Electricity Markets Roadmap

March 2026

NESO
National Energy System Operator

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NESO’S 2026 Electricity Markets Roadmap

Foreword

Welcome to 2026's Electricity Market Roadmap, in which we share with you our plans for those markets NESO owns and operates.

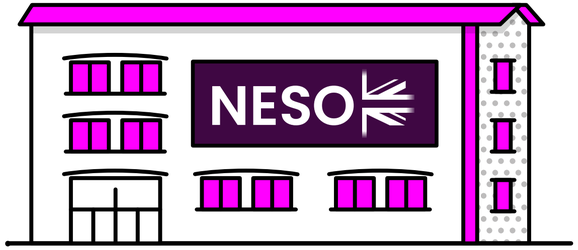
It has been a busy first 18 months since becoming NESO; from our Clean Power 2030 advice being accepted by government, progressing with Connections Reform to ensure the assets needed to support Clean Power 2030 are developed, and supporting the publication of the Clean Flexibility Roadmap.

The Electricity Markets Roadmap continues to play an important role as our primary means to share with you our strategic direction as well as shorter and longer-term plans and activities all in one place. It explains the reasons behind proposed market reform which relate back to the energy trilemma, now enshrined in our NESO statutory duties. We are publishing again this year alongside our Operability Strategy Report (OSR) and have shown throughout this document how we are designing our markets in response to the system challenges identified in the OSR.

Looking forward, the decision to pursue Reform National Pricing has important implications for NESO's role and the scale of balancing activity we undertake. As the market evolves, our focus is on ensuring that NESO's markets continue to support an efficient, transparent and future ready system design.

We know that getting our market design right is vital for the Clean Power 2030 ambition and for ensuring that we have the capabilities needed for secure, low-cost and low-carbon system operation. We therefore welcome you to read this year's Electricity Markets Roadmap where we present the strategic direction of our markets as well as transparency about where things might change.

Rebecca Beresford
Director of Markets



Executive Summary

In last year's roadmap, we outlined our focus on the latest government ambition to achieve a clean power system by 2030. This year, with the continued drive towards Great Britain's (GB) clean power ambitions, the Clean Flexibility Roadmap and the Reformed National Pricing (RNP) objectives, we demonstrate here how we are collaborating with government through the reform of our markets. We recognise that the reform of our balancing services markets are central to support these initiatives, whilst ensuring we have the capabilities needed for secure, low-cost and low-carbon system operation.

Demand-Side Flexibility underpins Clean Power 2030

Demand-side flexibility underpins our Clean Power 2030 advice. Through our Enabling Demand-Side Flexibility (EDSF) programme, which includes the Routes to Market (RtM) review, we are facilitating greater levels of demand-side flexibility in our markets.

In this year's Electricity Markets Roadmap, we also provide an update on Power Responsive, our programme designed to boost participation by flexibility service providers in our markets. Meeting the Government's 2030 clean power ambition requires 10 – 12 GWs of active demand-side flexibility capacity. We anticipate that the majority of this flexibility will come from the wholesale market and recognise that NESO plays a role in enabling greater levels of demand-side flexibility. In 2025, we set a target for 750 MW of additional flexible capacity in NESO markets by 2030 for industrial and commercial flexibility. Our Power Responsive team is working hard to realise this ambition over 2026 and the coming years.

RNP: Enabling System Reform for a Clean Power Future

NESO, as delivery partners with DESNZ have launched a Call for Input outlining the proposed balancing reforms and introduces our further work on dispatch reform options. This work sits under the Operational Efficiency work-stream.

In parallel, we continue to implement broader incremental reforms to the Balancing Mechanism, such as those through Open Balancing Platform (OBP), and we will ensure that further developments to our markets are coherent with the longer-term direction of travel set out by RNP.

2025 cost trends

In 2025, total balancing costs rose from £2.5 bn to £2.99 bn, with around 60% driven by thermal constraints. Despite this, the average cost of thermal constraint actions has continued to fall — from £167/MWh in 2023, to £129/MWh in 2024, and £127/MWh in 2025 — reflecting improved cost efficiency in NESO's actions.

Working closely with Transmission Owners, NESO is minimising costs through world-leading innovation in system operation, which has saved consumers £1.22 bn between 2023-2025. These initiatives include optimising the times when existing assets of electricity network go offline to be fixed or upgraded, introducing automation to reduce the need to turn down electricity production and using cutting edge software to deploy smaller assets like batteries in bulk to balance the electricity system quickly and cheaply.

The story of 2025

April 2025
Operating a zero-carbon electricity system

July 2025
Review of Electricity Market Arrangements (REMA).

December 2025
Market Facilitator

We also successfully delivered improvements across our balancing services markets. These are summarised below but are covered in more detail in their respective chapters:

- **Balancing Mechanism (BM) Improvements:** Enhancements include the Open Balancing Platform, introduction of new dynamic parameters for battery units (GC0116) and progress to reduce entry barriers (GC0117).
- **Demand Flexibility Service (DFS) evolution:** Transitioned to a merit-based margin tool, key catalyst for demand-side flexibility growth and delivering £750k in savings.
- **Response Services:** Improved monitoring, reporting and penalty processes led to better delivery performance.
- **Quick Reserve (QR) Phase 2:** Launched in September 2025, allowing non-BM units to participate via the Open Balancing Platform.
- **Balancing Reserve (BR) Reforms:** Ofgem approved reforms, including moving the time of the BR auction to allow co-optimisation with QR and Dynamic Response services.
- **Slow Reserve:** This new reserve service went live on 31 March 2026, with the planned cessation of legacy service Short-Term Operating Reserve (STOR) on the 01 April 2026.
- **Stability Pathfinder 2:** Five sites began operation, contributing significant inertia and short circuit levels, including GB's first grid forming battery at Blackhillock.
- **Long-Term Tender 2029:** NESO launched the first bundled tender for stability, reactive power, and restoration services.
- **Mid-Term Reactive Power Market:** NESO recommended implementing this market to secure additional MVAr capability cost-effectively.
- **Constraints Collaboration Project (CCP):** We continued to develop our Demand for Constraints service in collaboration with stakeholders, progressed the Boundary Flow Smoothing Innovation Project, and extended Constraints Management Intertrip Scheme.
- **Local Constraint Market:** Revised pricing strategy and increased participation led to a five-fold increase in tendered volumes. We also extended the service to January 2027.

Introduction

Structure of this year's roadmap

Markets in the electricity system exist to match supply and demand, promote competition, lower consumer costs, encourage investment and innovation, and support decarbonisation. From wholesale markets to DSO flexibility markets, each plays a distinct role. NESO's markets focus on operating the electricity system efficiently, keeping costs down, and enabling the transition to Net Zero.

As the independent system operator, NESO designs, operates, advises on and continually improves balancing service markets to ensure they are fair, efficient and whole-system, helping accelerate progress towards Net Zero. More detail is available in our recently published NESO Business Plan 1.

1

In this report, we outline how each market area is evolving, recent trends in volumes and costs, and key reforms underway. Monthly Delivery Plans for each market area are available on the Electricity Markets Roadmap webpage.

2

This year, we have added a new chapter on Demand-Side Flexibility. This is to underpin the importance of ensuring that all demand-side flexibility service providers are able to easily participate in our markets. This includes highlighting our progress towards enabling 750 MW of additional industrial and commercial flexibility by 2030.

3

While this document focuses on markets, other critical initiatives—such as our new Strategic Planning function and ongoing Code Modifications—are also shaping GB's energy transition. These efforts work together to improve market efficiency and support long term system needs.

1 neso.energy/what-we-do/strategic-planning
2 elexon.co.uk/bsc/mod-proposal/p412/
3 elexon.co.uk/bsc/mod-proposal/p502/
4 elexon.co.uk/bsc/change/modifications/

Objectives and scope

The Electricity Markets Roadmap remains focussed on the electricity markets, which NESO is responsible for and operates. As outlined in the Operability Strategy Report (OSR), we support cross-sector collaboration and advocate whole system solutions, which is imperative to achieve our overarching decarbonisation goals.

This publication serves as a one-stop resource to:

1

Summarise all NESO market reform activities and broader market change areas and outline why they are needed. This is to give our stakeholders an understanding of current market opportunities and to provide confidence that we are making the right market reform decisions.

2

Set out strategic direction for NESO markets in response to the changing energy landscapes and evolving operability needs. In the report, we will focus on NESO market's long-term goals, such as supporting government to enable its clean power action plan, as well as our short-term to medium-term goals.

