Public

Annual Balancing Services Spend Report 2024 / 2025

Published in accordance with Condition C9 of the National Energy System Operator's Electricity System Operator Licence

Effective Date: 5th September 2025

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Contents

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1. Version Control

Version No.	Date	Version / Amendment
1.0	19/06/2025	Report for 2024 – 2025 Regulatory Year
2.0	05/09/2025	Further detail added regarding Thermal services and post report cost adjustments.

2. Purpose of Report

On 1st October 2024 National Grid Electricity System Operator (NGESO) became the National Energy System Operator (NESO). This report details the actions of NGESO and NESO during the period 1st April 2024 – 31st March 2025.

NESO has created this report in accordance with Condition C9, Procurement and Use of Balancing Services, Part G of the NESO Electricity System Operator Licence issued by Ofgem.

A statement from an independent auditor accompanies this report, confirming that the report is accurate and detailing the auditor's independent assessment of the extent to which NESO has complied with the relevant statements contained within the published Procurement Guidelines and Balancing Principles Statement.

The purpose of this report is to document the total spend made by NESO on Balancing Services throughout the regulatory year 1st April 2024 – 31st March 2025. The report discusses the total costs that have been calculated and how they have been incurred in accordance with the following publications:

- **Procurement Guidelines v25 & v26**- This document sets out the Procurement Guidelines which NESO published in accordance with requirements under Condition C9 of the NESO Electricity System Operator Licence. Versions 25 and 26 of this document were in place for the period covered within this report. The purpose of the guidelines is to set out the kinds of Balancing Services which NESO may be interested in purchasing, together with the mechanisms by which such Balancing Services will be purchased within the next financial year. The Procurement Guidelines can be found online here:

  NESO Procurement Guidelines

  - v25.0 was published in April 2024 following the standard annual consultation. This was revised in October 2024 to v26.0 following additional review NESO.

- **Balancing Principles Statement v23 & 24** – the purpose of this document is to define the broad principles and criteria by which NESO will determine at different times and in different circumstances, which Balancing Services will be used to operate the transmission system efficiently and effectively for the period covered by this report. This

document is published in accordance with requirements under Condition C9 of the NESO Electricity System Operator Licence and can be found online here:

NESO Balancing Principles Statement

- v23.0 was published in April 2024 following the standard annual consultation. This was revised in October 2024 to v24.0 following an additional review.

Scope of Report

The following Balancing Services are within scope for this report:

- Ancillary Services, including services procured through Network Services tenders (previously known as" Pathfinders")
- Forward Trades
- System Operator (SO) to SO Transactions (made via the interconnectors)
- Utilisation of Ancillary Services and how these are deployed by the Electricity National Control Centre (ENCC)

Out of Scope

The following services are out of scope for this report:

- Bids or offers accepted through the Balancing Mechanism (BM). This is where parties can submit an "offer" to sell energy (through increase of generation or decrease of consumption) and a "bid" to buy energy (through increase of consumption or decrease of generation) at prices set by the parties.

3. Introduction

NESO are responsible for balancing demand and supply every minute of every day to ensure the security and quality of electricity supply across Britain's transmission system. To do this, NESO procure Balancing Services from providers which are then used to keep the transmission system (or "grid") running in an efficient, economical, and coordinated way. That means everyone is delivered a steady flow of electricity. More information about Balancing Services can be found on NESO's website: Balancing Services | National Energy System Operator

This report details the various Balancing Services that NESO procured and the associated cost for regulatory year April 2024 – March 2025.

As mentioned previously, the spend covered in this report is made up of the following types of purchase:

- **Ancillary Services** – NESO enter contracts with providers to secure services which are used to help manage operability challenges. These contracts are secured through:
    - Bilateral contracts
    - Competitive tenders for one-off requirements
    - Established markets or auctions such as
        - Stability and Voltage Long Term and Mid Term Markets
        - Dynamic Frequency Response Markets
        - Balancing Reserve Market
    - Mandatory Agreements - the services contracted here are called "Ancillary Services".
- **Forward Trading** – to balance the system or manage system issues, NESO will procure electricity in advance of the balancing mechanism (BM) process. These are forward trades.
- **SO-SO Transactions –** these are SO-SO services, provided by other System Operators made via the interconnectors.

Some services reported within this document are split into BM and NBM (for non-BM) categories. This refers to whether the provider's asset is registered within the BM as a BM Unit (BMU) or not.

Public

Any figures which are reported as negative numbers represent a payment to NESO.

Please note – the figures reported in this document were correct at the time or shortly before submission and publication. Late invoices, adjustments and disputes can occur and mean minor adjustments to spend figures.

Figures may be rounded up or down for presentation in tables and graphs, as a result they may, on occasion, not reflect full accuracy of detailed spend data.

4. Annual Spend Overview

For the regulatory year April 2024 to March 2025, NESO spent a total of £891,887,599.01 on Balancing Services. Last year's reported spend was £1,008,471,846.58, meaning a decrease of -£116,584,247.57 or 11.56%.

Last regulatory year, constraint costs during summer months increased by 30% compared to the previous year (Balancing Costs Report Summer 2024), driven by heavy winds in Scottish regions and reduced constraint limits. We see this in the Balancing Costs data presented including the upturn of 65% in CMIS costs. In contrast, non-constraint costs during the summer period of the last regulatory year decreased by 24%, due to lower wholesale prices. There are also other factors as set out below.

Response costs have remained largely constant over the last regulatory year compared to the previous year, as NESO continued to see the benefit of more competitive Dynamic Services (Dynamic Containment, Dynamic Moderation and Dynamic Regulation), more liquid markets and the continued development of the Single Market Platform, as well as non-competitive services being phased out during Q1. The new service provisions are noted within NESO's End of Scheme Incentives Report to have the potential to drive down prices in the BM and this could be an early indication of such an effect. Total volumes were noted as increased during the summer of last regulatory year, while clearing prices were down by up to 50%. There has been less reliance on Mandatory Frequency Response (MFR). Static Firm Frequency Reserve (SFFR) costs have fallen by 11% and Response Avoidance trade spend was zero due to increased uptake of Dynamic Services.

Overall reserve spend has increased on the last regulatory year by 13%. The introduction of more cost-effective services - Quick Reserve in December 2024 and Balancing Reserve in March 2024, have meant some reduction on spend on other reserve services as the use of the new products takes over from legacy services. However, by far the highest proportion of the spend on this service was Fast Reserve (Non-BM) of £103m, an increase of 39% from the previous regulatory year. Operating Reserve trades saw an increase in spend of over £600k. Short Term Operating Reserve (STOR) spend was down 3% for BM assets and up 9% for non-BMU assets last regulatory year.

Voltage conditions have been less challenging during the regulatory year 24/25 compared with the previous, though increased spend is noted during Q1 of the regulatory year due to high utilisation of assets in South West England to manage low demand. Spend on Voltage Pathfinder projects increased by 84% as Network Services Procurement become key in helping to provide solutions for network management at lowest cost. A number of Transmission owned assets were

commissioned as part of the Pennines pathfinder and are re-numerated through the Transmission Owner's regulatory framework. Utilisation of these assets has helped to reduce spend in the BM for Voltage purposes in the region.

Volume of thermal constraints has increased in the last regulatory year, as a result of increased congestion on the system, partly linked to planned outages in Scotland to enhance the transfer capacity across key constraint boundaries, which coincided with high wind out turn. However overall costs have decreased by 62% due to the use of more cost-effective actions including trades etc in place of more expensive services, which is reflected in the changing spend profile across the services, with control room deploying more cost-effective options. Constraint Management Intertrip Service (CMIS) spend has increased by 65% on last regulatory year, due to the cost of constraint management on the B6 boundary and the go live of contracts on the EC5 (East Anglia) which is a new service for last regulatory year in this spend category. Thermal trades have decreased by 39%.

Availability payments for Restoration increased by 2% this year and while capital contribution spend decreased by 98%, a change of this magnitude is not unusual as capital contributions are usually paid out within the first 2 years of a contract, rather than being consistently spent throughout the term. Payment for feasibility studies rose by 106%, which represents a £1.01m increase. This overall rise in feasibility study costs is due to an increase in the number of studies required now that distribution connected assets can also bid for the service. There is also a general increase in uptake to all restoration service categories as NESO reduce barriers to entry for providers.

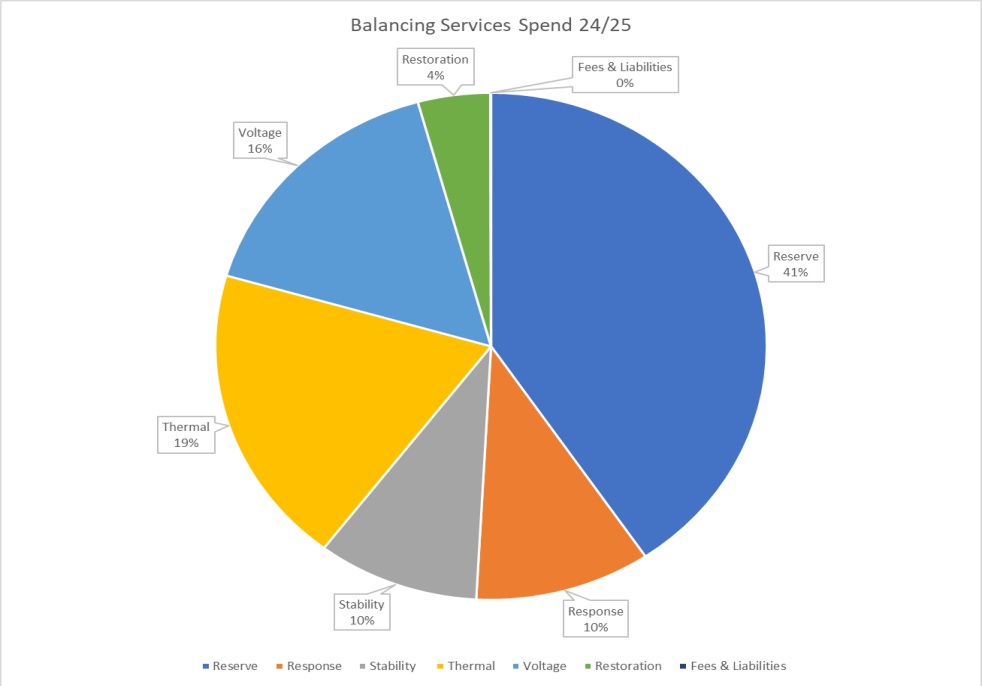

Figure 1 Total Balancing Services Spend Chart

Spend Category	Spend (£)
Reserve	£361,615,158.95
Response	£92,012,707.72
Stability	£84,772,084.09
Thermal	£170,707,788.74
Voltage	£144,581,644.02
Restoration	£37,818,005.41
Fees & Liabilities	£380,210.08
Total	£891,887,599.01

Figure 2 Total Balancing Services Spend Table

5. Reserve

At certain times of the day, NESO needs access to sources of extra power in the form of either increased generation or reduced demand. This enables them to manage any electricity demand which may be greater than forecast. The additional power sources available are called Reserve Services.

