased intraday liquidity, while more fully reflecting the relevant lessons and experiences from market design developments across European jurisdictions over the last decade and aligning with the requirements of the IEM. As noted above, Energy UK would support moving Gate Closure closer to delivery to better align with these requirements, while strengthening market-led self-balancing.

As previously noted, any decision to implement this reform should be preceded by careful consideration of its impacts, particularly across different types of assets. NESO should assess whether the original benefits of P342 remain relevant in the context of the current system, and whether these continue to outweigh the benefits NESO expects from reversing P342 to address the identified challenges.

This would also help determine whether some of these challenges could instead be more effectively mitigated by lowering the BM participation threshold, thereby avoiding the need to remove the post-Gate Closure trading window entirely while preserving the benefits delivered by P342. NESO should also assess the extent to which redispatch is driven by strategic behaviour, as opposed to genuine rebalancing in response to market uncertainty.

Ultimately, NESO's assessment should be supported by robust, quantified evidence demonstrating whether the potential system and consumer benefits of reversing P342 are likely to outweigh the adverse effects outlined in this response, and whether it would be effective in reducing overall balancing costs.

Q16. Implementation timelines, costs and transition considerations: What implementation and ongoing costs should NESO consider associated with aligning the market trading deadline with gate closure?

Please comment on:

- ***Implementation timelines and costs of adapting trading systems and internal processes to an earlier deadline.***
- ***Cross border or contractual factors that may increase cost or extend implementation timelines.***
- ***Any ongoing cost implications of the change.***

In terms of implementation timelines, Energy UK does not consider it realistic that the reversal of P342 could be implemented within similar timescale to its original introduction, as suggested in the Call for Input. The proposed change would likely require more extensive system modifications and would affect a significantly larger and more diverse set of market participants, including many smaller generators.

Energy UK considers that key implementation costs for market participants would be associated with upgrades to trading platforms and energy management systems, forecasting infrastructure, and compliance and settlement systems. For example, as participants would no longer be able to adjust their positions through trading post-Gate Closure, they would likely need to invest in enhanced forecasting tools to ensure more accurate positions ahead of Gate Closure. Similar upgrade requirements are expected across the other systems identified above, alongside the need to amend existing customer agreements.

Trading and contractual costs are also likely to increase as market participants would need to undertake extensive hedging and incorporate higher risk premiums into long-term contracts, driven by increased imbalance exposure. This effect is likely to be particularly pronounced for intermittent generation.

Aligning the market trading deadline with Gate Closure and thereby limiting the ability of market participants to self-balance post-Gate Closure, could lead to the development of new financial products settling against the single cashout price. This would allow trading to continue up to delivery without the need for notification to central systems. As a result, there is a risk that this change would introduce additional administrative complexity and implementation costs, without delivering any material operational benefit to NESO.

Cross-border trading risk is most likely to arise from coordination challenges, whereby interconnectors may receive contradictory incentives from EU and GB sides of their position if GB Gate Closure timings are misaligned. As noted in Q15, Energy UK considers that this risk can be best mitigated by ensuring close alignment and consistency of market rules across GB and EU markets.

Taken together, these impacts would fall disproportionately on smaller participants, who would face relatively higher costs from system upgrades, enhanced forecasting capabilities and more sophisticated risk management functions. These risks would increase barriers to entry, reduce competition and undermine the consumer value case for the reform.

Q17. On a scale of 1–5, how confident are you that aligning the market trading deadline with Gate Closure will improve clarity of balancing responsibility and reduce inefficient overlap between market trading and NESO balancing actions?

1

Reform 3 Physical Notifications Matching Traded Positions

Q18. Costs, benefits and implementation feasibility of FPN to match traded positions: What implementation and ongoing costs should NESO consider associated with implementing FPNs to match traded positions?

Please comment on:

- ***Implementation and ongoing costs, including system changes, forecasting processes, and compliance requirements.***
- ***Differences in cost and implementation timelines between portfolio level and unit level approaches.***
- ***How differing technologies within a portfolio may affect the complexity, cost, and practicality of implementing the reform.***

Energy UK does not support Physical Notifications matching traded positions.

