



Balancing Market Repricing

Participant Guide

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2. DOCUMENT BACKGROUND

The Balancing Market Repricing Participant Guide provides an overview of the Balancing Market process for the recalculation and publication of updated Imbalance Prices (5 minute) and Imbalance Settlement Prices (30 minute); and associated supporting information. Throughout this document, this process shall be referred to as 'Repricing'.

This document provides a background on Repricing and defines the detailed steps governing the end to end Repricing process; including the financial settlement of the updated prices.

3. RELATED LINKS/MATERIALS

Document	Link
Repricing Calendar	https://www.sem-o.com/documents/general-publications/Balancing-Market-Repricing-Calendar.pdf
Manifest Error Log	https://www.sem-o.com/documents/general-publications/Balancing-Market-Repricing-Calendar.pdf
Trading and Settlement Code	https://www.sem-o.com/rules-and-modifications/balancing-market-modifications/market-rules/TSC-Part-B.docx
Agreed Procedure 14 – Disputes	https://www.sem-o.com/rules-and-modifications/balancing-market-modifications/market-rules/Part-B-Agreed-Procedure-14-Disputes.docx
Settlement Calendar	https://www.sem-o.com/market-data/settlement-calendar/
Repricing and Price Materiality Threshold Decision Paper	https://www.semcommittee.com/publications/sem-19-068-decision-paper-repricing-and-price-materiality-threshold

Table 1- Related Links

4. REPRICING OVERVIEW

4.1 Balancing Market Pricing

To recap, there are two prices published within the Balancing Market:

- ✓ an Imbalance Price relating to a 5 minute Imbalance Pricing Period; and
- ✓ an Imbalance Settlement Price relating to a 30 minute Imbalance Settlement Period.

An Imbalance Settlement Price is calculated as the average of six Imbalance Prices for a corresponding 30 minute Imbalance Settlement Period. Where one or more Imbalance Prices have not been calculated during an Imbalance Settlement Period, then the Imbalance Settlement Price shall be set as the Market Back Up Price¹.

4.2 What is Repricing?

Repricing is a process governed under the Trading and Settlement Code; set out under section E.3.8. In the event that SEMO; or a Dispute Resolution Board, determines that a manifest error has been found in the calculation of an Imbalance Settlement Price, within five days of its calculation; SEMO shall recalculate and republish the relevant Imbalance Settlement Prices, as soon as is possible. This process is bound by a Price Materiality Threshold, set out further in Section 4.3.

Once recalculated; the updated prices will then be included in a scheduled Settlement Rerun for the corresponding Settlement Billing Period. SEMO shall not Reprice any Imbalance Settlement Prices, where that price has been set to equal the Market Back Up Price. It is also important to note that a new Imbalance Settlement Price calculated through Repricing will never be set as the Market Back Up Price; but shall always be calculated as the average of the Imbalance Price.

For clarity, Imbalance Settlement Prices calculated via Repricing shall follow the same methodology as set out under Trading and Settlement Code Chapter E ‘Imbalance Pricing’.

4.3 What is the Price Materiality Threshold?

The Price Materiality Threshold is a value approved from time to time by the Regulatory Authorities, which represents the determining criteria for whether a manifest error in the calculation of the Imbalance Settlement Price should result in Repricing. At the transition to the new market arrangements, on the 1st October 2018, the Price Materiality Threshold was set at 5% and currently still remains at this value.

SEMO shall perform a materiality assessment on all Imbalance Settlement Periods where a manifest error has been identified. In the event that the recalculated price is greater than the Price Materiality Threshold, these prices will be republished and subject to financial settlement; all other prices shall remain unchanged.

The Price Materiality Threshold is applied on an individual 30 minute Imbalance Settlement Period basis.

¹ The methodology currently in effect to apply the Market Back Up Price will change once MOD_03_19 becomes effective (modification will become effective in line with delivery of the associated system changes - [MOD_03_19 Decision Letter](#)).

5. REPRICING APPROACH

Repricing is a three stage process beginning with a price materiality assessment; followed by the recalculation and publication of updated prices in the production systems; and completed with the financial settlement of the updated prices; and associated supporting information.

The approach has been shaped by two primary considerations; the nature of the manifest error impacting specific Imbalance Settlement Periods; and the timetable for M+4 and M+13 Settlement Reruns, as per the Settlement Calendar.

This section sets out in further detail the approach that SEMO has taken with respect to Repricing.

Materiality Assessment

For each Repricing run SEMO shall perform a price materiality assessment, prior to the publication of updated prices in the production systems. This assessment shall be carried out in a ‘simulation’ environment; that mirrors the production systems.

