

WHOLESALE MARKET ADMINISTERED PRICING PROCEDURES (VICTORIA)

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GLOSSARY

- (a) In this document, a word or phrase defined in the *National Gas Rules* (Rules) has the meaning given to that term in the Rules.
- (b) In this document, terms and acronyms that are not defined in the Rules have the meaning set out opposite those words or phrases in Table 1 below.
- (c) Unless the context otherwise requires, this document will be interpreted in accordance with Schedule 2 of the *National Gas Law*.

TERM	MEANING
APC or Administered Price Cap	The cap applicable to the market price for any scheduling horizon when an administered price period applies
BP_i (x,point,step,s,d)	Bid price for price step (step) of Market Participant x's injection bid at pipeline point (point) for schedule s on gas day d.
BQ_i (x,point,step,s,d)	Bid quantity for price step (step) of Market Participant x's injection bid at pipeline point (point) for schedule s on gas day d.
$CP_{(s,d)}$	The cumulative price applicable to scheduling interval s on gas day d.
CPP or cumulative price period	A rolling number of consecutive scheduling intervals over which to assess the cumulative price for comparison to the cumulative price threshold. The last scheduling interval in this rolling horizon is schedule s of gas day d.
CPT or cumulative price threshold	A threshold against which the cumulative price is measured for the purpose of commencement and conclusion of an administered price period, in accordance with these procedures, as defined in the schedule.
d	gas day
FAOS or First Approved Operating Schedule	The first operating schedule published by AEMO for any scheduling horizon.
FRO	As defined in the Retail Market Procedures (Victoria)
LAOS or Last Approved Operating Schedule	The last operating schedule published by AEMO in a scheduling interval.
LAOS'	The "last approved" operating schedule with a start time equal to the start of the scheduling interval. For example, if an operating schedule for schedule start time of 10:00am is approved at 9:40am, and a revision is approved at 9:50am, then the re-schedule at 9:50am is the LAOS for the 10:00am schedule start time.
LAOS'(s,d)	The "last approved" operating schedule applicable to scheduling interval "s" in gas day "d" with a start time equal to the start of that scheduling interval. This means the last approved operating schedule for the scheduling horizon commencing at the start time of the next scheduling interval prior to the commencement of that scheduling interval, the latest version of the very first schedule for a scheduling interval. Example: if

TERM	MEANING												
	an operating schedule with schedule start time of 10:00am is approved at 9:40am, and a revision is approved at 9:50am, then the re-schedule at 9:50am is the LAOS' for the 10:00am operating schedule start time.												
LAOS(s,d)	The "last approved" operating schedule applicable to scheduling interval "s" in gas day "d". This means the last approved operating schedule in any scheduling interval with a start time prior to the start of the next scheduling interval. Example: if an ad hoc re-schedule is approved at 11:45am, and a further ad hoc re-schedule is approved at 12:30pm, then the re-schedule at 12:30pm is the LAOS for this scheduling interval 10:00am-2:00pm.												
Market Clearing Engine	Optimisation software that determines operating and pricing schedules.												
MCP or marginal clearing price	The bid step price of the highest priced bid step that is scheduled in the relevant operating schedule determined in accordance with these procedures.												
$MCP_{(s,d)}$	Marginal clearing price for scheduling interval s on gas day d.												
$MCP_{(s,d,LAOS')}$	Marginal clearing price for LAOS' for scheduling interval s on gas day d.												
$MCP_{(s,d,LAOS)}$	Marginal clearing price for LAOS for scheduling interval s on gas day d.												
$MP_{(d,s)}$	The last published market price value associated with the LAOS(s,d) or LAOS'(s,d) (as applicable) for scheduling interval s on gas day d.												
$Q_i^{OS}_{(x,point,s,d)}$	Operating schedule controllable injections (cumulative) for Market Participant x at pipeline point (point), in operating schedule s on gas day d.												
ROLR or Retailer of Last Resort	In relation to a supply point, the Retailer assigned as the FRO for that point in accordance with procedures described in Chapter 6 of the Retail Market Procedures (Victoria).												
s	number of the scheduling interval and/or schedule of the gas day: <table style="margin-left: 40px;"> <tr> <td>s</td> <td>Commencement of scheduling interval</td> </tr> <tr> <td>1</td> <td>6:00am</td> </tr> <tr> <td>2</td> <td>10:00am</td> </tr> <tr> <td>3</td> <td>2:00pm</td> </tr> <tr> <td>4</td> <td>6:00pm</td> </tr> <tr> <td>5</td> <td>10:00pm</td> </tr> </table>	s	Commencement of scheduling interval	1	6:00am	2	10:00am	3	2:00pm	4	6:00pm	5	10:00pm
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1	6:00am												
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3	2:00pm												
4	6:00pm												
5	10:00pm												