Energy UK believes that the reform could misidentify the cause of the problem it is trying to find a solution for. The main issue seems to be NIV chasing, the behaviour driven by incentives created by the imbalance price design, rather than FPN inaccuracies in themselves. If PN matching is introduced without addressing these underlying incentives, there is a risk that market participants may instead take imbalanced positions earlier or seek alternative routes to find NIV exposure.

The reform does not adequately account for the fundamental reality that, for renewables in particular, the traded position does not carry a fixed volume at Gate Closure. Requiring traded positions to continuously align with FPNs would therefore

expose intermittent assets to unavoidable compliance and imbalance risk as forecasts evolve, despite no change in underlying behaviour. In practice, this could drive more conservative and costly trading strategies, increase operational risk, and raise risk premia, undermining the efficient management of forecast uncertainty rather than improving it.

Energy UK considers that requiring FPN matching under these circumstances would be both problematic and complex to implement and enforce, and is more likely to result in unintended consequences and inflexible implementation outcomes.

While Energy UK considers that FPN matching introduces complexity and risks under both portfolio and unit-level bidding arrangements, these are expected to be significantly amplified under unit-level bidding. In particular, unit-level matching would be unviable for participants with mixed portfolios, likely leading to reduced or incompatible portfolio optimisation and lower levels of flexibility.

Additionally, NESO has undertaken significant work in recent years to improve PN accuracy, particularly for wind. However, further clarity is needed to understand the impact of this work. The Call for Input also does not clearly specify whether this reform would apply to the trading of interconnector capacity, and it would be helpful if NESO could clarify this point.

Q19. Risks, tolerances and exemptions: What risks or unintended consequences could arise from the different scenarios proposed for FPN to match traded positions under portfolio bidding or unit bidding, and how should tolerances or exemptions be designed?

Please comment on:

- ***Technology-specific and contract structure differences.***
- ***Potential gaming or risk-shifting behaviours.***
- ***Governance and enforcement considerations during transition.***
- ***Whether obligations should differ between aggregated portfolios and disaggregated unit-level positions.***

Energy UK believes that some of the unintended consequences of this reform could be an increase in gaming and risk shifting, whereby participants may in fact respond by widening the Gate Closure position to provide headroom for PN adjustments, leading to larger imbalances. Liquidity could also be reduced if reduced matching lead to participants withholding capacity from intraday market to keep flexibility for PN adjustments.

Energy UK also considers that requiring FPNs to match traded positions would create a significant administrative burden for smaller market participants and adversely impact diversified portfolios, as participants would no longer be able to net or offset

positions across assets. In turn, this would likely lead to increased redispatch by NESO, as parties would have reduced ability to respond to changing prices and limited liquidity.

Specifically, under unit-level bidding, FPN matching could limit the volume that individual assets are willing to trade, as each unit would be required to submit bids and schedules individually, or at a minimum assess them on that basis. This would, in turn, require PNs and FPNs to closely reflect each unit's technical capabilities, effectively constraining trading volumes by asset-level limits and thereby reducing overall market liquidity.

Additionally, members note that the ability to plan an imbalance can be beneficial in situations where market liquidity is insufficient or where there are unplanned outages in the intraday continuous market. Such outages occur relatively frequently and, if the proposed change was implemented, could limit the ability of batteries to manage their State of Energy (SOE) when delivering ancillary services. This could ultimately result in batteries having to postpone dispatch, potentially leading to worse system outcomes. This could also create a systemic risk, as many batteries would face similar constraints simultaneously and lose the ability to effectively manage their SOE, potentially reducing the capacity available to NESO at times of system need.

Furthermore, the reform could risk undermining the commercial case for low-carbon technologies capable of providing dispatchable, enduring capacity to support GB's security of supply, as it would introduce further uncertainty for assets already subject to variability during ramping, commissioning, and abnormal operation.

As noted in Q18 above, there are circumstances in which flexibility is required to account for unavoidable forecast changes. It is therefore important to distinguish between such circumstances and any deliberate non-compliance or inadvertent breaches, which Energy UK expects would be highly complex if this reform were introduced, particularly for intermittent generation. While tolerances or exemptions may mitigate some impacts, they would be difficult to define consistently across technologies, contract structures, and portfolio types. This could, in itself, undermine the anticipated benefits of the reform by introducing opportunities for gaming and creating uneven obligations across market participants.