In total, NESO spent £361,615,158.95 on reserve services throughout the previous regulatory year. The following sections break this down by specific services.

Short-term Operating Reserve (STOR)

Short-term Operating Reserve (STOR) allows NESO to have extra power in reserve for when it's needed. It's a service that provides additional active power from generation or demand reduction. The requirement for STOR is dependent upon the demand profile at any time. The STOR year starts in April, and is split into six seasons, which specify the Availability Windows where STOR is required each day. NESO aimed to procure a minimum of 1600 megawatts (MW) of STOR per day (subject to requirements). This was changed to 1700MW per day in July 2024. This consists of around 400MW of legacy long-term STOR contracts and around 1300MW auction based. The increase was implemented following a review of system operating conditions. There was a further change made in November 2024 changing the minimum procurement volume to 1650MW per day. This was as a result of increased reliability of assets. The split between legacy long-term and auction volume was 1250MW and 400MW respectively. At the end of March 2025, the Long-Term STOR contracts came to an end.

STOR is purchased through a daily, pay-as-clear auction process, which closes at 05:00 for delivery the following service day (05:00-05:00) covering the service 'Windows'. The results are published here: NESO Short Term Operating Reserve (STOR) Day Ahead Auction Results .

NESO purchases two types of STOR: committed and optional. The committed service can be provided by both BM and NBM providers. They must make the service available for all availability windows and the only acceptable reason for the service not to be delivered is if the site is technically unable to do so. If a tender is accepted, NESO commit to buying all the services offered.

The optional service is only open to NBM providers. Initial declarations of availability are made towards the start of the previous week and can later be refined. NESO does not commit to buying any of the services offered and will not make availability payments for rejected services.

Meeting the requirement depends on liquidity in the market and if the volume can be secured at a lower cost than the alternative actions.

NESO makes the three types of payments for STOR:

- **Availability Payments** – Paid (£/MWh) for the hours in which the committed service has been made available. This is paid as "pay as clear" through the daily auction. This is not applicable to the optional service.
- **Utilisation Payments** – Payment made for delivering the service when instructed by NESO, applicable to committed and optional service, covering the energy delivered in ramping up to and down from the contracted volume. Paid £/MWh for the energy delivered.
- **Optional Utilisation Payments** – Non-BM providers are able to offer STOR outside the defined availability windows. Optional utilisation prices are offered, should NESO wish to use the service. No availability payments are made for optional periods. Paid £/MWh for the energy delivered.

You can find more detail about the STOR service here: Short term operating reserve (STOR) | NESO.

In total, NESO spent £37,333,143.51 on STOR over the last regulatory year. Please see the figures below for further detail.

Month	NBM STOR Availability (£m)	NBM STOR Utilisation (£m)	BM STOR (£m)
Apr-24	2.25	0.00	0.11
May-24	2.85	0.00	0.11
Jun-24	2.77	0.00	0.08
Jul-24	2.96	0.00	0.16
Aug-24	2.72	0.00	0.12
Sep-24	2.51	0.00	0.25
Oct-24	2.64	0.00	0.52
Nov-24	2.63	0.00	1.02
Dec-24	2.88	0.00	1.58
Jan-25	2.64	0.00	1.84
Feb-25	1.96	0.00	0.36
Mar-25	2.13	0.00	0.24
TOTAL	30.94	0.00	6.39

Figure 3 STOR Spend Breakdown Table

Balancing Reserve (BR)

Balancing Reserve (BR) is a Reserve product launched in March 2024, primarily for pre-fault correction of energy imbalances during system operation.

Balancing Reserve is a form of 'Regulating Reserve', procured on a firm 'day ahead' basis to correct energy imbalances (differences between generation and demand) on the GB power system. This helps reduce balancing costs and improve system security as the reserve capacity is guaranteed for the Electricity National Control Centre (ENCC).

- The BR Market enables NESO to procure access to upwards flexibility (headroom) and downwards flexibility (foot room), from existing Balancing Mechanism participating units which can provide a minimum contract capacity of 1MW or above, through two balancing services, Positive Balancing Reserve and Negative Balancing Reserve. The contracted capacity can then be manually dispatched by NESO control engineers in real time, dependant on system needs. BR can be dispatched in both pre and post fault system operation scenarios.

BR is procured through a day ahead auction. Results from the auction are published here: Balancing Reserve Auction Results | NESO

NESO makes two types of payments to providers for BR:

- **Availability Payments** – Paid (£/MWh). A clearing price is determined to maximise market welfare whilst minimising total cost of procurement. All successful providers for each service window (there are 48 service windows in a day), for both Positive and Negative Balancing Reserve, shall be paid for the hours in which the service has been made available. This is determined as "pay as clear" through the daily auction.
- **Utilisation Payments** –Paid £/MWh for the energy delivered. Utilisation of BR is through bids and offers in the BM, with payments being made through the usual BOA payment process from Elexon.

You can find more details about the Balancing Reserve here: Balancing Reserve NESO

In total, NESO spent £15,535,334.57 on Balancing Reserve services over the last regulatory year. Please see below for further breakdown.

Month	Balancing Reserve Spend (£m)
Apr-24	0.76
May-24	0.91
Jun-24	0.81
Jul-24	0.69
Aug-24	0.14
Sep-24	0.93
Oct-24	1.28
Nov-24	1.55
Dec-24	2.12
Jan-25	3.12
Feb-25	1.75
Mar-25	1.47
Total	15.54

Figure 4 Balancing Reserve Spend Breakdown Table

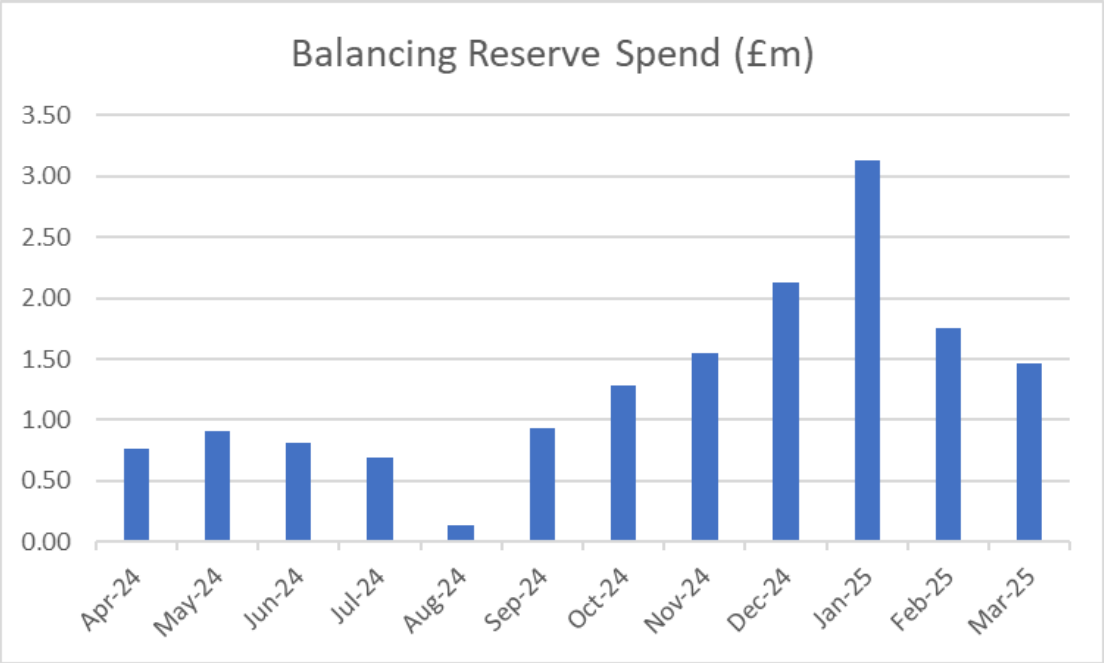

Figure 5 Balancing Reserve Spend Breakdown Chart

Most of the costs associated with the peak cost seen in January 2025 relate to an event which saw a higher cost of actions required to maintain margin and secure the system during a shortfall period, which was preceded by higher cost settlement periods. Wind was also lower than the original low forecast for the time of year, which exacerbated the situation.

Fast Reserve

Fast Reserve provides the rapid and reliable delivery of active power through an increased output from generation or a reduction in consumption from demand sources, following receipt of an electronic dispatch instruction from the ENCC. Fast Reserve is used, in addition to other energy balancing services, to control frequency changes that might arise from sudden, and sometimes unpredictable, changes in generation or demand. The service must commence within two minutes following instruction, at rates of 25MW or greater per minute and the reserve energy should be sustainable for a minimum of 15 minutes.

NESO secures its full Fast Reserve volume via the Optional Fast Reserve (OFR) service, procured on the day by ENCC. Only providers who have entered into a Fast Reserve Framework Agreement

can provide the Optional Fast Reserve service. The service can be provided by both BM and NBM providers but since November 2020 there has only been NBM participation.

You can find more details about the Fast Reserve service here: Fast reserve | NESO

Two types of payments are made for the Optional Fast Reserve service:

- **Availability Payments in £/hour** – these are what NESO pays to providers to be "armed", available to supply Fast Reserve
- **Utilisation Payments in £/MWh –** paid for the energy delivered under the service, if dispatched.

In total, NESO spent £103,040,041.39 on Fast Reserve over the last regulatory year. This was all on non-BM Optional Fast Reserve. Further breakdown can be seen below.

