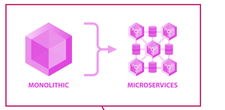
Public

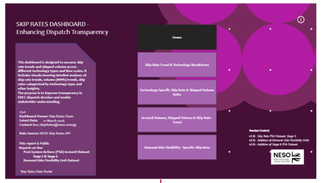
Welcome to our Dispatch Capability Journey

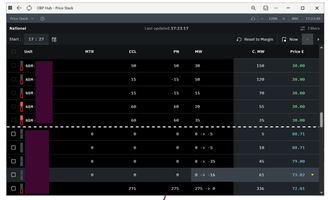
Key:

- Drive Consumer Value
- Deliver a Secure, Resilient & Operable Energy System
- Pave the Way to Sustainable Energy
- Lead as a Trusted Expert
- Digital Enabler



What Pain Point does the capability help address?	
Dispatch Efficiency	Lower skip rates and balancing costs
Automation	Removing work-arounds, reducing manual intervention, staff wellbeing
Competition	New/Improved services and more efficient routes to market
Flexibility	Use of flexible technologies, consumer led flex, integration of DNOs





Delivery Commitments

- IT system changes
- Dispatch efficiency measurement & transparency
- Market change
- Forecasting improvements
- Complete

2025 Jan – Mar

- OBP: constraint management — Improved situational awareness for dispatch of units behind constraints
- Transparency tool improvements — BI improvements live in control room
- Increased response holding — Managing frequency fluctuations
- Additional dispatch engineers — Full time battery dispatch engineer providing 24/7 cover
- Root Cause Analysis Phase 1 — 38 hypotheses identified

Apr – Sep

- OBP: dispatch behind constraints — Improved dispatch efficiency
- GC0166 Approval – Ofgem approve Grid Code modification
- Forward looking tool — Enhancements to Control Room skip rate tool
- Quick Reserve Phase 2 Go Live – Quicker energy imbalance restoration
- Dispatch Strategic Review concludes
- Skip rate materiality — Kicking off skip rate materiality work

Oct – Dec

- Slow Reserve Go Live – More sustained delivery in a post Fault event
- Root Cause Analysis Phase 2 — Validation of hypothesis, identification of causal factors and mitigating actions
- RCA & Dispatch review recommendations — Improvement programme
- Improved Skip Rate Methodology — Addressing tool methodology limitations to include MFR
- Skips behind constraints — Methodology development

2026 Jan – Mar

- Forecasting improvements — Implemented in control room 1

Apr – Jun

- OBP: Constraint Optimisation — Further improvement to dispatch behind constraints

Dispatch Strategic Review

NESO commissioned an independent review of Control Room processes, systems & operational model associated with energy scheduling and dispatch.

Key Aim: Recommend changes to tools, processes or operating model to make the ENCC ready to meet 2030 energy system challenges.

Recommendations in the Dispatch space where OBP is the Enabler	Activity already underway?	Activity
Update redundancy systems to manage increasing numbers of BMUs	✓	• **Nov 2025:** Deployment of OBP Strategic • **Mar 2027:** Complete migration of balancing functions to OBP • **Dec 2027:** Decommissioning of legacy BM systems
Deploy automation within ENCC tools to eliminate low value, time-consuming, manual, button-click activities	✓	• **Dec 2023 – March 2024:** Bulk & Fast Dispatch Optimisation • **Q1 2026:** Bulk Dispatch from a Price Stack for all active BMU Zones and within a Constraint • **Apr 2026:** Bulk Dispatch from Price Stack for all BMUs and Non-BMUs by Service Type • **Jun 2026:** Optimisation with a Constraint
Create functionality in OBP to enable bulk MW dispatch by the NBI	✓	• **TBC**
Develop a human in the loop next best action model to assist in dispatch decisions	✓	
Create functionality in OBP to issue repeat BOAs	✓	• **May 2026:** Functionality in OPB to issue repeat BOAs
Create a process for requesting high-priority software change requests	✗	• **TBC:** Review of programme feedback and intake processes
Audit existing grey IT tools to understand which can be supported or included in the scope of OBP	✓	• **Dec 2025:** Review of roadmap capabilities and grey IT completed
Create a formal process for productionising and integrating grey IT tools that are developed	✓	• **Jan 2026:** Review of programme feedback and intake processes
Embed Tooling Requirements into Market Design from the start	✓	• **Oct 2025:** Process review carried out with ENCC Future Design & Market Requirements
Automated and detailed flagging of BMUs dispatched out of merit order	✓	• **Dec 2024:** Dispatch Efficiency Monitor
Increase the ability to divide and assign BMUs to different zones in OBP	✗	• **Sep 2027:** Transition to Areas of Responsibility

START

2023 – What did the world look like?