As previously noted, Requiring FPNs to match traded positions would also change bidding incentives in a way that would increase risk for CfD generators. NESO should consider this interaction, as well as the interaction with P462, in its overall assessment of the reform.

NESO should also consider the interaction of this reform with algorithmic traders, who are increasingly assetless. In particular, it is unclear whether the reform would

apply to such parties and, if so, how it would affect their ability to participate in the market, given the absence of underlying physical assets.

Q20. On a scale of 1–5, how confident are you that requiring FPN to match traded positions will improve forecasting accuracy, transparency, and NESO's operational confidence, without creating disproportionate implementation or compliance risks?

1

Reform 4 Unit Level Bidding

Q21. Value of unit-level granularity: What benefits and risks do you associate with introducing unit-level bidding and nominations in the wholesale market, including the potential requirement to submit these at Day-Ahead and Intra-Day stages?

Please address and specify when referring to Option 1 or Option 2:

- ***How this change could support alignment between physical notifications and final traded positions.***
- ***Impacts on visibility pre-gate closure, market monitoring, and deterrence of inefficient, strategic behaviours.***
- ***Potential effects on liquidity, price formation, and participant risk exposure.***
- ***Differences between physical (Option 1) and financial (Option 2) approaches, including operational complexity and portfolio aggregation challenge (e.g. breaking down aggregated positions into individual unit bids, managing compliance across diverse assets).***

Energy UK does not support unit-level bidding. Energy UK does not believe that a clear system or consumer benefit has been demonstrated to support the implementation of unit-level bidding. There are significant risks associated with moving away from portfolio-based bidding that must be considered.

Firstly, unit-level bidding would not address incentives that exacerbate constraints, given existing deterrents under REMIT and TCLC, and at the same time would impose significant monitoring and data burdens.

If the intention is improved monitoring, Ofgem already holds powers to request detailed information and unit-level bidding will only impose unnecessary cost, risk and system burdens. Ofgem has regulatory powers to address perverse behaviours, making the rationale for this reform unclear. NESO has asserted that the TCLC and available market measures are insufficient, however, there is no explanation of why NESO believes this to be the case. If regulation is

indeed insufficient, appropriate regulation should be considered before considering market reforms that would require significant upheaval, such as a move to unit-level bidding.

Removing portfolio-based bidding and moving to unit-level bidding would have material commercial consequences. Removing portfolio optimisation would impact the ability for parties to hedge and would significantly reduce market liquidity, and reduced liquidity would lead to higher final costs for consumers.

Unit-level bidding would increase costs and complexity for market participants due to additional administrative, operational, and IT burdens from the new substantial data and governance requirements. This is likely to disproportionately impact smaller players, which is contrary to NESO's assumption that moving to unit-level bidding would level the playing field.

Moreover, additional complexity from the removed ability to undertake efficient portfolio balancing could lead to less refinement of positions via the market, increasing complexity and error risk, shifting more imbalance to be addressed in the BM, creating additional costs for consumers and requiring additional and more regular intervention from NESO.

The proposal would create unintended consequences if combined with a requirement to match traded positions to FPNs. Where two assets under common ownership hold offsetting long and short positions, FPN to traded position compliance could require simultaneous buy and sell trades between those assets. This would risk resembling wash trading behaviour under REMIT.

Finally, a 'gross pool' of Day Ahead Market bids would run counter to Internal Energy Market rules and implementation could therefore put market coupling at risk.

Either iteration of unit-level bidding, alongside a lower BM minimum participation threshold is likely to increase market participants, either directly or via aggregators, many of which are likely to be variable renewable generators. This is likely to increase the importance of the intraday trading, as forecast uncertainty is resolved closer to real time and flexibility resources are limited. This trend is consistent with international experiences where intraday trading is more important and generally more liquid in countries with high renewable energy penetration, such as the Nordics.

Q22. Cost, proportionate granularity and implementation timelines: What implementation and ongoing costs should NESO consider associated with implementing unit level bidding? What level of unit granularity would be practical and proportionate to deliver meaningful system benefits?

