

To: All interested stakeholders

Email: ESOPerformance@Ofgem.gov.uk

Date: 30 October 2024

Dear colleagues,

Decision to approve an amendment to the Terms and Conditions related to Balancing in relation to Phase 1 of the proposed Quick Reserve service

On 30 August 2024, we¹ received a proposal from National Grid Electricity System Operator ("NGESO")² to amend the terms and conditions related to balancing ("T&C") required by Article 18 of Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing,³ as amended by the Electricity Network Codes and Guidelines (Markets and Trading) (Amendment) (EU Exit) Regulations 2019 ("EBGL").⁴ The proposal relates to an update to the T&C to incorporate service documentation for the new Quick Reserve ("QR") service. This represents the first phase ("Phase 1") of service delivery, targeted at Balancing Mechanism unit participation.

NGESO proposed the QR service which aims to achieve potential cost efficiencies in system balancing by procuring firm fast reserve capacity rather than relying on optional services such as Optional Fast Reserve ("OFR") market⁵ and bilateral Spin Generation and Pump Storage Contracts. Efficiencies are anticipated from introduction of a QR service as its design will secure firm fast-acting reserve which provides the control room with greater flexibility to manage frequency events and through enhancing competition, allowing participation of wider asset types leading to an increase in market liquidity.

¹ The terms "we", "us", "our", "Ofgem" and "the Authority" are used interchangeably in this document and refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.

² We received the submission from National Grid Electricity System Operator, which at the time was the holder of an Electricity Transmission Licence and was the body responsible for maintaining the T&C. Since 1 October 2024, National Grid Electricity System Operator has transitioned to become National Energy System Operator, which holds an Electricity System Operator licence and is now the body responsible for maintaining the T&C. We have confirmed with National Energy System Operator that it still intends for this amendment to be made. Where a reference is historic (ie refers to information, statements, actions, etc prior to 1 October 2024), we have referred to National Grid Electricity System Operator, and otherwise have referred to National Energy System Operator.

³ Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (EBGL). EBGL came into force on 18 December 2018. Accessible at:

<https://eurlex.europa.eu/eli/reg/2017/2195/oj>

⁴ The UK SI amendment of the EBGL:

https://assets.publishing.service.gov.uk/media/5c17d6b440f0b60c8d601a2c/ENC_Markets_and_Trading_SI.pdf

⁵ Information about existing service can be accessed here: <https://www.neso.energy/industry-information/balancing-services/reserve-services/fast-reserve>

The Authority has decided to approve the proposal to integrate the relevant sections of the documentation for QR, which includes the QR Service Terms and QR Procurement Rules, into the T&C, as required by Article 18 of the EBGL.

Background

In accordance with Article 18 of the EBGL, the Transmission System Operator was required to develop a proposal regarding the terms and conditions ("T&C") for Balancing Service Providers ("BSPs") and Balance Responsible Parties ("BRPs").⁶ On 8 October 2019,⁷ we published our decision to confirm, upon satisfaction of certain conditions, that the T&C proposed are the T&C required by Article 18 of the EBGL. On 25 June 2020, all the necessary conditions were met, and the proposed T&C came into force in Great Britain ("GB").

For efficient system balancing, National Energy System Operator ("NESO") uses reserve services to address electricity supply and demand fluctuations. QR, a fast-acting reserve service, has been designed to ensure that NESO can react to pre-fault disturbances and restore the energy imbalance to within operational limits of ± 0.2 Hz. The service design is intended to allow NESO access to firm balancing capacity, in an economic manner, such that it has sufficient upward and/or downward reserve available for real-time energy dispatch. NESO has highlighted that securing capacity at the day-ahead stage and paying units for this availability through a pay-as-cleared auction, can offer greater certainty and capability for the control room to manage frequency events. This new service design aims to save consumer costs through a more flexible service, enhanced competition and increased market liquidity.

Currently, NESO procures fast reserve in real time through the existing OFR market (an optional service, meaning that firm capacity is not secured ahead of time) and Spin Generation and Pump Storage Contracts (procured through bilateral agreements, meaning that it limits cross-market competition). NESO may be required to adjust the market position if these existing market frameworks fail to provide sufficient upward and / or downward reserve. This requires NESO to accept bids or offers through the Balancing Mechanism ("BM"), typically leading to increased costs for system balancing.