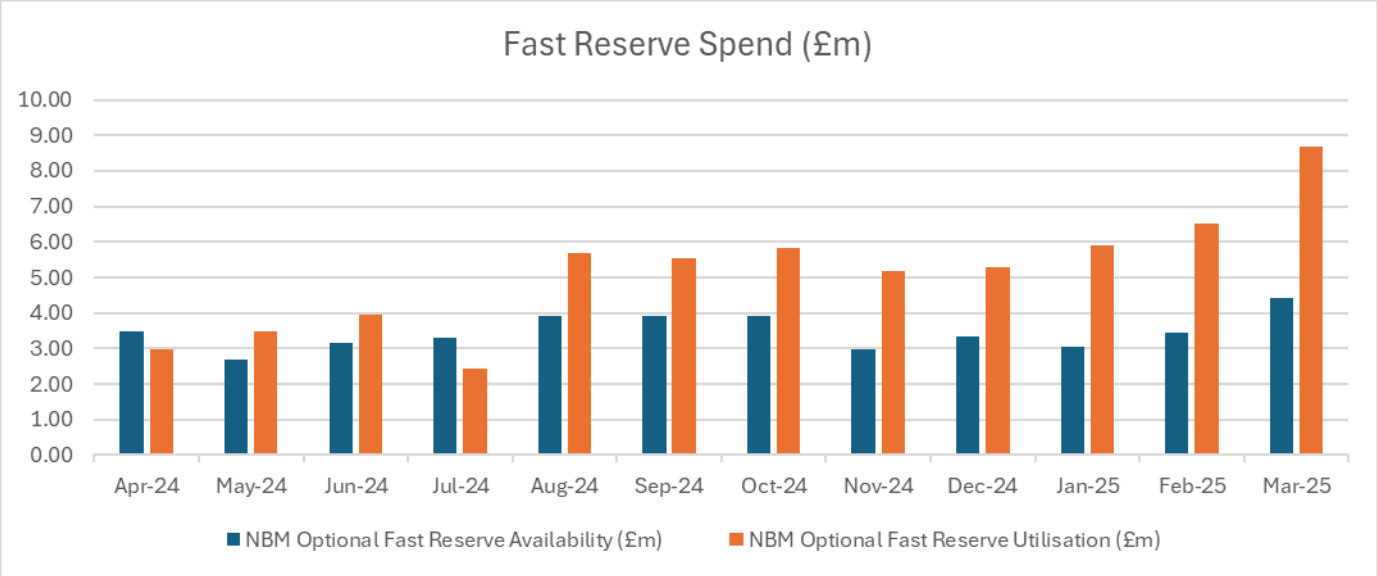

Figure 6 Fast Reserve Spend Breakdown Chart

Month	NBM Optional Fast Reserve Availability (£m)	NBM Optional Fast Reserve Utilisation (£m)
Apr-24	3.49	2.96
May-24	2.70	3.48
Jun-24	3.14	3.94
Jul-24	3.31	2.43
Aug-24	3.90	5.70
Sep-24	3.92	5.55
Oct-24	3.92	5.84
Nov-24	2.98	5.19
Dec-24	3.33	5.28
Jan-25	3.05	5.89
Feb-25	3.43	6.51
Mar-25	4.41	8.70
TOTAL	41.59	61.45

Figure 7 Fast Reserve Spend Breakdown Table

Quick Reserve (QR)

Quick Reserve (QR) is a new Reserve product introduced this regulatory year. It was approved in October 2024 by Ofgem for Phase 1 of development, with the first auction taking place on 3 December 2024. Phase 1 was only open to BM Units. Quick Reserve comprises a faster-acting service procured closer to real-time and has been developed in response to changing system conditions. It is required to restore frequency to within statutory limits within 60 seconds, recover frequency to within operational limits within 15 minutes, and to respond to transient supply demand imbalances that take pre-fault frequency close to operational limits.

Quick Reserve, separated into Negative Quick Reserve (NQR) and Positive Quick Reserve (PQR), is aimed primarily at reacting to pre-fault disturbances to restore the energy imbalance quickly and return the frequency close to 50.0 Hz on the GB power system.

Daily day-ahead pay as clear auctions are run using the Enduring Auction Capability (EAC) platform to procure firm requirement for Positive and Negative Quick Reserve Services. A buy curve is generated for each Quick Reserve window to reflect the volume NESO is looking to procure. This varies with price. Bids are ranked against price in ascending order against the buy curve to identify the marginal bid. The cost of taking alternative actions is also taken into consideration when generating the buy curve.

To participate providers must first prequalify by creating their assets and units on the Single Market Platform (SMP) and complete pre-qualification for the service.

With Ofgem agreement NESO is developing the Phase 2 Quick Reserve service, incorporating both BM and non-BM market participants. The service design went out for consultation in January 2025. EBR Article 18 industry consultation for Quick Reserve phase 2 is currently live.

More information about Quick Reserve including the development of the service is available here: Quick Reserve | National Energy System Operator

Quick Reserve day ahead auction results are published here: Enduring Auction Capability (EAC)

NESO makes two types of payments to providers for Quick Reserve:

- **Availability Payments** – made subject to the relevant market clearing price (£/MWh) for the QR Window covered by the QR Contract, where a Service Provider secures a QR Contract. Availability payments are settled monthly by NESO and are subject to performance monitoring.
- **Utilisation Payments** – For each QR instruction, energy delivered will be settled by Elexon as part of the Balancing Mechanism, with Non-BM providers settled by NESO monthly, subject to deductions for service delivery failures following performance monitoring.

In total, NESO spent £8,953,008.63 on Quick Reserve services over the last regulatory year, since its launch at the end of 2024.

Quick Reserve has delivered good value compared to the current OFR service, clearing lower prices typically and procuring 80% of requirements. Though it is difficult to fully assess benefits within first 6 months of the service initial indications are positive.

Month	Quick Reserve Spend (£m)
Apr-24	0.00
May-24	0.00
Jun-24	0.00
Jul-24	0.00
Aug-24	0.00
Sep-24	0.00
Oct-24	0.00
Nov-24	0.00
Dec-24	1.97
Jan-25	2.42
Feb-25	2.51
Mar-25	2.05
Total	8.95

Figure 8 Quick Reserve Spend Breakdown Table

Operating Reserve

Operating or Positive Reserve is required to operate the transmission system securely and provides the reserve energy required to meet the demand when there are shortfalls, due to actual demand differing from forecast demand changes or generation breakdowns.

The spend on Operating Reserve in scope for this report is procured through:

- **SO-SO Trades –** purchases of energy from neighbouring SOs, to provide additional operating reserves.

- **Emergency Assistance (EA) and Emergency Instruction (EI) -** EA is a request for support from the connected SO. If this request is going to cause that System Operator a security issue, the request can be rejected, or the availability withdrawn. EI is a mandatory instruction to the Interconnector operator to alter the flow immediately. This is done without coordination with the connected System Operator unless the connected SO is already in an emergency state. If the connected System Operator is already in an Emergency state, NESO will coordinate with that SO as much as possible to obtain a solution applicable form all parties. EA prices are dependent upon the arrangements agreed with the connected SO. Some are a fixed price; others are reflective of any necessary rebalancing actions taken by the assisting SO and others are reflective of the cash out price for the relevant settlement period. EI are priced at the Imbalance costs to the interconnector owners in both the GB and connected countries markets.
- **SO-SO Interconnector Capability Payments -** payments made to other System Operators (SOs) for high frequency (HF) / low frequency (LF) response capability.
- **Forward Trades -** purchases of energy in forward markets, usually over Interconnectors, to provide additional operating reserves.

In total, NESO spent £90,865,541.37 on Operating Reserve over the last regulatory year. Please see the below figures for further details overall spend and the Trade spend broken down by months.

Category	Spend (£m)
SO-SO Trades	0.61
EA and EI	0.34
SO-SO Interconnector Capability	0.00
Trades (Margin)	89.91
Total	90.87

Figure 9 Operating Reserve Spend Breakdown Table

Month	Trades Margin (£m)
Apr-24	3.01
May-24	0.18
Jun-24	1.60
Jul-24	1.45
Aug-24	6.24
Sep-24	1.90
Oct-24	12.51
Nov-24	9.32
Dec-24	25.69
Jan-25	6.47
Feb-25	11.88
Mar-25	9.66
Total	89.91

Figure 10 Trades Margin Spend Breakdown Table

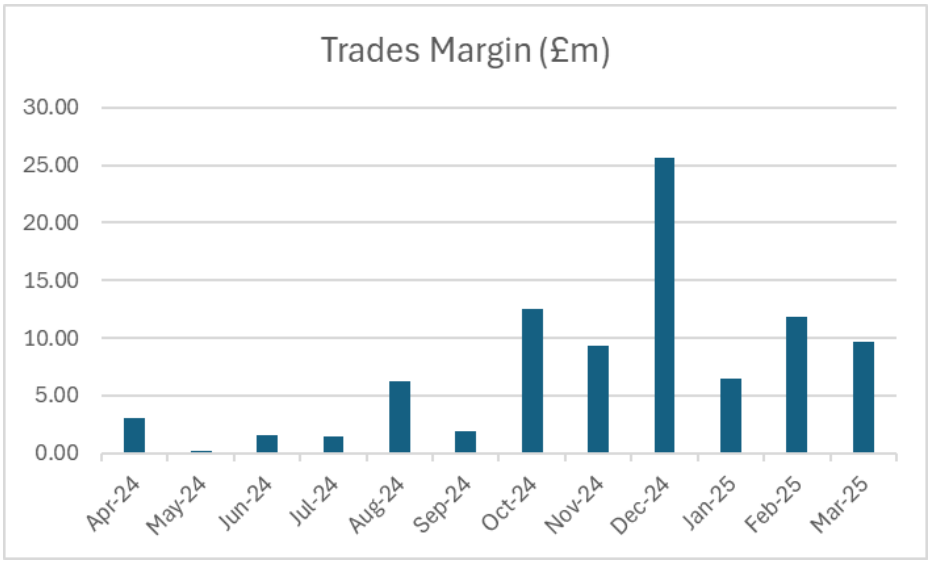

Figure 11 Trades Margin Spend Breakdown Chart

The peak in December 2024 is linked to increase of operating reserve required to secure the system.

Negative Reserve

Negative Reserve can provide the flexibility to reduce generation or increase demand to ensure supply and demand are balanced. The service is held in reserve to cover unforeseen fluctuations in demand, or generation from demand side PV (photovoltaic/solar) and wind.

The spend on Negative Reserve in scope for this report is procured through:

- **SO-SO Trades –** sales of energy to neighbouring TSOs to provide additional negative reserves.
- **EA and EI –** as described above.
- **Forward Trades –** sales of energy in forward markets, usually over Interconnectors, to provide additional negative reserves.

The total net payment to NESO for Negative Reserve in the regulatory year is -£14,740,757.57. This is the net of payments made by NESO for energy and money received for energy sold by NESO over the interconnector. Please see the below figures for the separated breakdown.