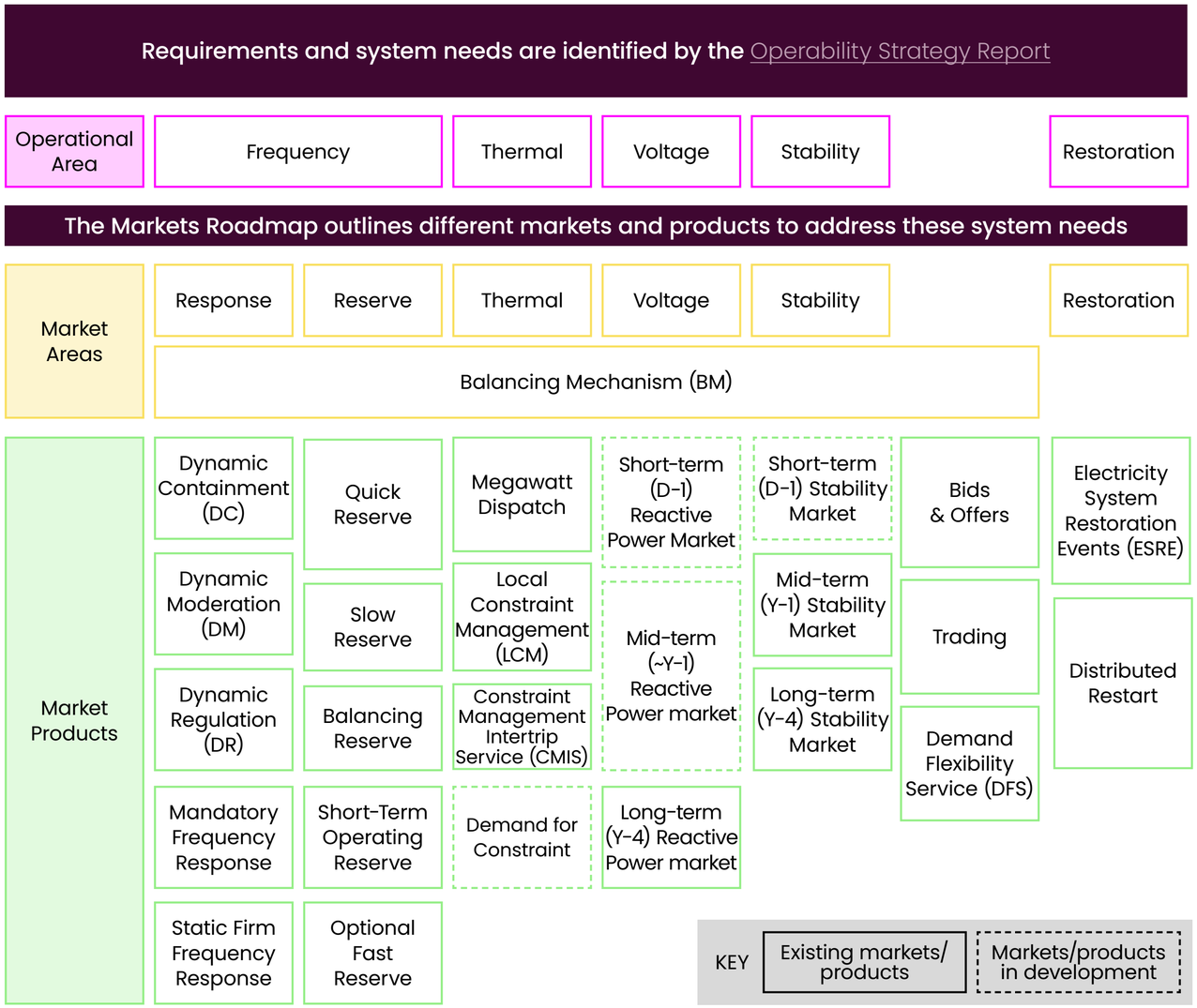
3

Showcase how we will continue to assess, and reform if needed, our balancing services markets to ensure the delivery of an efficient, secure, affordable clean power system. Our Market Design Framework (MDF) is central to this, and more information can be found below.

4

Provide a full picture of activities which are ongoing within NESO markets, with guidance on where to find more information.

Current Market Areas

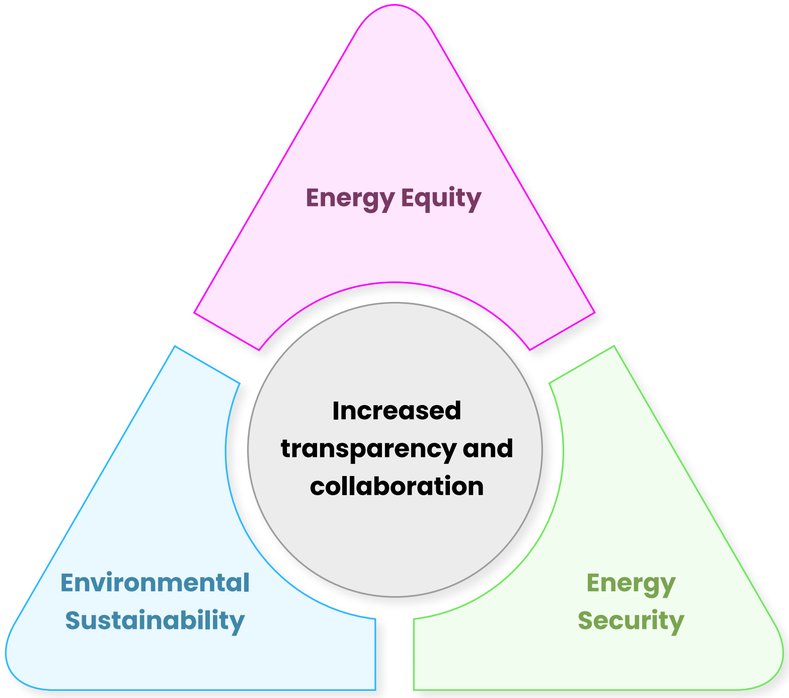


Drivers for Reform

NESO's balancing services markets are all driven by the trilemma. However, how this materialises differs across markets.

Click on each of the parts of the trilemma to see the impacts on each of the service areas and the commonality between changes we're introducing across our workstreams.

This show the coherency across all our market reforms and how they are working towards the same goals.



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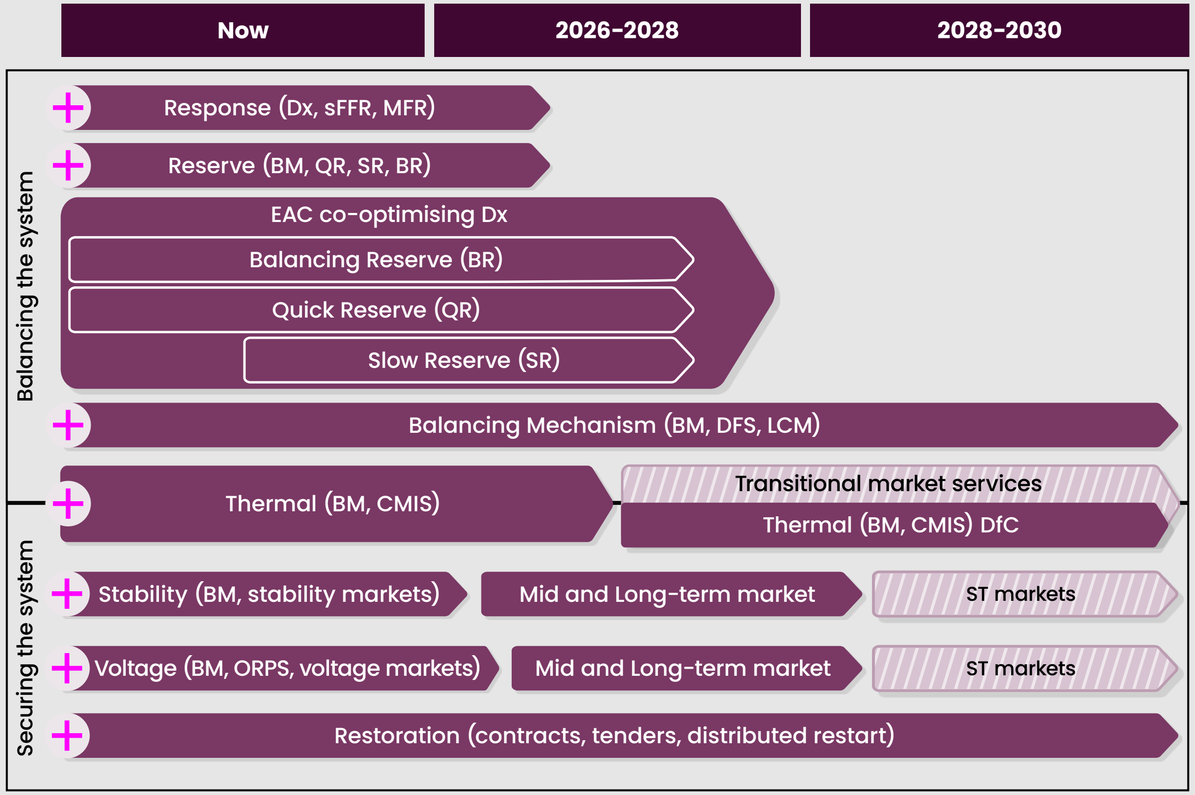
Energy Equity

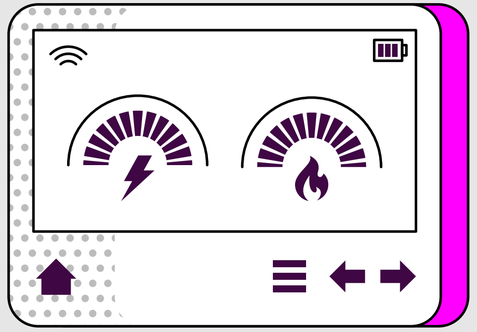
Optimising balancing costs, opening new opportunities and removing barriers for all market participants, whilst reducing costs for our consumers

	Impacts of driver (i.e., how does the driver necessitate the need to reform our balancing services markets)	**Key NESO reform areas** (see each chapter for more information on these reforms)					
		Improve participation, competition and dispatch	Replace/ reform/ launch services	Introduce/ improve locational procurement signals	New/ improved procurement timeframes to enhance participation	Exploring stacking opportunities to allow for more effective use of assets	Exploring new market mechanisms
Reserve	Existing, historical services are less cost effective then newer opportunities	Y	Y	Y		Y	Y
Response	New services have room for efficiency improvement and still using some older, more expensive services	Y	Y	Y	Y	Y	Y
Stability	Reliance on BM can be high cost, high carbon and limit competition	Y	Y		Y		Y
Voltage		Y	Y	Y	Y		Y
Thermal	Currently limited options for enabling the effective use of constrained renewable energy	Y	Y	Y	Y		Y
BM	Balancing costs, as a whole, are increasing. This drives reforms into more efficient modes of operation	Y	Y	Y	Y		Y
Restoration	Limited market liquidity may lead to costs which aren't commercially viable for the end consumer whilst providing less opportunities across provider	Y	Y	Y	Y		Y

Forward-looking view of our markets

Decarbonised system operation with markets which enable efficient dispatch, efficient investment and value for money





Key: Existing services | Planned services | Key questions for the future of NESO markets

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Collaborating with our stakeholders

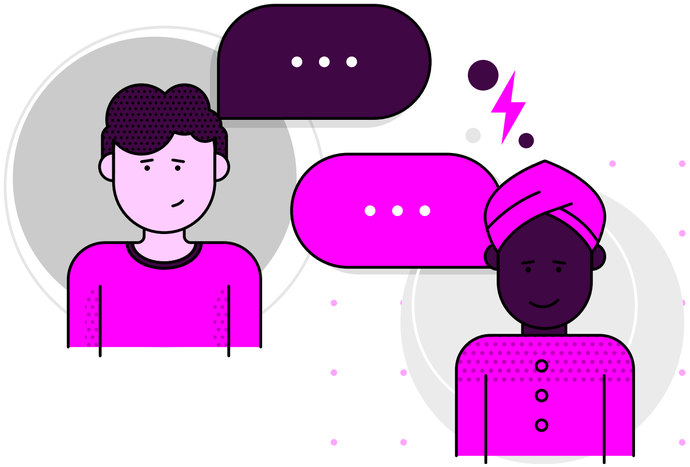
Talking to our stakeholders to understand their perspectives and needs is a crucial part of developing well-designed, cost-effective NESO markets.
We engage extensively with industry via multiple channels, including webinars, roadshows, the Operational Transparency Forum, and through designated engagement workstreams such as the Constraints Collaboration Project (CCP). More specifically, we engage with stakeholders when developing new markets and reforming existing markets in smaller, more focussed forums.

