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All interested parties,
stakeholders in GB and beyond,
and other regulatory bodies

Email: ESOperformance@ofgem.gov.uk
Date: 10 March 2022

Dear colleagues,

Decision to grant the Electricity System Operator a derogation for Dynamic Regulation under Article 6(14) from the requirements of Article 6(2) of the Regulation (EU) 2019/943 as amended

On 30 November 2021 we[1] received a request from the Electricity System Operator ("ESO") for a derogation under Article 6(14) from the requirements of Article 6(2) of the Regulation (EU) 2019/943 (the "Electricity Regulation"),[2] as amended by The Electricity and Gas (Internal Markets and Network Codes) (Amendment etc.) (EU Exit) Regulations 2020[3] for the new specific Frequency Containment Reserve ("FCR") product, Dynamic Regulation ("DR").

The ESO have requested the derogation from the requirements of Article 6(2) to allow this specific product to be launched with the price of balancing energy pre-determined in the balancing capacity contract.

This letter sets out our decision to approve the derogation request for DR and outlines the necessary next steps.

[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] 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
[3] 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

Background

FCR is defined in Commission Regulation (EU) 2017/1485 establishing a guideline for system operation (the "SOGL Regulation"),[4] as amended by The Electricity Network Codes and Guidelines (System Operation and Connection) (Amendment etc.) (EU Exit) Regulations 2019[5] as 'the active power reserves available to contain system frequency after the occurrence of an imbalance'. DR is a new specific FCR balancing product which the ESO has developed to meet the need to contain system frequency within operational limits (± 0.2Hz). It will deliver a fast, dynamic response within this range of the nominal frequency (50Hz). Unlike static frequency response products, delivery of DR is dynamic and delivers energy proportional to the change in frequency, with an activation time of 10 seconds.

Article 6 of the Electricity Regulation as amended, which became applicable on 1 January 2020, contains a series of new obligations on the organisation of the balancing markets which apply to FCR products. Among others, this includes Article 6(2) which requires that the price of balancing energy shall not be pre-determined in contracts for balancing capacity.

The ESO has proposed that the DR product should have the price of balancing energy effectively pre-determined at £0/MWh in the balancing capacity (availability) contract. They noted that designing DR with a pre-determined price for balancing energy is justified given that:

- the volume of balancing energy utilised is expected to be very small, and therefore the payment for this volume of energy would also be very small. The ESO have evidenced that it is rare to require delivery of large volumes of energy to control frequency over an EFA block;[6]
- paying for the volume of energy delivered from the DR service does not provide any significant economic signal to market players, but would add additional costs and complexity to support the submission of non-zero prices close to real-time;
- there is price volatility in the balancing market which could leave the ESO exposed to high balancing energy (utilisation) costs; and
- providers can include risk premia to cover costs of delivery in their availability price submissions, with the ESO buy curve sufficiently reflective of prices to allow this.

[4] COMMISSION REGULATION (EU) 2017/1485 establishing a guideline on electricity transmission system operation, available here: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1485
[5] The UK SI amendment of the SOGL Regulation is UK SI 2019 No. 533 which can be found at: https://www.legislation.gov.uk/uksi/2019/533/made
[6] We understand that DR will be procured and contracted for, at least initially, on a daily basis in EFA block periods, where an EFA block is an Electricity Forward Agreement block, equal to 4 hours. There are thus six EFA blocks in a day (starting from midnight CET).

Article 6(14) of the Electricity Regulation allows the ESO, where standard balancing products are not sufficient to ensure operational security, to propose, and Ofgem may approve, derogations from Article 6(2) and (4) for specific balancing products which are activated locally without exchange with other transmission system operators.

Given that the specific balancing product DR has been designed with a pre-determined price for balancing energy, the ESO is requesting a derogation under Article 6(14) from the requirements of Article 6(2) of the Electricity Regulation.

In accordance with Article 6(14), the proposal for a derogation must contain the following information:

a) a description of measures proposed to minimise the use of specific products, subject to economic efficiency;
b) a demonstration that the specific products do not create significant inefficiencies and distortions in the balancing market either inside or outside the scheduling area; and
c) where applicable, the rules and information for the process for converting the balancing energy bids from specific products into balancing energy bids from standard balancing products.

The ESO's derogation request was submitted in accordance with Article 6(14) and contained all necessary information. However, we note that the ESO does not intend to convert DR balancing energy bids into balancing energy bids for standard products. The ESO has stated that these products will only be activated locally. Therefore, requirement c) does not apply to this product.

Decision

We have reviewed the request submitted to us in line with the requirements of the Electricity Regulation, the wider objectives of Regulation (EU) 2017/2195[7,8] and our statutory duties. We have also engaged with the ESO to clarify our understanding of the rationale for the request for derogation. When assessing the ESO's proposal for DR, we considered the following aspects:

[7] COMMISSION REGULATION (EU) 2017/2195 establishing a guideline on electricity balancing ("the EBGL Regulation"), available here: https://www.legislation.gov.uk/eur/2017/2195
[8] The EBGL Regulation is amended in UK law by UK SI 2019 No. 532 which can be found at: https://www.legislation.gov.uk/uksi/2019/532/contents/made

a) *the need to design a specific FCR product with a pre-determined price of balancing energy in the balancing capacity contract*

Given that there is no equivalent standard product, and that other balancing products are not sufficient for ensuring operational security, we agree that there was a need for the ESO to develop the new specific FCR product, DR. While the ESO can currently access frequency response through other products such as Firm Frequency Response ("FFR") and Mandatory Frequency Response ("MFR"), the ESO have shown that DR is sufficiently different from these products. DR is required as it will better meet the needs of the current and future electricity system and improve efficiency of system balancing.