Please address and specify when referring to Option 1 or Option 2:

- ***Implementation and ongoing costs, including IT, data, and compliance requirements associated with different unit-level approaches.***
- ***Practicality and proportionality of different levels of granularity (the extent to which positions are broken down purely to BMU level or aggregated by GSP group), and where the balance lies between system value and implementation burden.***
- ***Implementation timelines and key dependencies, including interactions with cross-border market coupling and the provision of ancillary services.***

Systems, hedging arrangements, and corporate and market structures and operations would need to change to accommodate unit-level bidding, with the scale of change difficult to quantify in the absence of further detail on the proposed reform options. This would likely require upgrades to trading platforms, operational systems, data management, compliance frameworks, and governance processes, necessitating substantial investment from both NESO and market participants. Ongoing costs are also expected to increase materially, driven by the need to manage significantly higher volumes of data, as well as more complex reconciliation, audit, and staffing requirements.

Against this backdrop of increased costs and complexity, Energy UK considers that the concerns NESO is seeking to address through unit-level bidding, and the associated benefits, have not been sufficiently defined or evidenced in the Call for Input. It remains unclear what tangible benefit this change would deliver in terms of reducing balancing costs. In light of the anticipated impacts outlined in Q21 and Q22, Energy UK is not convinced that proportionate system benefits would be realised.

Unit-level bidding would result in considerable changes for market participants as well as power exchanges. It would introduce additional complexities around the auction set up with more variables and therefore greater scope for issues. It is unclear how long implementation would take, but it is likely to be a lengthy and disruptive process and represents one of the most complex and high-risk reforms to be implemented.

While costs are expected to be materially higher under Option 1, due to the need to manage physical unit-level bids and nominations, Option 2 would still require complex data flows, controls, and compliance processes, which are also likely to result in increased costs.

As discussed previously, disaggregating positions to BMU level removes the efficiencies of portfolio netting and exposes forecast and operational risk at the level of individual assets, while delivering only limited incremental value to NESO compared to existing portfolio-level arrangements.

Q23. On a scale of 1–5, how confident are you that unit-level bidding (option 1 physical) will materially enhance transparency, scheduling, and market monitoring, relative to its complexity and transition costs?

1

Q24. On a scale of 1–5, how confident are you that unit-level bidding (option 2 financial) will materially enhance transparency, scheduling, and market monitoring, relative to its complexity and transition costs?

1

Reform 5 Shorter Settlement Period

Q25. Temporal efficiency and system outcomes: How effective would shorter SPs (e.g., 5 or 15 minutes) be in addressing temporal inefficiency, imbalance volatility, and the use of fast-acting flexibility?

Please consider:

- ***Whether settlement granularity should move in step with other market timelines (e.g. gate closure, trading deadlines)***
- ***Operational and commercial impacts on your organisation***
- ***Interactions with imbalance pricing and balancing actions***
- ***Which market participant cohorts would benefit most from shorter SPs, and how could this inform staged implementation?***

Energy UK believes that the most coherent and compelling reason for introducing 15-minute SPs is alignment with EU markets. We recognise that moving to 15-minute SP would improve demand and supply matching by providing more granular temporal price signals for market participants to respond to, and that in general it is conceptually positive.

However, this would only work effectively if accompanied by trading opportunities closer to delivery. In this context, the proposal to move the trading deadline back to Gate Closure would be counterproductive. The appropriate complement to shorter SPs would instead be to shorten Gate Closure to 15 or 30 minutes, which would enable submission of more accurate PNs, and imbalance to be managed and corrected through market trading closer to real time. This could, in turn, reduce residual imbalance and reliance on BM actions. The approach is also consistent with emerging European practice.

In that context, Energy UK is not convinced that maintaining Gate Closure at 30-minute intervals, as suggested in the Call for Input, would operate effectively, as it would artificially extend the balancing window and increase the risk of forecasting errors. As noted above, Energy UK believes that the appropriate complement to

potential shorter settlement periods would be to move Gate Closure closer to delivery.

Nevertheless, implementing shorter SPs would be a significant undertaking, would require a substantial cross-industry effort akin to the rollout of market-wide half-hourly settlements, and would need careful overarching governance. Energy UK does not believe that the case for implementing shorter settlement periods has been sufficiently evidenced and as it stands lacks robust analysis. Therefore, it is currently unclear whether moving to shorter SPs would address the challenges listed in the question.

