

Wholesale Market Operation Procedures (Victoria)

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Current version release details

Version	Effective date	Summary of changes
1.0	1 May 2024	<p>AEMO is making amendments to these Wholesale Market Procedure to account for the AEMC’s “DWGM distribution connected facilities” and “Review into extending the regulatory frameworks to hydrogen and renewable gases” rule changes.</p> <p>AEMO is making this new Procedure consolidating the existing:</p> <ul style="list-style-type: none"> a) Wholesale Market Accreditation Procedures. b) Wholesale Market Administered Pricing Procedures. c) Wholesale Market Capacity Certificates Auction and Transfer Procedures. d) Wholesale Market LNG Reserve Procedures. e) Wholesale Market Gas Scheduling Procedures.

Note: There is a full version history at the end of this document.

1. Introduction

1.1. Purpose and scope

These are the Wholesale Market Operation Procedures (Victoria) (**Procedures**) made in accordance with section 91BL of the National Gas Law (NGL) and the National Gas Rules (NGR). The purpose of these Procedures is to govern the procedures used to provide data for the gas scheduling process:

- (a) Wholesale Market Accreditation Procedures.
- (b) Wholesale Market Administered Pricing Procedures.
- (c) Wholesale Market Capacity Certificates Auction Procedures.
- (d) Wholesale Market Capacity Certificates Transfer Procedures.
- (e) Wholesale Market LNG Reserve Procedures.
- (f) Wholesale Market Gas Scheduling Procedures.

The NGL and the NGR prevail over these Procedures to the extent of any inconsistency.

These Procedures may only be amended in accordance with Part 15B of the NGR.

1.2. Application

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

1.3. Legal and regulatory framework

These Procedures have been made under section 91BL of the National Gas Law.

AEMO is required by the Rules to have the following Procedures:

- (a) Wholesale Market Accreditation Procedures required by rule 210.
- (b) Wholesale Market Administered Pricing Procedures required by rule 224.
- (c) Wholesale Market Capacity Certificates Auction Procedure required by rule 328D.
- (d) Wholesale Market Capacity Certificates Transfer Procedure required by rule 331(2).
- (e) Wholesale Market LNG Reserve Procedures required by rule 286A.
- (f) Wholesale Market Gas Scheduling Procedures required by rule 206.

1.4. Definitions and interpretation

1.4.1. Glossary

Terms defined in the NGL and the NGR have the same meanings in these Procedures unless otherwise specified in this clause.

Terms defined in the NGL and NGR are intended to be identified in these Procedures by italicising them, but failure to italicise a defined term does not affect its meaning.

The words, phrases and abbreviations in the table below have the meanings set out opposite them when used in these Procedures.

Table 1 Glossary of terms

Term	Definition
Accreditation	Accreditation in accordance with rule 210 of the NGR. The operation of an accreditation in regards to <i>scheduling</i> is defined in clause 7.10.7.
Accreditation Application	Application made by a <i>Market Participant</i> for Accreditation.
APC	means the <i>administered price cap</i> applicable to the <i>market price</i> for any <i>scheduling horizon</i> when an <i>administered price period</i> applies
Auction Notice	The notice of a <i>capacity certificates auction</i> published by AEMO under clause 4.8.2.
Auction Platform	The system established by AEMO for the <i>capacity certificates auction</i> .
Auction Solver	The program used to determine the results of the <i>capacity certificates auction</i> in accordance with the auction design principles in the NGR
Auction statement	A statement issue to <i>Market Participants</i> as set out in clause 4.12.8
BoD	Beginning of <i>gas day</i>
Bid submission time	The time by which a <i>Market Participant</i> must have submitted data in accordance with rule 211 of the NGR.
Capacity Certificates listing platform	The system established by AEMO for listing <i>capacity certificates</i> in accordance with rule 330.
Capacity Certificates transfer system	The system established by AEMO for the bilateral transfer of <i>capacity certificates</i> under rule 331.
CC Allocated Capacity	The total of <i>capacity certificates</i> that are to be allocated by AEMO as directed by the <i>declared transmission system service provider</i> in accordance with rule 329D (but remain unallocated to <i>Market Participants</i> as at the date of the Auction Notice for the <i>capacity certificates auction</i> for which the CC Allocated Capacity is being determined); PLUS <i>capacity certificates</i> allocated to <i>Market Participants</i> as at the date of the Auction Notice for the <i>capacity certificates auction</i> for which the CC Auction Capacity is being determined (but excluding <i>capacity certificates</i> that have reverted to AEMO pursuant to rule 332(1) for reallocation as at the date of the Auction Notice for the <i>capacity certificates auction</i> for which the CC Allocated Capacity is being determined).
CC Modelled Capacity	The capacity of each <i>capacity certificate zone</i> of the <i>declared transmission system</i> modelled by AEMO pursuant to rule 328 (as amended from time to time).
Common Model	A modelled representation of the <i>declared transmission system</i> agreed between AEMO and the DTS SP under the <i>service envelope agreement</i> as may be updated from time to time to reflect changes to the DTS
cumulative price period or CPP	A rolling number of consecutive <i>scheduling intervals</i> over which to assess the cumulative price for comparison to the <i>cumulative price threshold</i> . The last <i>scheduling interval</i> in this rolling horizon is schedule S of <i>gas day</i> D.
cumulative price threshold or CPT	A threshold against which the cumulative price is measured for the purpose of commencement and conclusion of an <i>administered price period</i> , in accordance with the <i>administered pricing procedures</i> , as defined in the section 3.3 of the <i>administered pricing procedures</i> .
Curtailment Direction	Any direction to interrupt or reduce, or that has the effect of interrupting or reducing, the consumption of natural gas by <i>Customers</i> from the <i>declared transmission system</i> or a <i>declared distribution system</i> , given by: <ol style="list-style-type: none"> 1. AEMO under section 91BC of the National Gas Law. 2. Energy Safe Victoria under sections 106 and 107 of the Gas Safety Act 1998 (Victoria). 3. the responsible Minister under section 207 of the Gas Industry Act 2001 (Victoria).

Term	Definition
DDS	<i>declared distribution system</i> as defined in Part 19 of the Rules. [Note only <i>declared distribution systems</i> that are directly connected to the DTS are covered by Part 19]
Declared host Retailer	In respect of a DDS, the <i>declared host Retailer</i> designated under the National Gas (Victoria) Act 2008.
Deemed Accreditation Application	An application for Accreditation taken to be issued pursuant to clause 9.1 or 20.2 of the Capacity Transfer and Auction Procedures
Demand Override Methodology	The demand override methodology is a technical document under clause 7.5.2, detailing the operation of AEMO's <i>demand forecast override</i> .
DFPC	A Directional Flow Point Constraint applied to two or more points on a pipeline in accordance with clause 7.10.4.
DTS	The <i>declared transmission system</i>
DTS SP	The <i>declared transmission system service provider</i>
DWGM	<i>Declared Wholesale Gas Market</i>
DWGM allocation	For the purpose of the <i>accreditation procedures</i> , has the meaning defined in section 20.2 of the Capacity Transfer and Auction Procedures which governs Pipeline Capacity Trading and Day Ahead Auction processes.
DWGM interface point	Has the meaning as defined in Part 24 of the NGR
DWGM transfer	Has the meaning defined in section 9.1 of the Capacity Transfer and Auction Procedures section 9.1 which governs Pipeline Capacity Trading and Day Ahead Auction processes.
EoD	End of <i>gas day</i>
Exiting Retailer	A <i>Retailer</i> whose <i>Customers</i> have been assigned to a <i>RoLR</i> .
Feasible Operating Schedule	An <i>operating schedule</i> that is physically achievable within operating pressures between the relevant maximum allowable and minimum operational pressures across the DTS
First Approved Operating Schedule or FAOS	The first <i>operating schedule</i> published by AEMO for any <i>scheduling horizon</i> .
Financially Responsible Organisation or FRO	As defined in the Retail Market Procedures (Victoria)
gas emergency protocol	The requirements of the <i>gas emergency protocol</i> , as defined in the National Gas (Victoria) Act section 23, is comprised of the following documents: (a) Emergency Procedures (Gas); (b) Gas Load Curtailment and Gas Rationing and Recovery Guidelines; and (c) Gas Curtailment List (published on the MIBB). See: https://www.aemo.com.au/energy-systems/gas/emergency-management/victorian-role
Good Gas Industry Practice	The practices, methods and acts that would reasonably be expected from experienced and competent persons engaged in a business of providing natural gas services in Australia, acting with all due skill, diligence, prudence and foresight and in compliance with all applicable legislation, authorisations and industry codes of practice
LAOS or Last Approved Operating Schedule	The last operating schedule published by AEMO in a scheduling interval.
Linepack zone	Linepack zones defined in the <i>system security procedures</i> .
Market Information Bulletin Board or MIBB	Means a facility established by AEMO on the <i>electronic communication system</i> on which it may publish information for <i>Market Participants</i> .
marginal clearing price or MCP	The <i>bid</i> step price of the highest priced <i>bid</i> step that is scheduled in the relevant <i>operating schedule</i> determined in accordance with the <i>administered pricing procedures</i> .

