

Quick Reserve

Market Design Specifications

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1. Background

Quick Reserve (QR), separated into Negative Quick Reserve (NQR) and Positive Quick Reserve (PQR), is aimed primarily for reacting to pre-fault disturbances to restore the energy imbalance quickly and return the frequency close to 50.0 Hz.

It is planned to Go Live in the EAC platform in November 2024 and its procurement will be co-optimised with Dynamic Containment (DC), Dynamic Moderation (DM) and Dynamic Regulation (DR).

This document provides an overview of the market design specifications for QR.

2. Market Design Specifications

The table below provides an overview of the main design elements of QR.

Design Element	Specification
Service(s)	Quick Reserve (QR)
Directions (Products)	Positive and Negative
Type of Product Procured	Capacity (MW)
Service Window	30 minutes
Auction Frequency	Daily
Locational Granularity	Single GB-wide service
Gate Opening	08:00 am BST / GMT D-15
Gate Closure	14:00 pm BST / GMT D-1

Availability of Results within the EAC	By 14:30 pm BST / GMT D-1
Publication of Results on the Data Portal - Under Normal Operations	By 14:45 pm BST / GMT D-1
Eligibility	Initially open only to BM providers. At a date specified by NGESO non-BM providers will be able to participate as well.
Aggregation	Units can aggregate per GSP Group
Minimum Sell Order Bid Size	0 MW
Maximum Sell Order Bid Size	300 MW
Minimum Buy Order Bid Size	0 MW
Maximum Buy Order Bid Size	3000 MW
Tick Size	1 MW
Objective Function	Welfare Maximisation
Pricing Rules	<ul style="list-style-type: none"> • One market clearing price per product per service window (Uniform Pricing). • Cost Minimisation
Splitting	<ul style="list-style-type: none"> • For a given Service Window, splitting is allowed only across Positive and Negative Quick Reserve
Bid Curtailment Rules	<ul style="list-style-type: none"> • On the sell-side, curtailment is determined by the user. • On the buy-side, all orders are fully curtailable.
Co-optimisation (sell-side)	<ul style="list-style-type: none"> • Co-optimisation of Quick Reserve with Dynamic Containment (DC), Dynamic Moderation (DM) and Dynamic Regulation (DR). • Providers can specify that a set of curtailable orders within a Basket are mutually exclusive: the sum of the acceptance ratios of these orders shouldn't exceed 1. These orders are named Substitutable Child Orders.
Co-optimisation (buy-side)	<ul style="list-style-type: none"> • Co-optimisation, with the use of Substitutable Orders, of Quick Reserve with Dynamic Containment (DC), Dynamic Moderation (DM) and Dynamic Regulation (DR).

Buy Order Structure	Same as all existing services within EAC – see EAC Market Design Report
Looping of Buy Orders	A Buy Order may optionally indicate a Joined Family, which associates the Buy Order with one or more other non-Concomitant Buy Orders defined on the same Auction Product. Joined Buy Orders must be accepted with the same acceptance ratio.
Sell Order Structure	Same as all existing services within EAC - see EAC Market Design Report
Number of Baskets	<ul style="list-style-type: none"> • 125 Baskets available per unit per auction in total, with a limit of 100 baskets for Quick Reserve and 25 baskets for Response services.
Number of Parent Orders per Basket	1 Parent per Basket
Number of Child Orders per Basket	10 Child Order per Basket
Number of Substitutable Child Orders per Basket	10 Substitutable Child Orders per Basket
Number of Substitutable Families per Basket	1 Substitutable Family per Basket
Looping of Sell Orders	Allowed for Baskets, including for non-consecutive service windows.
Technical Minimum Prices	£0
Technical Maximum Prices	£999.99
Accuracy, precision and rounding	<ul style="list-style-type: none"> • On the sell side, volumes are rounded to the closest integer for parent orders and child orders, and rounded down to the next smallest integer for substitutable child orders. • On the buy side, all accepted buy volumes are rounded to the nearest integer. • Rounding residuals are distributed to the buy side. • Prices are rounded up to the closest multiple of £0.01/MWh
Tie-break rules	Pseudo-random tie-breaks