Our stakeholders can also join our Markets Forums to share their views on current industry priorities and collaborate on ways to tackle these challenges.

Power Responsive is a stakeholder-led programme, facilitated by NESO, that works with industry to unlock demand-side flexibility through an agile, collaborative approach.

To get in touch with our team, please contact: box.market.dev@neso.energy. Beyond these engagement channels, which are used primarily for the design of NESO markets, NESO continues broader engagement with the Government, Ofgem and industry on wider market reforms.

In addition, we have established the Electricity Markets Advisory Council (EMAC) with rotating membership across industry leading experts. The EMAC acts as an independent body, comprising members with a wide range of expertise who collectively represent the views and interests across the electricity industry, with a deliberate focus on electricity markets.



02

Balancing the System

Demand-Side Flexibility

Decarbonisation is transforming the power system by electrifying demand which in turn can enable households and businesses to actively manage their electricity use—whether by generating, storing and consuming energy at home, or shifting demand in response to system conditions and price signals. This places consumers at the centre of a clean, affordable and secure power system, turning them from passive users into essential participants in a demand-led, flexible energy future.

NESO define demand-side flexibility (DSF) as the ability for consumers across all sectors to adjust, shift, or store electricity at both transmission and distribution levels. It includes behavioural or automated load shifting, as well as on site generation and storage. Government typically refers to this as ‘consumer led flexibility’.

For more details from an operability perspective, please see chapter 3 in our Operability Strategy Report.

What happened in 2025?

The Government published the Clean Power 2030 Action Plan which outlined 10-12 GW of demand-side flexibility needed by 2030 (excluding storage heaters) to support clean power. This represents a four-to-five-fold increase in demand-side flexibility from today's levels. Most of this new flexibility is expected to come from implicit consumer actions by the late 2020s. This will be driven by the uptake of electric vehicles (with smart and bidirectional charging), electric heating systems such as heat pumps, and increased digitalisation across society and the energy sector.

Wholesale and network price signals are essential for growing demand-side flexibility. Smart and advanced metering, alongside universal half hourly settlement, will enable consumers to access these signals and benefit from flexibility. Time of use tariffs remain the primary route for rewarding flexible behaviour, with Virtual Trading Party (VTP) participation emerging as an additional mechanism.

How is the landscape changing?

Growing demand side flexibility is becoming a key resource for NESO and DNOs to balance the system and manage networks efficiently. Over 590 MW is already active across NESO's markets, mainly through Demand Flexibility Service (DFS) and the Local Constraint Market, with increasing participation in the Balancing Mechanism and balancing services.

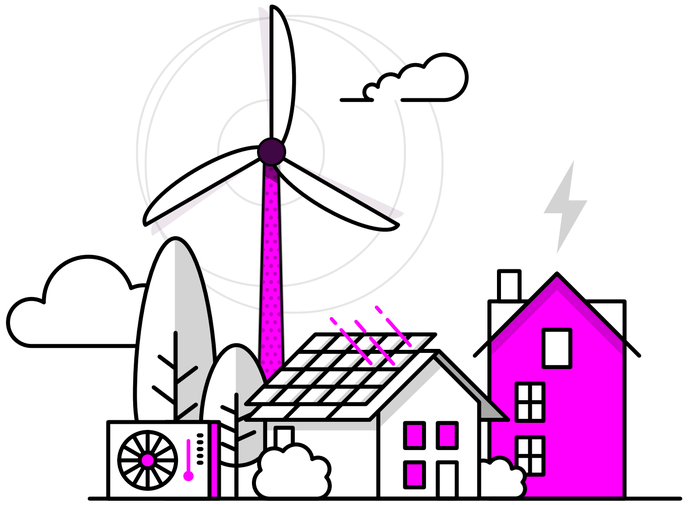
NESO aims to add a further 750 MW of industrial and commercial flexibility as part of our commitments under the Clean Flexibility Roadmap.

Market reforms

DFS, as our primary means for non-Balancing Mechanism (BM) participants to provide flexibility for margin, is aiming to introduce several changes in 2026, including a bi-directional element to support negative margin, locational procurement and reducing the minimum participation threshold to 0.1 MW.

The Local Constraint Market has been extended until at least January 2027. The service increased its demand-side flexibility participation in 2025, following several changes to the services such as the Applicable Balancing Services Volume Data (ABSVD) opt out and asset metering rules.

Operational Metering requirements in the Balancing Mechanism for aggregated assets smaller than 1 MW have been relaxed, and the operational metering derogation which allows up to 300 MW of aggregated assets to permanently participate in the BM is being retained.



Ongoing progress to meeting our Demand-Side Flexibility ambitions

NESO introduced the Enabling Demand-Side Flexibility (EDSF) programme in 2024, to maximise the potential of demand-side flexibility as a system balancing tool.

The EDSF programme vision is to enable flexibility resources to operate seamlessly between markets, driven by effective market signals, delivering whole electricity system value to consumers and supporting the transition to net zero.

This will unlock three key outcomes:

- Fit for the future, coherent market arrangements
- A level playing field and inclusive markets to maximise competition between all types of flexible resources
- Coordinated flexibility markets across Great Britain

More details on this programme, including its objectives, workstreams, enablers and principles can be found here.

Furthermore, we continued to develop stacking possibilities and supporting Elexon on the Market Facilitator role.

1 Demand-side Flexibility Routes to Markets (RtM) Review - Quarterly Update Q4 2025
2 elexon.co.uk/flex-market/flexibility-market-rules/fmr-rsr-revenue-stacking-requirements
2 elexon.co.uk/flexibility-markets/implementation-monitoring/flexibility-market-catalogue

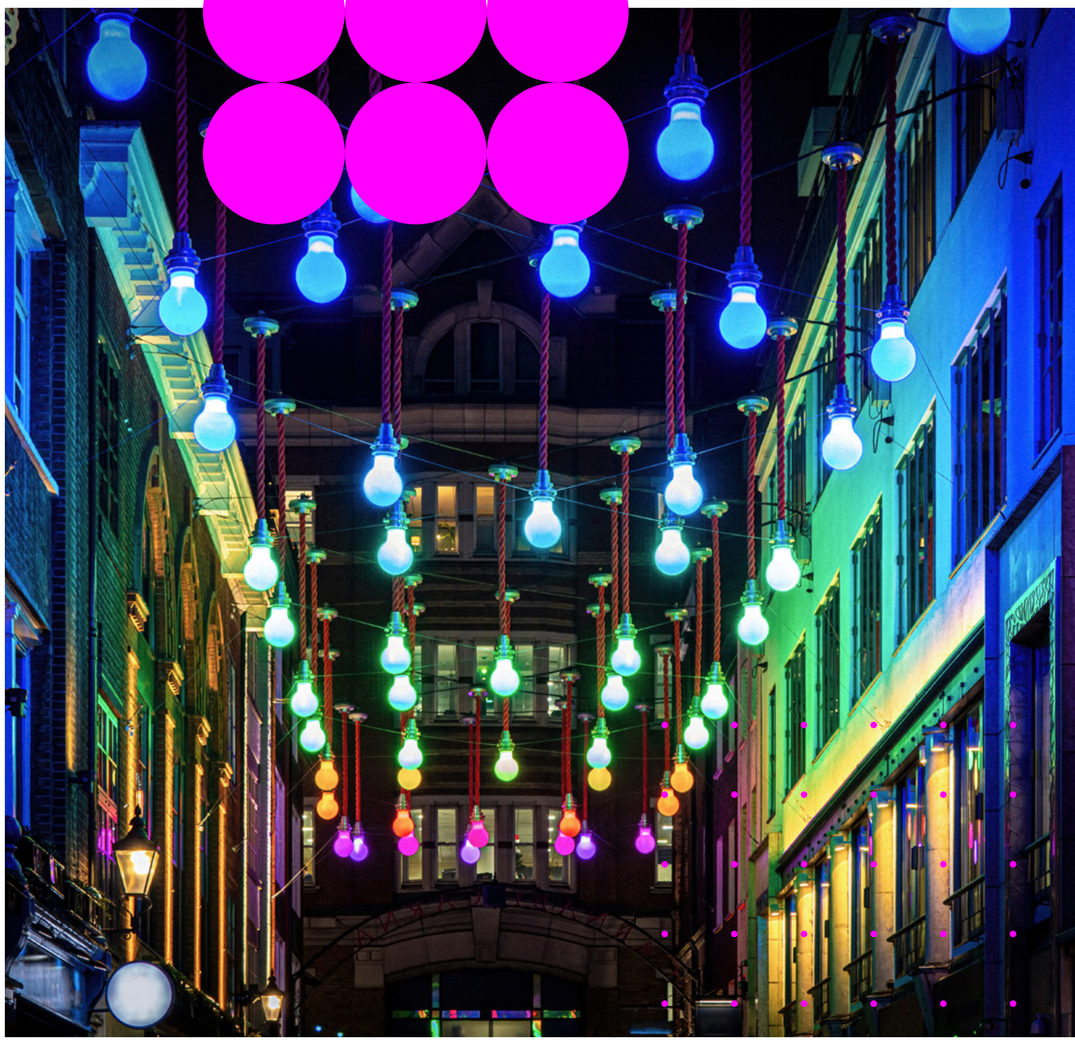
Power Responsive

What is Power Responsive?