A document detailing the outcome of each materiality assessment shall be published; and shall provide the market with a comparative summary of Imbalance Settlement Price changes; between the existing price and the new price that will be published through Repricing. The materiality assessment shall be published, only, for Imbalance Settlement Periods where the Price Materiality Threshold has been met.

Repricing Publication and Settlement Reruns

An indicative ‘materiality assessment publication date’ will be included in the Balancing Market Repricing Calendar; with each assessment being published to Participants no later than **three weeks** in advance of Settlement Document publication date to which the Repricing period relates.

On completion of a price materiality assessment, new prices shall be calculated and published within the production systems.

It is SEMO’s aim is to schedule Repricing so as to allow the updated Imbalance Settlement Prices to be settled as part of the next scheduled Settlement Rerun; however where the manifest error is more complex and where a resolution may be dependent on a software release, Repricing shall fall into a later Settlement Rerun.

In instances where a manifest error can be Repriced; SEMO shall schedule the Repricing Publication Date; as soon as is practicable. In certain instances; this may be a number of months in advance of the Settlement Rerun date of the corresponding Billing Period. In any case, updated prices shall be published **no later than two weeks** in advance of the Settlement Rerun publication date.

Billing Period Approach to Repricing

Due to the underlying cause of the manifest errors that have been identified; there may be different resolution timelines by which SEMO are able to resolve these in the production systems. Under

certain scenarios, there may be instances where more than one manifest error has been found to impact an Imbalance Settlement Period; and a specific Billing Period.

Under this specific scenario, SEMO shall defer scheduling Repricing until such time that all manifest errors relating to a specific Billing Period can be resolved. This approach is intended to align the Repricing and Settlement processes; provide a clear schedule for Repricing that can be tracked via the Repricing Calendar; and ensures that SEMO are using only the final Imbalance Settlement Price in any Settlement Reruns. The Repricing Calendar shall allow Participants to track each manifest error through to resolution.

6. REPRICING PROCESS

This section sets out further the detailed process for Repricing.

6.1 Repricing Process Steps

#	Step	Step Description	Outputs	Timing
1	Manifest Error Encountered	<p>SEMO identifies that a manifest error has been found in the calculation of the Imbalance Settlement Price(s); and issues a Market Notice.</p> <p>SEMO shall also update the Repricing Calendar to reflect the manifest error.</p>	Market Notice (MN1) issued to Participants and Repricing Calendar (SEMO Website)	Within five Working Days of the impacted Imbalance Settlement Periods.
2	Determination of Materiality	<p>SEMO performs a price materiality assessment on the manifest error and;</p> <p>1. Where the Price Materiality Threshold <u>has</u> been met:</p> <ul style="list-style-type: none">➡ communicates to Participants the outcome of that assessment (MN2a); for the subset of periods where the Price Materiality Threshold has been met (proceed to Step 3²);➡ update the Repricing Calendar with the intended Repricing Publication Date.	Market Notice (MN2a or MN2b) and Materiality Assessment (SEMO Website)	As soon as possible after the manifest error has been declared; and no later than 15 Working Days before the Settlement Rerun.

² Where a manifest error is the result of a system defect; the Market Operator may not be able to assess materiality until a code fix has been deployed to production.

		<p>2. Where the Price Materiality Threshold <u>has not</u> been met:</p> <ul style="list-style-type: none"> ▶ communicates to Participants informing that Repricing is not required (MN2b). End Process. 	
3	Notice of Repricing	SEMO shall issue a Market Notice reminder to Participants confirming the Repricing Publication Date.	Market Notice (MN3) No later than one Working Day before Repricing Publication Date
4	Recalculate and Publish Updated Prices	SEMO shall recalculate and publish updated 5 minute Imbalance Prices and 30 minute Imbalance Settlement Prices where the Price Materiality Threshold has been met; as per Step 2 .	Balancing Market Interface and SEMO Website On Repricing Publication Date; and no later than 10 Working Days before the Settlement Rerun publication date. Imbalance Prices (after the completion of each 5 minute price calculation) Imbalance Settlement Prices (after the completion of the last 5 minute price calculation).
5	Notice of Completion of Repricing	On successful publication of Repricing; SEMO shall issue a Market Notice advising that Repricing has completed.	Market Notice (MN4) Within one Working Day of the completion of Repricing.
6	Settlement of Repriced Dates	SEMO shall complete a Settlement Rerun; as per the Settlement Calendar.	Settlement Calendar (SEMO Website) As per Settlement Calendar timetable.

Table 2 – Repricing Process Steps

6.2 Repricing ‘Back up’ Procedures

The following section highlights the ‘back up’ procedures that will be followed in the event that an error has been encountered within the main Repricing procedure. There are three main ‘back up’ processes that may need to be invoked should an error be encountered during the Repricing process; these are detailed in **Table 3**, below.