We understand the ESO is proposing that providers of DR will offer a volume of balancing capacity with an associated price, but that providers will not be able to assign a price to the activation of the balancing energy (effectively pre-determining the price of balancing energy at £0/MWh). If a provider determines that they need to cover their costs of delivering energy, it is expected that they would reflect this in the availability price they provide.

Through engagement with the ESO, we have understood their process for setting the capped availability price per MWh (the "buy price") at the day-ahead stage. We expect that construction of the buy price should reflect the best estimate of provider exposure to energy prices within each contracted EFA block. We understand from the ESO's explanation of the buy price calculation that this is feasible.

The ESO also provided us with data showing that utilisation of energy for this product is typically small, especially when considering the net amount for providers delivering the service through looped blocks. The ESO assessment is that the projected utilisation of balancing energy provided through DR is unlikely to be material enough to justify the establishment of a separate mechanism for payment for balancing energy. However, the nature of the DR product (operating close to 50Hz for small, potentially frequent, system imbalances) means that it is highly probable that some energy is delivered in each contracted period. We expect the ESO to monitor and assess outturn data after the product launch to confirm that the utilisation of DR is small.

We do not agree with the proposed justification that the ESO should be relieved of paying for balancing energy to avoid volatile or unpredictable prices in the balancing market. We also have concerns that looped block providers may be better able to offset their risk than providers of only the high or low services. We have therefore outlined a requirement for the ESO to monitor this risk during the initial launch of the product and

we expect the ESO to propose changes to the procurement of this product should inefficiencies be identified.

Nevertheless, we consider that the proposed design of the DR product, in which the balancing energy has a pre-determined price, is appropriate at this time.

b) *a description of measures proposed to minimise the use of specific products, subject to economic efficiency*

We understand that there is no FCR standard product that can be used in preference to FCR specific products. We also understand that balancing capacity provided by DR will be required in the majority of contract periods (procured against varying volume requirements, dependent on system need) in order to maintain system frequency within operational limits during system imbalances. We further understand that the ESO will use volumes of DR to displace volumes in other frequency response products such as FFR, and that DR is also more effective than existing products. We therefore expect that this will reduce the overall volume procured for frequency response purposes compared to the current baseline.

The ESO continues to be required to procure and use all FCR products, including DR, in line with its licence obligations to procure balancing services in an economic, efficient and co-ordinated manner. As a result, we believe that this ensures the ESO will procure only the minimum required amount of DR to manage system frequency safely and effectively, ensuring system security. We understand that the ESO will continue to monitor and develop DR, as well as its other new FCR products, and will look to optimise the procured volumes across the products.

c) *a demonstration that the specific products do not create significant inefficiencies and distortions in the balancing market either inside or outside the scheduling area*

We believe the ESO has demonstrated that the technical parameters of DR are sufficiently specific and different from existing frequency response products as to not create any significant inefficiencies and distortions in the balancing market inside the GB scheduling area. We understand that the ESO intends to use DR to replace some of the volume currently procured through FFR, and this will necessarily impact that market. The ESO has explained to us that the electricity system has different needs, with increasing penetration of renewable energy sources, and that the replacement of some existing products is necessary to ensure that system security can continue to be met.

In addition, there is no standard FCR product traded across scheduling areas, and we understand that the ESO will only activate DR locally. As a result, we believe that there is no risk of distortions outside of the GB scheduling area.

We agree with the ESO that DR is critical to ensuring future operational security. Based on our analysis of the information submitted to us by the ESO as required by Article 6(14) of the Electricity Regulation, and the current need for fast acting frequency response services to ensure security of supply, we hereby:

- Grant the Electricity System Operator a derogation under Article 6(14) of the Electricity Regulation from the requirements of Article 6(2) for Dynamic Regulation.

Our decision to derogate the ESO from the requirements of Article 6(2) of the Electricity Regulation for DR is effective immediately. This derogation from the requirements of Article 6(2) shall apply to DR for the duration that the ESO deems it necessary to use that specific product. However, we expect the ESO to continue to monitor the outturn utilisation of DR balancing energy for the continued relevance of this derogation. In particular, the ESO should review whether this derogation continues to be necessary should frequency response services become stackable in future.[9]

Further, we expect the ESO to carry out regular ongoing monitoring following the launch of DR. This is to provide sufficient comfort in the continued economic, efficient, and transparent procurement of DR, and to ensure that market entry, particularly for zero-carbon providers, is not hindered as a result of this derogation. As a minimum, we expect the ESO to monitor:

- the amount of energy delivered by the DR service;
- liquidity in both the low and high DR markets, and the contribution to that liquidity of non-looped blocks;
- frequency of paradoxically rejected[10] high-only and low-only blocks;
- frequency with which looped blocks set the clearing price in auctions;
- bias in the pricing of looped versus non-looped blocks;
- flexibility and reactiveness of the buy curve to day-ahead energy prices;
- frequency at which providers 'price themselves out' of the availability auction.

[9] We understand that currently the ESO's dynamic response products are 'stackable' with the balancing mechanism (ie, the same asset can provide both services in the same contracted window), but not with each other. We further understand that it is the ESO's intention to review this, with the potential for the products to become stackable.

[10] Certain constraints within the auction rules may cause some sell order blocks to be rejected, despite the price of these blocks placing them 'in merit'. These blocks are paradoxically rejected as without the constraint they would have been accepted.

If you have any questions about the contents of this letter, please contact James Hill (James.Hill@ofgem.gov.uk).

Yours sincerely,

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Head of ESO Regulation