Power Responsive is a NESO programme that supports flexible assets to participate in national and local flexibility markets. Working with asset owners, businesses, and intermediaries, we:

- Identify flexible demand and distributed assets
- Clarify routes into flexibility markets
- Support organisations through the early stages of participation

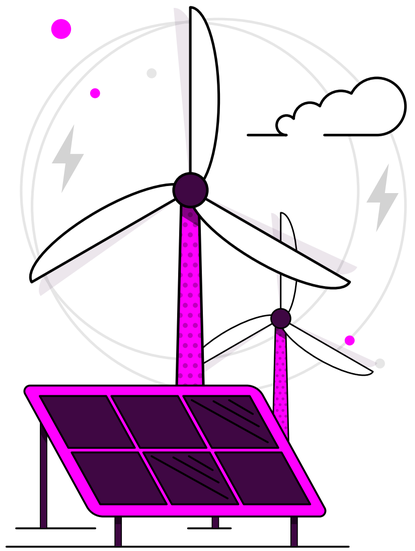
We aim to turn flexibility potential into operational flexible megawatts, while providing feedback to NESO for better market development.



NESO
National Energy System Operator
power responsive

2025 Key Achievements

- Clean Flexibility Roadmap actions:
  - Launched a new industry campaign, including a video targeting large-load industrial organisations and the wider non-domestic community, reinforcing the message that 'Flexibility is our hidden power'.
  - Introduced a dedicated onboarding function and webpage to guide organisations from initial interest to active participation in flexibility markets.
  - Set a 750 MW consumer-led flexibility (CLF) in NESO markets by 2030.
- Participated in industry events to promote discussion on demand-side flexibility.
- Investigating how to bring new providers to NESO markets.
- Reviewed the Local Constraint Market to inform future decisions and advocated for stronger assurances for market participants.
- Operational metering standards within the Balancing Mechanism review.
- Advocating for additional assurances for flexibility market participants.



2026 Focus areas

- Support participation in NESO and DSO flexibility markets, especially from the non-domestic sector.
- Provide clear routes to market and work with service providers and intermediaries.
- Actively engage organisations through events and conferences.
  - Deliver targeted onboarding support to unlock new non-domestic CLF capacity, advancing NESO's targets in 2026 and beyond.

We want to hear from you

Get in touch with us to find out more about our work, get involved in our expert groups or for 1:1 support to access NESO's flexibility services.

Email us: power.responsive@neso.energy

See our website.

Balancing Mechanism

Rising redispatch volumes driven by persistent network congestion is pushing NESO beyond its intended residual balancer role, increasing costs and highlighting the need for reforms to the Balancing Mechanism (BM) to better align market positions with system needs.

What happened in 2025?

Total balancing costs rose by 18% in 2025 to £2.99 bn, driven largely by network constraints, which continued to account for around 60% of total costs. Absolute balancing volumes also grew, up 13% to 32.3 TWh, as Britain's electricity system operated under increasingly dynamic conditions.

Within this context, 2025 also saw notable progress for zero-carbon operation. In April, NESO delivered a record 97.7% zero-carbon settlement period, surpassing the previous year's 95% high. This milestone demonstrates how the system is being operated safely and securely with a growing share of zero-carbon generation, even as the changing generation mix requires ongoing, carefully managed balancing actions.

2025 also marked a step-change in how NESO operates the BM, with several commitments delivered to strengthen visibility and increase dispatch efficiency as part of ongoing modernisation efforts enabled through the Open Balancing Platform (OBP). This included the approval of GC0166 to introduce state of charge parameters for limited duration assets. Once implemented in June 2026, it will allow improvements to scheduling and dispatch of storage assets, improving asset utilisation.

NESO also delivered operational upgrades to improve dispatch efficiency and transparency. This included improvements to the control room skip rate monitoring and implementation of a forward-looking tool to improve situational awareness of in-merit energy volume, allowing real-time feedback on the dispatch efficiency of actions.

At the end of 2025, the National Dispatch Optimiser (NDO) was introduced – this is set to replace the Legacy Dispatch Advisor (LDA) in the longer term. The NDO solution will provide enhancements to enable improved management of flexible assets.

Work on forecasting improvements also advanced to reduce forecasting errors and improve accuracy, supporting more reliable operational outlooks as variability increases.

Together, these developments strengthened the BM's operational environment. The system is becoming more complex, but NESO has delivered tangible improvements in visibility, optimisation, and dispatch – laying the foundations for OBP's full introduction and supporting wider flexibility reforms.

How is the landscape changing?

The BM is operating in a system that is becoming more decentralised, faster moving, and increasingly shaped by weather-driven and distributed resources. Growth in embedded assets, most of which remain outside the BM, continues to erode real-time visibility and adds uncertainty to NESO's operational picture, while fast-acting technologies responding to wholesale signals are driving sharper, more frequent changes in system conditions.

At the same time, congestion pressures, local voltage issues, and rapid swings in renewable output are making redispatch more locational and more dynamic. This increasingly means the BM is no longer functioning as a residual balancing tool, but is being used to manage a growing share of complex, locational and temporal system behaviours. These trends heighten the importance of improved data, forecasting, and digital optimisation tools such as OBP, as well as reforms aimed at strengthening coordination between market-led activity and system operability needs.

Key Initiatives

Below is a summary of the key initiatives reshaping this landscape.

- Open Balancing Platform (OBP)
- Artificial Intelligence (AI) integration
- Enhanced Operational Parameters and Transparency
- BM Access and Participation Reforms
- Efficient Operational Signals

Open Balancing Platform (OBP)

Open Balancing Platform (OBP) – in Delivery

The OBP is NESO's enduring control room system used for the scheduling and dispatch of units. It has been designed to replace legacy systems and modernise control room operations, including the way the BM and ancillary services are managed. OBP is centred around platform modernisation, system performance improvement, and process automation within today's operational model. It so far has introduced:

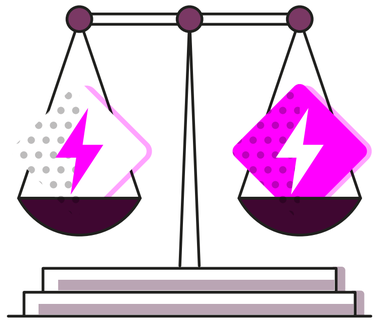
Enhanced Operational Efficiency: OBP introduces a modern, secure, and highly available architecture, enabling rapid release cycles and improved resilience.

Consumer Value: New automation and optimisation capabilities, such as bulk dispatch and improved constraint management, deliver significant annual savings (over £200 m combined) and reduced CO_2 emissions through more efficient dispatch.

Market Access and Competition: OBP has enabled new services (Balancing Reserve, Quick Reserve) and access, lowering barriers to entry and fostering competition. For example, Quick Reserve Phase 2 was launched in Autumn on OBP, enabling quicker energy imbalance restoration and improving resilience during volatile periods.

Future-Ready Digital Infrastructure: Migration to cloud and CNI datacentres ensures scalability, security, and flexibility for evolving system needs.

OBP is being delivered in phases, with core BM functionality targeted for full implementation by 2027. For more information about OBP, please visit NESO's webpage.[1]



1 Open Balancing Platform
2 Volta: Model driven Strategy for Balancing Optimisation (MSBO)
3 GC0166: Introducing new Balancing Mechanism Parameters for Limited Duration Assets
4 Skip rates
5 Skip rates, Past events and webinar recordings
6 Guidance Note – Good Industry Practice
7 GC0154: Incorporation of interconnector ramping requirements into the Grid Code as per SOGL Article 119
8 GC0117: Improving transparency and consistency of access arrangements across GB
9 P462 The removal of subsidies from Bid Prices in the Balancing Mechanism

Ongoing progress to meeting our BM ambitions

The ambition is to evolve the BM so it can reliably support the operation of a rapidly changing, decarbonised electricity system. This requires BM arrangements that provide clearer and more efficient operational signals to participants, enable more coordinated and transparent real time balancing, and support a broader range of flexible resources participating on a fair and efficient basis.

The BM of the future will need to reflect the system's increasing complexity. Improving visibility of and access to available resources is essential to support accurate operational planning, more coordinated scheduling, and more efficient use of flexibility across time and location. This will reduce unnecessary redispatch actions, strengthen system operability, and maintain security under tighter operational conditions.

This direction is shaped by the wider Reformed National Pricing (RNP) package. Following the Government's Review of Electricity Market Arrangements (REMA) decision to retain a single national wholesale price, NESO is working with DESNZ and Ofgem on reforms aimed at improving operational efficiency, investment and siting signals, constraint management, and dispatch. To support this, we recently published a Call for Input outlining the challenges facing the system, including increasing redispatch volumes and costs, operability pressures, insufficient visibility and access to balancing resources, and misalignment between wholesale market outcomes and locational system needs.

Further information can be found in NESO's recently published Call for Input. This outlines the proposed balancing reforms and introduces our further work on dispatch reform options. A high-level overview of these RNP areas is set out below:

- **Balancing, settlement and dispatch reforms**
- **Siting and Investment Levers**
- **Constraint Management Measures**

These workstreams will continue to develop as system needs, technologies and stakeholder feedback evolve, ensuring the BM remains a cornerstone of a modern, secure and efficient power system capable of delivering long term value for consumers.

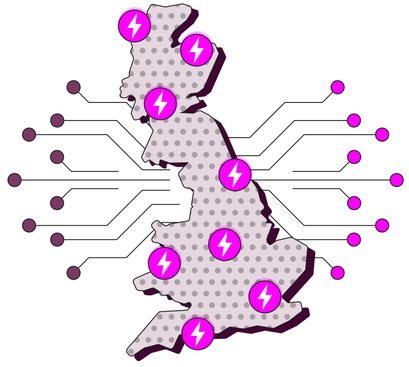
Balancing, settlement and dispatch reforms

One of the three RNP pillars

Objective: These reforms aim to improve operational efficiency, reduce redispatch requirements, strengthen market signals, and ensure the system can be operated securely under a national wholesale market.