Term	Definition
Major RoLR Event	A <i>RoLR</i> becomes the <i>FRO</i> for <i>Customers</i> of an Exiting Retailer, where AEMO calculates that the Market Share of the Exiting Retailer (or the aggregate Market Share of all Exiting Retailers if more than one) is greater than or equal to 6%.
Market Clearing Engine or MCE	Optimisation software that determines <i>operating schedules</i> and <i>pricing schedules</i> .
Market Share	The percentage determined using data for the most recent month for which final settlement data is available, as: <ul style="list-style-type: none"> the total quantity of adjusted withdrawals allocated to all Exiting Retailers for Distribution Customers, divided by the total quantity of adjusted withdrawals allocated to all Retailers for Distribution Customers, and multiplied by 100.
MCE Factors	Mathematical constants used in the MCE such as gas properties and characteristics, linearisation steps used by the MCE and VoLL.
MIRN	Metering Installation Registration Number
Minor RoLR Event	A <i>RoLR</i> becomes the <i>FRO</i> for <i>Customers</i> of an Exiting Retailer, where AEMO calculates that the Market Share of the Exiting Retailer (or the aggregate Market Share of all Exiting Retailers if more than one) is greater than or equal to 3% but less than 6%.
Node	A point on a pipeline used to define the pipeline network for a mathematical model for the purpose of <i>scheduling</i> by the MCE, such as a junction, a supply point, delivery point, an inlet or an outlet of a connected facility (e.g. compressor).
Normal State	Normal State is defined in the <i>system security procedures</i> .
NFTC	Net Flow Transportation Constraint - A constraint applied to a group of injection/withdrawal meters at a common location to prevent the transportation capacity of the pipeline being exceeded as defined in clause 7.10.6.
NGL or Law	National Gas Law
NGR or Rules	National Gas Rules
Nominated DWGM participant	Has the meaning as defined in clause 9.1 and 20.2 (as applicable) of the Capacity Transfer and Auction Procedures which governs the Pipeline Capacity Trading and Day Ahead Auction processes for trading non-DTS Pipeline Capacity.
out of merit order gas	As defined in the <i>system security procedures</i> .
Qdiff	An Intra-day adjustment applied to <i>operating schedules</i> and <i>pricing schedules</i> , by AEMO clause in accordance with clause 7.13.
ramp times	The ramp up time and ramp down time of a <i>market withdrawal point</i> or a <i>market injection point</i> , being the time (hours) it takes to change up to and down from the maximum flow rate at that point
RoLR or Retailer of Last Resort	In relation to a <i>supply point</i> , the <i>Retailer</i> assigned as the <i>FRO</i> for that point in accordance with procedures described in Chapter 6 of the <i>Retail Market Procedures</i> (Victoria).
RoLR gas day	The <i>gas day</i> nominated by AEMO in a <i>suspension notice</i> issued to a <i>Retailer</i> .
SCADA	A real time supervisory control and data acquisition system that processes data used in the management of the DTS.
Schedule	An <i>operating schedule</i> or a <i>pricing schedule</i>
SDPC	Supply Demand Point Constraint -A constraint applied to a system point, by AEMO in accordance with clause 7.10.1.
SSC	Supply Source Constraint – A constraint applied to a supply source, in accordance with clause 7.10.3
System Wide Notice or SWN	A System Wide Notice (SWN) sent to Registered Participants via the <i>electronic communication system</i> .
TMM	Transportation and Market Manager application
Transportation Capacity	Has the meaning as defined in the NGL
Valid Pricing Schedule	A <i>pricing schedule</i> that achieves competitive market price outcomes by <i>scheduling</i> the lowest-priced injection bids, the highest-priced withdrawal bids and <i>demand</i>

Term	Definition
	forecasts, within the accreditation of <i>controllable quantities</i> and the capacity limitations at <i>connection points</i> .
Withdrawal Zone	Withdrawal zone defined in the <i>system security procedures</i> .

1.4.2. Interpretation

The following principles of interpretation apply to these Procedures unless otherwise expressly indicated:

- These Procedures are subject to the principles of interpretation set out in Schedule 2 of the National Gas Law.
- References to time are references to Australian Eastern Standard Time.
- Market prices are determined to four decimal places and gas is scheduled in integer gigajoule terms to the whole gigajoule.

1.5. Related documents

The following documents support these Procedures.

Table 2 Related Wholesale Market Procedures

Reference	Title	Location
Capacity Transfer and Auction Procedures	Capacity Transfer and Auction Procedures	https://www.aemo.com.au/energy-systems/gas/pipeline-capacity-trading-pct/procedures-policies-and-guides
Gas Emergency Protocol	Gas Emergency Protocol	https://www.aemo.com.au/energy-systems/gas/emergency-management/victorian-role
Connection Approval Procedures	Wholesale Market Connection Approval Procedures (Victoria)	https://www.aemo.com.au/energy-systems/gas/declared-wholesale-gas-market-dwgm/procedures-policies-and-guides
Gas Quality Procedures	Wholesale Market Gas Quality Monitoring Procedures (Victoria)	
Maintenance Planning Procedure	Wholesale Market Maintenance Planning Procedures (Victoria)	
Management Procedures	Wholesale Market Management Procedures (Victoria)	
Metering Procedures	Wholesale Market Metering Procedures (Victoria)	
Retail Market Procedures	Retail Market Procedures (Victoria)	https://www.aemo.com.au/energy-systems/gas/gas-retail-markets/procedures-policies-and-guides/victoria
Settlement Procedures	Wholesale Market Settlement Procedures (Victoria)	https://www.aemo.com.au/energy-systems/gas/declared-wholesale-gas-market-dwgm/procedures-policies-and-guides
System Security Procedures	Wholesale Market System Security Procedures (Victoria)	

1.6. Technical documents

The following technical documents support these Procedures.

Table 3 Related Wholesale Market Procedures

Reference	Title	Location
Demand Override Methodology	DWGM Demand Override Methodology	https://www.aemo.com.au/energy-systems/gas/pipeline-capacity-trading-pct/procedures-policies-and-guides

2. Accreditation Procedures

2.1. Purpose

These are the Wholesale Market Accreditation Procedures (Victoria) (**Procedures**) made in accordance with section 91BL of the National Gas Law (NGL) and Rule 210 of the National Gas Rules (NGR).

2.2. Scope

These Procedures govern the accreditation of *controllable quantities* for *Market Participants* who wish to utilise them, as specified in rule 210(1) of the NGR, for the purpose of:

- (a) submitting *withdrawal bids* in respect of a *market withdrawal point*; or
- (b) submitting *injection bids* in respect of a *market injection point*;¹ and
- (c) receiving any *ancillary payments* resulting from the *scheduling* of those *bids*.

Applications under these Procedures may include:

- (d) Accreditation Application – to fix *scheduled injections* for a part of a *gas day* nominated by the *Market Participant* at quantities of a previous *operating schedule* for that *gas day* for the purposes of rule 210(4) of the NGR; and
- (e) a *demand forecast* validation application – to use quantities specified by the *Market Participant* to validate its *demand forecasts* for the purposes of rule 210(5) of the NGR.

Note: A *Market Participant* can specify *controllable quantities*, which acting in combination together and with other inputs to the *scheduling* process, will cause gas to be scheduled in a particular way during the gas day. The aim of this function is to ensure that each *Market Participant* can reflect operational or contractual restrictions on their ability to supply or consume gas, so that their resultant scheduling instructions are more reflective of the quantities that they are able to inject or withdraw.

2.3. Accreditation of controllable quantities

2.3.1. Form of application

A *Market Participant* may apply for accreditation of a *controllable quantity* by lodging with AEMO a completed “Application for Accreditation of Controllable Quantities (Injections/Withdrawals)”. The current Accreditation Application form must be downloaded from AEMO’s website.²

¹ This includes a net injection meter that is a *market injection point* for a net bidding facility as required by the *net bidding facility procedures*.

² At <https://www.aemo.com.au/energy-systems/gas/pipeline-capacity-trading-pct/procedures-policies-and-guides>.