As recognised in the Call for Input, Energy UK also believes that implementation could be disruptive and lengthy. Should a clear case for shorter SPs be established, a proportionate phased approach would therefore be necessary to address likely challenges and barriers faced by both NESO and market participants, ensuring a smooth transition. In this context, NESO's proposed approach of implementing changes in the wholesale market ahead of retail appears pragmatic.

Retail implementation challenges are likely to include metering, systems, data and wider programme interactions. Implementing shorter settlement periods is likely to require change to most, if not all, of the installed meter fleet.

Therefore, any change should be subject to a high evidence threshold demonstrating clear system and consumer net benefits, and that shorter SPs would be an appropriate solution to problems identified by NESO and considered in the broader context of alignment with the EU.

A clear CBA is needed and should consider:

- Alignment with and impact on retail market and suppliers, interactions with the smart meter rollout.
- Shorter settlement periods would require extensive and widespread update of existing systems, from Line Loss Factors, GSP Correction Factors, and Transmission Loss Multipliers in addition to metering and data infrastructure, NESO and trading systems, supplier billing, etc.
- Whether there is sufficient liquidity in intraday markets for potential benefits to materialise.
- Impacts on imbalance cost and risk for participants, especially on intermittent generators, any sites involving customer load, and any hybrid battery storage systems.

In the context of closer alignment with the EU and re-entry into the IEM, Energy UK supports further exploration of 15-mins SPs. However, given the scale of disruption and associated cost, Energy UK does not currently see the case for moving to 5-min

SPs and would not support implementation at this stage. Energy UK reiterates that further analysis is required to assess the case for such a reform, including the relative merits of alternative settlement durations (e.g. 15- or 5-minute).

Priorities should remain on:

1) the rollout and delivery of Market Wide Half Hourly Settlements, which is a key enabler of consumer-led flexibility
2) alignment with EU markets to support market reintegration
3) a robust and transparent Cost Benefit Analysis to assess the implication of 15- and 5-minute SPs

Should implementation of shorter SPs go ahead, Energy UK would recommend exploring the creation of a SMETS3 standard that includes the option for 5-minute SPs. While would disagree with the implementation of 5-minute SPs due to the reasons listed above, this would ensure that any meters being replaced could be ready for shorter SPs if the changes were to go ahead.

The decision to implement shorter SPs would also need to be subject to consultation from Government as it is a metering issue that goes beyond the scope of Reformed National Pricing. We note that Ofgem and code bodies would be delivering the changes.

Q26. Cost, deliverability and implementation timelines for shorter SPs; What are the principal implementation and ongoing cost drivers in delivering shorter settlement periods (5 or 15 minutes), and how can these be mitigated to ensure a smooth transition?

Please comment on, identifying any differences between 5 and 15 minutes:

- ***Implementation and ongoing cost drivers, including system upgrades, metering changes, data and forecasting requirements, and impacts on internal operational processes.***
- ***Practical and logistical challenges of metering upgrades or installations, and supplier system readiness.***
- ***Implementation timelines and feasibility of phased vs. single step migration, including key dependencies (e.g. digitalisation progress, readiness of trading and settlement systems, metering upgrades).***
- ***Transitional arrangements—such as shadow settlement or staged go live—that could support a stable migration.***

There would be significant system change costs. Shorter SPs can be deliverable, but only with careful sequencing, proportionate ambition, and appropriate transitional arrangements. NESO would need to evaluate the benefit the shorter-settlement

period has on re-entering the IEM with Europe, the benefits of signals for flexible generation, and improved balancing.

Cost drivers associated with shorter SPs stem from increased system complexity, higher data volumes, and more demanding forecasting and operational requirements. This would require upgrades to trading, scheduling, and settlement systems to manage greater data granularity, alongside changes to forecasting and risk management processes, and enhanced operational controls closer to real time.

Moving to a 5-minute timeframe would likely require the development of new, GB-specific systems given the absence of comparable arrangements in Europe, whereas adopting 15-minute intervals would align with existing IEM frameworks and therefore involve significantly lower implementation complexity for market participants.

Q27. On a scale of 1–5, how confident are you that shorter SPs (e.g. 5 or 15 minutes) will materially improve temporal efficiency and use of fast-acting flexibility, given current and planned system, data, and metering capabilities?