Challenges to address

- Operability and cost challenge from increasing redispatch
- Insufficient visibility of, and access to, balancing resources
- Overlap between the wholesale market and balancing
- Distorted wholesale price signals, and incentives to exacerbate system constraints



Further considerations on facilitating BM ambitions

Several system wide reforms will strongly influence NESO's ability to deliver its long term BM ambitions. P462 has the potential to impact prices in the BM and how we use it. By removing subsidy related distortions from BM bid prices, the true cost of curtailment can be revealed, improving competition and helping ensure balancing actions are taken in genuine consumer cost order – ultimately reducing overall costs passed through to consumers' bills. Its outcome will directly shape future BM efficiency and dispatch behaviour.

Alongside this, wider market reforms – including elements of the Reformed National Pricing (RNP) programme – will influence how effectively wholesale market behaviour hands over to real-time operation. Decisions linked to balancing reform and any future developments in dispatch arrangements will materially affect BM visibility, coordination and redispatch volumes.

Alongside these structural reforms, the BM's evolution depends heavily on greater visibility of distributed energy resources and transmission system conditions. As more flexibility moves behind the meter and onto distribution networks, high quality, real time data becomes essential for efficient redispatch. Improvements enabled through OBP, operational metering derogations and enhanced constraint aware optimisation will be key enablers of this transition.

Finally, NESO's work on Physical Notifications – the planned generation or demand positions that market participants submit ahead of real time – and wider BM data accuracy will underpin more predictable and efficient real time balancing. Clearer expectations, targeted monitoring and improved data quality across Physical Notifications, dynamic parameters and operational metering will reduce avoidable redispatch and strengthen optimisation. Collectively, these influences shape the environment in which the BM can become more transparent, coordinated and capable of supporting a highly flexible, low carbon electricity system.

Response

As the electricity system transitions, maintaining system frequency in real time is becoming more challenging. Declining inertia and more volatile conditions driven by higher renewable penetration and increasing interconnector and demand swings are driving the need for an improved enduring, efficient suite of real-time response services to stabilise frequency and keep the system secure.

What happened in 2025?

In 2025 we procured increased volumes of our day-ahead dynamic services Dynamic Containment (DC), Dynamic Moderation (DM) and Dynamic Regulation (DR), collectively referred to as 'Dx'. There was a particular increase in our pre-fault services, DM and DR to around 500 MW of each by the end of the year, representing a 210% and 45% increase respectively compared to the start of the year. This was to help contain increased volatility on the system and reduce our usage of our more expensive and carbon intensive Mandatory Frequency Response (MFR) service.

Please see NESO's Balancing Costs Report for greater detail on cost and volume trends.

1 Enduring Auction Capability (EAC) auction results | National Energy System Operator

How is the landscape changing?

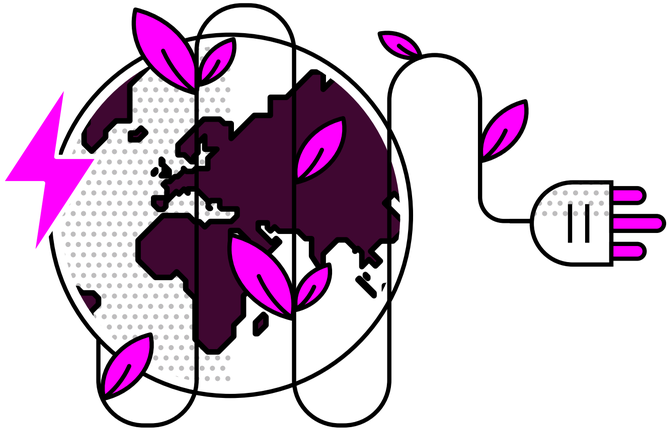
As the system transitions to higher volumes of renewable generation, energy imbalances are expected to become more frequent, larger and faster moving. NESO's ambition is therefore to ensure we have a more effective and more competitive suite of response services that can maintain secure system frequency under these conditions, while continuing to deliver value for consumers. A key part of this ambition is reducing costs and barriers to participation, so that response markets remain liquid and accessible.

Market reforms

In 2025 we introduced the enhanced monitoring, reporting and penalties system. This includes monitoring of a range of new service delivery metrics, more transparent communication of these to service providers and a clearer scale of penalties up to and including suspension from the market. These changes have led to an overall improvement to frequency management, thereby creating a more stable system and cost effective system.

We also developed our design for our reformed static response service which we took to consultation. This included lowering the trigger frequency from 49.7 Hz to 49.65 Hz which should reduce utilisation and therefore cost without impacting system security. Another significant proposed change is to reduce the minimum bid and unit sizes to 0.1 MW which should improve access for small units, increasing competition and reducing costs. Further changes are being developed and engagement on this will continue in 2026.

Many other changes, including enabling Applicable Balancing Services Volume Data (ABSVD) for non-BMUs (Balancing Mechanism Units) are detailed in our spring and autumn dynamic response and Static Firm Frequency Response (SFFR) consultations. Additionally significant work has been undertaken to migrate from our Ancillary Service Dispatch Platform (ASDP) to our new unified Open Balancing Platform (OBP).



Ongoing progress to meeting our response ambitions

Our ambition for the response services is to enable cost effective access to volumes at both day-ahead and within-day. In addition to aligning us with regulation, this would provide NESO with greater optionality and increases the likelihood of securing services at lower costs. The focus is on minimising 'over-procurement' and 'over-spend' by securing units which we are confident will be effective at the optimal timeframe. Together these ambitions should minimise cost and maximise consumer benefit.

Closer to real time and the phase out of MFR

To improve participation options in response services at both day-ahead and within-day we are seeking to introduce a procurement route for a compliant close to real time service. We are aiming to introduce this in 2027, following which we will transition to using it as the primary option for securing our within-day requirements. Recognising the importance of the mandatory requirement for system security we will work with market participants to establish compliant and accessible routes to market to the greatest extent reasonable practicable.

Until the introduction of our new within-day service we are seeking to maximise our proportion of compliant procurement by offsetting our MFR usage with DM and DR where possible.

Locational procurement

To ensure procurement of units from regions where delivery is most effective, or to manage constraints, NESO is developing plans to procure response services locationally. This should reduce expenditure on ineffective volume and ensure the full procured volume can deliver when needed. We will be continuing to refine the methodology for this through 2026 for consultation in 2027.

Revenue splitting for response

To optimise the efficiency of our procurement of frequency response and reserve services we are investigating options to enable stacking between frequency services. This work will sit within a broader programme of work for stacking configurations of NESO and DSO services. We plan to collaborate with Market Facilitator and DSOs through 2026 and 2027 to develop this overarching splitting strategy in coordination with the Market Facilitator delivery plan.

Co-location

To improve access to our markets for assets of different configurations we will continue to evaluate opportunities for co-located assets to deliver response services. This work will build on the work already published for co-locating BESS plus load and BESS plus solar.

2 Decision to grant NESO a derogation from requirements of Article 6(9) of the Electricity Regulation and exemption from requirements of Article 32(3) of the Electricity Balancing Guideline for Mandatory Frequency Response

Further considerations on facilitating these ambitions

We remain technology inclusive within our markets. Nonetheless, we recognise that our response markets are dominated by BESS units. This is primarily due to their ability to respond rapidly to frequency deviations which is essential for ensuring system resilience.

That said, we recognise the merits of increasing diversity in participating technologies. For example, if the forecasted strong pipeline of new battery systems is not realised, we could see challenges in meeting our growing response requirements. We are actively working towards this through improving service efficiency with our closer to real time and locational procurement projects, and improving liquidity through our revenue splitting and co-location workstreams.

As outlined in the Operability Strategy Report (OSR), this could potentially extend our reliance on traditional gas generators to meet some of our response requirements. In 2025 we started tracking demand-side flex participation in NESO services and this highlighted a demand-side flexibility (DSF) battery unit delivering DC alongside significant domestic and industrial and commercial (I&C) participation in SFFR. This may indicate the start of a growing proportion of DSF units providing response services in the coming years.

Reserve

As the electricity system transitions, maintaining security following system events is becoming more challenging. Increased penetration of variable renewable generation and lower system inertia mean energy imbalances are expected to be more frequent, larger and faster moving, increasing the need for an enduring, efficient suite of reserve services that can be dispatched when required to keep the system secure.

What happened in 2025?

The past 12 months have seen continued progress in the evolution of reserve services, with key milestones delivered across Quick Reserve (QR) and Balancing Reserve (BR). These changes are improving operational efficiency, broadening market access, and delivering cost savings for consumers. They also support the transition towards a clean power system, by enabling greater access to low carbon assets through more competitive and liquid markets.

In 2025 overall costs have increased to £392 m in 2025 compared to last year. This is predominantly due to an increase in Operating Reserve costs, which accounts for 35% of reserve expenditure. However Fast Reserve costs fell from £189 m in 2024 to £171 m in 2025, despite a 4% increase in volumes.

Please see NESO's Balancing Costs Report for greater detail on cost and volume trends.

How is the landscape changing?

The reserve landscape has changed materially over the past year, as we move away from legacy and bespoke arrangements. We are also continuing to move towards more competitive day-ahead procurement in our efforts to enhance the stability and efficiency of our energy grid.

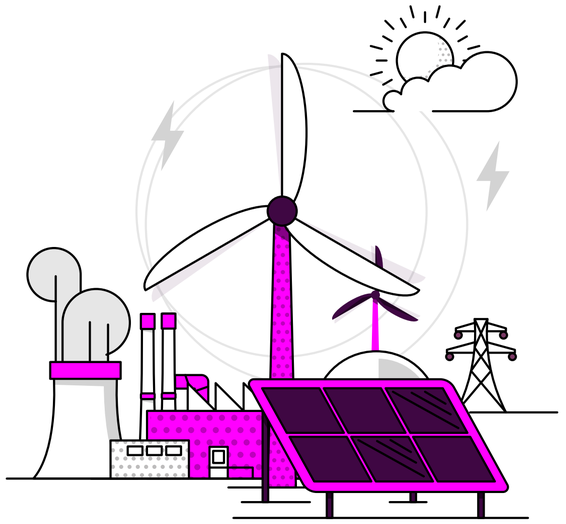
Slow Reserve (SR) went live on 31 March 2026. Short-Term Operating Reserve (STOR) also ceased at the same date and with SR now in place, NESO has access to a more efficient, bi-directional post-fault reserve service. Features of this service such as a lower minimum capacity and aggregation should also help to reduce barriers to entry and support increased participation particularly from demand-side flexibility, where these issues were highlighted through our Route to Market (RtM) and Enabling Demand-Side Flexibility (EDSF) work.

