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Grid Code Modification Proposal Form

GC0185: Grid Code Changes for Mandatory Frequency Response (MFR) replacement

Overview: NESO are launching a new response service (Real-time Dynamic Regulation) in 2026/27 to replace Mandatory Frequency Response (MFR). It is expected that the two products will run in parallel to 2029 to enable transition, before phasing out procuring of MFR.

Modification process & timetable

1. **Proposal Form** — 07 January 2026
2. **Workgroup Consultation** — 17 June 2026 - 08 July 2026
3. **Workgroup Report** — 16 September 2026
4. **Code Administrator Consultation** — 30 September - 30 October 2026
5. **Draft Final Modification Report** — 18 November 2026
6. **Final Modification Report** — 09 December 2026
7. **Implementation** — 10 Business Days after Decision

Status summary: The Proposer has raised a modification and is seeking a decision from the Panel on the governance route to be taken.

This modification is expected to have a: Medium impact
Market participants, Transmission System Operator,

Modification drivers: System operability, system security, efficiency, GB compliance

Proposer's recommendation of governance route	Standard Governance modification with assessment by a Workgroup	
Who can I talk to about the change?	**Proposer:** Thomas Goss thomas.goss@neso.energy 07522 998 916	**Code Administrator** **Contact:** grid.code@neso.energy

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What is the defect you are trying to resolve?

Currently, Mandatory Frequency Response (MFR) is available in real-time, which is used as an alternative to over-procurement of Dynamic Containment, (DC) Dynamic Modulation (DM) and Dynamic Regulation (DR) services that are procured at a day-ahead auction. However, those real-time services are more expensive per MW, and approximately half as effective as Real-time Dynamic Regulation. Using MFR in real-time costs of approximately £29 million per annum.

On top of the financial aspect, MFR is not compliant with retained EU regulation. Ofgem have approved an extension to the derogation until 2029, but this comes with an obligation to significantly reduce our utilisation of both services.

The Grid Code and CUSC obligate parties to have the capability to provide MFR and respond to an instruction to enter response mode if issued. This means that if we are unable to secure adequate response through voluntary markets or in a system restoration scenario, we can always access response capability via the MFR service. This "response of last resort" is an essential component of our strategy to operate a safe and secure system. We cannot replicate this through our Dynamic Services because if response providers do not want to enter these markets, they have no obligation to make their capability available to us. Mandatory and Commercial Frequency Response (MFR/CFR).

https://www.neso.energy/industry-information/balancing-services/frequency-response-services/mandatory-and-commercial-frequency-response-mfrcfr

For further background information on Commercial Real-time Dynamic Response (DC, DM & DR) and how it is intended to be used please visit the below website: Real-time Dynamic Response Detailed Service Design

Furthermore, DR is a faster reacting service making it a more efficient mechanism for providing pre-fault frequency response.

Why change?

The introduction of Real-time Dynamic Regulation will allow for the reduction and eventual retirement of MFR thus improving operability, procurement efficiency and regulatory compliance.

Modifications to the Grid Code and CUSC are required to provide for Dynamic Response to be an option for market participants to meet code obligations on frequency response, allowing for the retirement of MFR.

Real-time Dynamic Regulation is due to go live in late 2026/early 2027 and after a transition period, aiming to completely replace MFR by Q4 2029. Modifications to the Grid Code and CUSC are needed to be complete by June 2026 to provide the market with clarity on their obligations in the Grid Code.

What is the Proposer's solution?

We are proposing that amendments are made to the relevant sections of Grid Code which confirm the introduction of Real-time Dynamic Regulation. In order to properly address the identified drivers, the proposer's solution is to phase out Mandatory Frequency Response (MFR) and introduce Real-time Dynamic Regulation, aligning the Grid Code with both GB and EU best practice. By transitioning from a mandatory, bundled service to market-based, separately procured frequency response products, this solution enhances system operability and security. Moreover, it delivers efficiency benefits by reducing costs, increasing flexibility, and ensuring compliance with evolving regulatory standards, while supporting a robust and future-proof electricity system.

What is in and out of scope?

The overarching scope of the proposal will encompass changes in Grid Code sections and documents contained, an exhaustive list of the precise number, and nature of changes in each is on a separate database. The codes, and areas within, which will be affected by this modification are as follows:

- Glossary & Definitions
- Connections Conditions
- European Connections Conditions
- Planning Code
- Data Registration Code
- Post Gate Closure Process (BC2)
- Frequency Control Process (BC3)
- Operational Planning & Data provision (OC2)

In addition, there will later be a separate 'Stage 2' Mod proposal, which will consist of the removal of references to MFR at the end of the transitional process.

Draft legal text

The changes to the Codes as described above are, due to the amount, listed on a separate spreadsheet, however there is a core change in wording which universally affects all of them.

Phrases including 'Primary Response' or 'Secondary Response' will have the addition: 'or Dynamic Regulation Low'.

Phrases including 'High Frequency Response' will have the addition 'Dynamic Regulation High'.

What is the impact of this change?

Reform of the two legacy response products: Mandatory Frequency Response (MFR) and Static Firm Frequency Response (SFFR).