4

Reform Package Cost–Benefit Analysis and Evaluation Framework

Q28. To what extent do you agree with the proposed CBA methodology and evaluation framework, and are there additional factors NESO should consider?

Please focus your response on:

- ***Whether you agree with the overall CBA approach and methodology, and whether any important factors are missing.***
- ***Expected operational or market behaviour impacts (e.g. forecasting, trading strategies, operational planning) that should be reflected in the CBA.***
- ***Key risks or uncertainties (e.g., liquidity impacts, forecasting uncertainty, operational risks) that should be captured in sensitivity analysis.***
- ***How your organisation typically estimates implementation costs (e.g. CAPEX vs OPEX, system upgrade cycles), and any practical challenges in providing robust cost estimates for the balancing reform package.***
- ***Any distributional or competition impacts that should be included to distinguish system wide benefits from simple cost transfers.***
- ***Which post implementation metrics or indicators would be most meaningful to assess success.***

Energy UK broadly supports the overall CBA approach as set out in the Call for Input, noting that the level of detail provided at this stage is necessarily high-level and will require further development.

A key principle should be that the process is highly transparent and that industry is fully involved throughout. This should include clear visibility of who undertakes the analysis, the modelling framework, governance process, as well as key assumptions underpinning the analysis, including counterfactuals, scenarios and sensitivities. This should be delivered through a robust and iterative consultation process with industry, ensuring that stakeholders are able to meaningfully input into and challenge the analysis, thereby supporting the credibility of the outcomes.

In addition, the cost-benefit analysis should adopt a whole-system approach, considering the interactions, interdependencies and sequencing of individual reforms, as well as combinations of these reforms implemented together. This should also consider how these interact with wider ongoing reforms, including network delivery, strategic plans such as SSEP and CSNP, the wider RNP package, P462, strategic demand connections and NESO's work on security of supply, amongst other. This would help identify the most appropriate implementation pathways, while providing a clear view of the cumulative effects of the expected changes. Given the dynamic nature of the system, it is also important to ensure that the cost-benefit analysis is adaptive, with changes in underlying assumptions captured as the market evolves over the course of the analysis. Finally, it is important to ensure that the analysis is grounded in robust evidence and appropriately modelled.

Regarding sequencing, as previously noted, the Call for Input currently considers the proposed reforms as a single package. However, these measures may interact in different ways, including potentially offsetting one another. The analysis should therefore assess different combinations of reforms to understand their collective impact, with those delivering the highest expected benefits prioritised for implementation. This would require the counterfactual to be updated iteratively to capture these interactions effectively. In turn, this would support the development of a package that delivers best value for consumers, avoiding unnecessary costs where comparable outcomes could be achieved through a more targeted subset of measures.

Lessons from previous CBAs should also be incorporated into the analysis. For example, the outcomes of the CBA on code modification P462 were not sufficiently definitive to support clear decision-making, which meant additional work was required and ultimately led to delays in progressing and implementing the changes.

It would be helpful that any potential changes to rules could be used to target behaviour ahead of or instead of any proposed reforms.

Reform Package Implementation Roadmap

Q29. To what extent do you agree with the proposed approach to developing the implementation roadmap, and what practical considerations should NESO take into account?

In your response, please comment on:

- ***Whether you agree with the overall approach to sequencing and phasing reforms, and whether any important elements are missing.***
- ***Practical insights on implementation timelines and organisational readiness, including internal lead times, required system changes, and interactions with other industry programmes.***
- ***Key dependencies and risks NESO should account for (e.g. digitalisation constraints, system readiness, regulatory interactions, potential bottlenecks across the current market change pipeline).***
- ***Transitional arrangements that may ease implementation, such as phased migration, shadow operation, or alternative access routes for smaller participants.***
- ***Any evidence or experience (e.g. data availability, expected operational impacts, lessons from previous programmes) that would materially improve the practicality or proportionality of the roadmap.***

Energy UK supports the approach to developing the implementation roadmap and reiterates the importance of ensuring a high level of transparency and industry involvement. We also agree on the importance of close coordination between NESO, Ofgem and DESNZ as key delivery partners, and consider that this should also include Elexon.