QR and BR have built on their initial rollouts in 2024, and their impact is now more widely felt, with both services firmly embedded as main routes for securing reserve capacity and reducing balancing costs. BR supports this by guaranteeing reserve capacity for the Control Room to access when they need it, reducing the need for potentially expensive real-time balancing actions in the Balancing Mechanism (BM), particularly during tight conditions, like the high price environment seen in January 2025.

Since its inception, QR participation has increased by 38%. With the launch of QR Phase 2 in September 2025, enabling non-BM access via the Open Balancing Platform, we expect further growth in liquidity and provider diversity as reserve markets open to a wider range of technologies including smaller, flexible assets, renewables and energy storage.

Market Reforms

As the system transitions to higher volumes of renewable generation, energy imbalances are expected to become more frequent, larger and faster moving. NESO's ambition is therefore to ensure we have a more effective and more competitive suite of reserve services that can maintain secure system frequency under these conditions, while continuing to deliver value for consumers. A key part of this ambition is reducing costs and barriers to participation, so that reserve markets remain liquid and accessible.



Ongoing progress to meeting our reserve ambitions

Our ambition for our reserve services is to enhance competition, improve coherency and optimise the efficiency of our frequency services. We also, over the longer-term, are exploring locational procurement to increase the contribution of assets when they are located behind constraints on the network.

To deliver this ambition, NESO is undertaking a number of projects to support this. These include:

Transition to new reserve suite and away from legacy services

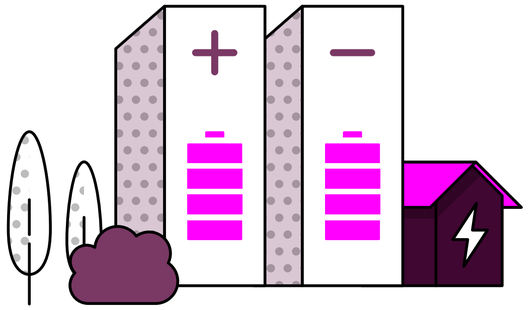
In 2025 we implemented a set of reforms in BR and launched QR Phase 2 to strengthen competition and improve procurement coherency. Looking ahead, we expect to launch SR in March 2026. SR will replace STOR, which is used to secure the system against larger loss events and supports our continued transition away from legacy arrangements. This also includes the planned retirement of Fast Reserve in March 2026 as the new reserve suite becomes enduring.

Locational procurement

To enable procurement of units from regions where delivery is most effective, NESO is developing plans to procure reserve services locationally. In 2025 we engaged with industry on locational procurement through our Response and Reserve webinars and shared our qualitative assessment. We will be continuing to refine the methodology for this through 2026 for consultation in 2027.

Stacking

To optimise the efficiency of our procurement of frequency services, we are investigating options to broaden revenue stacking capabilities -particularly splitting -across our response and reserve services. In 2026, we will carry out internal assessments to evaluate the technical feasibility and system readiness required to support additional stacking combinations. We recognise that some options will require system and process changes and will therefore take time to implement. We will also engage with and consult industry as part of this work. This project will sit within a broader programme of work for stacking configurations of NESO and DSO services we plan to collaborate on with Market Facilitator and DSOs.



Further considerations on facilitating these ambitions

As key technologies such as Battery Energy Storage Systems increasingly participate across an expanding range of NESO and wider system markets, the primary challenge becomes market concentration and competition for the same capacity. Outcomes can become more sensitive to opportunity costs, operational constraints and correlated availability during periods of system stress, particularly as system needs increase and as the intermittent nature of the system places greater value on flexibility. However, if this growth slows down, this could also potentially extend our reliance on unabated gas.

Delivering NESO's reserve ambitions and maintaining system security will depend on growth, whilst avoiding over reliance on any single technology and effective coordination across NESO markets. Therefore, reserve services must remain accessible and commercially viable for a broader set of technologies, with continued barrier reduction to support sustained liquidity and resilience as system conditions evolve.

03

Securing the System

Stability

System stability—covering inertia, system strength and dynamic voltage—is increasingly challenged by declining synchronous generation, requiring NESO to carefully manage minimum inertia and short-circuit levels to keep voltage and frequency within secure limits. This ensures that we maintain one of the most reliant grids in the world.

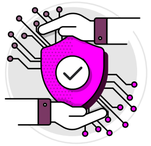
What happened in 2025?

System inertia costs across 2025 were £42.6 m.[1] This is a decrease of 1.5% when compared to 2024, with a volume increase of 8% over the same period. This demonstrates that we are increasingly efficient in our procurement mechanisms, providing cost savings to consumers whilst keeping the system secure.

Across 2025 NESO's Stability Pathfinders saved c.£65 m. Please see NESO's Balancing Costs Report for greater detail on cost trends.

We also witnessed the continued activation of Stability Phase 2 assets. Five sites commenced commercial operation during this period, contributing >2.3 GVA.s of Inertia and >4.6 GVA of Short Circuit Level (SCL). This includes Blackhillock, Great Britain's first Grid Forming battery, providing stability services to NESO. The deployment of these will provide greater technological diversity when securing our network.

1 This is the total cost of Balancing Mechanism actions and Trades.



How is the landscape changing?

As reported in this year's Operability Strategy Report (OSR), our forecasted requirements[2] peak in 2029 at 36 GVA.s, falling to 17 GVA.s in 2031 before rising again to 35 GVA.s in the mid-2030s.

Minimum inertia threshold remains at 120 GVA.s, with a proposal to change to 102 GVA.s awaiting Ofgem's decision. If this change is implemented, this will impact NESO's procurement strategy related to meeting the minimum inertia level.

Market reforms

Over the past 12 months, progress has continued on NESO's suite of stability markets.

These are the long-term, mid-term and short-term stability markets.

Ongoing progress to meeting our stability ambitions

NESO's ambition for stability is to continually achieve lower cost and carbon emissions whilst ensuring the security of the network.

Inertia has always been a central requirement to ensuring system security. This relationship has become evidently clear in the wake of the Iberian Peninsula blackouts in April 2025. We want to reassure our readers that NESO is confident in our ability to ensure system security through our existing mechanisms. As our technical assessment report explains we have worked with the GB energy sector to implement rigorous planning, testing, monitoring, and control measures to ensure the resilience of our power system. Our ongoing long and mid-term markets will increase resilience further with the Balancing Mechanism as a backstop to ensuring our system security needs are met.

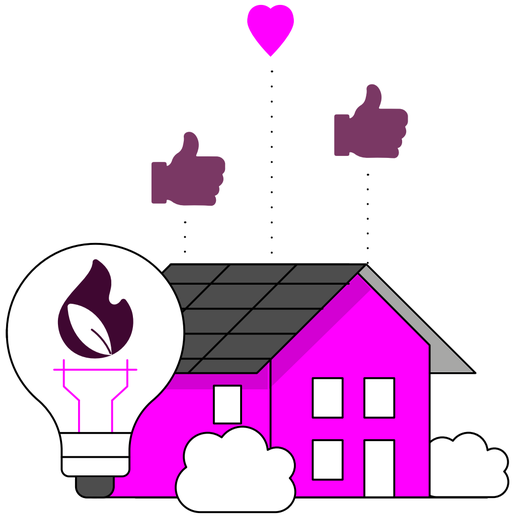
We are also seeking to reduce the complexity of our markets for customers in an effort to enable the delivery of CP2030 ambitions. Our means of achieving this is to have as much stability capability procured explicitly through Stability Markets which decouples the provision of stability services from generating megawatts. This way, NESO can ensure that stability actions are more transparent, more standardised and more cost effective.

We are also expecting up to 9 sites from Stability Pathfinder Phase 2 and 3 to go live contributing in excess of 11.4 GVA.s of Inertia and more than 8.5 GVA of Short Circuit Level (SCL).

In addition to market reforms, there are several non-market programmes which will influence our stability requirements and enhance our operational techniques.

These are:

- The expert working group for a Grid Code modification seeking to mandate Grid Forming to certain connections (Type D connections[3]), this mod is progressing and will enter the formal working group stage during 2026.
- Through our Operational Application of Inertia Measurement Techniques project, we are also pioneering the ability to monitor real-timer inertia measurements. This will permit more efficient operational techniques. For more detail, please visit this ENA page.



2 The peak inertia deficit.
3 These are connections above 50 MW or connecting above 100 Kv.

Further considerations on facilitating these ambitions

NESO's 2025 Frequency Risk and Control Report (FRCR) recommended to reduce the minimum inertia requirement from 120 GVA.s to 102 GVA.s. Ofgem has asked NESO for additional information to inform their decision. Should Ofgem approve NESO's recommendation, this would lower our inertia requirements and therefore how much NESO would need to procure to meet this ambition.

Secondly, the appetite of market providers will affect the outcome of these ambitions. Higher levels of market participation will significantly contribute to securing our inertia requirements without active power, and vice versa.

Thirdly, the outcome of connections reform will likely impact the delivery timelines for those providers with existing Network Services contracts, as well as shaping the availability of connection points for future requirements in the long-term market.

Finally, the energy transition is occurring on both a global and local stage, with a range of factors that may influence meeting our ambitions. These include, supply chain pressures (in terms of both materials and expertise), outcomes of future government policy and technological deployment.

Voltage

NESO must keep transmission system voltage within Security & Quality of Supply Standard (SQSS) limits despite growing challenges. These include those from low demand conditions, rising embedded and renewable generation, asset outages, and reduced availability of traditional voltage-controlling plant, requiring increasingly sophisticated and coordinated operational approaches.

What happened in 2025?

Voltage synchronisation costs were £196 m across 2025. This is a 3% decrease when compared to 2024, with volumes dropping by 5% over the same period. Voltage utilisation costs were £179 m across 2025. This is a 3.5% decrease when compared to 2024, with volumes dropping by 3.4% over the same period.