Table 1: Terms Definitions

Chapter 1 Preliminary

1.1 Introduction

- a) These Wholesale Market Administered Pricing Procedures (Victoria) are made in accordance with section 91BL of the National Gas Law and Part 15B of the Rules, for the purpose of complying with Rule 224(1).
- b) If there is any inconsistency between these Procedures and the Rules, the Rules will prevail to the extent of that inconsistency.
- c) These Procedures are current to version 25 of the Rules.

1.2 Purpose

These Procedures specify the administered price cap for the declared wholesale gas market and describe AEMO's processes for declaring and ending administered price periods in the Market in accordance with the Rules.

1.3 Application

These Procedures apply to AEMO and each person to whom they are expressed to apply.

1.4 Related Policies and Procedures

- *Wholesale Market Gas Scheduling Procedures (Victoria)*
- *Wholesale Market System Security Procedures (Victoria)*
- Gas Emergency Protocol

Chapter 2 Administered Price cap

The administered price cap is \$40/GJ

Chapter 3 Declaration of Commencement and Ending of Administered Periods

AEMO will declare an administered price period to commence and end under the following conditions:

Administered Pricing Cause	Declaration of commencement of administered price period	Declaration of ending of administered price period
Market suspension under Rule 347	AEMO will declare an administered price period upon declaring that the market is suspended under Rule 348.	<p>AEMO will declare the market suspension and administered price period to be at an end if AEMO, in its reasonable opinion, considers that:</p> <ul style="list-style-type: none"> • the market is capable of returning to normal operating conditions; • any after effects as a result of the market suspension or its underlying causes are unlikely to distort market pricing; and • no other condition for an administered price period is applicable.
Retailer of Last Resort (RoLR) under the Administered Pricing Procedures (Rule 224)	AEMO will declare an administered price period from the time that AEMO issues a suspension notice to a Retailer.	<p>AEMO will declare the administered price period to be at an end if:</p> <ul style="list-style-type: none"> • either: <ul style="list-style-type: none"> • 15 business days have elapsed from the start of the next gas day after the issue of a suspension notice; or • all RoLRs in relation to the customers of the suspended Retailer agree an earlier date and advise AEMO in writing; and • no other condition for an administered price period is applicable.
Inability to publish market price or a pricing schedule by the required time under Rule 222	AEMO will declare an administered price period when it is not able to publish the market price or the pricing schedule as a result of failure of software or systems	<p>AEMO will declare the administered price period to be at an end when AEMO, in its reasonable opinion, considers that:</p> <ul style="list-style-type: none"> • it is able to once again determine market price and pricing schedules in accordance with the normal processes; and • no other condition for an administered price period is applicable.
Exceeding cumulative price threshold under the Administered Pricing Procedures (Rule 224)	The administered price period commences from the start of the scheduling interval in which a cumulative price is greater than or equal to the cumulative price threshold in accordance with these procedures.	<p>AEMO will declare the administered price period to be at an end when:</p> <ul style="list-style-type: none"> • the end of the gas day following the gas day on which the cumulative price falls below and remains below the cumulative price threshold; and • no other condition for an administered price period is applicable.

With respect to an inability to publish market price or a pricing schedule by the required time under Rule 222, AEMO will not declare an administered price period where the delay in publication is due to a very short temporary delay in publication by the Market information bulletin board or other communication systems that is restored in timely manner (for example, where the automatic process of transferring data to Market information bulletin board for publication extends to the point that publication occurs shortly after the required time. In this case, the operator is unable to interrupt the automatic publication of the feasible pricing schedule).

Chapter 4 Notifications Relating to Administered Price Periods

4.1 Notification of commencement of an administered price period

AEMO will, without delay, notify all Participants of the occurrence of any of the events in Chapter 3 and of the commencement of an administered price period, specifying the events or causes that have triggered the administered price periods.

4.2 Notification of conclusion of an administered price period

AEMO will, as soon as practicable, notify all Participants when the administered price period will conclude or has concluded, as relevant.