#	‘Back up’ Scenario	‘Back up’ Process Steps
RPC1	5 Minute Imbalance Price Calculation Failure	<p>In the event that the Repricing workflow stops before the final 5 minute Imbalance Price has been calculated; then the Repricing process will be deemed terminated.</p> <p>Under this scenario, 5 minute Imbalance Price Reports will be published up to the point of failure, but no new Imbalance Settlement Prices shall be calculated³.</p> <p>SEMO shall:</p> <ol style="list-style-type: none">1. Communicate Market Notice (MN5); advising that Repricing did not complete; and further advising which 5 minute reports were published but should be ignored; and2. Update the Repricing Calendar and communicate a revised Repricing Publication Date.
RPC2	Incorrect Repricing Results	<p>On completion of Repricing in the production systems; SEMO shall perform an analysis of the Repricing results.</p> <p>Should there be an error in the recalculated prices; SEMO shall:</p> <ol style="list-style-type: none">1. communicate Market Notice (MN1) that Repricing is incorrect, as per section E.3.8 of the Trading and Settlement Code;2. declare a manifest error for the corresponding Imbalance Settlement Periods;3. update the Repricing Calendar, and communicate a revised Repricing Publication Date; and4. recalculate and publish the corrected prices.

³ Further information on this process can be found in Section 7.2 ‘Publication and Reporting’.

#	'Back up' Scenario	'Back up' Process Steps
RPC3	30 Minute Report Publication Failure	<p>In the event that one or more 30 minute Imbalance Settlement Price reports do not publish, SEMO shall:</p> <ol style="list-style-type: none"> 1. publish the missed Imbalance Settlement Price reports within one Working Day of the completion of Repricing; and 2. issue Market Notice (MN4) confirming that Repricing has completed; and that all Repricing reports have been published.

Table 3 – Repricing ‘back up’ steps

7. REPRICING SUPPLEMENTARY INFORMATION

7.1 Communication and Engagement

SEMO shall communicate updates on Repricing via market message communications. In order to receive these updates, Participants are asked to **subscribe** to the **Balancing Market Repricing** distribution group on the SEMO Website (Click here to [Subscribe](#)⁴).

Due to the volume of Repricing and associated communications all messages shall be ‘market message’ email alert only; with the exception of ‘Notification of a Pricing Dispute’; or ‘Notification of a Manifest Error’ communications. These specific messages shall continue to also be published to the [‘market messages’](#) section of the SEMO Website.

The standard market message communications issued as part of the Repricing process are set out in the Appendix; and are referred to as ‘Market Notices’ in this procedure.

7.2 Publication and Reporting

As part of the Repricing process a revised set of reports will be published to the Balancing Market Interface; and to the SEMO Website. These reports are detailed in *Table 4*, below.

Report Ref#	Report Name	File Names	Timespan
REPT_008	PUB_5MinImbalPrc	PUB_5MinImbalPrc_YYYYMMDDHHMM.xml	5 Minute
REPT_050	PUB_5MinImbalPrcSupplInfo	PUB_5MinImbalPrcSupplInfo_YYYYMMDDHHMM.xml	5 Minute
REPT_009	PUB_30MinAvgImbalPrc	PUB_30MinAvgImbalPrc_YYYYMMDDHHMM.xml	30 Minute
REPT_041	PUB_30MinImbalCost	PUB_30MinImbalCost_YYYYMMDDHHMM.xml	30 Minute

Table 4 – Report Names

When a new report is published for an Imbalance Pricing Period or Imbalance Settlement Period; the existing report will be overwritten. The Repricing solution will sequentially recalculate and publish new 5 minute Imbalance Price reports immediately after each new Imbalance Price is calculated.

Under normal Balancing Market Imbalance Pricing operation the 30 minute Imbalance Settlement Price reports are published 30 minutes after the end of the Imbalance Settlement Period.

Under the Repricing process, new 5 minute Imbalance Prices will be processed in a batch format. This means the 30 minute Imbalance Settlement Price reports will not be generated until the last 5 minute Imbalance Price within the Repricing batch has been calculated. Each 30 minute report will be published sequentially; starting from the oldest Imbalance Settlement Period first.

⁴ If subscribing for the first time, it is recommended that you check with your IT team that info@sem-o.com is added to your companies ‘white list’.

Note: There is no change to the existing format and structure of the Repricing reports; as set out in the I-SEM Technical Specification, Volume C.

7.3 Repricing Calendar

A Repricing Calendar has been published to supplement the Repricing process. The Repricing Calendar shall include the following detail:

1. Manifest error summary information;
2. List of Imbalance Settlement Periods subject to manifest error;
3. Materiality assessment publication dates;
4. Repricing publication dates; and
5. Settlement Rerun publication dates⁵

This calendar shall be updated on a periodic basis; Participants shall be made aware of any changes via a market message communication. Due to the nature of some of the manifest errors; SEMO may be unable to provide provisional Repricing publication dates until further assessment has been carried out.