Across 2025 NESO's Voltage Pathfinders saved c.£45.5 m.

Please see NESO's Balancing Costs Report for greater detail on cost trends.

Across 2025, the locational nature of reactive power continues to be a central cost driver. This can be demonstrated by the South West of England accounting for 84% of total spend. The need for reactive power stemmed from network conditions, including limited availability of reactive equipment, network outages and increased MVAr transfer from the distribution network. The lower levels of available assets within this region resulted in limited competition and high costs. We are seeking to enhance competition through both the long and mid-term reactive power market.

How is the landscape changing?

New assets connecting to the grid have offset the need for NESO to take actions to manage reactive power on the network. For example, the voltage provision from a new interconnector in Wales, inherently provides reactive power services, displacing the need to call upon conventional generation in the area, reducing both cost and carbon for our consumers.

As reported in NESO's 2026 Operability Strategy Report (OSR), the increasingly busy distribution network continues to see MVArs injected onto the Transmission network. In turn, this gives rise to elevated voltage control costs for consumers.

This highlights both the need for more cost-effective means for NESO to procure reactive power services and a whole system thinking approach to identify the optimal means to resolve this. To the latter, we welcomed the opportunity to contribute to Ofgem's ED3 Sector Specific Methodology Consultation and subsequent Ofgem Working Groups and will work alongside them and our DNO partners to address this.

Market Reforms

Over the past 12 months, progress has continued on NESO's suite of reactive power markets.

These are the long-term, mid-term and short-term reactive power markets.

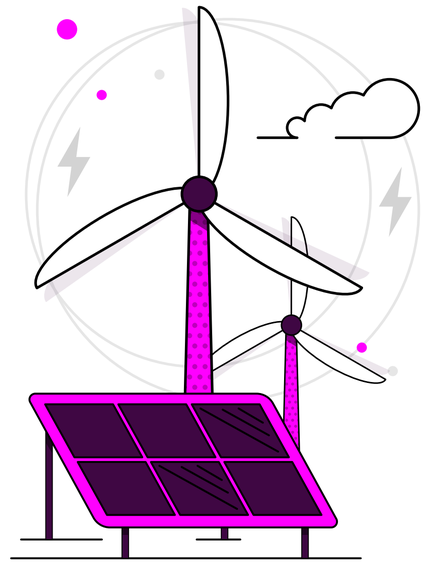
Ongoing progress to meeting our voltage ambitions

NESO's ambition for voltage is to continually achieve lower cost and carbon emissions whilst ensuring the security of the network in an increasingly transparent manner. In doing so, we are seeking to reduce the complexity for our customers in an effort to enable the delivery of CP2030 ambitions.

In addition to market reforms, there are several non-market programmes which, once implemented, could influence what our reactive requirements are, and how they could be met.

These are:

- The outcome of Ofgem's ED3 Sector Specific Methodology Consultation,
- Proposed Grid Code update to improve access to Power Park Module capability.
- The reform of the Obligatory Reactive Power Service (ORPS) payment methodology.
- The Reactive Power Projections project will also help NESO project reactive power requirements in long-term timeframes.



1 £318 m - Voltage 2026 tenders awarded | National Energy System Operator
2 CMP457: Revision of the Obligatory Reactive Power Service (ORPS)
3 Reactive Power Projections | ENA Innovation Portal

Further considerations on facilitating these ambitions

Firstly, is the appetite of market providers to participate in the mid-term and long-term market. Higher levels of market participation will significantly contribute to securing our reactive requirements without active power and vice versa as well as lowering prices for the end consumer.

Secondly, the outcome of Connections Reform could impact the delivery timelines for those providers with existing Network Services contracts, as well as shaping the availability of connection points for future requirements in the long-term market.

Finally, the energy transition is occurring on both a global and local stage, with a range of factors that may influence meeting our ambitions. These include, supply chain pressures (in terms of both materials and expertise), outcomes of future government policy and technological deployment.

Thermal

Thermal constraints are set to continue to rise as high quantities of new, clean power resources outpace network build. This will lead to greater consumer costs, carbon emissions from redispatch actions and a more challenging energy system to operate until the additional network capacity has been built.

What happened in 2025?

In 2025, the volume of constraint actions increased, reaching 14.37 TWh compared to 11 TWh in 2024. When taking thermal actions, we instruct an asset to reduce its output on one side of the constraint whilst directing additional replacement electricity – often gas plants – to re-balance the system. The cost of thermal constraints rose in line with volumes and we saw a 23% increase in thermal constraints costs from £1.48 bn to £1.82 bn in 2025. This accounted for 61% of the total balancing costs, an increase from 58% in 2024.

The cost of replacing energy represents the majority of thermal constraint costs, accounting for 51%, compared with the cost of the wind curtailment for constraints at 21%.

For greater detail on cost and volume trends please see NESO's Balancing Costs Report.

We are continuing to progress with the Constraints Collaboration Project (CCP). The three projects, which we have been focussing this year are Demand for Constraints, Boundary Flow Smoothing Innovation Project, and Extended Intertrip Scheme.

The detailed design of Demand for Constraints is currently being developed, with the intention to introduce a contract for delivery in 2028. On that basis, the tender is targeted for 2026.

Boundary flow smoothing (BFS) is an innovation project assessing a concept that could smooth the flow of power over a boundary by using flexibility service providers (FSPs) close to a constrained boundary to export or import electricity, helping to manage peaks and troughs in the power flow. We are finalising our analysis of the innovation project and expect to provide updates on the outcome at the CCP webinar in Q2 2026.

Constraints Management Intertrip Scheme (CMIS) Tenders

Intertrips in B6 and EC5 have been one of the most cost-effective ways for managing thermal constraints. In 2024/25 NESO paid the providers an average arming fee of £10 /MWh, which was significantly lower than the average wind bid price, and the existing constraint management Intertrip service delivered savings of £20 m across the same period.

Increased efficiency and extension of the Local Constraint Market

The Local Constraint Market (LCM) was established to support managing transmission constraints on the network between Scotland and England, enabling flexible energy resources to support the electricity network in real-time. During 2025, one of the influential changes was a revision to our pricing which saw increased participation and uptake of the service. We also confirmed the extension of the present service to January 2027. During the latter part of 2025 we have seen an increase in tendered LCM volumes, exceeding 25 GW in December 2025, with over 4 GW of dispatched volumes in the second half of 2025. More information on LCM can be found here.

How is the landscape changing?

A rapidly changing generation mix, with high quantities of new clean-power resources typically located much further away from large centres of demand than the old generation fleet, outpacing network build is driving thermal constraints costs up.

Simultaneously, the deployment of flexible assets, demand-side flexibility, interconnectors and energy-limited asset (e.g., battery storage) are changing the nature of our operation to secure the system.

Market Reforms

As the scale, complexity and cost of NESO's actions to secure the system has grown, and will continue to grow, NESO is no longer the residual balancer as intended under the current market arrangements. Consequentially, the Reforming National Pricing (RNP) programme is seeking to implement structural reform to address thermal constraints in the long-term, for example through:

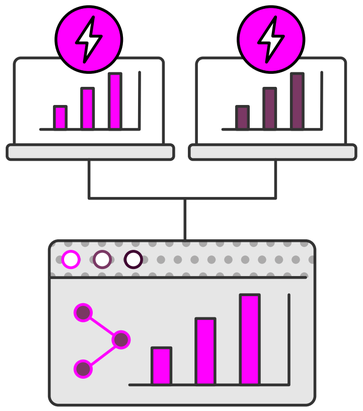
- Dispatch Reform, which could enable better pre-gate closure constraint management by creating a more holistic approach to utilising assets across the wholesale and balancing markets, building on the existing constraint management proposals.
- Balancing Reforms. Together with DESNZ and Ofgem, we have developed five sets of reforms that will improve current balancing and settlement arrangements, enabling the more efficient and cost-effective operation of the system in managing constraints under a national wholesale market.

Further details can be found in our Call for Input on RNP.

Ongoing progress to meeting our thermal constraints ambitions

Our ambitions are to reduce the costs of managing constraints and to maximise the use of renewable generation whilst the network is being expanded to cope with more renewable generation away from areas of demand. Over the short term, whilst the network is being built, we are focusing on:

- **Demand for Constraints**
- **Local Constraint Market**
- **Constraints Management Intertrip Scheme**



Further considerations on facilitating these ambitions

A holistic approach to addressing thermal constraints is needed, which balances new network, network optimisation, market framework, and commercial solutions.

Timely delivery of 80 network projects, in line with recommendations in Clean Power 2030, will drive a three-fold reduction in constraint costs in 2030 and allowing greater levels of renewable electricity to flow. Alongside network build, effective markets are key to delivering and operating the most efficient energy system, and it is critical that those markets are efficiently designed and implemented to deliver affordable, secure and clean energy.

Market governance work is underway to review ensure the Final Consumption Levy (FCL) does not constitute a barrier to participation in demand-side flexibility.

As outlined in the Clean Flexibility Roadmap, the FCL, which recovers the costs of renewable energy policies, from consumer electricity bills has been recognised as a significant barrier to demand turn-up flexibility, which can help constraint management. DESNZ is currently undertaking a review of FCLs and their impact on demand turn up in markets, and we are supporting this workstream as part of the Clean Flexibility Roadmap. For more information, please refer to NESO Enabling Demand-Side Flexibility and Route to Market Review.

In the short to medium term, NESO continues to build on its existing capabilities in managing constraints; locational procurement; incentivising flexible demand behind constraints; enabling greater access to markets for demand-side flexibility; enhancing forecasting capabilities; and improving operational efficiency within the Balancing Mechanism to reduce costs and deliver value for money for end consumers.

Restoration

Electricity System Restoration ensures the GB power system can safely recover from partial or total shutdown. This is achieved by reenergising the network through self-starting units and progressively rebuilding stable, synchronised supply to meet statutory restoration timescales.

What happened in 2025?

Across 2025, we have progressed with several programmes which are ensuring we can restore GB's electricity network swiftly, in the unlikely event of a blackout.