4.3 Additional reporting requirements during administered price periods

AEMO will publish on the Market information bulletin board a report providing the cumulative price which flags, by scheduling interval by gas day, when cumulative price is greater than or equal to the cumulative price threshold. The report for each scheduling interval will be triggered on approval of a current gas day operating schedule with a start time equal to the commencement of that scheduling interval. The report will be made available to the public by publication of the report on AEMO's website.

Chapter 5 Market Price During an Administered Price Period

- a) AEMO will not retrospectively amend a market price by application of an administered price cap or declaration of commencement of an administered price period after that market price has been published.
- b) Subject to paragraph (a), during an administered price period, the market price will be capped at the administered price cap.
- c) Subject to paragraphs (a) and (b), following declaration of an administered price period, the actions that AEMO will take to determine the market price for the scheduling horizon during an administered price period are defined in the gas scheduling procedures.
- d) Subject to paragraphs (a) and (b), where AEMO is unable to determine the market price by the use of pricing schedules produced by the Market Clearing Engine, then AEMO will apply a hierarchy of strategies to determine market prices subsequent to that declaration as follows:

Strategy 1 Through manual calculation based on bids, scheduled injections and scheduled withdrawals (including demand forecasts) for the applicable gas day.

Strategy 2 As an average of the published market price for the preceding six months, taking into account the effect of:

- the seasons
- holidays
- weekends
- week days
- historical pricing

Strategy 3 As determined from:

- an estimate of the cost of gas
 - an estimate of the highest price gas in the market (e.g. cost of LNG)
- e) AEMO will notify Participants by an SWN using SMS in accordance with the gas scheduling procedures of the particular approach taken to determine market prices during the administered price period.

5.1 Pricing schedules during an administered price period

- a) Pricing schedules provide information that is essential for determination of ancillary payments and uplift payments.
- b) Subject to paragraph (a), following declaration of an administered price period, the actions that AEMO will take to determine the pricing schedule for the scheduling horizon during an administered price period are defined in the gas scheduling procedures.
- c) Subject to paragraph (a), where AEMO is unable to determine the pricing schedule by the use of the Market Clearing Engine, then AEMO will apply the scheduling instructions issued to Market Participants as the pricing schedule quantities and the bids applied are to be those applied in the operating schedule.
- d) AEMO must notify Participants by an SWN using SMS in accordance with the gas scheduling procedures of the particular approach applied to determine pricing schedules during the administered price period.

5.2 Determination of ancillary payments during an administered price period

- a) During an administered price period, AEMO will determine the market price and pricing schedule in accordance with the gas scheduling procedures.
- b) During an administered price period, bid step prices applied in determination of ancillary payments will be capped at the administered price cap in accordance with Rule 224.

Chapter 6 Schedule

6.1 Cumulative price threshold

The cumulative price threshold is \$1,800/GJ.

6.2 Cumulative price period

The cumulative price period is 35 consecutive scheduling intervals.

6.3 Marginal clearing prices

AEMO will determine the marginal clearing price for each scheduling interval. Marginal clearing prices are determined for the operating schedules for the current gas day and prior gas days only. Marginal clearing prices are not determined for other operating schedules.

In the determination of a marginal clearing price:

- The marginal clearing price is determined from the bid prices of injection bid steps scheduled in operating schedules and is not capped by application of the administered price period.
- The marginal clearing price for the next scheduling interval is calculated prior to commencement of that scheduling interval and is determined from the LAOS'.
- The marginal clearing price for the current and historical scheduling intervals is determined from the LAOS of those scheduling intervals.
- For the avoidance of doubt, AEMO may make changes to the operating schedule for the issue of a scheduling instruction in accordance with Rule 215(12) and the gas scheduling procedures, and where it does so, it will ensure that operating schedules are updated accordingly and that the resultant LAOS identifies the highest price bid steps scheduled such that these are taken into account in the determination of marginal clearing prices.

The marginal clearing price is the greater of the (current) market price value and the maximum bid step price of all controllable injection bid steps scheduled by the operating schedule amongst the set of bids which first equals or exceeds the total daily quantity scheduled by the operating schedule for that controllable injection. This is calculated as follows:

- For injection bids only, determine the price of the bid step scheduled by the operating schedule for each Market Participant's controllable injections at each system injection point where the sum of the quantity offered in that and all lower priced bid steps first equals or exceeds the cumulative daily operating schedule quantity for that controllable injection.

For each Market Participant x and pipeline point p and starting from $m(x, \text{point})=1$ (the lowest priced bid step) and increasing m , find the lowest value of $m(x, \text{point})$ for which:

$$\sum_{\text{step}=1, m(x, \text{point})} \text{BQi}_{(x, \text{point}, \text{step}, s, d)} \geq \text{QiOS}_{(x, \text{point}, s, d)}$$

For the avoidance of doubt, all steps in respect of the operating schedule must be included when determining m .