Energy Environment:
- Increasing amounts of renewables, flexibility, and smaller units
- Need for greater coherence across Ancillary & Network Services procurement, Balancing Mechanism, Connections reform, Interconnection, DSO Involvement, and consumer participation

ENCC Balancing & Forecasting Systems:
- Processes are complicated requiring significant manual effort
- Capabilities spread across multiple systems
- No optimisation capability within ENCC
- No service harmonisation – decision made at individual service level
- Lack of visibility of system wide requirements with different price drivers
- Difficult to add new services, functionality or scale up existing systems
- Reliance on workarounds and grey IT
- Manual processes and disjointed business services
- Lack of integration across systems from contract decision/award through to Settlement.

Drivers of transformation:
- Reduce manual workload
- Improve operational resilience
- Ensure consistency and transparency in decision-making
- Enable competition and support integration of ancillary services
- Manage increasing number of market participants
- Adapt to new requirements, services and innovation

Dec 2023 · Dec–Mar 2023 · Dec 2024 · Apr–Oct 2025 · Apr 2025 – Mar 2026 · Oct 2025 · Nov 2025 · Nov 2025 – Jun 2026 · Nov 2025 – Jun 2026 · Apr 2026 · Jun–Nov 2026 · Jul 2026 · Oct 26 – Jan 27 · Dec 24 – Dec 26 · Mar 2027 · Sep 2027 · Dec 2027 · Mar 2028

END OF NESO 1

2028 – Where will we be after NESO 1

ENCC Balancing & Forecasting Systems:
- Increased resilience and no planned market outages
- Significant automation and optimisation within ENCC
- Efficient dispatch and transparent instructions
- Enhanced security through new tools and services
- Lower balancing costs
- Alignment of BM and non-BM processes
- Standardisation of user experience
- Reduction of manual workarounds and Grey IT
- Improved situational awareness
- Adaptability to evolving industry priorities

Open Balancing Platform (OBP) Lite

Dispatch Efficiency ✓ · Automation · Competition · Flexibility

System Impacted: OBP

What does it do? New IT Platform in one data centre that accelerates digital transformation by providing a secure, scalable, and consistent environment for modern & cloud-native applications. Supports faster, cloud-native, with development and test environments. Has supported 3 weekly release cadence from onset. Interface to/from OBP to existing BM system created.

Did it exist before? No – this is a new platform.

Impact / Benefit to NESO operations: Easier to detect, develop, test and deploy new functionality through the system; reduces planned outages through rolling deployments; agile way of working enables control room engineers feedback to shape future releases

Impact / Benefit to industry: Early launch of bulk dispatch capability in battery and small BMU zone in response to industry feedback.

Dispatch Efficiency Monitor

Dispatch Efficiency ✓ · Automation · Competition · Flexibility

System Impacted: Legacy BM systems

What does it do? Ability to monitor dispatch efficiency in near real-time.

Did it exist on our legacy BM systems? No – this is a new functionality.

Impact / Benefit to NESO operations: Real time data on instructed dispatch visible to the control room desks to enable skip rate performance to be monitored.

Impact / Benefit to industry: Improvements in economic efficiency. Market participants have enabled the reporting of skip rate data on the NESO website.

All Instruction Creation on OBP

Dispatch Efficiency ✓ · Automation · Competition · Flexibility

System Impacted: OBP

What does it do? Existing systems allow the control room to create and send instructions for a variety of services such as BOAs in the BM, Pumped Storage with their multiple states (Ispin gen etc), Wind units with their complex data requirements, Frequency Bids and Bid Instructions to non-BM units. With the introduction of non-BM instruction support, both BM and non-BM units are "harmonised" to a common instruction profile. This includes the ability to use the non-BM Quick Reserve and Dynamic Response supported from OBP.

Did it exist on our legacy BM/ESOR systems? Yes, albeit as separate systems. For first time Control Room have both Bid and non-Bid in a single system, allowing for example, a combined Price Stack.

Impact / Benefit to NESO operations: Control room can instruct both Bid and non-Bid in a single system, allowing for improved situational awareness of the available resources with monitoring in one place.

Impact / Benefit to industry: Supports activity to level the playing field across asset types, also leading to improved economic dispatch.

