

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

Email: esoperformance@ofgem.gov.uk

Date: 25 September 2020

Dear colleagues,

Decision to approve the proposal for the definition and the use of Dynamic Containment as a specific product pursuant to Article 26(1)

On 23 September 2020, we¹ received a proposal from the Electricity System Operator (ESO) to define and use Dynamic Containment (DC) as a specific product for energy balancing in Great Britain (GB). This proposal was sent to us in accordance with Article 26 of Commission Regulation (EU) 2017/2195² establishing a guideline on electricity balancing (the EBGL Regulation).

This letter sets out our decision to approve the proposal to define and use DC as a specific product for energy balancing in GB and outlines the necessary next steps that must be taken.

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 Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing. The EBGL Regulation came into force on 18 December 2017. Regulation accessible here: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R2195&from=EN>

Background

FCR is defined in Commission Regulation (EU) 2017/1485 establishing a guideline for system operation (the SOGL Regulation) as “the active power reserves available to contain system frequency after the occurrence of an imbalance”.

DC is a new FCR product developed by the ESO to arrest frequency in low-inertia, large loss scenarios where the Rate of Change of Frequency (RoCoF) is very fast. DC has been developed to meet the need to contain frequency within statutory limits (+/- 0.5Hz) for a range of loss sizes. Unlike other static frequency response products, delivery of DC is dynamic and able to deliver energy proportional to the change in frequency with an activation time of 1 second.

As a result of developing the DC product, the ESO has submitted a proposal for the definition and the use of DC as a specific product pursuant to Article 26(1). In accordance with Article 26(1) of the EBGL Regulation, the proposal for the definition and the use of DC as a specific product must contain the following information:

- (a) a definition of specific products and of the time period in which they will be used;*
- (b) a demonstration that standard products are not sufficient to ensure operational security and to maintain the system balance efficiently or a demonstration that some balancing resources cannot participate in the balancing market through standard products;*
- (c) a description of measures proposed to minimise the use of specific products subject to economic efficiency;*
- (d) where applicable, the rules for converting the balancing energy bids from specific products into balancing energy bids from standard products;*
- (e) where applicable, the information on the process for the conversion of balancing energy bids from specific products into balancing energy bids from standard products and the information on which common merit order list the conversion will take place; and*
- (f) a demonstration that the specific products do not create significant inefficiencies and distortions in the balancing market within and outside the scheduling area.*

The ESO’s proposal was submitted in accordance with Article 26(1) and contained all necessary the information required.³ However, the ESO has not been able to undertake a consultation on the totality of the proposal to define and use DC as a specific product in

³ The ESO does not intend to convert DC balancing energy bids into balancing energy bids for standard products. The ESO has stated that DC will only be activated locally, and therefore Article 26(1)(d) and (e) are not applicable to DC.

accordance with Article 10 of the EBGL Regulation prior to its intended soft launch date. Nevertheless, we note the ESO has consulted with industry on the design of the DC product and its constituent guidance documents, as well as the planned addition of these documents to the Article 18 of the EBGL Regulation which provides for the Terms and Conditions related to balancing.

The ESO's proposal sets out that it is necessary to use DC as a specific balancing product on the basis that the current products available to the ESO will not be sufficient to ensure operational security and to maintain the system balance efficiently. The ESO has explained that the increased prevalence of inertia issues owing to the transition to a more renewable-generation system mean that a new product is required to arrest frequency if a generator or interconnector causes a large loss on the system.

Decision

We have reviewed the proposal submitted to us in line with the requirements of the EBGL Regulation, the wider objectives of the Regulation (EU) 2019/943⁴ (the Electricity Regulation) and our statutory duties and obligations. We have also engaged with the ESO to clarify our understanding of the proposal.

When assessing the ESO's proposal for the definition and the use of DC as a specific product, we considered the following aspects set out in Article 26(1) of the EBGL Regulation:

(a) a definition of specific products and of the time period in which they will be used;

We understand that faster acting frequency response products are required to protect the system against the potential for rapid frequency deviations from 50Hz, and that a product is required to be available at all times in order to protect the NETS from unexpected losses in demand or generation.