2.3.2. Accreditation Application of a controllable quantity for withdrawal

An Accreditation Application for accreditation of a *controllable quantity for withdrawal bids* must specify, in addition to the requirements of rule 210(2), the following information:

- (a) the contact name, *Market Participant* name, participant ID and contact details of the *Market Participant*;
- (b) the Metering Installation Registration Number (MIRN) and address of the *market withdrawal point*; and
- (c) timing and any other contractual constraints on the *Market Participant*'s ability to respond to AEMO's *scheduling instructions*.

AEMO will acknowledge the receipt of each Accreditation Application by return email. If an acknowledgement of receipt is not received in a reasonable time period, *Market Participants* should contact AEMO's Support Hub.

For the avoidance of doubt a *market withdrawal point* for a *net bidding facility* does not need to be accredited for a *Market Participant*.

2.3.3. Deemed Accreditation Applications of a controllable quantity for withdrawals

If a Nominated DWGM participant has a *controllable quantity for withdrawal bids* accredited at a *market withdrawal point* that is a DWGM interface point, pursuant to clauses 9.1 and 20.2 of the Capacity Transfer and Auction Procedures, the Nominated DWGM participant is taken to have issued a Deemed Accreditation Application for that controllable quantity as follows:

- (a) a revised Accreditation Application for that *controllable quantity*;
- (b) to increase or decrease the maximum hourly quantity to reflect the corresponding Transportation Capacity increase or decrease for each gas day confirmed for the DWGM transfer or the increase confirmed for the DWGM allocation, as applicable;
- (c) for the period of the Transportation Capacity sold or purchased pursuant to the DWGM transfer or the DWGM allocation, as applicable;
- (d) otherwise, the Deemed Accreditation Application will be taken to specify the same information for the *controllable quantity* as is registered for the *controllable quantity* at the time of the Deemed Accreditation Application.

AEMO may rely on the information provided by the *DWGM facility operator* for the DWGM transfer or DWGM allocation for the purpose of the Deemed Accreditation Application and does not have to notify the Nominated DWGM participant of the Deemed Accreditation Application.

2.3.4. Accreditation Application of a controllable quantity for injections

An Accreditation Application of a *controllable quantity for injection bids* must specify, in addition to the requirements of rule 210(3), the following information:

- (a) the contact name, Market Participant name, participant id and contact details of the Market Participant;
- (b) the MIRN and address of the *market injection point*; and

- (c) Timing and any other contractual constraints on the *Market Participant's* ability to respond to AEMO's *scheduling instructions*.

AEMO will acknowledge the receipt of each Accreditation Application by return email. If an acknowledgement of receipt is not received in a reasonable time period, *Market Participants* should contact AEMO's Support Hub.

2.3.5. Deemed Accreditation application of a controllable quantity for injections

If a Nominated DWGM participant has a *controllable quantity for injection bids* accredited at a *market injection point* that is a DWGM interface point, pursuant to clauses 9.1 and 20.2 of the Capacity Transfer and Auction Procedures, the Nominated DWGM participant is taken to have issued a Deemed Accreditation Application for that *controllable quantity* as follows:

- (a) a revised Accreditation Application for that *controllable quantity*;
- (b) to increase or decrease the maximum hourly quantity to reflect the corresponding Transportation Capacity increase or decrease for each *gas day* confirmed for the DWGM transfer or the increase confirmed for the DWGM allocation, as applicable;
- (c) for the period of the Transportation Capacity sold or purchased pursuant to the DWGM transfer or the DWGM allocation, as applicable;
- (d) otherwise, the Deemed Accreditation Application will be taken to specify the same information for the *controllable quantity* as is registered for the *controllable quantity* at the time of the Deemed Accreditation Application.

AEMO may rely on the information provided by the *DWGM facility operator* for the DWGM transfer or DWGM allocation for the purpose of the Deemed Accreditation Application and does not have to notify the Nominated DWGM participant of the Deemed Accreditation Application.

2.3.6. Application to fix scheduled injections for a part of a gas day nominated by the Market Participant

An Accreditation Application of a *controllable quantity for injection bids* may specify a fixed *schedule injection* for a part of a gas day nominated by the participant as allowed by rule 210(4).

Table 4 Accreditation constraint parameters

Accreditation parameters	Description
Hourly ramp down rate	The maximum hourly ramp down rate for the allowed for the participant for the meter. This may be a value or NULL.
Hourly ramp up rate	The maximum hourly ramp up rate for the allowed for the participant for the meter. This may be a value or NULL.
Minimum hourly quantity	The minimum hourly injection/withdrawal quantity for the participant for the meter. This value is 0/GJ/h by default unless set to a different value by AEMO.
Maximum hourly quantity	The maximum hourly injection/withdrawal quantity for the participant for the meter. This may be a value or NULL.
Hourly response time	The amount of time in hours for the facility to respond to the constraint. This value is 0 by default.
Schedule restriction	The restriction on scheduled quantities that apply from an earlier schedule as described below. This value is NULL unless set to one of the schedule restriction values allowed by rule 210(4): a) 10AMOS-1 – Day ahead operating schedule published before 10AM.

Accreditation parameters	Description
	b) 4PMOS-1 – Day ahead operating schedule published before 4PM. c) LAOS-1 – The last approved day-ahead operating schedule published. d) LHQOS+1 – The last hour quantity from the last approved operating schedule for previous gas day. Note: Initial injection and withdrawal rates are specified at the start of each operating schedule.

These options apply to both the *operating schedule* and the *pricing schedule*:

- (a) BoD injection and withdrawal rates will, as a default, be based on the end conditions of the last published *operating schedule* from the previous day. However, a *Market Participant* may accredit alternative starting conditions, such as the initial day-ahead scheduled quantity for that gas day, where this provides a better representation of the contractual arrangements of a facility.
- (b) Rescheduled injection and withdrawal rates are based on the conditions at the end of the preceding hour in the last published *operating schedule*.

2.3.7. AEMO's assessment of Accreditation Applications

AEMO will assess each Accreditation Application of a *controllable quantity* against the requirements of rule 210(7) of the NGR.

AEMO may require a *Market Participant* to provide any additional information reasonably required to demonstrate that the *Market Participant* meets the requirements of rule 210(7).

Except for Deemed Accreditation Applications, AEMO will notify the *Market Participant* of the outcome of an application, including the effective date of accreditation if applicable, within:

- (a) within 5 business days of receipt of an initial application.
- (b) within 3 business days of receipt of a revised application.

The effective date of the accreditation of a controllable quantity will be no earlier than 4 gas days after AEMO notifies the *Market Participant* of the outcome of the application.

Note: Once accredited (through an initial Accreditation Application), the *controllable quantities* are standing data which is used as an input that limits Market Participant's bids quantities at the selected meter when AEMO produces *operating schedules* and *pricing schedules*. Controllable quantities data may only be changed by a further Accreditation Application by the Market Participant (a revised Accreditation Application). Controllable quantities data is confidential to the *Market Participant* involved and will only be disclosed with the written consent of the *Market Participant*.

2.3.8. AEMO's assessment of Deemed Applications

If a Nominated DWGM participant is taken to have issued a Deemed Accreditation Application:

- (a) the requirements of rule 210(7) of the NGR will be taken to have been met based on the information provided by the *DWGM facility operator* for the DWGM transfer or DWGM allocation, as applicable; and
- (b) subject to this section, AEMO will accredit the *controllable quantity* for each gas day confirmed for the DWGM transfer or the increase confirmed for the DWGM allocation, as

applicable by increasing or decreasing the maximum hourly quantity and ramp times for that *controllable quantity* in accordance with AEMO's standard practices to reflect the corresponding Transportation Capacity increase or decrease.

The increase or decrease of the maximum hourly quantity and ramp times will be for the period of the Transportation Capacity sold or purchased pursuant to the DWGM transfer or the DWGM allocation, as applicable, as confirmed by the *DWGM facility operator*.

After the period of the Transportation Capacity sold or purchased pursuant to the DWGM transfer or the DWGM allocation, the maximum hourly quantity and ramp times accredited for the *controllable quantity* will automatically revert to the maximum hourly quantity and ramp times accredited immediately before the DWGM transfer or the DWGM allocation, subject to any further Accreditation Application(s) or Deemed Accreditation Application(s).

If the Nominated DWGM participant's maximum hourly quantity for that controllable quantity at that DWGM interface point would reduce to less than zero for any gas day as a result of a Deemed Accreditation Application, the maximum hourly quantity will reduce to zero for that gas day.

If the Nominated DWGM participant's maximum hourly quantity for that controllable quantity at that DWGM interface point is null for any gas day, it will remain null for that gas day notwithstanding the DWGM transfer or DWGM allocation.