⁶ See footnote 2 and our decision of 14 September 2018 <https://www.ofgem.gov.uk/decision/decision-assignment-transmission-system-operator-obligations-under-guideline-electricity-balancing-regulation-within-gb>
⁷ Our decision of 8 October 2019 is accessible here <https://www.ofgem.gov.uk/publications/decision-transmission-system-operators-proposal-terms-and-conditions-related-balancing>

NESO is proposing to approach QR service implementation in a phased manner:

1. Phase 1 opens the new service for BM registered participants only; and,
2. Phase 2⁸ expands the service to allow non-BM participants.

For the avoidance of doubt, the decision in this letter refers only to the Phase 1 QR service design and does not impact any future decisions relating to the QR service.

NGESO submitted a proposal to amend the T&C to integrate QR on 30 August 2024. This proposal followed a consultation period (conducted by NGESO) that concluded on 29 July 2024.⁹ NESO's proposal is to embed relevant sections of the QR Service Terms and QR Procurement Rules into the T&C. We also note that NGESO proposed some changes in relation to QR in the Defined Terms of Response Procurement Rules. To enhance the clarity of the T&C, NGESO supplied an updated mapping document alongside the proposal. On 23 October 2024, NESO submitted revised Service Terms and mapping documents, correcting minor errors. These revised documents formed the basis of our decision-making process.

Rationale for our decision

We have reviewed the service documents (consisting of the QR Service Terms and QR Procurement Rules) and justification documents provided by NGESO to be recognised as part of the T&C and submitted to us in line with the requirements of the EBGL, the wider principles of the Electricity Regulation,^{10,11} and our statutory duties and obligations. In order to do this, we engaged with NESO to better understand its proposals in several areas.

In reaching our decision, we considered feedback from industry stakeholders in response to NGESO's consultation on the proposed changes. The overall response was positive, but there were requests for clarifications in several areas, especially, in relation to phased delivery and Maximum Recovery Period. NGESO addressed these inquiries and amended the T&C prior to submission to incorporate relevant stakeholder feedback where appropriate and we consider that this has been done satisfactorily.

⁸ We understand that NESO intends to submit a proposal on Phase 2 of QR in early 2025, with changes to the service going live in summer 2025, if approved. We expect NESO to provide updates to timeframes regularly.

⁹ This consultation ran from 27 June to 29 June 2024. Details are available at: <https://www.neso.energy/industry-information/balancing-services/reserve-services/quick-reserve>

¹⁰ Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity, available here:

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R0943>

¹¹ The UK SI amendment of the Electricity Regulation is UK SI 2020 No. 1006 which can be found at:

<https://www.legislation.gov.uk/uksi/2020/1006/introduction/made>

Need for the Quick Reserve service

We understand that changing system conditions, including the increase in intermittent generation, mean that the system operator has a need for a service which can respond quickly to pre-fault energy imbalances. The service design of QR should allow the system operator to address energy imbalances as they arise, maintaining control of frequency close to 50.0Hz as the demands of doing so become harder. NESO needs to remain mindful of the costs of managing system balancing, and QR provides an additional tool which can maximise value: as NESO should only procure QR firm capacity where this represents a cost-effective solution to system balancing needs, this should represent value to the system (and by extension, to the end consumer). We expect NESO to work to maximise the potential volume which can enter the service, subject to meeting system requirements and economic efficiency.

Cost efficiency and enhanced competition

Based on the cost benefit analysis provided by NGENSO,¹² procuring fast reserve through the proposed service design is expected to achieve savings. The calculation indicates that QR Phase 1 could offer a potential net consumer benefit of £29.3 to £32.7m per annum.

Further, we note that aspects such as limited participation, competition and lack of certainty over available capacity in the OFR market and Spin Generation and Pump contracts, scarcity in the BM, and the changing system need (for example, growth of intermittent generation sources and decreases in dispatchable generation) are contributors to the size of the benefits accessible through this kind of service. Therefore, although NESO can access fast reserve through existing market mechanism currently, we consider that there is potential efficiency in introducing a day-ahead firm capacity service which could lead to a reduction in overall costs.

Stakeholder views

Through the consultation period, the Phase 1 QR service design received significant stakeholder attention. General sentiment toward the service was supportive, however, there was a substantial amount of consultation feedback regarding the proposed phased implementation approach and the proposed Maximum Recovery Period of participating assets. Moreover, several parties sought clarity on various aspects such as addition of an “excessive pricing” clause (paragraph 5.11 of the Service Terms), enabling of splitting and

¹² Quick Reserve Summary Document, available here: <https://www.neso.energy/document/323826/download>

stacking between reserve and response products, time to full delivery, ramping notice and operational and performance metering.