7.4 Manifest Errors

SEMO shall publish a list of known manifest errors as an appendix to the Repricing Calendar. Any new manifest errors identified shall be updated and appended to this list.

The Repricing Calendar can be found [here](#).

⁵ This field shall be updated retrospectively. Participants should continue to use the [Settlement Calendar](#) for information pertaining to Settlement publication dates.

8. APPENDIX

8.1 Market Notice Communications

This section sets out the market notices that SEMO shall communicate during the Repricing process.

Market Notice [MN1]

Subject: (MN1) Notification of Manifest Error

Dear Participants,

The Market Operator has identified a manifest error in the calculation of the Imbalance Settlement Price.

Known Issue (#ID)

A recurrence of known issue (#ID) has impacted the following Imbalance Settlement Period(s):

Trading Day	Imbalance Settlement Periods	Manifest Error
xx/xx/yyyy	xx:xx to xx:xx	[#ID]

Or:

[Detail of issue]

This issue has impacted on the following Imbalance Settlement Periods:

Trading Day	Imbalance Settlement Periods	Manifest Error
xx/xx/yyyy	xx:xx to xx:xx	[#ID]

The Repricing Calendar has been updated.

Kind regards,
SEMO Trading Operations

Market Notice [MN2a]

Subject: (MN2a) Pricing Materiality Assessment - Threshold Met

Dear Participants,

The Market Operator has completed a materiality assessment for the following Imbalance Settlement Periods:

Trading Day	Imbalance Settlement Periods	Manifest Error
xx/xx/yyyy	xx:xx to xx:xx	[#ID]

The Market Operator found that the price change for a number of Imbalance Settlement Periods **met** the Price Materiality Threshold; and will be subject to repricing; as set out under section E.3.8 of the Trading and Settlement Code.

A materiality assessment for the impacted Imbalance Settlement Periods can be found here [\[link\]](#).

The Repricing Calendar has now been updated to reflect the repricing publication date.

Kind regards,
SEMO Trading Operations

Market Notice [MN2b]

Subject: (MN2b) Pricing Materiality Assessment – Threshold Not Met

Dear Participants,

The Market Operator has completed a materiality assessment for the following Imbalance Settlement Periods:

Trading Day	Imbalance Settlement Periods	Manifest Error
xx/xx/yyyy	xx:xx to xx:xx	[#ID]

The Market Operator found that none of the Imbalance Settlement Periods impacted by the manifest error have resulted in a price change that is greater than the Price Materiality Threshold.

As per section E.3.8 of the Trading and Settlement Code; no repricing will be carried out for the Imbalance Settlement Period(s) denoted.

Kind regards,
SEMO Trading Operations

Market Notice [MN3]

Subject: (MN3) Reminder Of Upcoming Repricing

Dear Participants,

As per the Repricing Calendar, the Market Operator will be publishing updated prices tomorrow, xx/xx/yyyy.

Kind regards,
SEMO Trading Operations

Market Notice [MN4]

Subject: (MN4) Notice of Completion of Repricing

Dear Participants,

As per the Repricing Calendar, repricing has been completed for the following Imbalance Settlement Periods:

Trading Day	Imbalance Settlement Periods	Manifest Error
xx/xx/yyyy	xx:xx to xx:xx	[#ID]

Revised 5 minute Imbalance Price reports and 30 minute Imbalance Settlement Price reports have been published for the Imbalance Settlement Periods denoted and are available to view on the Balancing Market Interface and SEMO Website.

Kind regards,
SEMO Trading Operations

Market Notice [MN5]

Subject: (MN5) Repricing Imbalance Price Calculation Failure

Dear Participants,

Repricing scheduled to be completed for the following Imbalance Settlement Periods has been terminated:

Trading Day	Imbalance Settlement Periods	Manifest Error
xx/xx/yyyy	xx:xx to xx:xx	[#ID]

A number of 5 minute Imbalance Price reports have been published up to the period starting xx:xx; these reports should be ignored.

The Market Operator will reprice this period on xx/xx/yyyy; the Repricing Calendar has been updated to reflect this.

Kind regards,
SEMO Trading Operations

DISCLAIMER

This document is only intended as a guide to provide participants with an overview of the Repricing process. It is not, and is not meant to be, a comprehensive description of the Trading and Settlement Code and/or a substitute for the detailed provisions of the TSC (including the Agreed Procedures).

Prior to taking business decisions, participants are advised to seek separate and independent opinion in relation to the matters covered by this guide and should not rely solely upon data and information contained herein.

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