AEMO does not have to notify the Nominated DWGM participant of the accreditation of the increase or decrease of the maximum hourly quantity or ramp times as a result of a Deemed Accreditation Application.

2.3.9. Revocation of accreditation

AEMO may revoke the accreditation of a *controllable quantity* by written notice to the relevant *Market Participant* specifying the effective date of the revocation, in the following circumstances:

- (a) if requested or agreed by the *Market Participant* in writing; or
- (b) if AEMO reasonably considers that the requirements of rule 210(7) of the NGR are no longer met in respect of that *controllable quantity*, provided that:
 - (i) AEMO has notified the *Market Participant* in writing of its intention to revoke the accreditation, specifying why AEMO considers that the requirements of rule 210(7) are no longer met;
 - (ii) AEMO has allowed a period of not less than 10 business days (to be specified in the notice) for the *Market Participant* to demonstrate that those requirements continue to be met; and
 - (iii) within the specified period, or a longer period allowed by AEMO at its discretion, the *Market Participant* has failed to demonstrate to AEMO's reasonable satisfaction that those requirements continue to be met.

2.4. Registration of Demand Forecast Validation Quantities

A *Market Participant* may specify quantities to be used by AEMO for validation purposes under rule 210(5) of the NGR by lodging with AEMO a completed “Application for Registration of Demand Forecast Validation Quantities”, available on AEMO’s website.³ The *demand forecast* validation application must include the following information:

- (a) the contact details of the *Market Participant*.
- (b) the period for which the specified quantities are valid.
- (c) the *demand forecast* validation quantities, by MIRN or on a non-site specific basis, for withdrawals from the *Market*.

Market Participants are required to ensure the *demand forecast* validation quantities provided to AEMO are accurate. AEMO is not responsible for verifying any quantity specified by a *Market Participant* under this section.

AEMO will acknowledge the receipt of each application by return email. If an acknowledgement of receipt is not received in a reasonable time period, *Market Participants* should contact AEMO’s Support Hub.

AEMO will notify the *Market Participant* of the outcome of a *demand forecast* validation application, including the effective date if applicable, within:

- (a) 5 business days of receipt of an initial *demand forecast* validation application.
- (b) 3 business days of receipt of a revised *demand forecast* validation application.

Note: Once accredited (through an initial application), the *demand forecast* validation quantities may only be changed by a further *demand forecast* validation application by the *Market Participant* (a revised *demand forecast* validation application).

³ At <https://www.aemo.com.au/energy-systems/gas/declared-wholesale-gas-market-dwgm/market-operations>.

3. Administered Pricing Procedures

3.1. Purpose

These are the Wholesale Market Administered Pricing Procedures (Victoria) (**Procedures**) made in accordance with section 91BL of the NGL and rule 224.

3.2. Scope

These Procedures specify the:

- (a) *administered price cap*.
- (b) *cumulative price threshold*.
- (c) process that AEMO must follow to amend these values.
- (d) process that AEMO must apply to declare, and end administered price periods.

3.3. Administered price cap settings

3.3.1. Administered price cap

The *administered price cap* is \$40/GJ.

3.3.2. Cumulative price threshold

The *cumulative price threshold* is \$1,400/GJ.

3.3.3. Cumulative price period

The cumulative price period is 35 consecutive scheduling intervals.

3.3.4. Consultation on Settings

AEMO will only amend these Procedures, as per rule 224(1)(b), in accordance with Part 15B of the NGR, and will follow the consultation process in that Part in respect of changing this Procedure and changing the *administered price cap*, the *cumulative price threshold*, and cumulative price period.

3.4. Declaration of commencement and ending of administered price periods

AEMO will declare an *administered price period* to commence and end for the causes and in accordance with the conditions set out in the following table:

Table 5 Summary of administered price period events

Administered Pricing Cause	Declaration of commencement of <i>administered price period</i>	Declaration of ending of <i>administered price period</i>
Market suspension under Rule 347	AEMO will declare an <i>administered price period</i> upon declaring that the <i>Market</i> is suspended under Rule 348.	AEMO will declare the <i>Market</i> suspension and <i>administered price period</i> to be at an end if AEMO, in its reasonable opinion, considers that: <ul style="list-style-type: none"> the <i>Market</i> is capable of returning to normal operating conditions; any after effects as a result of the <i>Market</i> suspension or its underlying causes are unlikely to distort <i>market prices</i>, and no other condition for an <i>administered price period</i> is applicable.
Major RoLR event	AEMO will declare an <i>administered price period</i> from the effective <i>gas day</i> of a <i>suspension notice</i> issued to a <i>Retailer</i> that results in a Major RoLR event.	AEMO will declare the <i>administered price period</i> to be at an end from the start of the next <i>gas day</i> if either: <ul style="list-style-type: none"> 20 <i>business days</i> have elapsed from the effective <i>gas day</i> of a relevant <i>suspension notice</i> issued to a <i>Retailer</i>; or all RoLRs in relation to the <i>Customers</i> of all Exiting <i>Retailers</i> agree an earlier <i>gas day</i> and advise AEMO in writing; and if no other condition for an <i>administered price period</i> is applicable.
Minor RoLR event	AEMO will declare an <i>administered price period</i> from the effective <i>gas day</i> of a <i>suspension notice</i> issued to a <i>Retailer</i> that results in a Minor RoLR event.	AEMO will declare the <i>administered price period</i> to be at an end from the start of the next <i>gas day</i> if: <ul style="list-style-type: none"> 15 <i>business days</i> have elapsed from the effective <i>gas day</i> of a relevant <i>suspension notice</i> issued to a <i>Retailer</i>, or all RoLRs in relation to the <i>Customers</i> of all Exiting <i>Retailers</i> agree an earlier <i>gas day</i> and advise AEMO in writing; and if no other condition for an <i>administered price period</i> is applicable.
Material curtailment	AEMO will declare an <i>administered price period</i> from the effective time of a Curtailment Direction that AEMO determines will affect a material part of the <i>declared transmission system</i> , not being a direction that affects: <ul style="list-style-type: none"> only a localised area; or only <i>Customers</i> in tables 1 and 2 of the <i>Gas Load Curtailment and Gas Rationing and Recovery Guidelines</i> under the <i>gas emergency protocol</i> (section 56 of the <i>National Gas (Victoria) Act 2008</i>). 	AEMO will declare the <i>administered price period</i> to be at an end when: <ul style="list-style-type: none"> the relevant Curtailment Direction is revoked, or ceases to affect a material part of the <i>declared transmission system</i>; and no other condition for an <i>administered price period</i> is applicable
Inability to publish market price or a pricing schedule by the required time under Rule 222	AEMO will declare an <i>administered price period</i> when it is not able to <i>publish</i> the <i>market price</i> or the <i>pricing schedule</i> as a result of failure of software or systems	AEMO will declare the <i>administered price period</i> to be at an end when AEMO, in its reasonable opinion, considers that: <ul style="list-style-type: none"> it is able to once again determine <i>market price</i> and <i>pricing schedules</i> in accordance with the normal processes; and no other condition for an <i>administered price period</i> is applicable.
Exceeding cumulative price threshold	The <i>administered price period</i> commences from the start of the <i>scheduling interval</i> in which a cumulative price is greater than or equal to the <i>cumulative price threshold</i> in accordance with these procedures.	AEMO will declare the <i>administered price period</i> to be at an end: <ul style="list-style-type: none"> at the end of the <i>gas day</i> following the <i>gas day</i> on which the cumulative price falls below and remains below the <i>cumulative price</i>

Administered Pricing Cause	Declaration of commencement of <i>administered price period</i>	Declaration of ending of <i>administered price period</i>
		<i>threshold</i> , provided no other condition for an <i>administered price period</i> is applicable.

With respect to an inability to *publish market price* or a *pricing schedule* by the required time under rule 222 of the NGR, 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* (MIBB) as envisaged in Condition 5 of clause 7.19.

3.5. Notifications relating to administered price periods

3.5.1. Notification of commencement of an administered price period

AEMO will, without delay, notify all *Market Participants* of the occurrence of any of the events in clause 3.4 and of the commencement of an *administered price period*, specifying the events or causes that have triggered the *administered price period*.

3.5.2. Notification of conclusion of an administered price period

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

3.5.3. 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.