Phased delivery

Concerns were raised by a few respondents regarding the phased implementation¹³ approach, which allows BM registered assets to participate in the service from November 2024 and expands to non-BM participants in June 2025. NESO explains that IT systems to allow non-BM participants to partake in the service are not currently available, and that this phased approach allows access to consumer savings.¹⁴

NGESO also explored the option of developing existing systems to facilitate non-BM participation early, however, it required significant investment and would be unlikely to be available before mid-2025 when new systems would be available anyway. The existing Ancillary Services Dispatch Platform ("ASDP") used to dispatch non-BM assets is due to be retired at the end of 2025 as the non-BM dispatch shifts onto the OBP system. We are comfortable that NESO's phased approach for QR brings forward potential savings and that upgrading the existing systems would increase the implementation time and cost of the service which is not in consumer interest. We are further contented that as routes to market remain available to non-BM providers during Phase 1, costs and benefits are most effectively balanced by a phased approach.

For clarity, we understand that while QR will be NESO's sole method of securing firm fast reserve capacity,¹⁵ dispatch actions will be taken in line with economic merit principles,¹⁶ with NESO comparing across all available options. Therefore, OFR and the BM will provide cross-market competition to QR for utilisation. If OFR units are priced competitively and can meet the system need, NESO should utilise those units in line with merit order principles.

Therefore, we also consider that this address concerns raised around lack of competitive pressure in the QR market during Phase 1 and loss of market access to participants who cannot / do not wish to enter QR as a BM participant.

¹³ Appendix 2 of the Quick Reserve Summary Document, available here: <https://www.neso.energy/document/323826/download>

¹⁴ NESO forecasts available savings during Phase 1 of £29.3m to £32.7m through operating on the combined BM and Open Balancing Platform ("OBP") systems for 7 months.

¹⁵ Balancing capacity refers to a volume of reserve capacity which a provider has agreed to keep available for a certain period in order to provide corresponding volumes of balancing energy.

¹⁶ For utilisation, we expect NESO to consider all available units that can meet the system need on an economic merit basis.

Maximum Recovery Period

The majority of consultation feedback focussed on selection of the Maximum Recovery Period parameter. We observe that industry views are mixed, with some respondents advocated for a shorter recovery period, some agreeing with the proposed selection of 3-minutes, and others suggesting that a longer recovery period is appropriate as it would facilitate a broad range of flexibility providers.

We have assessed the proposal and supporting analysis¹⁷ for this service parameter. The submitted evidence explains how selection of a 3-minute Maximum Recovery Period achieves a beneficial economic outcome based on available information, accounting for NESO's operability requirements, increased market participation and improved liquidity in the market. That is, NESO assesses that the required increase in volume which it would need to procure to ensure the forecast system requirement is met would not be offset by the increase to market liquidity (which is relatively smaller). We agree with this assessment based on the current data available but are keen that NESO keep this under review as either or both of system need and market liquidity at different recovery periods changes.

From an operability perspective, NESO's analysis presents three challenges in increasing the Maximum Recovery Period:

- Reduced coverage efficiency: NESO's ability to respond to cover frequency deviations¹⁸ worsens with increasing Maximum Recovery Period.
- Loss of flexibility: The percentage of instructions sent to the same unit for re-activation which cannot be fulfilled is modelled as increases substantially from if changing Maximum Recovery Period from 3 minutes to 10 minutes; and,
- Higher risk of unavailability: NESO indicates that a longer recovery period significantly increases the risk of a QR unit being unavailable.

A few respondents argued that QR service parameters are incongruently strict compared to historic OFR usage. We are comfortable with NESO's assessment, and the data used to produce the risks and costs presented with an increase in recovery period which includes historic OFR usage, bilateral contracts and Bids-Offers Acceptances ("BOAs") and reflects the changing system needs. Additionally, with reduction in available dispatchable generation, service requirements may differ from historic usage. As the system becomes

¹⁷ Quick Reserve Maximum Recovery Period, available here: <https://www.neso.energy/document/320466/download>

¹⁸ Coverage is defined here as the percentage of 0.1Hz deviations a theoretical unit could respond in a certain Recovery Period.

more intermittent and dispatchable generation decreases, NESO needs to prepare for expected future usage.