Category	Spend (£m)
SO-SO Trades	0.00
EA and EI	-0.03
Trades	-14.71
Total	-14.74

Figure 12 Negative Reserve Spend Breakdown Table

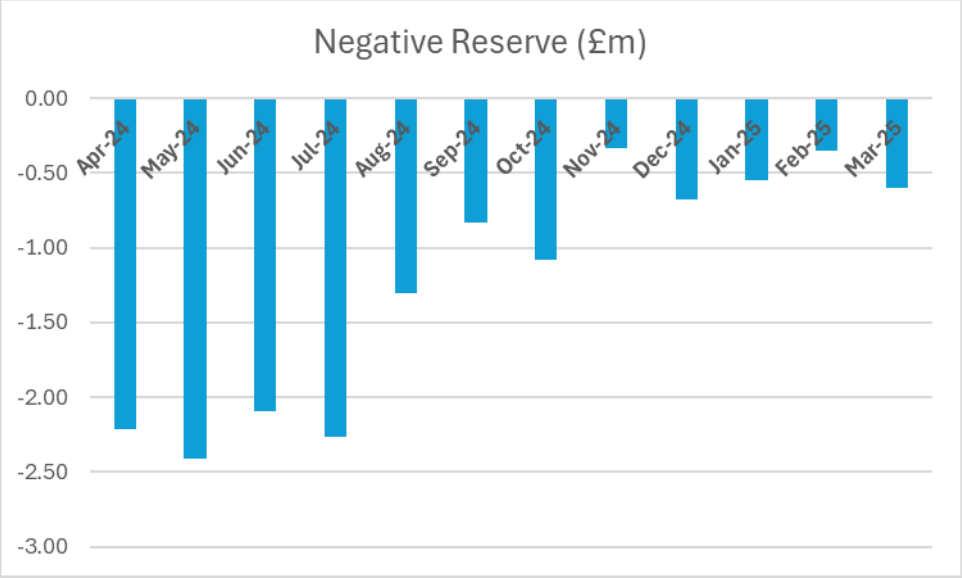

Figure 13 Negative Reserve Spend Breakdown Chart

Maximum Generation (MaxGen)

The Maximum Generation (MaxGen) service allows access to capacity which is outside of the generator's normal operating range in times of system stress. The service would be used to

provide additional, short term generation output following the issuing of an Emergency Instruction.

Providers are paid a Utilisation Payment (£/MWh) once the service is utilised, and energy delivered. The agreed Utilisation Payment is included within each providers' Commercial Services Agreement (CSA).

NESO is no longer actively procuring this service. Existing contracts were put in place via bilateral negotiations and will remain in place until the sites close or the contracts are terminated.

No MaxGen services were procured or paid for during the previous regulatory year.

Super SEL (Stable Export Limit)

Super SEL is utilised to directly reduce the minimum generation level (Stable Export Limit - SEL) of generators synchronized to the system. Super SEL contract enactment will be through a trading instruction. Dispatch will be via the Balancing Mechanism to reduce output to the new lower SEL if required. The live data file is refreshed every ten minutes. The Super SEL service can be used to access additional negative reserve during periods of low demand and high inflexible generation output.

Super SEL is procured through bilateral agreements. Providers will be paid an agreed Enactment Payment (£/MWh) for the periods between start up and end time. The payment can be considered a compensation to the generator for running outside of their normal operating parameters.

In total, NESO spent £15,984.00 on Super SEL during the last regulatory year. This was used on the 13th June 2024.

Please note, a post-drafting, pre-publication adjustment takes the Super SEL spend to £11,248.00.

Hydro Optional Pump De-load

Hydro Optional Pump De-load is the provision of Primary and Secondary frequency response where hydro units will automatically stop pumping (de-load to 0MW) when a certain real-time frequency trigger level is reached. This reduces the pumping unit's contribution to system demand, helping the frequency to increase. When required, it will be instructed in real-time by ENCC and the unit must be pumping to deliver this.

This service was procured through bilateral contracts and providers are paid a £/h amount in accordance with terms set out in their Commercial Services Agreements (CSAs).

This service was not utilised by NESO in the last regulatory year and therefore there is no associated spend.

Hydro Optional Spin Gen

Hydro Optional Spin Gen is similar to the previous service, however, instead of the unit ceasing to pump, this service triggers the unit to start generating. This is instructed in real-time by ENCC. Whilst instructed to provide this the unit will spin in air using a small amount of demand to do so.

This service was procured through bilateral contracts and providers are paid a £/h amount in accordance with terms set out in their CSAs.

In total, NESO spent £92,809,756.86 on Hydro Optional Spin Gen this regulatory year. Please see below for a further breakdown on the spend.

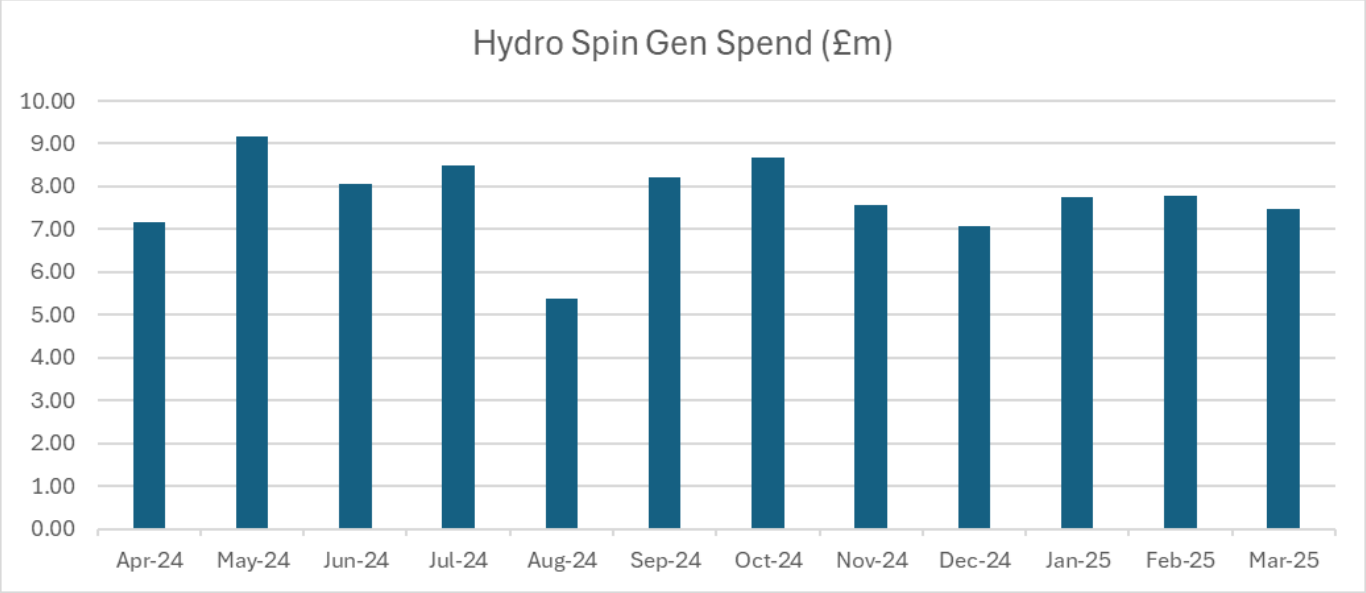

Figure 14 Hydro Optional Spin Gen Spend Breakdown Chart

Month	Hydro Spin Gen Spend (£m)
Apr-24	7.16
May-24	9.18
Jun-24	8.07
Jul-24	8.49
Aug-24	5.37
Sep-24	8.21
Oct-24	8.68
Nov-24	7.56
Dec-24	7.08
Jan-25	7.76
Feb-25	7.77
Mar-25	7.48
Total	**92.81**

Figure 15 Hydro Optional Spin Gen Spend Breakdown Table

Hydro Optional Spin Pump

This service is similar to the previously mentioned hydro services but occurs when a unit is instructed to begin pumping. This is a payment for the period that a unit is instructed to provide the Spin Pump service, which allows BM units to provide Reserve and Synchronous Compensation. This service is an optional, bilateral service which is contracted via providers' CSAs, the £/h payment for this service is included within this document.

In total, NESO spent £21,898,958.24 on this service last regulatory year. Please see the below figure for further breakdown.

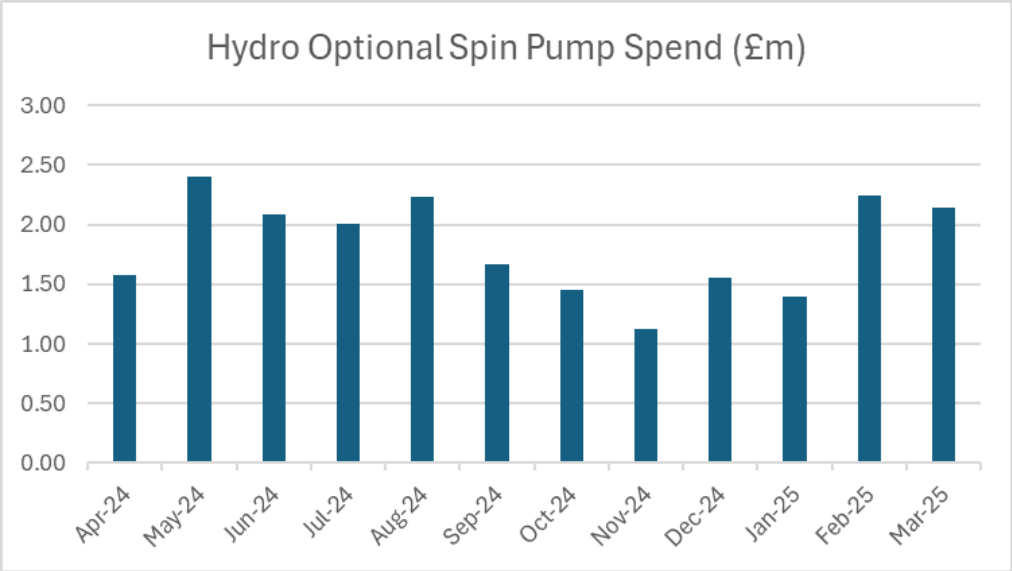

Figure 16 Hydro Optional Spin Pump Spend Breakdown Chart

Month	Hydro Optional Spin Pump (£m)
Apr-24	1.58
May-24	2.41
Jun-24	2.09
Jul-24	2.01
Aug-24	2.24
Sep-24	1.67
Oct-24	1.46
Nov-24	1.12
Dec-24	1.55
Jan-25	1.40
Feb-25	2.24
Mar-25	2.14
Total	21.90

Figure 17 Hydro Optional Spin Pump Spend Breakdown Table

Hydro Rapid Start and GT Fast Start

Hydro Rapid Start is a payment made following a rapid synchronisation of a BMU when instructed by ENCC. Gas Turbine (GT) Fast Start utilisation payment is made following a rapid synchronisation of the BMU to the GB Transmission System following a frequency excursion below a pre-set limit. This service is an optional, bilateral service which is contracted via providers' Commercial Services Agreements (CSAs).

Service providers of Hydro Rapid Start will be paid a £s figure when the service is provided.

Providers of GT Fast Start will be paid the following payments:

- Availability Rate (£/h)
- Start Up Payment (£/start)

- Automatic Delivery Payment for every 15 minutes of active power (£)
- Continuation Rate (£/min)

The specific prices for all of these will be included within the provider's CSA. This service is no longer actively procured.