3.6. 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 the publication times set out in NGR 215(3)(c).
- (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* on *gas day D* for schedule S by the use of *pricing schedules* produced by the Market Clearing Engine (MCE), then AEMO will apply a hierarchy of strategies to determine *market prices* subsequent to that declaration as follows:

- (i) Strategy 1 - Through manual calculation based on *bids*, *scheduled injections* and *scheduled withdrawals* (including *demand forecasts*) for the applicable *gas day*.
- (ii) Strategy 2 - The average of the *market prices* for the preceding 30 *gas days* at *scheduling interval S* as of the most recently published schedule.
- (iii) Strategy 3 - As determined from:
 - (A) an estimate of the cost of gas
 - (B) an estimate of the highest price gas in the *Market* (e.g. cost of *LNG*).
- (e) AEMO will notify Participants by an SWN of the strategy used to determine *market prices* during the *administered price period*.

3.7. 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 MCE, 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 of the particular approach applied to determine *pricing schedules* during the *administered price period*.

3.8. 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 of the NGR.

3.9. Operation of the cumulative price threshold

3.9.1. Determining the marginal clearing prices

- (a) AEMO will determine the marginal clearing price for each *scheduling interval*.
- (b) 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*.
- (c) In the determination of a marginal clearing price:

- (i) 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*;
 - (ii) The marginal clearing price for the next *scheduling interval* is calculated prior to commencement of that *scheduling interval* and is determined from the LAOS’;
 - (iii) The marginal clearing price for the current and historical *scheduling intervals* is determined from the LAOS of those *scheduling intervals*; and
 - (iv) 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.
- (d) 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:
- (i) 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 *market 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.
 - (ii) For each Market Participant *x* and pipeline point *p* and starting from $m(x,point)=1$ (the lowest priced *bid* step) and increasing *m*, find the lowest value of $m(x,point)$ for which:

$$\sum_{step=1,m(x,point)} BQ_{i(x,point,step,s,d)} \geq Q^{IOS}_{(x,point,s,d)}$$
 - (iii) For the avoidance of doubt, all steps in respect of the *operating schedule* must be included when determining *m*.
 - (iv) $MCP_{(d,s)} = \text{Max}_{(over all x, point)}(BPI_{(x,point,m(x,point),s,d)}, MP_{(d,s)})$
 - (v) $MCP_{(d,s,FAOS)} = MCP_{(s,d)}$ for LAOS’_(s,d)
 - (vi) $MCP_{(d,s,LAOS)} = MCP_{(s,d)}$ for LAOS_(s,d)
 - (vii) 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*.

where:

Term	Definition
$Bpi_{(x,point,step,s,d)}$	<i>Bid</i> price for <i>price step</i> (step) of <i>Market Participant x’s injection bid</i> at pipeline point (point) for schedule <i>s</i> on <i>gas day d</i> .
$Bqi_{(x,point,step,s,d)}$	<i>Bid</i> quantity for <i>price step</i> (step) of <i>Market Participant x’s injection bid</i> at pipeline point (point) for schedule <i>s</i> on <i>gas day d</i> .

Term	Definition
d	<i>gas day</i>
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" <i>operating schedule</i> with a start time equal to the start of the <i>scheduling interval</i> . For example, if an <i>operating schedule</i> 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" <i>operating schedule</i> applicable to <i>scheduling interval</i> "s" in <i>gas day</i> "d" with a start time equal to the start of that <i>scheduling interval</i> . This means the last approved operating schedule for the <i>scheduling horizon</i> commencing at the start time of the next scheduling interval prior to the commencement of that <i>scheduling interval</i> , the latest version of the very first schedule for a <i>scheduling interval</i> . Example: if an <i>operating schedule</i> 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 <i>operating schedule</i> start time.
MCP_(s,d)	Marginal clearing price for <i>scheduling interval</i> s on <i>gas day</i> d.
MCP_(s,d,LAOS')	Marginal clearing price for LAOS' for <i>scheduling interval</i> s on <i>gas day</i> d.
MCP_(s,d,LAOS)	Marginal clearing price for LAOS for <i>scheduling interval</i> s on <i>gas day</i> d.
MP_(d,s)	The last <i>published market price</i> value associated with the LAOS _(s,d) or LAOS' _(s,d) (as applicable) for <i>scheduling interval</i> s on <i>gas day</i> d.
QIOS(x,point,s,d)	<i>Operating schedule</i> controllable injections (cumulative) for <i>Market Participant</i> x at pipeline point (point), in <i>operating schedule</i> s on <i>gas day</i> d.
s	number of the <i>scheduling interval</i> and/or schedule of the <i>gas day</i> : s Commencement of <i>scheduling interval</i> 1 6:00am 2 10:00am 3 2:00pm 4 6:00pm 5 10:00pm

3.9.2. Calculating the cumulative price

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*:

$$CP_{(s,d)} = \sum_{n'=5-S \text{ to } 5} MCP_{(n',d-N-1,LAOS)}$$

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*.

$$+ \sum_{d'=d-N \text{ to } d-1} \sum_{n'=1 \text{ to } 5} MCP_{(n',d',LAOS)}$$

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*.

$+ (\sum_{n=1} \text{ to } s-1 \text{ MCP}_{(n,d,LAOS)})$	Cumulative marginal clearing price from LAOS of previous <i>scheduling intervals</i> of current <i>gas day</i> , $d = \text{current gas day}$
$+ \text{MCP}_{(s,d,LAOS')}$	Marginal clearing price from LAOS' with a schedule start time equal to the start of the next <i>scheduling interval</i>

Where:

Term	Definition
CP(s,d)	The cumulative price applicable to <i>scheduling interval s</i> on <i>gas day d</i> .
CPP	The cumulative price period represents the number of consecutive intraday <i>scheduling intervals</i> to be included in the cumulative price.
D	<i>gas day</i>
LAOS	The "last approved" <i>operating schedule</i> with a start time equal to the start of the <i>scheduling interval</i> . For example, if an <i>operating schedule</i> 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'	The "last approved" <i>operating schedule</i> applicable to <i>scheduling interval "s"</i> in <i>gas day "d"</i> with a start time equal to the start of that <i>scheduling interval</i> . This means the last approved <i>operating schedule</i> for the <i>scheduling horizon</i> commencing at the start time of the next <i>scheduling interval</i> prior to the commencement of that <i>scheduling interval</i> , the latest version of the very first schedule for a <i>scheduling interval</i> . Example: if an <i>operating schedule</i> 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 <i>operating schedule</i> start time.
MCP	Marginal clearing price for <i>scheduling interval s</i> on <i>gas day d</i> .
N	$= \text{int}[(\text{CPP}-s)/5]$ Represents the number of whole <i>gas days</i> prior to the current <i>gas day</i> to be included in the cumulative price.
S	$= \text{CPP}-s-5N$ Represents the number of <i>scheduling intervals</i> on the <i>gas day</i> prior to the first whole <i>gas day</i> 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*.

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

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

- (b) 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:
- (i) 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*.
 - (ii) 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.
- (c) 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.

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.

- (d) 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.

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.

- (e) 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 or *Market* suspension, and a *RoLR* event.
- (f) 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*.

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

- (a) 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.
- (b) 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:
 - (i) 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).
 - (ii) AEMO has declared the *administered price period* to be concluded.
 - (iii) The cumulative price is expected to be less than the *cumulative price threshold* in the next *scheduling interval* of that *gas day*.
 - (iv) 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*.

3.10. Compensation for an administered price cap

Registered participants can claim compensation under the *compensation procedures*, as per rule 350 of the NGR, allows *Registered participant* claims in respect of the application of an administered price cap by AEMO.

4. Capacity certificates auction procedures

4.1. Purpose

These are the Wholesale Market Capacity Certificates Auction Procedures (Victoria) (**Procedures**) made in accordance with section 91BL of the NGL and rule 328D.

4.2. Scope

These Procedures details the operation of the *capacity certificate auction* for *capacity certificates* within the *Market*.

Capacity certificates are used by *Market Participants* to provide tie breaking rights in *scheduling* of same price *bids*.

4.3. Participation

- (a) A *Market Participant* is not required to be a party to a *capacity certificates auction* participation agreement with *AEMO* to be an *eligible person*.
- (b) By participating in a *capacity certificates auction*, an *auction participant* is taken to participate in its own right and not as an agent.