Having considered NESO's analysis and industry views, we are satisfied with the rationale for choosing 3 mins as the Maximum Recovery Period for QR Phase 1. However, we expect NESO to monitor the service, remain engaged with the industry and keep service parameters under review for QR Phase 2.

"Excessive Pricing" clause

NESO has gathered feedback on its approach to establishing a clause in the QR Service Terms which protects service availability. We understand that there is a perceived risk of participants utilising "excessive" pricing in earlier contracted settlement periods in order to preserve availability for later periods. Some respondents expressed concerns about the lack of an industry-wide agreed definition for excessive pricing and NESO's subjective method of investigating the intent behind pricing decisions. We understand that this provision aims to ensure that provider pricing reflects their actual utilisation costs rather than being used to guarantee future unit availability. Therefore, we are comfortable with NESO's decision to introduce this clause to discourage non-availability of contracted units and understand it is not to be used to restrict normal market behaviour.

Other service design considerations

One aspect of the service design that attracted views from industry is the 1-minute Time to Full Delivery. NGESO explained that QR is fast acting reserve service which aims to manage the frequency deviations within ± 0.15 Hz, and we consider that the time to full delivery parameter makes QR a reliable tool for managing system frequency.

Some respondents highlighted concerns that a 0 minute requirement for "Notice to Start Ramping" is too restrictive as they use third party communication, which could take them a few seconds to start ramping. NGESO clarified that the requirement is due to their IT system's capability to only accept integer values, and it is acceptable for participants to start ramping with a few seconds delay so long as they reach full delivery within 1-minute. We are satisfied with this response and that it should not represent a significant barrier to entry for participants. NESO should ensure that this is clear to all participants.

Respondents generally supported the proposal for Maximum Bid Size; however, some suggested that the failure of a single provider could affect the service operation and that it could lead to early market saturation, and therefore a smaller value could be more appropriate. We understand the concerns of respondents on this point; however, the risk of provider failure is not exclusive to QR alone and reduction in bid size could negatively affect

market liquidity. Therefore, for Phase 1, we are content that the current proposal for Maximum Bid Size does not represent an undue risk. Nonetheless, we expect NESO to monitor the service to ensure that potential negative outcomes do not arise, and to make revisions if efficient.

General feedback

The majority of respondents welcomed the proposals for baselining, state of energy requirement, crossovers, aggregation, availability declarations, auction process and operational and performance metering. We agree with the stated design parameters.

Moreover, respondents strongly advocated for co-optimisation of service windows between reserve and response products to enable stacking. NGESO has stated in response that due to limited performance granularity, stacking with Dynamic Response ("DR") services wouldn't be allowed for Phase 1. However, stacking will be allowed as the performance metering requirement changes to 1-second granularity for QR in Phase 2. While we expect NESO to make use of the tools available to ensure the most economic and efficient procurement, we understand the restriction in this case is due to the difference in performance metering requirements between QR and DR services in Phase 1. We further understand that NESO aims to enable stacking from QR Phase 2.

Decision

Considering the above, the Authority hereby:

- approves that the QR Service Terms and QR Procurement Rules as mapped form part of the T&C required by Article 18 of the EBGL.

Next Steps

We expect NESO to publish the QR Service Terms and QR Procurement Rules for Phase 1 alongside an updated Article 18 mapping document.

We will continue monitoring the progression of these actions to ensure all processes are clear for market participants. We expect NESO to fulfil its duties to operate the system in an economic and efficient manner. Consequently, it is expected that the procurement of firm volume should be guided by forecasts of system needs and available real-time options. We expect NESO to monitor service performance and to keep the current service parameters, especially Minimum Activation Period, Maximum Recovery Time, Maximum Bid Size under review, and to take learnings as evidence for Phase 2 considerations.

We note that NESO plans to launch the service towards mid-November 2024, with first service delivery expected early in December 2024. We expect NESO to clearly inform industry about exact dates and timings as soon as practical.

We expect NESO to maintain a collaborative dialogue with stakeholders including during QR Phase 2 consultation, ensuring any modifications align with consumer interests.

If you have any queries regarding the information contained in this letter, please contact Shubh Mehta (shubh.mehta@ofgem.gov.uk).

Yours sincerely,

James Hill

Principal Policy Expert – Electricity System Operation

For and on behalf of the Gas and Electricity Markets Authority