- $\text{MCP}_{(d, s)} = \text{Max}_{(\text{over all } x, \text{point})} (\text{BPi}_{(x, \text{point}, m(x, \text{point}), s, d)}, \text{MP}_{(d, s)})$
- $\text{MCP}_{(d, s, \text{FAOS})} = \text{MCP}_{(s, d)}$ for LAOS'(s, d)
- $\text{MCP}_{(d, s, \text{LAOS})} = \text{MCP}_{(s, d)}$ for LAOS(s, d)

- e) The approach employed will use LAOS for all schedules prior to the next scheduling interval, and LAOS' for the schedule with a start time equal to the commencement of the next scheduling interval.

6.4 Cumulative prices

The cumulative price for scheduling intervals up to and including schedule “s” on gas day “d” is the summation of the LAOS marginal clearing prices ($MCP_{(s,d,LAOS)}$) over the previous (CPP-1) scheduling intervals plus the LAOS' marginal clearing price ($MCP_{(s,d,LAOS')}$) for the next scheduling interval with a start time equal to the commencement time of the next scheduling interval:

$CP_{(d,s)} = \sum_{n'=5-S \text{ to } 5} MCP_{(n',d-N-1,LAOS)}$	<p>Cumulative marginal clearing prices from the LAOS of each scheduling interval in the partial gas day commencing at the scheduling interval that is CPP-1 scheduling intervals from the next scheduling interval.</p>
$+ \sum_{d'=d-N \text{ to } d-1} \sum_{n'=1 \text{ to } 5} MCP_{(n',d',LAOS)}$	<p>Cumulative marginal clearing prices from the LAOS of all whole gas days between any partial gas day commencing at the scheduling interval that is CPP-1 scheduling intervals from the next scheduling interval and the current gas day.</p>
$+ (\sum_{n=1 \text{ to } s-1} MCP_{(n,d,LAOS)})$	<p>Cumulative marginal clearing price from LAOS of previous scheduling intervals of current gas day, d = current gas day</p>
$+ MCP_{(s,d,LAOS')}$	<p>Marginal clearing price from LAOS' with a schedule start time equal to the start of the next scheduling interval</p>

Where:

- $N = \text{int}[(CPP-s)/5]$ Represents the number of whole gas days prior to the current gas day to be included in the cumulative price.
- $S = CPP-s-5N$ Represents the number of scheduling intervals on the gas day prior to the first whole gas day to be included in the cumulative price.

For the avoidance of doubt, cumulative prices are determined from operating schedules without allowance for post event reduction of ancillary payments.

For the avoidance of doubt, whilst cumulative prices are not determined for day ahead or 2 day ahead operating schedules, the forecast market price for a day ahead or 2 day ahead pricing schedule may be capped by the administered price cap if the schedule is within an administered price period.

6.5 Commencement of an administered price period triggered by reaching or exceeding the cumulative price threshold

On solution of current gas day operating schedules, AEMO will determine marginal clearing prices and the resultant cumulative prices in accordance with these procedures.

AEMO will determine whether a cumulative price is greater than or equal to the cumulative price threshold prior to approval of any current gas day operating schedule, as follows:

- a) Where a cumulative price is first equal to or greater than the cumulative price threshold, AEMO will set an administered price flag with a start time equal to the schedule start time of that operating schedule, and end date-time equal to the end of the gas day following the current gas day, prior to approval of that operating schedule, and declare an administered price period commencing at the start time of that operating schedule.
- b) The administered price period will remain in force for as long as the cumulative price is greater than or equals the cumulative price threshold, and AEMO will continue to set the administered price flag before approving operating schedules covering an administered price period. AEMO will declare the end of the administered price period in accordance with these procedures.

For the avoidance of doubt, AEMO may approve multiple operating schedules in the lead up to the start time of an operating scheduling interval to optimise the outcomes (e.g. amending compressor commitments, amongst other things). The outcome of the latest approved operating schedule completed prior to the start of the scheduling interval is the schedule that is applicable in determination of cumulative prices, and on which a decision on triggering an administered price period is made. This may result in the expectation of triggering of an administered price period to commence at the start of the next scheduling interval which is subsequently revised prior to that start time.