4.4. Administration

4.4.1. Contacts

- (a) An *auction participant* must nominate up to three capacity certificates contacts. The role of a capacity certificates contact is to communicate with *AEMO* on behalf of the *auction participant* about the matters under these *capacity certificates auction procedures*.
- (b) Nominations of capacity certificates contacts must be made in the same manner as *Registered participants* notify *AEMO* of registered contacts in accordance with the *electronic communication procedures* and contain the information specified by *AEMO* for this purpose from time to time.
- (c) If no nomination is made under clause (a), the principal organisational contact will be taken to have been nominated in the role.
- (d) By nominating its capacity certificates contacts, an *auction participant* warrants in favour of *AEMO* that its contacts nominated under this clause are authorised to act on behalf of the *auction participant* and that each of the *auction participant's* representatives has consented to the use and disclosure of the contact's personal information for the purposes contemplated under these Procedures.
- (e) An *auction participant* must notify changes to its capacity certificates contacts where practicable before the change occurs and otherwise as soon as practicable after the change occurs, using the form published by *AEMO* for that purpose, signed by an authorised signatory of the *auction participant*.

4.5. Authorised users

- (a) An *auction participant* must register persons authorised to submit information on its behalf using the Auction Platform, as its authorised users.
- (b) Authorised users must be registered by the *auction participant's* Participant Administrator through AEMO's MSATS portal⁴.
- (c) By nominating its authorised users, an *auction participant* warrants in favour of AEMO that its authorised users registered under this clause are authorised to act on behalf of the *auction participant* and that each of the *auction participant's* authorised users has consented to the use and disclosure of the authorised user's personal information for the purposes contemplated under these Procedures.
- (d) An *auction participant* must ensure that its authorised users comply with the terms of use for the Auction Platform in Appendix A.

4.6. Auction Platform

4.6.1. Access and use of the Auction Platform

- (a) The Auction Platform must be used for participation in the *capacity certificates auction*
- (b) Subject to these *capacity certificates auction procedures*, AEMO will give an *auction participant* access to the Auction Platform to the extent required for the purpose of participating in the *capacity certificates auction*.
- (c) A person may access the Auction Platform if they:
 - (i) are an *eligible person*;
 - (ii) have registered an authorised user in accordance with clause 4.5; and
 - (iii) have a working, secure interface with the Auction Platform;
- (d) The person's right of access to and use of the Auction Platform terminates when the person's registration as a *Market Participant* is revoked.

4.6.2. Auction interface

Procedures and minimum requirements for:

- (a) establishing and maintaining an interface between the systems of the *auction participant* and the Auction Platform for the purposes of participation in the Auction Platform;
- (b) establishing authorised user identities within the Auction Platform; and
- (c) providing processes and guides for the use of the Auction Platform and *communications*, will be specified in the *electronic communications procedures* and the Technical Documents as referred to in the *electronic communications procedures*.

⁴ For further details see: https://portal.prod.nemnet.net.au/help/Content/DWGM/Declared_Wholesale_Gas_Markets_DWGM_.htm

4.6.3. Auction Platform operations

Auction Platform security

- (a) AEMO must use commercially reasonable efforts to implement and maintain security systems and procedures designed to prevent unauthorised access to the Auction Platform in accordance with Good Gas Industry Practice.
- (b) An *auction participant* must use commercially reasonable efforts to:
 - (i) maintain the security of its interface with the Auction Platform;
 - (ii) ensure that its software and hardware that interfaces with the Auction Platform is free from any computer viruses; and
 - (iii) ensure that no computer virus or malicious software is introduced on to any other person's software or hardware as a consequence of the *auction participant's* use of the Auction Platform.

Auction Platform communication failures

- (a) Each *auction participant* acknowledges that interruption or malfunction of communications including any third party telephone network fixed line service or malfunction of the *auction participant's* systems or equipment or the Auction Platform may result in the *auction participant's* bids not being received or the auction participant not receiving information or access to the Auction Platform.
- (b) Each *auction participant* is responsible for taking reasonable and prudent steps to mitigate the risk of communication failures in relation to its own participation in the *capacity certificates auction* in accordance with its own business requirements.
- (c) If there is a communication failure, AEMO has no obligation to take account of or act on any bid or other communication from any *auction participant* provided by any other means.

Auction Platform maintenance

- (a) AEMO may suspend the operation of the Auction Platform to undertake maintenance and upgrading at any time.
- (b) AEMO must use its reasonable endeavours to conduct maintenance and upgrading of the Auction Platform at times when in its reasonable opinion the impact on the *capacity certificates auction* will be minimised.
- (c) AEMO must give *auction participants* as much notice as reasonably practicable of any period during which the Auction Platform will be unavailable as a result of any maintenance or upgrade.

Capacity certificates auction records

- (a) The Auction Platform will create a record of bids, auction results and settlement (**Capacity Certificates Auction Records**).

- (b) AEMO must maintain the Capacity Certificates Auction Records for a period of seven years after the record was created.
- (c) The *auction participant* may (at its cost) request copies of Capacity Certificates Auction Records that record the relevant activity of the *auction participant*. AEMO will use reasonable endeavours to provide the information requested if the information is available, subject to:
 - (i) payment of AEMO's reasonable cost of retrieving and providing copies of the information; and
 - (ii) agreement on any other terms reasonably requested by AEMO, including as to confidentiality of the information.

4.7. Auction products

4.7.1. Auction products

For *capacity certificates auctions*, *auction products* will be specified by reference to the *capacity certificate type* and calendar month and year.

For example:

Longford-Entry-June-2023 specifies an *auction product* for an *entry capacity certificate* for the Longford Entry *capacity certificate zone* for June 2023.

4.8. Auction frequency and timing

4.8.1. Frequency

- (a) *Capacity certificates auctions* will be conducted at 6-month intervals.
- (b) Each *capacity certificates auction* will be in respect of a rolling forward period of 36 consecutive months.
- (c) Each rolling forward period will cover *auction products* for each month in the rolling forward period.
- (d) Each *capacity certificates auction* will be held during the second calendar month in advance of the first month of the rolling forward period for that *capacity certificates auction*.

4.8.2. Notifications

- (a) Subject to clause 4.8.3, AEMO will *publish* the Auction Notice for a *capacity certificates auction* at least 20 business days prior to that *capacity certificates auction*.
- (b) Each notice under subclause (a) must contain:
 - (i) the date and time of the capacity certificates auction;
 - (ii) the cut-off time for bids for that *capacity certificates auction*;
 - (iii) the auction products available at that *capacity certificates auction*; and

- (iv) the *capacity certificates* for each *auction product* available at that *capacity certificates auction*.
- (c) Each notice under subclause (a) may contain:
 - (i) Information about any maintenance events that AEMO is aware of and in AEMO's opinion may affect the availability of capacity at *capacity certificate zones* during the following forward period for that *capacity certificates auction*.
 - (ii) Information about proposed project developments that AEMO is aware of and that in AEMO's opinion may affect the capacity or availability of capacity at a *capacity certificates zone* during the rolling forward period for that *capacity certificates auction*.
- (d) AEMO makes no representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of information provided under clause 4.8.2(c).
- (e) AEMO must *publish* a DWGM System Wide Notice with details of each *capacity certificates auction*.⁵

4.8.3. Suspension and delay

- (a) AEMO may delay or suspend a *capacity certificates auction* if, in AEMO's opinion the Auction Platform is unable to facilitate the *capacity certificates auction* for any reason.
- (b) AEMO must as soon as practicable *publish* a notice if AEMO delays or suspends a *capacity certificates auction*.
- (c) If AEMO delays or suspends a *capacity certificates auction* under clause 4.8.3(a), AEMO will *publish* a notice at least 5 business days before the replacement *capacity certificates auction* will be held.
- (d) AEMO may amend any information provided under 4.8.2 (b) for the *capacity certificates auction* in the notice published under 4.8.3 (c).

4.9. System capability modelling requirements

- (a) By 31 March each year, AEMO is required under rule 328 to conduct *system capability modelling* of the *declared transmission system* for the purpose of informing AEMO's determination of the amount of *capacity certificates* available for allocation.
- (b) The *system capability modelling* must measure the capacity of the pipelines in the *declared transmission system* that is available for allocation of *capacity certificates* for each month in forthcoming *capacity certificates auctions*.

4.9.1. Modelling approach

- (a) The *system capability modelling* is performed using modelling software to achieve an accurate representation of the DTS.

⁵ A System Wide Notice (SWN) must be sent in accordance with AEMO's *Electronic Communication Procedure*.

- (b) In conjunction with DTS SP, AEMO creates and maintains the *Declared Transmission System (DTS) model* ('Common Model') representing the current system configuration.
- (c) The Common Model is updated whenever there are committed physical configuration changes to the DTS, changes to operating parameters, new/modified connections to the DTS and amendments to the Service Envelope Agreement (SEA). Any revision to the Common Model is approved by both AEMO and DTS SP, and the Common Model forms the base for all simulations for any period once approved.
- (d) When performing system capability modelling for the modelling outlook, AEMO must take into account:
 - (i) Committed augmentations and upgrades to the transmission system.
 - (ii) New connections.
 - (iii) Planned changes at *market injection points* and *market withdrawal points*.
 - (iv) Known operational constraints.
 - (v) Minimum and maximum pressures at all *system points*.
- (e) AEMO may model gas flows within the DDS, a portion of the DDS, or a representation of *distribution connected facility*, to the extent it accounts for the capacity of a *distribution connected facility*, as it decreases demand in the DTS.