Proposer's assessment against Grid Code Objectives	
Relevant Objective	**Identified impact**
(i) To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity;	Positive More economical as DR is cheaper and also more efficient as less DR required to meet the needs compared to MFR.
(ii) Facilitating effective competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);	Positive Moving to DR gives NESO a wider market and therefore greater competition This is because MFR and the systems that enable it do not enable some technology types to provide their full capacity. This issue will be addressed through

	delivery of Realtime Dynamic Regulation.
(iii) Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole;	Neutral
(iv) To efficiently discharge the obligations imposed upon the licensee by this license* and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and	Neutral
(v) To promote efficiency in the implementation and administration of the Grid Code arrangements	Neutral

** See Electricity System Operator Licence*

Proposer's assessment of the impact of the modification on the stakeholder / consumer benefit categories	
Stakeholder / consumer benefit categories	**Identified impact**
Improved safety and reliability of the system	**Positive** MFR is less effective for post-fault use, as this leaves NESO exposed to an extreme event where a large quantity of the post-fault response procured at day-ahead becomes unavailable. In this event, the ability to procure DC in real-time removes a real risk to system security.
Lower bills than would otherwise be the case	**Positive** Currently, MFR is available in real-time, which is used as an alternative to over-procurement of Dynamic Response services (DC, DM, DR) day-ahead. However, those real-time services are more expensive per MW, and approximately half as effective as Real-time Dynamic Regulation. Using MFR & Modes B-E in real-time costs £29 million pa.

Benefits for society as a whole	**Positive** In addition to the reduction in consumer cost, the replacement of MFR with Real-time Dynamic Regulation is likely to provide access to lower carbon emitting units, e.g. batteries, compared to the legacy MFR service.
Reduced environmental damage	**Positive** Replacement of MFR with Real-time Dynamic Regulation is likely to provide access to lower carbon units, such as batteries, compared to the legacy MFR service.
Improved quality of service	**Neutral**

When will this change take place?

Implementation date:

Sep 2026-Jan 2027.

Proposer's justification of Implementation date:

Timelines are dependent on NESO IT delivery. Real-time Dynamic Regulation will be available early 2027 with an 18 - 24 month parallel running period following that so anticipated retirement of MFR as a commercial service would be before Ofgem derogation ends in Dec 2029

Date decision required by

August 2026

Implementation approach

NESO will work with the market to implement the systems and processes to enable instruction of Real-time Dynamic Regulation with Gate Closure.

Significant engagement with industry on this topic has been conducted. Feedback on service design has been received leading to changes to key elements including data submission timescales.

Proposer's justification for governance route

Governance route: Standard Governance modification with assessment by a Workgroup

We believe the proposed changes will have a positive impact for Users, with the transition to Real-time Dynamic Regulation and eventual removal of MFR and Modes B-E which are no longer fit for post-fault use, which leaves NESO exposed to an extreme event negatively affecting the ability to procure Dynamic Containment, Dynamic Modulation and Dynamic Response (DC, DM, DR) in real-time. The proposed changes are likely to provide access to lower carbon units, such as batteries, compared to the legacy MFR service.

Interactions

☒CUSC	☐BSC	☐STC	☐SQSS
☐European Network Codes	☒ EBR Article 18 T&Cs[1]	☐Other modifications	☐Other

Changes in the CUSC will be reflective of the Grid Code Legal Text solution.

A consequential CUSC modification will be raised downstream of this modification but with the intention for it to be implemented in the Codes, subject to authorisation, simultaneously with the Grid Code changes.

Industry engagement and feedback

NESO have held several industry-wide Webinars, given advanced notice of this modification at Grid Code Development Forum, from which feedback has been incorporated into our thinking whilst finalising the Proposal Form.

In October 2024 NESO introduced the basic concept represented in this Mod proposal in the form of a Webinar, in terms of why we are looking at replacing MFR with Real-time Dynamic Regulation including recent changes to overall inertia and decreased reaction time, and how these and other issues continue to affect balancing, as well as the benefits which could be gained by a move to Dynamic Response services.

This was followed up with several more in January, March and June of 2025 where we engaged further regarding a potential timeline, maintaining MFR whilst Real-time Dynamic Regulation is introduced, and how payments will differ both during and after the transition. Each session went into more detail as stakeholders had the change to

query the proposed changes, which enabled the plan to be refined in a direction which was broadly supported, and in March of 2025 we launched the draft of the Service Terms.

In addition, a joint C9 and Dynamic Response A18 Consultation was launched which introduced changes for Quick Reserve Phase 2 Launch, as well as C9 changes to Applicable Balancing Services Volume Data (ABSVD) for Response and an Article 18 consultation to facilitate the application of ABSVD to Non-Balancing mechanism Units (Non-BMU's) in the Dynamic Response Market. Following more feedback during several drop-in sessions we also published updated versions of the FAQ Document and more importantly the SOE Guidance to include a technical explanation of the exceptional circumstances prescribed in the Dynamic Response Service Terms and advice on how to protect response capacity when participating in the Balancing Mechanism.

For more details on this stage of the process, the link below leads to the slide packs, FAQ's and recordings of the Webinars: Future Frequency Response Webinars.

Acronyms, key terms and reference material

Acronym / key term	Meaning
ABSVD	Applicable Balancing Services Volume Data
BSC	Balancing and Settlement Code
CFR	Commercial Frequency Response
CUSC	Connection and Use of System Code
DC	Dynamic Containment
DM	Dynamic Modulation
DR	Dynamic Regulation
EBR	Electricity Balancing Regulation
GC	Grid Code
MFR	Mandatory Frequency Response

STC	System Operator Transmission Owner Code
SQSS	Security and Quality of Supply Standards
T&Cs	Terms and Conditions

Reference material

- Obligation to provide MFR in the Grid Code (CC 8.1/ECC 8.1)
- Process for provision of MFR or CFR in the CUSC (Section 4.1.3)
- Mandatory and Commercial Frequency Response (MFR/CFR)
- Future of response services
- Future of response services webinars
- Grid Code Development Forum (GCDF) - 3 December 2025

Annexes

Annex	Information
Annex 01	GC0185 Proposed Legal Text Changes