



**Amendment to the Price Average Reference Quantity
(qPAR) to be used in the calculation of Imbalance Prices**

Information Note

SEM-22_061

26 August 2022

1. Purpose of this Information Note

The purpose of this information note from the Regulatory Authorities (RAs) is to inform market participants of an upcoming amendment to the Price Average Reference Quantity (qPAR).

2. Background

Within the Imbalance Pricing process in the SEM Balancing Market, the last tagging process is Price Average Reference (PAR) Tagging. The purpose of PAR Tagging is to determine what actions are not NIV Tagged, and what volume of those actions are considered in the final calculation of the Imbalance Price. The Imbalance Price is calculated based on the volume-weighted average over a defined volume of the most expensive actions remaining, the defined volume being the Price Average Reference Quantity (qPAR).

The size of the qPAR value determines how marginal the price is, as follows:

- A smaller value for qPAR means the price is closer to a purely marginal price; and
- A larger value for qPAR means the price is further from a purely marginal price.

Given the exceptional geopolitical situation and the unprecedented impact of this on the energy sector, and on electricity prices in the SEM more specifically, the RAs are minded to increase the value of qPAR for a defined period of time. This amendment will help to mitigate current volatility in the Imbalance Price. It may also be the case that such an approach will help to reduce the forecasted large increase in Imperfections Charges in the upcoming tariff year¹.

The RAs view this amendment as the first in a suite of potential tools at their disposal which could be used to mitigate volatility in the Imbalance Price.

¹ [SEM-22-038 Imperfections Charge Consultation Paper.pdf \(semcommittee.com\)](#)

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If volatility in the Imbalance Price and increases in Imperfections Charges continue, then the RAs may consider other initiatives such as a review of the settlement rules for constrained actions in the Balancing Market and a review of the potential for temporary bidding controls in the Ex-ante Markets and on simple bid-offers in the Balancing Market.

3. Amending QPAR

Section E.2.1 of the SEM Trading and Settlement Code (TSC) sets out the process for making amendments to qPAR, as follows.

E.2.1.1 If requested by the Regulatory Authorities, the Market Operator shall report to the Regulatory Authorities proposing the following parameters to be used in the calculation of Imbalance Prices:

- (a) the De Minimis Acceptance Threshold; and
- (b) the Price Average Reference Quantity (qPAR).

E.2.1.2 The Market Operator's report referred to in paragraph E.2.1.1 must set out any relevant research or analysis carried out by the Market Operator and the justification for the specific values proposed. The report may, and shall if so requested by the Regulatory Authorities, include alternative values from those proposed and must set out the arguments for and against such alternatives.

E.2.1.3 The Market Operator shall publish the approved value(s) for each parameter referred to in paragraph E.2.1.1, and the approved date and time on which it comes into effect, within 5 Working Days of receipt of the Regulatory Authorities' determination.

In accordance with section E.2.1 of the TSC, the RAs requested that the Market Operator, SEMO, prepare and submit a report proposing amended values of the qPAR parameter.

The RAs requested that the report include a calculation of Imbalance Prices over the previous year with qPAR set equal to the Net Imbalance Volume Quantity

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(qNIV) for each 5-minute Imbalance Pricing period.

The RAs are minded to amend qPAR from the current value of 10MWh to 100MWh. This change to qPAR will be time-limited and will only apply for a period of 1 year, before reverting back to 10MWh by default. The RAs will continue to monitor the impact of this change over the course of the 1 year period and could change qPAR back to 10MWh sooner if we deem there to be a detrimental impact on the market. However, should the RAs be minded to extend this change beyond 1 year, we would inform market participants before the end of the 1 year period and seek their views on any extension.

Upon receipt of the RAs' determination on the amendment to qPAR, SEMO will publish the revised value of qPAR and the date and time on which the amendment comes into effect within 5 working days in line with section E.2.1.3 of the TSC.

4. Summary of SEMO report on the impact of amended QPAR Values

The RAs asked SEMO to produce a report that considered the impact of qPAR being set equal to qNIV for each 30 minute Imbalance Settlement Period (ISP) based upon qPAR being set equal to the Net Imbalance Volume in each 5 minute Imbalance Pricing Period.

The tables below outline the impact on the ISP for the period June 2021 – May 2022. The price changes are broken down into quarters, and when the market was Long and Short. Periods where the Market Backup Price have been applied have not been included within the analysis. This includes any period where the Market Backup Price has been applied as a result of SO Trade Prices exceeding the Strike Price, while Mod_16_21 was in effect. The analysis has also recalculated prices based on Mod_01_20 to the T&SC and assessed the impact on price should qPAR have equaled qNIV in the period.

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Market Short (+NIV) - Prices €/MWh					
Period	Weighted Average Price (Published ISP)	Weighted Average Price (recalculated based on Mod_01_20)	Weighted Average ISP (qPAR set to qNIV)	Price Difference (columns 3 & 4)	% Difference (columns 3 & 4)
June to August 2021	€170.82	€182.27	€160.81	-€21.46	-11.77%
September to November 2021	€276.36	€294.88	€256.65	-€38.23	-12.96%
December to February 2022	€245.80	€268.64	€228.77	-€39.87	-14.84%
March to May 2022	€260.73	€284.62	€245.06	-€39.56	-13.90%

Market Long (-NIV) - Prices €/MWh					
Period	Weighted Average Price (Published ISP)	Weighted Average Price (recalculated based on Mod_01_20)	Weighted Average ISP (qPAR set to qNIV)	Price Difference (columns 3 & 4)	% Difference (columns 3 & 4)
June to August 2021	€87.81	€74.70	€80.62	€5.92	7.93%
September to November 2021	€130.84	€112.94	€135.26	€22.32	19.76%
December to February 2022	€91.49	€84.35	€110.11	€25.76	30.54%
March to May 2022	€133.08	€119.55	€139.29	€19.74	16.51%

Examination of the results has shown that setting qPAR equal to qNIV would have the impact of reducing prices in each quarter, within a range of 11.77% and 14.84%, when the market was short. The greatest reductions were observed over the winter period. The impact of such a change was the opposite when the market was long. Observed average price increases were in the range of between 7.93% and 30.54%. Again, the greatest differences were observed during the winter period.

The analysis also highlighted that of all the 5 minute Imbalance Pricing Periods (IPPs) considered (103,871 periods), there were a total of 362 periods where the qNIV exceeded 100MWh.

5. Next Steps

The RAs intend to instruct SEMO to make this change by the last week in September 2022. Participants have until the 9 September should they wish to respond to the RAs intended change. All responses, and any queries on any matters raised in this information note, should be submitted by email to TSC@cru.ie and Brian Mulhern (brian.mulhern@uregni.gov.uk) before this date.

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