For example, a schedule at 9:30am with start time 10:00am indicates that an administered price period should apply from 10:00am (e.g. cumulative price will exceed the cumulative price threshold). AEMO will set the administered price flag for that scheduling horizon prior to approval of the schedule. Then a further re-schedule at 9:40am with start time 10:00am indicates that an administered price period should not apply from 10:00am (e.g. cumulative price now will not, as a result of the re-schedule outcomes, exceed the cumulative price threshold). In this circumstance, AEMO will rescind the administered price flag prior to approval of the re-schedule with start time 10:00am and the market price will accordingly remain uncapped during that period.

The triggering of an administered price period by a cumulative price greater than or equal to the cumulative price threshold is initiated on approval of operating schedules. Therefore, if AEMO decides to apply an earlier operating schedule for a particular scheduling interval as the approved schedule for that period, AEMO will, where practicable, re-approve the earlier schedule rather than dis-approving later schedules.

For example, a schedule for start time of 10:00am is approved at 9:30am which does not trigger an administered price period starting at 10:00am, a re-schedule is approved at 9:40am for start time 10:00am which triggers an administered price period from 10:00am onwards, and then it is determined that the 09:40am schedule is sub-optimal to the 9:30am schedule. The 9:30am schedule should be re-approved for the 10:00am scheduling horizon (and the administered price period not initiated from 10:00am, in this example), rather than dis-approving the 9:40am schedule.

For the avoidance of doubt, a cumulative price that is greater than or equal to the cumulative price threshold creates a requirement for commencement of an administered price period in addition to other requirements for initiating an administered price period in accordance with the Rules and these procedures, including inability to publish market price or a pricing schedule by the required time, market suspension, and a RoLR event.

Marginal clearing prices from day ahead and 2 day ahead schedules are not included in the determination of any cumulative price. However, if the start and end time of the day ahead or 2 day ahead schedule lies within the start and end time specified by the AEMO for an

administered price period, then the resultant day ahead or 2 day ahead forecast market prices must be capped by the administered price cap where the start time falls within a period already flagged as an administered price period.

6.6 Conclusion of an administered price period initiated or continued by reaching or exceeding the cumulative price threshold

AEMO will declare an administered price period that was initiated or continued by a cumulative price greater than or equal to the cumulative price threshold to conclude in accordance with these procedures.

Where an administered price period has been initiated or continued by a cumulative price that is greater than or equal to the cumulative price threshold, the conditions which must all be satisfied for conclusion of the administered price period are as follows:

- a) No other cause for an administered price period is current (e.g. inability to publish the market price or pricing schedule by the required time, market suspension, or RoLR event)
- b) AEMO has declared the administered pricing period to be concluded
- c) The cumulative price is expected to be less than the cumulative price threshold in the next scheduling interval of that gas day
- d) The cumulative price remains less than the cumulative price threshold for an entire gas day following the gas day on which the cumulative price falls below and remains below the cumulative price threshold. For the avoidance of doubt, where cumulative price is below the cumulative price threshold for the first scheduling interval on a gas day, for conclusion of the administered price period, the cumulative price must remain below the cumulative price threshold for all subsequent scheduling intervals on that gas day and the entire gas day following

Examples:

- If the cumulative price in the LAOS for scheduling interval 3 of gas day 1 fell below the cumulative price threshold, and remains below it in the LAOS for scheduling intervals 4 and 5 on gas day 1 and all five scheduling intervals on gas day 2, then the administered price period can end at the end of gas day 2.
- If the cumulative price in the LAOS for scheduling interval 1 of gas day 1 fell below cumulative price threshold, and remains below it in the LAOS for scheduling intervals 2 to 5 on gas day 1 and all five scheduling intervals on gas day 2, then the administered price period can end at the end of gas day 2.
- If the cumulative price fell below cumulative price threshold in the LAOS schedule 5 of gas day 1, and remains below cumulative price threshold in the LAOS for all 5 scheduling intervals on gas day 2, then the administered price period can end at the end of gas day 2.
- If the cumulative price in the LAOS for scheduling interval 3 of gas day 1 fell below the cumulative price threshold, and remains below it in the LAOS for scheduling intervals 4 and 5 on gas day 1 but exceeds the cumulative price threshold on any current gas day scheduling interval during gas day 2, then the administered price period is continued to at least the end of gas day 3.

6.7 Consultation on amending the administered price cap and cumulative price threshold

AEMO must consult with industry on any proposed approach for amending the APC or CPT and the timing for implementation.

AEMO must follow the procedure change process under Part 15 of the Rules for amending the administered pricing procedures.