OBP Strategic

Dispatch Efficiency ✓ · Automation · Competition · Flexibility

System Impacted: OBP

What does it do? A new deployment of the OBP system to the Azure Cloud platform. Supports the ability to access multiple datacentres, removes the need for planned down-time & outages on the OBP system.

Did it exist on our legacy BM systems? No – this is a new platform.

Impact / Benefit to NESO operations: Increased resilience and no planned market outages. Improved operational utilisation platform, reduces use of telephone instructions which increases workload and is sub-optimal due to operational risk associated with handling large numbers of small units using telephone.

Impact / Benefit to industry: Market Participants will not have to deal with planned balancing system outages, which involve manual telephone dispatch and non-economic dispatch decisions.

£4bn of annual benefits by improved situational awareness & extending Bulk dispatch

Improved User Interface with focus on Usability, Screen and Process Efficiency

Dispatch Efficiency ✓ · Automation · Competition · Flexibility

System Impacted: OBP

What does it do? Whilst the focus of OBP development was to develop "functional completeness", this capability looks to focus on usability and operational efficiency. This encompasses "joining" already built functions, improvements to screen layout, the ability to create new instruction screens to provide a streamlined instruction journey, and the Constraint Management screen when Fault Response or Constraints resolution journey. Development of the Web Interface for ease of use – with keyboard shortcuts, enhanced visual elements with modern-look UI, improved visualisation tools in readiness to take master-slip of instructions

Did it exist on our legacy BM systems? No – these are new efficiencies afforded by modern technology.

Impact / Benefit to NESO operations: Process and UI efficiency will lead to improved operational oversight and dispatch efficiency.

Impact / Benefit to industry: Reduction in skips, improved grid security

Bulk Dispatch from Price Stack for all BMUs and Non-BMUs by Service Type

Dispatch Efficiency ✓ · Automation ✓ · Competition · Flexibility ✓

System Impacted: OBP

What does it do? Supports dispatch of BMUs and non-BMUs using a price stack that can be filtered by service, allowing inclusion or exclusion of units based on their capability to provide a service. For example, if the control room required Quick Reserve with frequency devoloping very fast, they can filter on all fast services irrespective of service name. The system will then automatically "stack" units based upon the "harmonisation" logic allowing BMU and BM units to be dispatched "equally" from a single system, instead of the multiple systems and logic which are used in the Control Room today.

Did it exist on our legacy BM systems? No – this is new functionality.

Impact / Benefit to NESO operations: Provides enhanced situational awareness of the available resources with monitoring in one place. Harmonisation of service types aided to supporting a variety of transmission system scenarios.

Impact / Benefit to industry: Reduction in skips, including those behind constraints.

Optimisation within a Constraint

Dispatch Efficiency ✓ · Automation · Competition · Flexibility ✓

System Impacted: OBP

What does it do? Currently control engineers can manually "optimise" instructions within a constraint. Bulk Dispatch from a price stack", this capability enhances this through use of an optimiser. A control room engineer selects the constraint they want to optimise within and selects the BMUs involved in the constraint – the optimiser then considers variation in prices over time and the volume of technical parameters and returns a cost optimised solution consisting of multiple units which can be dispatched in one button click.

Did it exist on our legacy BM systems? No – this is new functionality.

Impact / Benefit to NESO operations: Further automation of manual processes, improved dispatch efficiency, supporting consistent decision making, supports handling of more complex unit characteristics.

Impact / Benefit to industry: Reduction in skips for units behind a constraint.

Provide Data Transparency

Dispatch Efficiency ✓ · Automation · Competition · Flexibility

System Impacted: OBP

What does it do? Supports the provision of existing reporting and settlement data to internal systems (e.g., STAR & DAP) and external (e.g.,Elexon).

Publication of market information to data portal (e.g. Bid & Offer Acceptance data, OBP (Quick Reserve and Slow Reserve).

Did it exist on our legacy BM systems? Partly but with additional services now

Impact / Benefit to NESO operations: Aids market to reduce balancing actions

Impact / Benefit to industry: This aids regulatory oversight and market participant understanding of OBP operations.

Transition to Areas of Responsibility

Dispatch Efficiency ✓ · Automation · Competition · Flexibility ✓

System Impacted: OBP

What does it do? Move away from current zonal dispatch structure (e.g., Scotland, North, Wales, South) to a Responsibility that will allow dynamic allocation of work to desks based on workload.

Did it exist on our legacy BM systems? No – this is new functionality.