In total NESO spent £30,580.00 for utilisation of this service during the last regulatory year and £4,519,902.28 in availability payments.

BM Start Up

This service contains two elements, BM Start Up and Hot Standby and is no longer being actively procured, with only existing providers eligible for the service.

BM Start Up is the process of bringing the generating unit to a state where it is capable of synchronising with the system within BM timescales.

Hot Standby holds the generating unit in this state of readiness. The unit will then either remain in Hot Standby until the end of its capability or be instructed to run via an offer in the BM.

This service is procured via bilateral contracts. There are two forms of payment for the BM start up service:

- **BM start up payment (£/hr) –** providers may submit up to three payment rates depending on the different lead times of a start-up instruction. These payments are designed to cover the costs associated with getting a unit ready for dispatch. Payment is made regardless of whether the unit proceeds to synchronisation or not, and the start and cease instructions define the period over which start-up payments will be made.
- **Hot standby payment (£/hr) –** these payments are designed to cover the cost of sustaining a generating unit in a state of readiness.

BM start up instructions are issued via the Electronic Dispatch Logging (EDL) system, which will specify a hot standby target time at which the unit must be ready to synchronise within BM timescales of 89 minutes. If NESO wishes to terminate the start-up instruction prior to the hot standby target time, the instruction to cease will also be issued via EDL.

Providers can submit their own prices for both BMU start up and hot standby. These prices can be updated up to a maximum of once a week. Submitted prices inform the economic assessment to determine which providers are dispatched.

In total, NESO spent £251,208.34 on this service last regulatory year, down 41% compared to the previous year. This is due to largely to less reliance on large generating plant for services and closing of large more inefficient plant i.e. coal fired power stations.

Demand Flexibility Service (DFS)

DFS was originally launched in November 2022 for use over the 2022/2023 winter. The service was launched as an "Enhanced Action" (meaning it's only utilised after the usual business as usual (BAU) actions to ensure sufficient margin has been taken over Winter).

The service aimed to allow NESO to access additional flexibility when national demand is at its highest – and margins at their tightest offering additional winter contingency. DFS was viewed as a pioneering initiative, enabling households and businesses to join a flexibility market with lower entry barriers than established markets.

Providers interested in the service (namely energy suppliers and aggregators) were invited to register their interest via NESO's SMP (Single Market Platform) system and following several checks they were then added to a list of registered service providers. Consumers and businesses participated in this service via suppliers / aggregators.

For its second year of operation DFS made several improvements and changes such as adding the additional capability to procure within day. The service remained positioned as an enhanced action and a derogation was granted that expired on 30 April 2024. DFS continued to see volume grow in its second year of operation and over 2.5m consumers and businesses signed up to the service, being offered various incentives through the registered service providers to shift/reduce their demand during the DFS event periods.

Following the conclusion of the second year of operation, NESO published its end of DFS season report and during 2024 carried out an EBR Article 18 consultation to make changes to the service. It moved from an enhanced action service to an in-merit based margin tool. Ofgem approved proposed changes on 21 November 2024, and the revised service went live on 27 November 2024. The other main changes to the DFS service can be found here, but include: allowing stacking with the capacity Market and DNO Flexibility Service, performance incentives, procurement, metering and data process updates.

More information: Demand Flexibility Service (DFS) | National Energy System Operator

In total, NESO spent £767,615.72 on the DFS service over the last regulatory year. This is a decrease of 93% and largely attributed to DFS becoming an in-merit margin tool and having moved to a competitive pay as bid environment. Previously, a Guaranteed Acceptance Price (GAP) of

£3,000/MWh underpinned scheduled test events, which saw a breadth of bid strategies from providers, with several providers adjusting bid prices to be reflective of market conditions.

Interconnector Net Transfer Capacity Payments (NTCs)

Net Transfer Capacity (NTC) is the method by which System Operators (SOs) on both sides of each interconnector can restrict the capacities released to the interconnector auctions. They are required to ensure that system security and security of supply can be maintained at all times. NTCs are obtained through trilaterally agreed procedures for each interconnector between the connected SOs and the interconnector. The NTC compensation payments are made under the "Methodology for GB Commercial Arrangements" relating to Interconnector Capacity Calculation. Only interconnectors covered under this arrangement are included within this report, as such, not all interconnectors are included within the data.

In total, NESO spent £334,841.62 on NTCs this regulatory year. Please see below for further breakdown.

Please note, a post-drafting, pre-publication adjustment takes the NTC spend to £325,434.34.

Spend has increased in the previous regulatory year (28% increase in spend compared to 23/24 when spend was £260,837.50). The increase in NTC spend in 2024/25 was due to Network Constraint NTC Restrictions which were required during a series of outages in the constraint area of the UK - Norway Interconnector in May 2024.

Month	UK - Norway 24/25 (£m)*	Change from Previous Year (£m)	UK – France 24/25 (£m)*	Change from Previous Year (£m)	Total NTC Spend 24/25 (£m)
Apr-24	0.00	-0.36	-0.01	0.00	-0.01
May-24	0.38	0.38	0.00	0.00	0.38
Jun-24	0.00	-0.01	0.00	0.03	0.00
Jul-24	0.00	0.00	0.00	0.01	0.00
Aug-24	0.00	0.00	-0.01	-0.02	-0.01
Sep-24	0.00	0.00	0.00	0.03	0.00
Oct-24	0.00	0.00	0.00	0.00	0.00
Nov-24	0.00	0.00	0.00	0.02	0.00
Dec-24	0.00	0.00	0.00	0.06	0.00
Jan-25	0.00	0.00	0.00	-0.04	0.00
Feb-25	0.00	0.00	-0.01	0.00	-0.01
Mar-25	0.00	0.00	-0.01	-0.01	-0.01
Total	0.38	0.01	-0.04	0.08	0.33

Figure 18 NTC Spend Breakdown Table

**Reason - Network Constraints*

6. Response

Response is a service used to keep the system frequency within +/-1% of 50Hz as required by NESO's licence obligation. Fast acting generation and demand services are held in readiness to manage any fluctuation in the system frequency which could be caused by a sudden loss of generation or demand.

There are two categories of frequency response:

- Dynamic frequency response is a continuously provided service which manages the normal second-by-second changes on the system.
- Non-dynamic response is usually a discrete service triggered at a defined frequency deviation.

More information about Frequency Response and the services NESO procures can be found on the NESO website: Frequency Response Services | NESO

In total, NESO spent £92,012,707.72 on Response services this regulatory year. The below figure and following sections break this down by specific services.

Static Firm Frequency Response (SFFR)

Previously procured Dynamic Firm Frequency Response (DFFR) service has now been discontinued.

SFFR is a non-dynamic frequency response service which is triggered at a defined frequency deviation. It is provided within 30 seconds and sustained until 30 minutes following the point at which the frequency trigger was reached. Previously a month ahead service, this has now moved to day ahead procurement as of 1st April 2023 via the Single Market Platform via daily tenders.

Information on the Static FFR service participation and specifics of changes made to procurement since April 2023 can be found here.

Results are available at the NESO Data Portal

Static FFR payment:

- **Bids are submitted on a £/MW/Hr basis** and providers can only submit one bid per EFA block for each unit. Bids spanning multiple EFA blocks are not permitted in the SFFR auction.
- **Availability payments in £/MW/hr –** For each EFA, SFFR service provided for nominated windows. A formula to include cleared price is applied to the settlement.

Additional Response, when required, is procured through Mandatory Frequency Response (MFR) in the BM. Only BMUs can offer MFR.

In total, NESO spent £7,470,596.54 on Static FFR service this regulatory year. Please see below for further breakdown.

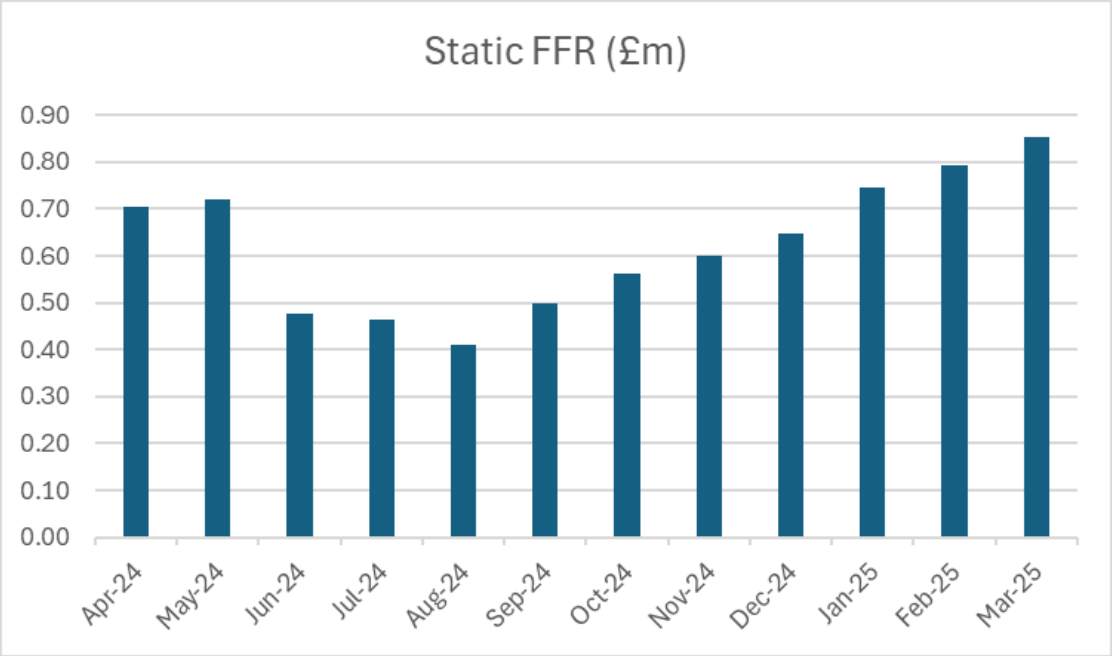

Figure 19 Static FFR Spend Breakdown Chart

Month	Static FFR (£m)
Apr-24	0.70
May-24	0.72
Jun-24	0.48
Jul-24	0.46
Aug-24	0.41
Sep-24	0.50
Oct-24	0.56
Nov-24	0.60
Dec-24	0.65
Jan-25	0.75
Feb-25	0.79
Mar-25	0.85
Total	**7.47**

Figure 20 Static FFR Breakdown Table

Enhanced Frequency Response (EFR)

EFR is a dynamic service where the active power changes proportionally in response to changes in system frequency. To provide EFR, response must be within one second of frequency deviations and operate in frequency sensitive mode within the operational envelope and associated restrictions set out in the invitation to tender. The total payment reported is an availability payment (£/MW/hr).

This service is no longer actively procured.