A staged approach would allow reforms that are ready for implementation to be brought forward, enabling their benefits to be realised sooner. However, it is important that the roadmap considers the relative timing of selected reforms alongside the delivery timelines of other ongoing reforms, to ensure industry can manage the pace of change and that interactions between reforms are fully understood.

Dispatch Reform

Q30. Objectives and Design Principles: What should be the primary objectives and guiding principles for investigating any future dispatch reform in the GB electricity market?

Please address:

- ***How dispatch reform could improve system efficiency, transparency, and cost effectiveness.***

- ***The role of market signals versus centralised instructions in achieving these objectives.***
- ***Key considerations for maintaining competition and liquidity under new dispatch arrangements.***

Energy UK does not support more centralised dispatch, and its consideration should be ruled out immediately, in line with the DESNZ minded-to position in 2024 to not take forward this reform. NESO's Call for Input does not indicate whether there have been any substantive changes that would support revisiting DESNZ's earlier decision not to depart from self-dispatch.

Dispatch arrangements are a fundamental part of the commercial framework which underpins investment decisions. Changing dispatch arrangements would put existing and future investment at risk, at a critical time in the transition to a clean power system. Capital has a choice of location. The UK is competing internationally for capital to deliver the energy transition. Fundamental market reform such as changing dispatch arrangements will impact investor confidence in the GB energy market, increasing risk and the cost of capital. Increasing the cost of capital increases the cost of the transition for consumers.

Indeed, REMA assessed wider impacts of dispatch reform and concluded that moving to centralised dispatch would not be appropriate due to concerns over deliverability, investor confidence, and value for money. It also found that a move away from self-dispatch would create major complications for cross-border trading, given our obligations under the UK-EU Trade and Cooperation Agreement and notwithstanding impacts to future alignment with EU markets.

Energy UK is supportive of the Government's rationale that introducing radical change to market arrangements is incompatible with the need to rapidly secure significant levels of capital required for the transition to a clean power system. There are also concerns with NESO reopening a decision that has already been taken by Government, which undermines the stability of the UK's policy framework.

Energy UK believes that the self-dispatch framework continues to offer the most efficient allocation of risk between NESO and market participants, supporting lowest cost outcomes for consumers. While incremental improvements are needed, these should build on, rather than replace, the strengths of the current framework. In doing so, such improvements should focus on maximising the efficient use of flexibility while maintaining transparency, predictability, and investor confidence, ultimately reducing redispatch actions and associated costs.

Moving to central dispatch would limit the ability for the market to optimise its own position and would introduce increased volume risk from NESO's scheduling and dispatch software. An effective central dispatch system relies on a single algorithm's

efficiency, quality of inputs, flexibility for real-time adjustments, and its ability to adapt to rapidly changing resource environment. Our members have serious concerns about the efficiency outcomes of a single algorithm in a system that is much more dynamic and diverse than the past fossil-fuel based electricity grid.

In addition, Energy UK has significant concerns with the hybrid dispatch model, as currently framed by NESO. If implemented through administrative restrictions on dispatch and trading, hybrid dispatch represents a weak compromise that risks creating unclear allocation of balancing responsibility, with participants retaining commercial exposure while losing full control over dispatch, and NESO assuming partial control without bearing full market risk. In doing so, it removes key efficiencies of self-dispatch without delivering the full benefits it associates with central dispatch. The introduction of market restrictions would also increase volume risk, disrupt intraday trading and liquidity, and have knock-on impacts on price discovery and the utilisation of flexibility, including interactions with pay-as-produced CfDs and economic curtailment.

That said, to the extent NESO is seeking to act earlier to manage predictable constraints, Energy UK considers that these benefits would be better pursued through marked-based forward tools within the existing self-dispatch framework, such as forward constraint management markets and other pre-Gate Closure actions, rather than through broader changes to dispatch arrangements.

More broadly, hybrid dispatch risks adding significant complexity without clear evidence of benefit, particularly given limited indication that real-time dispatch materially deviates from merit order outcomes once network constraints are considered, aside from marginal effects.

Centralised dispatch would limit the optimisation of storage and demand side response (DSR), both of which will be crucial in a highly decentralised and decarbonised system. These risks will also have to be factored into the cost of capital, as investors may require a higher return to compensate for the increased uncertainty and potential inefficiencies associated with central dispatch.