Impact / Benefit to NESO operations: More flexibility for the Control Room with the ability to change distribution of work depending on system conditions.

Impact / Benefit to industry: Improved dispatch efficiency, if dispatch has been identified as one reason for skips.

Enhanced Interconnector Management

Dispatch Efficiency ✓ · Automation · Competition · Flexibility

System Impacted: OBP

What does it do? This will provide enhanced visibility of interconnector operational status within the ENCC and enable OBP to send emergency actions and instructions.

Did it exist on our legacy BM systems? Yes, but through a separate Interconnector flow management system.

Impact / Benefit to NESO operations: Increased situational awareness and enhanced interconnector management capability.

Impact / Benefit to industry: Supports Interconnector supply and market integration through OBP.

Bulk & Fast Dispatch Optimisation of Battery & Small BMU Zones

Dispatch Efficiency ✓ · Automation ✓ · Competition · Flexibility ✓

System Impacted: OBP

What does it do? Bulk Dispatch – used by the control room to issue multiple instructions for longer time periods based on a least-cost solution that satisfies the demand requirement in a single optimisation run. Fast Dispatch – used by the control room to react to frequency deviations, providing a solution in <10sec.

Did it exist on our legacy BM systems? No – this is new functionality.

Impact / Benefit to NESO operations: Reduces manual processes & time taken to issue a collection of instructions to smaller, flexible units. In one example it took seven button-clicks in OBP compared to 100 button-clicks in legacy systems.

Impact / Benefit to industry: Supports activity to level the playing field across asset types, also leading to better rates for batteries & small BMUs, ultimately creating confidence for future investment in these flexible technologies.

£100m of annual benefits by use of flexible assets & reduced CO2 emissions

Constraint Management

Dispatch Efficiency ✓ · Automation · Competition · Flexibility

System Impacted: OBP

What does it do? The first release of this capability supports the control room in managing transmission congestion awareness with new graphical screens showing when a constraint would be breached and providing data to the Constraint Management Tool. Enhancements provided the ability to manually create instructions within these screens, allowed easier system toggling between tools and improved usability. Further OBP other capability makes more units available to the optimisers for energy even if they are behind a constraint.

Did it exist before? No – this is new functionality.

Impact / Benefit to NESO operations: Provides enhanced situational awareness of transmission constraints by providing superior situational awareness.

Impact / Benefit to industry: Reduction in skips, including those behind constraints.

Bulk Dispatch from a Price Stack for all active BMU Zones and within a Constraint

Dispatch Efficiency ✓ · Automation ✓ · Competition · Flexibility ✓

System Impacted: OBP

What does it do? It provides the control room with an alternative method to choose units to fulfill a requirement – "Bulk Dispatch from a Price Stack". Based on the price and volume of energy in price merit order, instructions are then created in bulk and dispatched automatically.

Did it exist on our legacy BM systems? No – this is new functionality.

Impact / Benefit to NESO operations: Provides control room with a tool to dispatch units in bulk and reduces the number of button clicks and manual workload.

Impact / Benefit to industry: Reduction in skips, including those behind constraints by providing increased situational awareness to the control room & allowing easier dispatch of multiple smaller BMUs.

£4bn of annual benefits by improved situational awareness & extending Bulk dispatch

National Dispatch Optimisation (NDO)

Dispatch Efficiency ✓ · Automation ✓ · Competition · Flexibility ✓

System Impacted: OBP · Parallel run with LDA until June 2028

What does it do? NDO co-optimises energy (generation vs demand) and mandatory frequency response while respecting transmission system constraints. NDO generates "tailoring" of individual unit level dispatch instructions for the Control Room to issue. The output MW of individual BMUs are aggregated by ZONE for dispatch – these are the target programs. ZONE is a mechanism for managing the workload in the Control Room involved in issuing individual BOAs.

Did it exist on our legacy BM systems? The existing Legacy Dispatch Optimisation (LDA) tool, which is a deterministic tool, does not efficiently support today's energy technology landscape. The NDO solution provides enhancements to better manage flexible assets.

Impact / Benefit to NESO operations: Provides improved economic dispatch of these assets types and reduces skips while respecting the physical constraints of the transmission system.

Impact / Benefit to industry: Anticipated to improve economic dispatch and reduce skip rates.

