

## **Introduction**

- i) This Pricing Proposal (PP) has been developed for the GB market in order to provide clear guidance to the Transmission System Operator (TSO) of when marginal pricing (pay-as-cleared) should be used when a new balancing product is introduced.
- ii) Article 6(4) of Regulation (EU) 2019/943 of the European Parliament and of the council states that *“settlement of balancing energy for **standard balancing products and specific balancing products shall be based on marginal pricing (pay-as-cleared)** unless all regulatory authorities approve an alternative pricing method on the basis of a joint proposal by all transmission system operators **following an analysis demonstrating that that alternative pricing method is more efficient**”*.
- iii) Article 6(14) of Regulation (EU) 2019/943 states that *“Transmission system operators may, where standard balancing products are not sufficient to ensure operational security or where some balancing resources cannot participate in the balancing market through standard balancing products, propose, and the regulatory authorities may approve, derogations from paragraphs 2 and 4 for specific balancing products which are activated locally without exchanging them with other transmission system operators”*.
- iv) This Pricing Proposal has been developed in order for the GB TSO ascertain when marginal pricing (pay-as-cleared) should be used for balancing products and highlights the process of when other payment mechanisms can be utilised if deemed to be more efficient.

## **Scope**

**1.1** The Pricing Proposal is the common proposal for GB in accordance with Article 6(4) of REGULATION (EU) 2019/943 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL.

**1.2** The Pricing Proposal defines the methodology to determine the pricing mechanism of Balancing Energy resulting from frequency restoration reserves with manual activation (hereafter referred to as “mFRR”), replacement reserves (hereafter referred to as “RR”) and Frequency Containment Reserves (FCR), also known as specific products. Capacity payments are out of scope of this Pricing Proposal. Frequency Response is also out of scope.

## **Definitions and Criteria**

**2.1** All definitions for Frequency Reserve Response, Reserve Response and Frequency Containment Reserve can be found in SOGL (EU Regulation 2017/1485) and Statutory Instrument 2020 no. 1006.

Term	Definition
Balancing Energy	Energy used by transmission system operators to carry out balancing
Balancing Capacity	a volume of capacity that a balancing service provider has agreed to hold and in respect to which the balancing service provider has agreed to submit bids for a corresponding volume of

	balancing energy to the transmission system operator for the duration of the contract
Pay as Bid	Auction whereby participants are paid the amount bid or offered.
Marginal Pricing (Pay as Cleared)	Auction whereby a uniform price is given for all transactions.
Standard Product	A harmonised balancing product defined by all TSOs for the exchange of balancing services
Specific Product	'specific product' means a product different from a standard product

**2.2** Pay as Clear will be the payment mechanism used for all in scope products if the product meets the following criteria, subject to the conditions outlined in General Principles (Section 1).

Criteria	Definition	Quantitative Measures
Homogenous	The product cannot be distinguished from other products offered by different providers by the consumer.	i) Range of Technology types due to marginal pricing >4 deemed as non-homogenous <sup>1</sup> ii) Prices submitted by technology types
Perfect Information	All information for the market in which the product is available is correct, transparent and available to all parties.	i) Amount of information available to market prior to price being set (can include but not limited to volumetric information, timescales, operational impacts, prices of other participants) ii) Timescales of when such information becomes available
Competition	The market in which the product is in has competition and is not distorted by a single or dominant participant.	Herfindahl-Hirschman Index <sup>2</sup> i) Percentage of time that one unit/company/technology type (select where applicable) sets a marginal price based on modelling and projections ii) If the market scores above 1500 as per the index, it will be deemed as competitive.

**2.3** The TSO shall complete an assessment form against these three criteria upon development of a product. This assessment will determine whether Pay as Bid or Marginal pricing (Pay as Cleared) would

<sup>1</sup> Product would be non-homogenous due to differentials in price in 4 or more technology types offered

<sup>2</sup> The HHI is calculated by squaring the market share of each provider competing in the market and then summing the resulting numbers. For example, for a market consisting of four providers with shares of 30, 30, 20, and 20 percent, the HHI is 2,600 ( $30^2 + 30^2 + 20^2 + 20^2 = 2,600$ ). HHI below 100 indicates a highly competitive industry, HHI between 100 and 1,500 indicates an unconcentrated industry, HHI between 1,500 to 2,500 indicates moderate market concentration, HHI above 2,500 indicates high market concentration.

be used. If all 3 criteria are met, then the product would be settled on a pay-as-cleared basis. If these criteria are not met, pay-as-bid may be utilised if it results in a more economically efficient outcome.

2.4 If Pay as Bid is the outcome, the requirements of Article 6(14) as outlined within the introduction of this document will apply.

### **General Principles**

**3.1** By default, the settlement of balancing energy for all new specific balancing products shall be based on marginal pricing (pay-as-cleared).

**3.2** The TSO may evaluate any new products which are in scope of the outlined criteria. Pay as Bid may only be used when

- i) the product is not homogenous and/or;
- ii) the market is not competitive and/or;
- iii) there is not perfect information available in the market and/or

**3.3** Where standard products do not exist, i.e Frequency Containment Reserve, the TSO may apply the settlement methodology of their choice for that product.

**3.4** If any new products meet one or more of the criteria (i) to (iii), the ESO will perform an assessment to determine whether use of an alternative pricing method is more economically efficient.

**3.5** That assessment will include an assessment of whether the procurement of a specific product with an alternative pricing method will create significant inefficiencies or distortions in the balancing market either inside or outside the scheduling area.

**3.6** The ESO will share its assessment with the Authority via the Article 18 submission.

**3.7** If that assessment concludes that it more economically efficient to use an alternative pricing method, and that pricing method will not create significant inefficiencies or distortions in the balancing market either inside or outside the scheduling area, the ESO may use the respective pricing method.

**3.8** If an existing product (prior to approval of this Pricing Proposal) utilised "Pay as Bid", this product will continue on such basis until a time when the product ceases to exist and/or is replaced.

**3.9** Where the ESO makes an amendment to an existing product, the ESO will perform an assessment in accordance with paragraph 3.2 to determine whether the respective product is suitable for a pay-as-cleared pricing method. This assessment will take place at least once every [two] years.

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**3.10** Where BMUs are providing a new reserve service, they will still be instructed under a BM BOA. This means that either:

- a) Some BM BOAs will need to be settled Pay-as-Clear, or
- b) BMUs will continue to be settled Pay-as-Bid for the foreseeable future.

**Publication of the PP**

**4.1** The TSOs shall publish the PP without undue delay after the Authority has approved the proposal.

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