In total, NESO spent £4,517,941.43 on EFR over the last regulatory year.

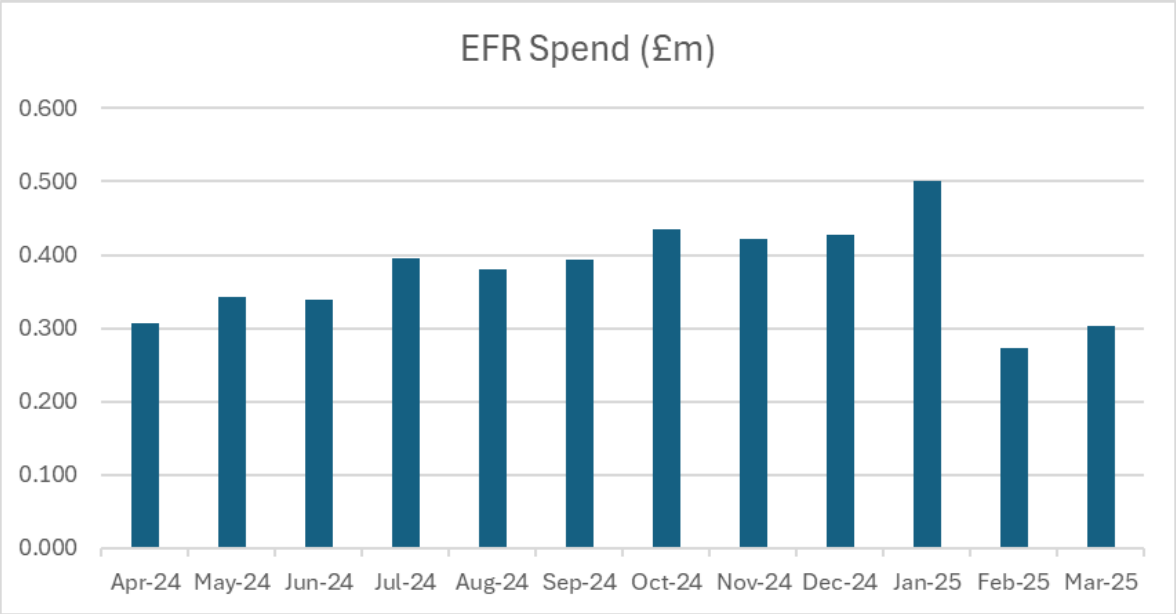

Figure 21 EFR Spend Breakdown Chart

Month	EFR Spend (£m)
Apr-24	0.31
May-24	0.34
Jun-24	0.34
Jul-24	0.40
Aug-24	0.38
Sep-24	0.39
Oct-24	0.44
Nov-24	0.42
Dec-24	0.43
Jan-25	0.50
Feb-25	0.27
Mar-25	0.30
Total	4.52

Figure 22 EFR Spend Breakdown Table

DC, DM & DR

Dynamic Containment (DC), Dynamic Moderation (DM) and Dynamic Regulation (DR) make up NESO's suite of Dynamic Response Services. Together they work to control system frequency and keep it within the licence obligations of 50Hz plus or minus 1%. DM provides fast acting pre-fault delivery for particularly volatile periods, DR is the staple slower pre-fault service and DC is a post-fault service.

Each service is procured via a day ahead auction within NESO's Enduring Auction Capability (EAC) and results are published here: Enduring Auction Capability (EAC) auction results | NESO.

A 4 day ahead forecast is published here for DC 4-day-forecast DC | NESO

Long term forecasting of DC, DM & DC Requirements are published here Long-Term Forecasts for DC, DM and DR Requirements | National Energy System Operator

NESO has proposed changes to the terms of the DC, DM & DR Services, of which 10 out of 12 changes have been accepted by Ofgem. Details of which can be found here: Ofgem Decision

Frequency Response Release 3 includes a number of changes to improve system security and improve the efficiency of the market. The changes approved for implementation include removal of the Ramp Rate restriction; improvements to the State of Energy requirements; and clarifications on Availability. Details of which can be found: Response Release 3 Terms and Conditions

DM requirements are published on the data portal here: DM Requirements | NESO

Meeting the requirement depends on liquidity in the market and if the volume can be secured at a lower cost than the alternative actions.

Winning providers are paid an availability price only as determined by the pay-as-clear auction.

In total, NESO spent £52,264,575.28 on DC, £8,967,498.88 on DR and £9,605,376.57 on DM this regulatory year. A total of £70,837,450.73 on Dynamic Response Services. Please see the below figures for further breakdown.

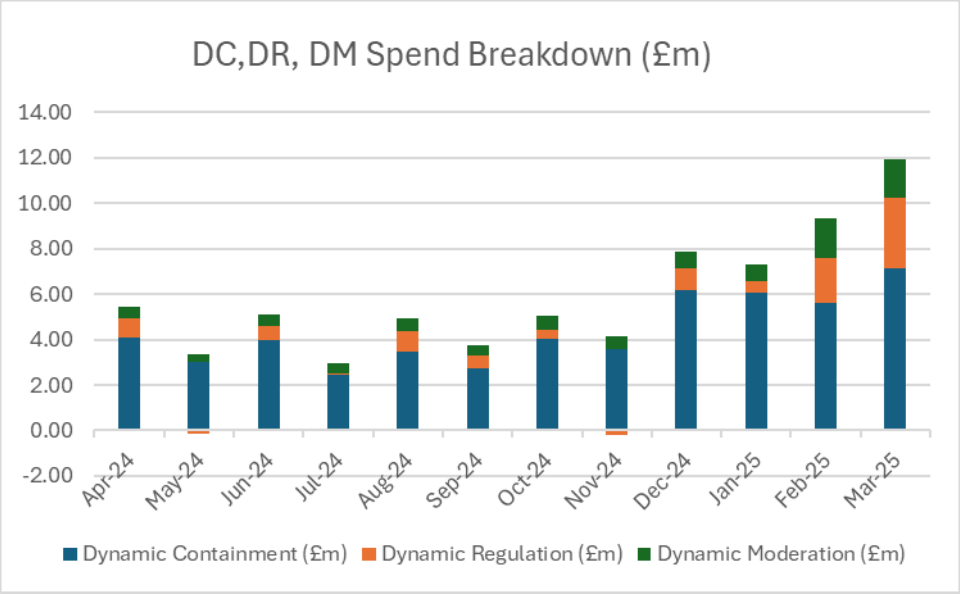

Figure 23 DC, DM, DR Spend Breakdown Chart

Month	DC (£m)	DM (£m)	DR (£m)
Apr-24	4.11	0.49	0.83
May-24	2.99	0.36	-0.16
Jun-24	3.98	0.50	0.64
Jul-24	2.45	0.45	0.07
Aug-24	3.45	0.60	0.90
Sep-24	2.72	0.50	0.55
Oct-24	4.02	0.61	0.41
Nov-24	3.59	0.54	-0.19
Dec-24	6.15	0.73	0.97
Jan-25	6.06	0.71	0.53
Feb-25	5.60	1.76	1.98
Mar-25	7.13	1.70	3.08
Total	**52.26**	**8.97**	**9.61**

Figure 24 DC, DM, DR Spend Breakdown Table

Hydro Spin Gen with LF

Similar to the Optional Hydro Spin Gen under Reserve, under this service a hydro unit will be instructed to start generating in real-time by ENCC. Whilst instructed to provide this the unit will spin in the air using a small amount of demand to do so. However, in this instance when the frequency trigger is reached, the water barriers will open, and the unit will start generating to help increase the frequency.

NESO spent £247,367.20 on this service over the last regulatory year.

Hydro Optional Frequency Response

This is the provision of Primary and Secondary frequency response where a hydro unit will automatically increase its output from its scheduled position according to the real-time frequency. This is a static service that triggers at a set frequency level. When the frequency trigger level is reached, the unit will automatically increase its output to maximum generation helping to increase the system frequency. It is armed in real-time by ENCC. The unit must be generating at its Part Load Point to be able to provide/deliver this.

Over this regulatory year, NESO spent a total of £287,949.49 on this service, made up of £203,490.61 for service availability and £84,458.88 for energy.

Generator Frequency Response

This spend line is inclusive of both mandatory and commercial frequency response. Mandatory Frequency Response (MFR) is a service that generators connected to the transmission network must have the capability to deliver in accordance with the Grid Code. Once connected, the detail of capability is contained within each provider's Mandatory Service Agreement (MSA). After which, generators may submit holding prices to deliver MFR into a system called FRPS monthly. The ENCC will instruct MFR based on volume requirements and the lowest cost in the stack based on the holding prices. A calculator called FRPF runs every 30 mins to determine the stack.

The commercial element in this context relates to a small number of contracts that are settled in the same way as MFR but with different pricing. Specifically, the MFR price submission is monthly however, the bilateral contact price submission is on an ad-hoc basis by the service provider.

Over this regulatory year, NESO spent a total of £8,651,402.33 on generator response, this is made up of £9,384,889.47 on service availability and -£733,487.14 on response energy.

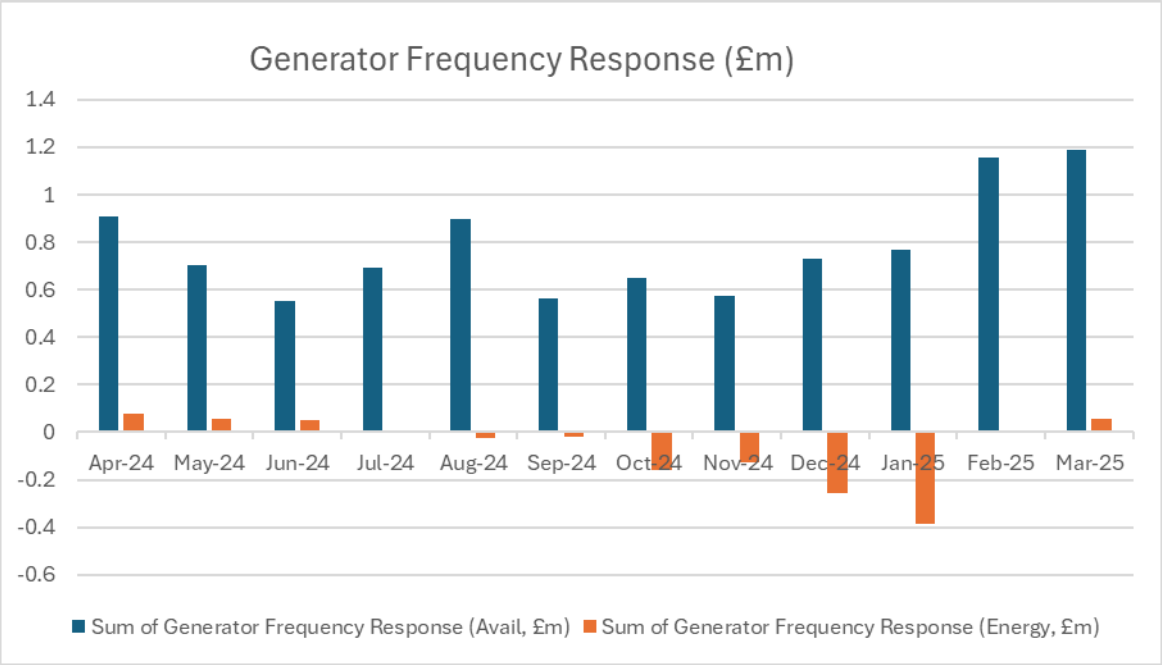

Figure 25 Generator Frequency Response Spend Breakdown Chart

Month	Generator Frequency Response (Avail, £m)	Generator Frequency Response (Response Energy, £m)
Apr-24	0.91	0.08
May-24	0.71	0.06
Jun-24	0.56	0.05
Jul-24	0.69	-0.01
Aug-24	0.90	-0.03
Sep-24	0.56	-0.02
Oct-24	0.65	-0.16
Nov-24	0.58	-0.13
Dec-24	0.73	-0.26
Jan-25	0.77	-0.39
Feb-25	1.15	0.00
Mar-25	1.19	0.06
Total	9.39	-0.73

Figure 26 Generator Frequency Response Spend Breakdown Table

Response Avoidance

These are Forward Trades made to reduce the volume of Response required by the system and enable the Response costs which would be incurred via MFR to be avoided.