Electricity System Restoration Assurance Framework

We have recently published the Electricity System Restoration Assurance Framework 2026/27 consultation draft. It explains our proposed approach to Electricity System Restoration Standard (ESRS) implementation, the delivery timeline, and the assurance, monitoring, and reporting activities needed to reach compliance by 31 December 2026, we are on track to delivering.

Distributed Restart in the Northern region

Distributed Restart is our pioneering project which explored how distributed energy resources (DER) can be used to restore power to the transmission network in the unlikely event of a blackout.

Distributed Restart contracts have been awarded in the Northern region for the first time. Delivery activity is now underway to establish the associated restart zones, with the intention that these capabilities can be utilised for restoration purposes from Q2 2027. This represents a further step in reducing barriers to distribution-connected assets to participate in Electricity System Restoration.

Procurement and tender activity

We have launched the long-term 2029 Network Services tender, which for the first time brings together stability, voltage and restoration services within a single procurement exercise. This allows for co-optimised benefits, such as reduced costs for our consumers. Results from this tender are due to be published in Q3 2026.

Review of procurement and commercial strategy

We also initiated a review of our restoration procurement and commercial approach, drawing on lessons learned from recent regional tenders. This review will be completed by August 2026 and will inform refinements to future tender design and delivery while maintaining a focus on security of supply.

How is the landscape changing?

The energy transition is delivering more assets which can provide restoration services, supporting the security of our network. This includes more opportunities for distributed connected assets, which can be seen by our Distributed ReStart project. This allows NESO to meet its ESRS obligations more effectively.

Market Reforms

The ambition for the restoration market workstream is to ensure that NESO has access to sufficient, reliable and well-coordinated restoration capability to meet our statutory restoration obligations under the Electricity System Restoration Standard (ESRS).

The network continues to evolve, and our restoration services are continually reviewed and enhanced, delivered by ongoing improvements and adaptations to address future system changes. From 2027 onwards, the focus will shift to embedding ESRS practices as business-as-usual, while introducing measures to enhance restoration performance, system resilience and the continued development of a long-term sustainable restoration strategy.

Ongoing progress to meeting our restoration ambitions

NESO's ambition for restoration is to have sufficient capability and arrangements in place to restore 100% of Great Britain's electricity demand within five days. This will be implemented regionally, with an interim target of 60% of regional demand to be restored within 24 hours. NESO must ensure that everything is in place to comply with this standard by no later than 31 December 2026.

Restoration has always been a central part of ensuring system security in a timely manner under the unlikely event of a black out.

The need for timely restoration services has become evidently clear in the wake of the Iberian Peninsula blackouts in April 2025. The event reinforced the importance of well tested restoration plans, sufficient and geographically distributed restoration capabilities. You can read our Technical Assessment Report which outlines our reflections on the Iberian event, and examines what lessons can be applied to GB.

Furthermore, we are continuing to ensure that we are compliant with ESRS next year, we are developing a number of processes across operational readiness, market design and industry collaboration. The measures listed below will become part of standard operational practice, maintain readiness and support continuous improvement beyond compliance.

- Review and implement Grid Code Modifications where required ensuring compliance.
- NESO will conduct industry-wide exercises on Restoration scenarios and resilience settings in collaboration with TOs and DNOs.
- NESO will be continuing the procurement of Restoration Contractors through competitive tendering to expand coverage and capacity.
- NESO will continue to monitor obligations through periodic data submission checks to ensure compliance with the Grid Code and operational frameworks.

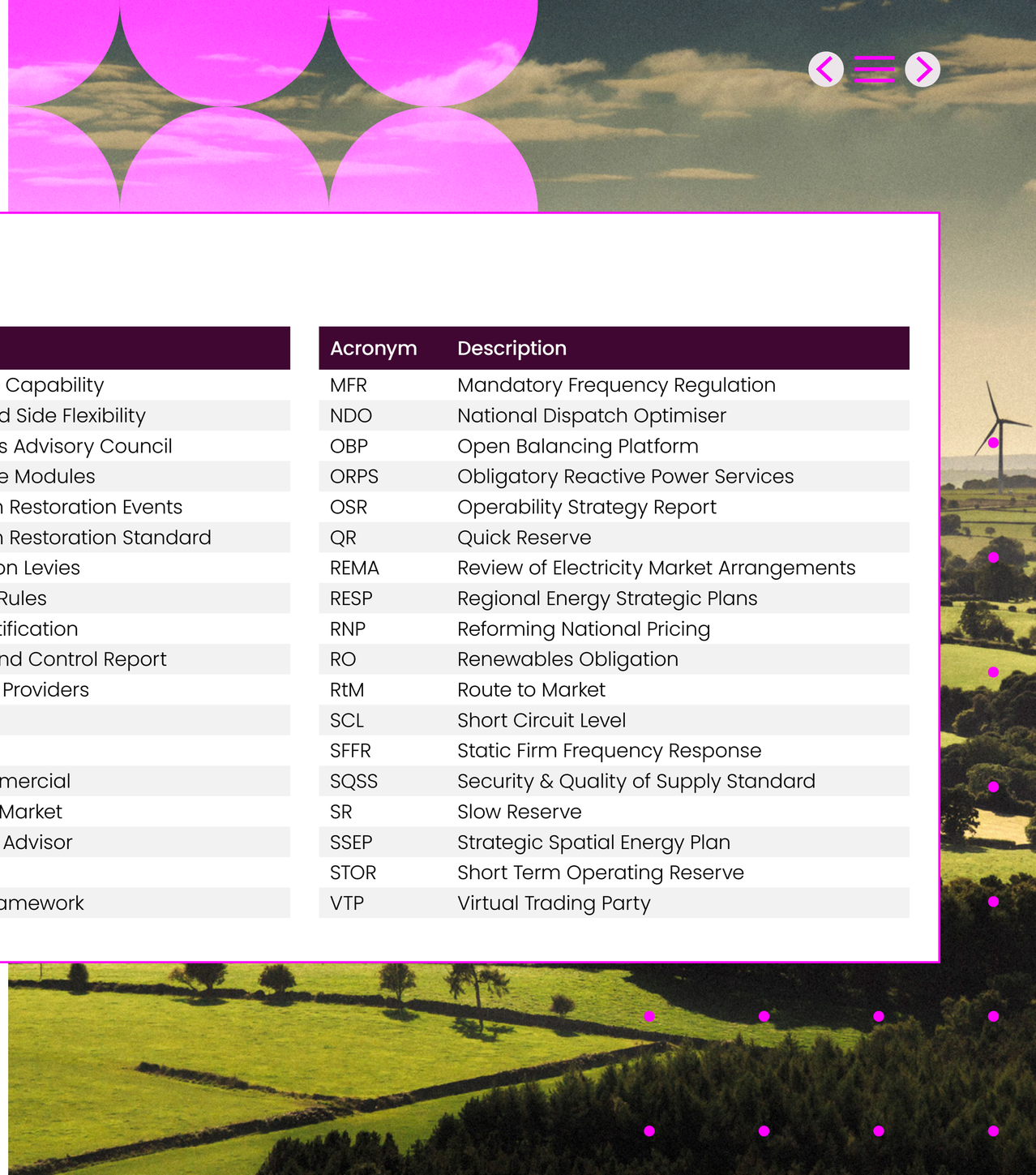
We are reviewing the technical support and coordination arrangements required from Distribution Network Operators and Transmission Owners to enable more efficient delivery of restoration. This activity supports efficient dispatch and coherence, recognising the increasing importance of coordination across transmission and distribution networks in a more distributed energy system.

Further considerations on facilitating these ambitions

NESO will always ensure that we have the capability needed to restart GB's power network in the unlikely event of a blackout.

Our preference is to procure these requirements via competitive tenders where possible. In the event that tender outcomes do not fully meet these requirements, we retain the option to procure restoration capability through bilateral arrangements to ensure ESRS requirements are met.

This maintains our flexibility in procurement approaches and is necessary to ensure compliance with statutory restoration obligations and to safeguard the secure operation of the electricity system.



Glossary

Acronym	Description
ABSVD	Applicable Balancing Services Volume Data
ASDP	Ancillary Service Dispatch Platform
BESS	Battery Energy Storage Systems
BFS	Boundary Flow Smoothing
BM	Balancing Mechanism
BMU	Balancing Mechanism Unit
BR	Balancing Reserve
CCP	Constraints Collaboration Project
CfD	Contract for Difference
CLF	Consumer Led Flexibility
CMIS	Constraints Management Intertrip Scheme
CSNP	Centralised Strategic Network Plan
DC	Dynamic Containment
DER	Distributed Energy Resources
DFS	Demand Flexibility Service
DM	Dynamic Moderation
DR	Dynamic Regulation
DSF	Demand-Side Flexibility

Acronym	Description
EAC	Enduring Auction Capability
EDSF	Enabling Demand Side Flexibility
EMAC	Electricity Markets Advisory Council
ESM	Electricity Storage Modules
ESRE	Electricity System Restoration Events
ESRS	Electricity System Restoration Standard
FCL	Final Consumption Levies
FMR	Flexibility Market Rules
FPN	Final Physical Notification
FRCR	Frequency Risk and Control Report
FSP	Flexibility Service Providers
GB	Great Britain
GSP	Grid Supply Point
I&C	Industrial & Commercial
LCM	Local Constraint Market
LDA	Legacy Dispatch Advisor
LT	Long Term
MDF	Market Design Framework

Acronym	Description
MFR	Mandatory Frequency Regulation
NDO	National Dispatch Optimiser
OBP	Open Balancing Platform
ORPS	Obligatory Reactive Power Services
OSR	Operability Strategy Report
QR	Quick Reserve
REMA	Review of Electricity Market Arrangements
RESP	Regional Energy Strategic Plans
RNP	Reforming National Pricing
RO	Renewables Obligation
RtM	Route to Market
SCL	Short Circuit Level
SFFR	Static Firm Frequency Response
SQSS	Security & Quality of Supply Standard
SR	Slow Reserve
SSEP	Strategic Spatial Energy Plan
STOR	Short Term Operating Reserve
VTP	Virtual Trading Party

NESO

National Energy
System Operator