Trials indicate £20m of consumer benefit per annum

Implement GC0166

Dispatch Efficiency ✓ · Automation ✓ · Competition · Flexibility ✓

System Impacted: OBP

What does it do? There is currently no clear provision of projected energy volumes in the Balancing Mechanism. GC0166 "Flexible Offers" makes an interim arrangement to get around this – the 30-minute rule: this limits how NESO use these assets. GC0166 parameters (Maximum Delivery Volume, Maximum Delivery Period, Time to Deliver, Notice to Deliver) are aggregated by ZONE for dispatch – these are the target programs. ZONE is a mechanism for managing the workload in the Control Room involved in issuing individual BOAs.

Did it exist on our legacy BM systems? No – this is new functionality.

Impact / Benefit to NESO operations: Enhanced information for the management of LDAs, enabling more efficient use of them in balancing.

Impact / Benefit to industry: Adopted GC0166 rules & implementation on OBP supports improved economic dispatch of these asset types and leads to better scheduling decisions and removal of 500MW cap.

EDT/EDL Mastered from OBP

Dispatch Efficiency ✓ · Automation ✓ · Competition · Flexibility ✓

System Impacted: OBP

What does it do? EDT/EDL are the main mechanisms for issuing instructions to Bid Market Participants. These systems are how we send and receive key market information such as MW, parameters and dispatch instructions.

Did it exist on our legacy BM systems? Yes – however the new network is more resilient and the strategic nature of OBP will remove the need for planned outages.

Impact / Benefit to NESO operations: More resilient communication systems and reduced use of telephone instructions which increases workload and is sub-optimal.

Impact / Benefit to industry: More resilient communication systems and improved economic dispatch.

Interface with NCMS for Constraint Data

Dispatch Efficiency ✓ · Automation ✓ · Competition · Flexibility ✓

System Impacted: OBP

What does it do? The NCMS is implementing a capability to run power network analysis tools that identify constraints in real-time based on the state of the grid. This can make changes to constraint limits in shorter timescales as system conditions change.

Did it exist on our legacy BM systems? No – this is new functionality.

Impact / Benefit to NESO operations: Accurate forecasts allow for better decisions from both an economic and security point of view.

Impact / Benefit to industry: With greater accuracy of constraint limits there is a greater certainty in balancing actions.

Enable Near Real-Time Co-Optimisation

Dispatch Efficiency ✓ · Automation ✓ · Competition · Flexibility ✓

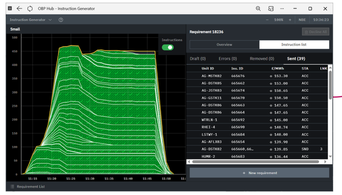
System Impacted: OBP

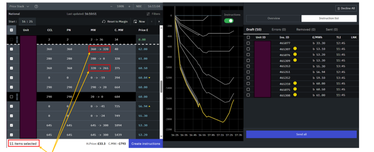
What does it do? New response products will be included within the National Dispatch Optimiser, ensuring advice to the control room is accurate and up to date. This will enable the use of new response products in near real-time, while considering transmission constraints.

Did it exist on our legacy BM systems? No – this is new functionality.

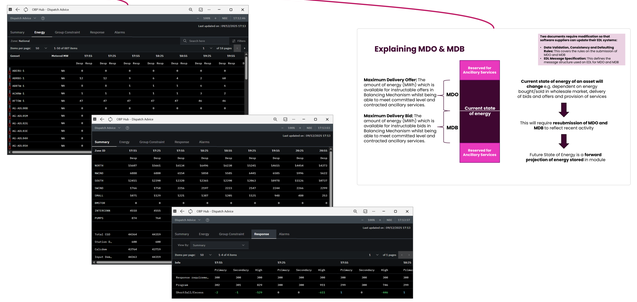
Impact / Benefit to NESO operations: Supports the control room in ensuring the response products are delivered into the control room, so not to increase workload and ensure most economic decisions are made.

Impact / Benefit to industry: Ensures new products are instructed economically – reducing skips.





11 sets of Price Stacked MWs are selected in bulk, and OBP has created Bulk Instructions for 10 units as some of the price stacked MWs are for the same unit.


OBP Hub - Dispatch Advice
Summary
Energy
Group Constraint
Response
Alarms
Last updated on: 09/12/2025 17:13
Unit
Dispatchable
Dynamic
Mode
Dispatch Mode
Response Mode
Response Value/Status
Response Time
Response Duration
Response Id
Response Source
Response Type
Response Priority
Response Status
Response Reason
Response Error
Response Error Reason
Response Error Time
Response Error Source
Response Error Type
Response Error Priority
Response Error Status