We believe that DC, as defined within the ESO's proposal, will be able to help counteract rapid changes in system frequency and while it is to be available at all times, it will be used in specific situations where there is a need for a product to arrest frequency in low-inertia, large loss scenarios.

⁴ 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>

(b) a demonstration that standard products are not sufficient to ensure operational security and to maintain the system balance efficiently or a demonstration that some balancing resources cannot participate in the balancing market through standard products;

We understand that there are no standard FCR products, and that other standard balancing products do not, and will not, have the capabilities required by the ESO to ensuring operational security.

DC is designed to operate post-fault, i.e. for deployment after a significant frequency deviation in order to meet an immediate need for fast-acting frequency response. We understand that some existing static frequency response products are fast enough to effectively counteract changes in system frequency, but unlike static response products, delivery of DC is also able to deliver energy proportional to the change in frequency.

Therefore, we agree that there is a need for the ESO to define DC as a new specific FCR product to ensure operational security and to maintain the system balance efficiently. We also believe that the ESO has demonstrated that the technical parameters of DC are sufficiently different to the standard balancing products to warrant this.

(c) a description of measures proposed to minimise the use of specific products subject to economic efficiency;

We understand that there is no standard FCR product that can be used in preference to FCR specific products and therefore, the ESO will only be able to activate DC locally. We also understand that DC will be required at all times in order to protect the NETS an unexpected demand or generation loss could happen at any time.

However, as it procures DC, the ESO will be required to procure and use FCR products in line with its licence obligations to procure balancing services in an economic and efficient and co-ordinated manner. As a result, we believe that this ensures that the ESO will only procure the minimum amount of DC required to manage the system safely and effectively, and ensure system security.

(f) a demonstration that the specific products do not create significant inefficiencies and distortions in the balancing market within and outside the scheduling area.

We believe the ESO has demonstrated that the technical parameters of DC are sufficiently different to existing frequency response products. We have also not seen

any evidence to suggest that there is a risk that it will create any significant inefficiencies and distortions in the balancing market inside the GB scheduling area. In addition, there is no standard FCR product traded across scheduling areas, and we understand that the ESO will only be activate DC locally. As a result we also believe that there is no risk of distortions outside of the GB scheduling area.

We agree with the ESO that DC is critical to ensure future operational security, and based on our analysis of the information submitted to us by the ESO as required by Article 26(1) of the EBGL Regulation, and the current need for fast acting frequency response services to ensure security of supply we hereby:

- Approve the ESO's proposal for the definition and the use of Dynamic Containment as a specific product pursuant to Article 26(1).

It is disappointing that the ESO has not been able to perform a bespoke consultation on its proposal to define and use DC as a specific product. However, the other consultations related to the launch of DC have covered elements of this proposal, although not the totality of it. We also understand that it would not have been possible to run an additional one month consultation at this time, and that DC will be necessary for maintaining operational security going forward and there is significant value to consumers in this new product being launched by 1 October 2020.

Therefore, in light of the above, we have decided to approve this proposal on the basis that the ESO performs a full consultation on its proposal for the definition and the use of Dynamic Containment as a specific product pursuant to Article 26(1). We request that the ESO begins this consultation in October 2020. Following this consultation, the ESO must send us all consultation responses, as well as its own analysis of these responses, to enable Ofgem to decide whether any amendments to the proposal are required.

Next Steps

As set out above, we request the ESO to:

- 1) Perform a full consultation on its proposal for the definition and the use of Dynamic Containment as a specific product pursuant to Article 26(1) for a period of one month beginning in October 2020; and
- 2) Following this consultation, the ESO must send us all consultation responses, as well as its own analysis of these responses.

In accordance with Article 26(2), the ESO must also review the necessity to use specific products in GB at least once every two years using the criteria in Article 26(1).

If you have any queries regarding the information contained within this letter, please contact Alastair Owen (Alastair.Owen@ofgem.gov.uk) or Chris Statham (Christopher.Statham@ofgem.gov.uk).

Yours faithfully,

Eleanor Warburton

Deputy Director - ESO and Gas Systems