4.9.2. Modelling information

- (a) Under rule 328(5), when performing the *system capability modelling*, AEMO must take into account the information provided by *Registered participants* under rules 324(1), (2), (3) and (4).
- (b) *Registered participants* are required to submit data by 30 September each year with the outlook period commencing 1 January the following year for the following timeframes:
 - (i) Each year for the 5 years.
 - (ii) Each month for the 12 months (where practicable).
- (c) A post-winter review of *system capability modelling* assumptions and models will be conducted in September before the next *capacity certificates auction*.
- (d) AEMO may request at any time, by notice in writing, additional information from *Registered participants* that AEMO considers is necessary or convenient for the purpose of *system capability modelling* including:
 - (i) maximum *distribution connected facility's market injection point* or *market withdrawal point* capacity;
 - (ii) maximum capacity of a *declared distribution system* to deliver to or receipt from a *distribution connected facility's market injection point* or *market withdrawal point*;
 - (iii) *distribution connected facility* operating parameters, including injection and withdrawal rates, pressures and profiles and sustainability of those rates, pressures and profiles; and

- (iv) other information that may be required by AEMO to inform *system capability modelling*.
- (e) A *Registered participant* must provide any additional information requested by AEMO under paragraph 4.9.2(d) in the manner, form and by the time specified in AEMO's notice.
- (f) Any additional information provided to AEMO by a *Registered participant* under paragraph 4.9.2(e) is confidential information.

4.9.3. Capacity available for allocation of capacity certificates

- (a) Under rule 328(3)(b), the *system capability modelling* must measure the capacity of the *declared transmission system* that is available for allocation of *capacity certificates* in forthcoming *capacity certificates auctions* by testing for the maximum capacity that is:
 - (i) deliverable across all *system injection points* and *system withdrawal points*; and
 - (ii) feasible when tested against the planning criteria used by AEMO for the purpose of rule 323(3)(b).
 - (iii) AEMO is also including each *distribution connected facility's market injection point* and *market withdrawal point*.
- (b) The planning criteria used by AEMO for the purpose of rule 323(3)(b) is a 1-in-20 peak day system forecast. The *capacity certificates* available for allocation will be determined from:
 - (i) *system capability modelling* (pipeline capacity); or
 - (ii) *system point* capacity of connected facilities.
- (c) The *capacity certificates* for a *capacity certificates zone* available for allocation will be the lower of either the:
 - (i) maximum pipeline capacity; or
 - (ii) maximum facility or *system point/s* deliverable capacity.
- (d) The *capacity certificates* for a *capacity certificates zone* that only includes a *distribution connected facility* available for allocation may be determined from either modelling determined in section 4.9.2 (d) or as the lower of either the *Distributor* determined:
 - (i) maximum capacity of the DDS to deliver to or receipt from a *distribution connected facility's market injection point* and *market withdrawal point*; or
 - (ii) maximum facility or *distribution connected facility's market injection point* and *market withdrawal point* capacity.
- (e) The *system capability modelling* will model the maximum pipeline capacity based on assumptions used in the Victorian Gas Planning Report (VGPR). The assumptions upon which the *system capability modelling* is based on will be *published* as soon as reasonably practicable after the completion of the *system capability modelling*.
- (f) Abnormal operation conditions on the day may mean that modelled maximum capacities are not achievable.

4.9.4. Future developments

- (a) This section describes any future developments which could increase system capability in the DTS. This includes storage, pipeline augmentations, new system points and/or plant expansions.
- (b) Under rule 328(4)(b)(ii), AEMO must take into account “committed projects for new or additional gas production facilities or extension or expansions of a declared transmission system or a distribution pipeline” when performing the *system capability modelling*.
- (c) The future developments will be incorporated into the Common Model and the *system capability modelling* will use the amended Common Model to assess the possible extent of the impact of the future developments to the declared transmission system.
- (d) Any information considered for *system capability modelling* must be based on information submitted by *Registered participants* and/or the *declared transmission service provider* and publicly available information on projects.

4.9.5. Planned maintenance

Planned maintenance provided by *DWGM facility operators*⁶ under rule 324(4) will not be used in the *system capability modelling*. The planned maintenance information provided by Registered Participants by 30 September each year may be rescheduled to other times to meet resourcing requirements and other factors including weather.

4.9.6. Unplanned maintenance

Unplanned maintenance will not be used in the *system capability modelling*. Unplanned maintenance is maintenance which has not been forecast or scheduled. This includes the following:

- (a) Maintenance that constrains or has the potential to constrain gas injections;
- (b) Breakdowns; and
- (c) Maintenance that is typically carried out to avert immediate safety or environmental hazards or to correct failures that cause a loss of system availability, reliability or spare capacity.

4.10. Capacity certificate zones consultation process

Under rule 327B(1), AEMO must determine and may amend the allocation of *market injection points* or *market withdrawal points* (as the case may be) to *capacity certificates zones*. Before making or amending a determination under this subrule, AEMO must consult in accordance with the process below.

⁶ Part of new proposed maintenance rule coming into effect 22 April 2021. Final rule published 17 December 2020.

4.10.1. Standard capacity certificate zone consultation process

- (a) Unless the expedited process in clause 4.10.2 applies, AEMO must follow the process set out in this clause 4.10.1 before making or amending a determination of the allocation of *market injection points* or *market withdrawal points* (as the case may be) to *capacity certificates zones*.
- (b) AEMO may make or amend a determination on its own initiative at any time, and AEMO must review a determination following a new or updated *connection* request or modification of a *connection* as per the *connection approval procedures* or if there is a change that AEMO reasonably considers could affect the allocation of *system points* to *capacity certificate zones*.
- (c) AEMO will model the impact and make a draft determination of the *capacity certificates zones*, including:
 - (i) supporting *system capability modelling* information (if applicable)
 - (ii) impacts on existing zonal capacities (if any)
 - (iii) proposals for distributing existing *capacity certificates* where *capacity certificates zones* will change
 - (iv) a transition plan for implementing the zone change and including the updated *capacity certificates zones* in forthcoming *capacity certificates auctions*.
- (d) AEMO must *publish* the draft determination and invite written submissions from registered participants and interested persons on the draft determination on or before the date specified by AEMO (which must be at least 20 business days after the draft determination is *published*)
- (e) In making a determination under this section, AEMO must take into account all relevant and material comments that it receives by the closing date for submission and may take into account any comments it receives after that date.
- (f) If AEMO considers it appropriate having regard to issues raised in submissions, it may undertake further consultation, and the notice and minimum time period in clause 4.10.1(d) apply to that further consultation.
- (g) AEMO must *publish* a final determination no later than 30 business days after the closing date for submissions.
- (h) AEMO may by *publishing* a notice, extend a time limit specified by these provisions if:
 - (i) AEMO considers that the relevant determination raises questions of such complexity or difficulty that an extension of the time limit is justified; or
 - (ii) a material change of circumstances occurs justifying the extension of the time limit, and the notice must state the reasons for the extension.
- (i) The final decision will take effect from the *gas day* specified in the final decision, which must be no earlier than 15 business days after the final decision is *published*.

4.10.2. Expedited capacity certificate zone consultation process

- (a) AEMO may make or amend a determination of the allocation of *market injection points* or *market withdrawal points* (as the case may be) to *capacity certificate zones* in accordance with this expedited process in where AEMO reasonably considers the circumstances in rule 327B(7) apply and the circumstances must be resolved in a short timeframe, or where the matter is of a minor or administrative nature.
- (b) If AEMO considers that the expedited process should apply, AEMO must *publish* a notice setting out the reasons and the expedited process and the revised timetable for the consultation including the date by which written submissions are to be received (which must be at least 5 business days after the notice is *published*).
- (c) After the closing date for submissions, AEMO must *publish* a notice of the determination including the date on which the determination will take effect which must be a reasonable period of time after the date on which the determination is *published*.