NESO did not have any spend over the last regulatory year on this service. The need to use this service has decreased due to the increased performance of the dynamic frequency response services which means less reliance on MFR and Response Avoidance trades.

7. Stability

Stability is the inherent ability of the system to quickly return to acceptable operation following a disturbance. The term is used to describe a broad range of topics, including inertia, short circuit level (SCL) and dynamic voltage. If the system becomes unstable it could lead to a partial or total system shut down leading to the disconnection of consumers. To keep the power system stable, we need to maintain sufficient amounts of inertia, SCL and dynamic voltage support.

Stability services have traditionally been provided by synchronous generation, which can contribute inertia and SCL when supplying the grid with electricity, as well as dedicated network assets. Some forms of low-carbon generation do not automatically provide the same level of stability as they are non-synchronous. Therefore, NESO needs to procure additional stability services to ensure the system can be operated with the same stability in a low-carbon world. To date, these have been procured via a number of Network Services (previously known as "Pathfinders") tenders.

Phase 1 was looking for the most cost-effective way to increase inertia, provide short circuit level and the ability to dispatch the assets to provide Reactive Power. A request for information was issued in July 2019 and a tender concluded in January 2020 awarding 12 contracts to 5 different providers. All contracts for this phase are now live.

Stability Phase 2 was launched with a request for information in July 2020 and tender award in February 2022. The tender sought to procure 8.4 GVA of Short Circuit Level (SCL) and 6 GVA seconds of inertia from April 2024 to March 2034 in order to manage stability on the system to explore economic alternative solutions to the GB Grid system in areas of requirement. A total of 10 contracts were awarded to 4 commercial providers.

Stability Phase 3 was launched with an expression of interest in September 2021, with an Invitation to Tender issued in December 2021, which concluded in November 2022. The tender sought to procure 12.9GVA of SCL and 15GW seconds of inertia between 2025 to 2035 in order to manage stability on the system with the most economic solutions evaluated for areas of requirement on the GB Grid system, associated with ambitions of bringing online more green energy and helping

system stability with the winding down of fossil fuel-based plant. A total of 29 contracts were awarded to 9 providers. 13 of these contracts were later ended mutually with the provider.

Additionally, in October 2023, NESO launched the Stability Midterm (Y-1) market. This enduring market looks to award 12-month Inertia and SCL contracts (subject to requirements), a year ahead of go live. The first tender was awarded in Autumn 2024, with contracted assets set to provide services towards the end of 2025/early 2026.

On a more enduring basis, NESO continues to develop the Stability Market with continuing work to put contracts in place based on original Stability Market design, with further procurement options proposed in the past regulatory year in the Y-4 market and Long Term 2029 tenders, for launch in the coming regulatory year. You can find out more at this link: NESO Stability Market Design

In total, NESO spent £84,772,084.09 on Stability contracts last year.

8. Thermal

There are several types of constraints on the network but one of the most common are thermal constraints. Thermal constraints refer to an area of the network where the power is congested due to the thermal capacity of the equipment. At times, to ensure system security, NESO must reduce generation / increase demand behind a constraint and increase generation / reduce demand in front of the constraint to ensure generation and demand remain in balance and the integrity of equipment is maintained.

In total, NESO spent £170,707,788.74 on Thermal services in the past regulatory year. See below for further breakdown.

Constraint Management Intertrip Services (CMIS)

Costs incurred in managing thermal constraints are mitigated wherever possible through innovative commercial solutions which avoid reliance on the BM. One of these solutions is CMIS.

CMIS looks for ways to reduce the cost of managing constraints at various locations on the electricity system. It aims to secures a pre-determined volume of generation capacity which can be reduced to 0MW almost instantaneously in the event of a fault. Contracts are awarded yearly via a competitive tender and providers are paid an arming fee (£/MWh) and a tripping fee (£/trip). The service is live on the B6 boundary between England and Scotland and the EC5 boundary in East Anglia service, which went live in Feb 2024.

In total, NESO spent £1,464,428.78 on CMIS in the past regulatory year. This is a 53% increase compared to the previous year.

The significant increase in spend seen relates partly to unusually high wind outturn in August 2024, associated with storm conditions exacerbated by impact from outages taken in summer months, as part of regular operations. Additionally, the CMIS figure for the previous regulatory year of £957,158.15 only covered the B6 (SCOTEX) service. For 24/25, the spend for CMIS overall also includes the EC5 (East Anglia) service which went live in February 2024.

Month	CMIS Spend (£m)
Apr-24	0.01
May-24	0.00
Jun-24	0.00
Jul-24	0.00
Aug-24	0.15
Sep-24	0.00
Oct-24	0.02
Nov-24	0.04
Dec-24	0.06
Jan-24	0.42
Feb-24	0.70
Mar-24	0.06
Total	1.46

Figure 27 CMIS Spend Breakdown Table

Trades

Trades are carried out, outside of the BM, in order to secure volume ahead of a fault. These trades can be carried out for voltage purposes – to ensure that voltage is maintained to SQSS standards in a region or for thermal constraint reasons – to alleviate pressure on a thermal constraint

boundary by reducing generation behind a constraint and / or increasing generation in front of a constraint.

Trades take place between NESO and parties who have signed up to a Grid Trade Master Agreement (GTMA) with Schedule 7 (broadly covering Electricity Trades) included.

For both trade types, payment will be at an agreed fixed price which will be £/MWh. For Voltage, separate MVAr utilisation payments are made through the Obligatory Reactive Power Service (ORPS).

In total, NESO spent £156,921,288.92 on Constraint trades in the past regulatory year. See below for further breakdown.

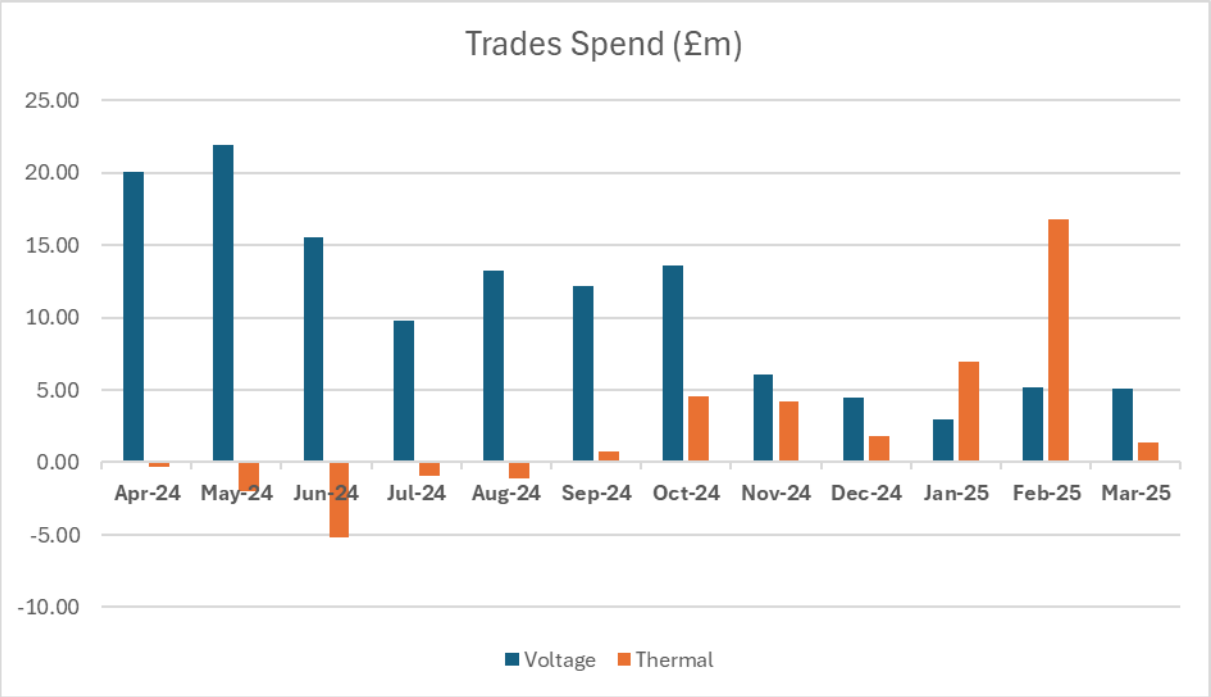

Figure 28 Trades Spend Breakdown Chart

Month	Voltage (£m)	Thermal (£m)
Apr-24	20.09	-0.34
May-24	21.94	-2.00
Jun-24	15.55	-5.22
Jul-24	9.78	-0.95
Aug-24	13.20	-1.10
Sep-24	12.17	0.79
Oct-24	13.62	4.53
Nov-24	6.09	4.22
Dec-24	4.45	1.77
Jan-25	2.97	6.92
Feb-25	5.22	16.75
Mar-25	5.06	1.41
Total	130.14	26.78

Figure 29 Trades Spend Breakdown Table

February 2025 had the highest monthly spend on Trades. The day with the greatest spend on trades in this month was the 4th of February at a cost of £4.7m, this was due to particularly high winds.

BM Constraints

This spend category covers payments made for constraints under contracts entered into for the purpose of voltage support and for other purposes.