Central dispatch will not remove the need for the NESO to significantly improve its technical capabilities. Moreover, in a decarbonised system, with increasing electrification of demand, the resource base will require more real-time adjustments to ensure balancing and system stability.

Energy UK also does not consider there to be clear evidence that central dispatch combined with unit-level bidding has effectively reduced congestion costs. In jurisdictions such as Italy and Ireland, where these arrangements are in place, electricity prices remain relatively high by international standards, alongside persistent redispatch volumes and limited market liquidity.

Self-dispatch allows participants to trade bilaterally with each other at their own risk. For many years in the UK, this counterparty risk has been covered through instruments such as Parent Company Guarantees (PCGs) that avoid the need to post collateral. A move to central dispatch that clears at the Day-Ahead (DA) stage forces all forwards markets into becoming financial markets, indexed to the DA market. However, financial markets (whilst being more liquid), are primarily enacted through exchanges where collateral is required. With the size of the GB market, there is a risk that a move to financial forward trading could lead to an increase in collateral requirements. This could adversely impact broader investment in power generation and network infrastructure, as well community energy projects and the Government's local power plan.

While Energy UK does not support central dispatch and changes to dispatch arrangements, we note that two of Energy UK's members recognise the potential operational benefits of hybrid dispatch which would enable NESO to call on assets ahead of real time. However, Energy UK maintains that these benefits could be more effectively delivered within the existing self-dispatch framework through the use of forward contracting and other tools to manage redispatch. This approach avoids participants losing control of their assets or being subject to strict centralised restrictions on dispatch and trading, which would introduce significant complexity, uncertainty, and risk.

NESO already has the ability to pre-contract ahead of Gate Closure, for example through Schedule 7A trades, it is unclear why these tools cannot be used more effectively or expanded, including through the constraint management markets proposed under the Constraints Collaboration Programme. Before seeking wholesale changes to dispatch, NESO should explain why its current toolkit is insufficient and why these existing options cannot be developed or scaled.

If NESO concerns relate to battery "flip-flopping", more proportionate and targeted solutions would be more appropriate than imposing universal, high-burden requirements on all participants.

Any assessment of dispatch reform needs to take the above into account, and the fact that there is an inherent trade-off between fundamental change to market arrangements and securing the necessary investment required to decarbonise the power sector at the lowest available cost.

Q31. Market and Operational Impacts: What impacts – positive or negative – could dispatch reform have on market participants and system operation?

Please comment on:

- ***Dynamics and interactions between market participants and system operation, as illustrated in the diagrams.***

- ***Effects on trading strategies, risk management, and portfolio optimisation.***
- ***Implications for different participant types (generators, suppliers, aggregators, storage, DSOs, interconnectors).***
- ***Potential interactions with other reforms (e.g., unit bidding, shorter SPs).***
- ***Implementation and ongoing cost implications, including system upgrades, process changes, and operational readiness for participants.***

As noted above, a shift to more centralised dispatch would represent a material change and would be detrimental to intraday liquidity, business models and investment in GB. It would also require significant upgrades to existing IT systems, or the development of new systems to support a revised market design, with consequential impacts on ancillary services, trading processes and policies, as well as the potential need to reopen customer contracts.

Energy UK reiterates that enhanced market-based dispatch under the self-dispatch framework, with NESO taking actions earlier ahead of real time, could deliver the desired outcomes more effectively while minimising disruption to the market, which would be substantial under a move to centralised dispatch.

Q32. Implementation Pathways and Risks What implementation pathways and risk mitigations should NESO consider for dispatch reform?

Please address:

- ***Feasibility of phased or incremental approaches.***
- ***Data, system, and governance requirements.***
- ***Transitional arrangements to minimize disruption and ensure proportionality.***
- ***Potential implementation timelines and associated costs, including required system changes and operational readiness.***

Energy UK does not consider that NESO has provided sufficient evidence to justify moving away from the current self-dispatch framework and therefore does not support pursuing such a reform.

Q33. On a scale of 1–5, do you agree that further dispatch reform on top of the proposed balancing reforms will be needed to meet the future operability and redispatch cost challenges described in Section 2.3 and Section 5?

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