- **Voltage Support –** short term tenders required on an ad-hoc basis to address voltage constraints across the network. These tenders are published on NESO's website for participants to bid into. Final agreed prices are set out in the Providers' Commercial Services Agreement, but pricing options are included within the tender material. More

information can be found on NESO's website here: Transmission constraint management | National Energy System Operator

- **Other –** other commercial agreements entered into to alleviate pressure on constraints across the network, these contracts are not for voltage purposes. Renumeration is as set out in Providers' CSA, often a fixed utilisation payment set per MWh or an Availability Fee per Settlement Period.

In total, NESO spent £3,211,924.37 on BM constraints in the past regulatory year.

Please note: a post-draft, pre-publication adjustment takes the total spend on BM Constraints to £3,349,864.37

Local Constraint Market (LCM)

LCM is a market which aims to reduce constraint costs by increasing demand or reducing embedded generation within constrained regions, specifically the B4 and B6 boundaries (the Anglo-Scottish boundaries). This is achieved through increased competition from new assets who currently have challenges in accessing the BM. This service went live in December 2023. The LCM does not attempt to 'resolve' the B6 boundary constraint, only to relieve it through Distributed Energy Resource (DER) options, or provide competition to prices seen in the BM. The market helps to manage rising constraint costs on GB's most congested boundary. LCM is dispatched on Pre-fault Operation scenarios. Pre-Fault is designed to address constraint at the B6 boundary and provide a more cost-effective alternative to BM actions. The LCM operates ahead of Gate Closure and real-time and provides a mechanism to curtail generation / increase demand for periods of high B6 constraints, most notably in periods of high wind generation.

You can find more details about LCM here: Local Constraint Market | NESO

LCM is procured through a day ahead auction on the third party Piclo platform. Information about the day ahead auctions, competitions and results can be found here: https://data.piclo.energy/

Under the service, providers do not receive an Availability Payment. Instead, they are paid a Utilisation Fee (£/MWh) against their offered bid volume (or delivered volume where this is lower).

Total spend on LCM for the Regulatory Year 2024/2025 was £1,298.50.

Please note: a post-draft, pre-publication adjustment takes the total spend on LCM to £1912.05.

MW Dispatch

MW Dispatch is a transmission constraint management service and the first service to be developed through our joint Regional Development Programmes (RDP) with Distribution Network Operators (DNOs). This service went live in September 2023 and was initially only open to DERs connected to specific Grid Supply Points in National Grid Electricity Distribution (Southwest) and UK Power Networks (South-East Coast region) areas where NESO anticipates or has a potential transmission constraint issue to mitigate. This enables those DER with specific connection terms and conditions built into their Connection Agreement to fulfil these obligations.

As part of further development of the service NESO and project partners (DNO's) are working with distributed energy resources (DERs) to help develop new market solutions, which will complement existing market routes, like the Balancing Mechanism and Wider Access Markets. It is hoped this will overcome the challenge of energy on the network at the least cost to the consumer, particularly in green energy target areas subject to constraints.

Under MW Dispatch, NESO may at any time in a Trading Day issue a Dispatch Instruction for Active Power Response to the DNO which is then fulfilled by the DER. You can find more detail about the MW Dispatch service here: https://www.neso.energy/industry-information/balancing-services/system-security-services/megawatt-dispatch.

MW Dispatch instructions are available here: https://www.neso.energy/data-portal/non-bm-ancillary-service-dispatch-platform-asdp-instructions.

The service, regardless of technology, requires providers to reduce real power output to zero ('turn to zero') when instructed by NESO under certain network conditions and when it is economic to do so. If instructed, and providing they comply with the instruction, MW Dispatch Service Providers will be paid for the volume of energy they have curtailed - there is no availability payment under this service.

The only spend incurred on MW Dispatch for the Regulatory Year 2024/2025 was through payments made to Providers as part of the trial. Total spend was £4,003.82.

Intertrips

Operational and Commercial Intertrips are services in which generators can be armed to automatically disconnect in the event of a fault on the network. This could be due to a thermal overload or for voltage reasons. Operational Intertrips are usually entered into at the time of

agreeing an asset's connection. Commercial Intertrips are negotiated and contracted through CSAs. There are several different types of Intertrip reported within this spend category:

- **Interconnector Intertrips –** the interconnectors will be paid an arming fee (£/Settlement Period (SP) and capability fee (£) for reducing their volume in the event of a fault.
- **Intertrips via CAP-76 -** CAP-76 is a CUSC framework setting out an enduring mechanism for treatment of Intertrips.
- **BM Intertrip Contracts –** providers are paid an arming fee and capability fee for reducing their volume in the event of a fault.

Providers are also often paid a tripping fee (£/SP) if the Intertrip is triggered.

In total, NESO spent £9,104,844.35 on Intertrips in the past regulatory year. See below for further breakdown.

Month	Interconnector Intertrips (Arming Payments, £m)	Interconnector Intertrips (Capability Payments, £m)	Cap-76 (£m)	BM Intertrip Contracts (£m)
Apr-24	0.00	0.30	0.13	0.46
May-24	0.29	0.30	0.14	0.17
Jun-24	0.52	0.30	0.13	0.02
Jul-24	0.00	0.30	0.14	0.80
Aug-24	0.16	0.51	0.14	0.31
Sep-24	0.39	0.30	0.14	0.09
Oct-24	0.01	0.30	0.15	0.14
Nov-24	0.15	0.30	0.14	0.02
Dec-24	0.00	0.30	0.14	0.05
Jan-25	0.00	0.30	0.14	0.03
Feb-25	0.01	0.28	0.13	0.01
Mar-25	0.00	0.30	0.14	0.02
Total	1.52	3.80	1.67	2.11

Figure 30 Intertrips Spend Breakdown Table

9. Voltage

NESO manages voltage levels across the grid to ensure they stay within operational standards and avoid damage to transmission equipment. Voltage levels are controlled by Reactive Power, and NESO pays providers to help manage voltage levels on the system by controlling the volume of Reactive Power that they absorb or inject.

You can find more detail about Reactive Power https://www.neso.energy/industry-information/balancing-services/reactive-power-services

Generators covered by the requirements of the Grid Code are obliged to have the capability to provide Reactive Power. Payment for the service will start from the date that the reactive capability has been tested, and the final Mandatory Services Agreement (MSA) is signed. Providers are paid via the default payment mechanism. Under the default payment mechanism all service providers are paid for utilisation in £/MVArh at the ORPS rate. The utilisation payment is updated monthly in line with market indicators as set out in Schedule 3 of the Connection and Use of System Code (CUSC). The latest utilisation payment figures can be found on NESO's website: Obligatory reactive power service (ORPS) | National Energy System Operator

There are also some commercial agreements which are in place with providers for Reactive Power. There has been no spend on Enhanced Reactive Power Service (ERPS) in the previous financial year.

To try and mitigate some of the significant spend on reactive power NESO launched a number of Network Services (previously known as "Pathfinders") tenders, Mersey, Pennines and Voltage 2026 – now known as the Y-4 or Long-Term Voltage Market. All tenders have now concluded, so far only Mersey contracts have gone live.

In total, NESO spent £144,581,644.02 on Reactive Power this regulatory year. This was made up of £6,444,837.38 spend on the commercial contracts, £136,466,540.97 on mandatory payments and £1,670,265.67 on the Mersey Network Services, please see the below figures for a further breakdown.

Month	Mandatory Reactive Power (£m)	Mersey Network Services (£m)	Commercial Reactive Power (£m)
Apr-24	11.07	0.14	0.56
May-24	12.66	0.15	0.59
Jun-24	10.71	0.14	0.58
Jul-24	11.93	0.15	0.61
Aug-24	10.99	0.15	0.59
Sep-24	11.32	0.14	0.56
Oct-24	9.64	0.15	0.11
Nov-24	10.22	0.10	0.51
Dec-24	11.70	0.15	0.52
Jan-25	10.90	0.14	0.65
Feb-25	10.64	0.13	0.56
Mar-25	14.69	0.15	0.60
Total	136.47	1.67	6.44

Figure 31 Voltage Spend Breakdown Table

10. Restoration

Restoration is the procedure used to restore power in the event of a total or partial shutdown of the transmission system. A total or partial shutdown of the national electricity system is an unlikely event. However, if it happens, NESO is obliged to make sure there are contingency arrangements in place to ensure electricity supplies can be restored in a timely and orderly way. Restoration Services are used to recover from such a shutdown and NESO has agreements with providers in order to do so. You can find more detail about Restoration on NESO's website at [Electricity System Restoration Standard | NESO]

Restoration Services are procured via regional, competitive tenders and bilateral agreements. The Northern Restoration tender closed in 2023 with several contracts awarded. A tender for the Midlands and Southwest tender is expected to close in May 2025 with contracts awarded towards the end of 2025.

NESO makes various types of payments (depending on several factors):

- **Availability Payments –** these are paid to the service provider to maintain capability throughout the year and offered as part of a tender or bilateral contract negotiation.
- **Capital Investment –** new Restoration service providers are likely to require significant capital investment. During either the tender process or through bilateral discussions providers are also invited to put forward a capital contribution, which if successful and agreed, would be paid prior to the start of the service.
- **Feasibility Studies –** costs covered by NESO for new providers looking to demonstrate that the unit can provide Restoration capability. NESO will ensure any costs incurred by service providers have been procured in an economic manner and as such would expect providers to tender for the work where possible with evidence.
- **Testing –** NESO will work together with the provider to develop a strategy to test the unit at the most economic and efficient time, mitigating any distortion to the market and all providers will be tested at least every three years in accordance with the EU Code.
- **Warming Requirements –** Restoration providers must be able to respond in a specified time, (normally within two hours), to be deemed available for Restoration. If service providers of certain technology types have not generated for a period, the units may not be warm enough to meet that response time. In such circumstances, NESO will assess the overall availability in the region, and may instruct a capable unit for warming to maintain the minimum service level. This is typically during summer months when demand is lower and contracted stations are on outage or out of merit. Spend on warming may be instructed through the BM, trades, or by forward contracting. The costs are calculated based on what has been agreed either through a forward's contract or in the case of a trade through a Schedule 7A or in the BM through a BoA and like availability payments, the cost is paid monthly.

In total, NESO spent £37,818,005.41 on Restoration Services last year. Please see below for a further breakdown.

Cost Component	Spend (£m)
Availability	35.69
Capital Contributions	0.13
Feasibility	1.96
Fees	0.03
Warming	0.00
Testing	0.00
Total	37.82

Figure 32 Restoration Spend Breakdown Table

11. Fees and Liabilities

Fees and Liabilities have been included here for completeness – primarily, they are interest payments made in relation to adjustments but may also include payments due to providers that have not yet been settled.

Total figure for fees and reconciliations over the regulatory year 2024 - 2025 is £380,210.08.