4.10.3. Capacity certificate zone proposals

- (a) *Registered participants* may submit a proposal for a new *capacity certificate zone* or amendment to an existing *capacity certificate zone* to AEMO in writing. The proposal:
 - (i) Must include the name and address of the proponent;
 - (ii) Must include a statement of reason why the proposed *capacity certificate zone* change is:
 - (A) Necessary or desirable; and
 - (B) Consistent with the *national gas objective*; and
 - (C) Compatible with the proper performance of AEMO's *declared system functions*; and
 - (D) Technically, operationally and economically feasible to implement.
 - (iii) Must include a draft of the proposed *capacity certificate zone* changes; and
 - (iv) May include any other information the proponent considers relevant.
- (b) Unless AEMO rejects a proposal, AEMO must consult on the proposal in accordance with the process in clause 4.10 within a reasonable time after receiving the proposal subject receipt on further information from the proponent as reasonably requested by AEMO and such period as reasonably required by AEMO to complete modelling on the proposal
- (c) AEMO is not obliged to consider and may reject a proposal submitted under clause 4.10.3(a) without consultation by giving written notice to the proponent in any of the following circumstances:
 - (i) in AEMO's reasonable opinion, the proposal is misconceived, lacking in substance, frivolous or vexatious; or
 - (ii) in AEMO's reasonable opinion, the proposal is for a change proposed but rejected in the previous 12 months.

- (d) AEMO must publish all proposals received which are not rejected under paragraph (c), but must omit the reasons for the proposal to the extent that they are stated to be confidential.

4.11. Auction quantities

4.11.1. Capacity release schedule

- (e) Each *auction product* will be auctioned in six (6) tranches.
- (f) Each tranche will be auctioned in a separate *capacity certificates auction* over the rolling forward period.
- (g) The *auction quantity* for each tranche for an *auction product* will be a percentage of the CC Modelled Capacity for that *auction product* as set out in Table 1 less the CC Allocated Capacity as at the date of the Auction Notice or the date of the notice of replacement *capacity certificates auction* (as applicable):

Table 6 Auction quantity per tranche

Tranche #	Tranche size (The tranche sizes are cumulative and each tranche is based on the most recent determination under rule 328A(3) of the CC Modelled Capacity at the time the tranche is auctioned)	Capacity certificates auction in the rolling forward period
1	15% of the CC Modelled Capacity for the <i>auction product</i>	1 st <i>capacity certificates auction</i>
2	30% of the CC Modelled Capacity for the <i>auction product</i>	2 nd <i>capacity certificates auction</i>
3	45% of the CC Modelled Capacity for the <i>auction product</i>	3 rd <i>capacity certificates auction</i>
4	60% of the CC Modelled Capacity for the <i>auction product</i>	4 th <i>capacity certificates auction</i>
5	80% of the CC Modelled Capacity for the <i>auction product</i>	5 th <i>capacity certificates auction</i>
6	100% of the CC Modelled Capacity for the <i>auction product</i>	6 th <i>capacity certificates auction</i>

4.12. Conduct of the capacity auction

4.12.1. Eligibility to bid

An *auction participant* is eligible to bid in respect of a *capacity certificates auction* if AEMO has not issued a suspension notice to the *auction participant* under Part 19 of the NGR that suspends participation in *capacity certificates auctions* at the time the bid is to be made.

4.12.2. Bidding period

The bidding period for each capacity certificates auctions will commence at the time the notice of the capacity certificates auction published under clause 4.8.2(a) is published and ends at 5.00 pm on the calendar day immediately before the day of the capacity certificates auction or the cut-off time specified in the notice published under clause 4.8.2(a).

4.12.3. Form of bids

- (a) Each *bid* must be in the form specified in the *electronic communications procedures* and must specify:
 - (i) the combination of one or more *auction products* being bid for in that bid;
 - (ii) the bid price applicable to the bid;
 - (iii) the bid quantities applicable to the bid, expressed as a whole number of GJ per gas day;
 - (iv) any other information required by the Auction Platform.
- (b) An *auction participant* may submit separate bids for different combinations of *auction products*.
- (c) In the Auction Platform, each separate bid is submitted on the same form and if any one of those bids is amended, all bids in the form are overridden by the new form when submitted.
- (d) For each bid:
 - (i) the bid price must be in \$/GJ and must be expressed to up to four decimal places;
 - (ii) the bid price must be \$0.0001/GJ or higher;
 - (iii) the bid price must not be more than \$100/GJ; and
 - (iv) the bid quantity must be at least 1 GJ and must be expressed as a whole number of GJ.
- (e) If an *auction participant* wishes to bid different prices for different quantities in respect of the same combination of *auction products*, it may use a stepped bid. A stepped bid is a bid with two or more price and quantity combinations, each a bid step. Each bid step must be for a whole number of GJ. A maximum of 10 bid steps may be specified for each combination of Auction Products. The aggregate quantity for all bid steps must not exceed 1,000,000 GJ.
- (f) An *auction participant* is taken to have submitted a bid on receipt of data transmitted electronically by means of the Auction Platform which indicates that the *auction participant* has submitted a compliant bid.
- (g) AEMO is entitled to rely on all bids submitted by an *auction participant* through the Auction Platform.
- (h) The receipt by AEMO of a bid from an auction participant through the Auction Platform will be sufficient to verify that the *auction participant* originated the bid.

4.12.4. Validation and rejection

- (a) AEMO must validate each bid by means of the Auction Platform at the time of submission of the bid and at the time of running the *capacity certificates auction* and determining *capacity certificates auction* results.

- (b) The validation process will check whether there is any reason to reject the bid as provided for in these *capacity certificates auction procedures*.
- (c) AEMO must notify the *auction participant* when the bid has been validated.
- (d) Subject to subclause 4.12.4(e), AEMO must reject a bid where:
 - (i) the person that submitted the bid is not an *eligible person*;
 - (ii) the bid does not contain all the information required for a valid bid;
 - (iii) if AEMO has issued a *suspension notice* to the *auction participant* under Part 19 of the NGR;
 - (iv) the bid is submitted after the bidding deadline for the *capacity certificates auction*.
- (e) AEMO may reject any bid as a consequence of the operation of security arrangements employed by AEMO for the protection of the Auction Platform including any virus detection software employed by AEMO.
- (f) An *auction participant* will be notified by means of the Auction Platform as soon as reasonably practicable where its bid has been rejected.

4.12.5. Determination of auction results

- (a) Using the Auction Platform, AEMO will run the Auction Solver for each *capacity certificates auction*.
- (b) The Auction Solver will allocate *capacity certificates* in the *capacity certificates auction* as follows:
 - (i) all winning bids to be determined simultaneously and for an *auction participant* to win none, one or more of its bids;
 - (ii) the winning bids to be the combination of one or more bids that:
- (c) maximise the total *capacity certificates auction* revenues at bid prices; and
- (d) allocates to each winning *auction participant* the same quantity of *capacity certificates* for all auction products in the combination of *auction products* specified in its winning bid;
 - (i) the quantity of *capacity certificates* allocated to a particular winning bid to be any quantity between the bid quantity of the bid and zero;
 - (ii) if there is more than one combination of winning bids, AEMO to employ a method of random selection to determine the winning allocation; and
 - (iii) the lowest accepted bid for any particular *auction product* to be partially filled if necessary.
- (e) The Auction Platform must round *capacity certificates* allocated in the *capacity certificates auction* down to the nearest whole GJ.
- (f) *Capacity certificates* not allocated in the *capacity certificates auction*, including due to rounding, will not be included in auction settlement.

4.12.6. Auction results binding

- (a) The results of a *capacity certificates auction* notified by AEMO are final, binding and not subject to review.
- (b) No compensation is payable to any person for an erroneous auction result, whether arising from any error in the operation of the Auction Platform or the default (including negligence) of any person.

4.12.7. Publication of auction results

Following each *capacity certificates auction*, AEMO must publish the auction results as soon as reasonably practicable after the information becomes available to AEMO, including:

- (a) the clearing price of each *auction product*;
- (b) the quantities of each *auction product* successfully allocated to *auction participants*;
- (c) any unallocated quantities of each *auction product*;
- (d) each auction bid (excluding the name of the *auction participant* that submitted the bid) submitted to the *capacity certificates auction* including the bid price and auction bid quantity; and
- (e) any other information specified in the *electronic communication procedures*.

4.12.8. Settlement

No later than the first business day immediately after the *capacity certificates auction* AEMO will issue to each *auction participant* that submitted a bid in respect of that *capacity certificates auction* an auction statement in accordance with the *electronic communications procedures* setting out:

- (a) subject to payment in accordance with these *capacity certificates auction procedures*:
 - (i) the number of *capacity certificates* for each *auction product* that are to be allocated to the *auction participant*;
 - (ii) the purchase price per *capacity certificate* for each *auction product* that are to be allocated to the *auction participant*; and
 - (iii) the total purchase price for the *capacity certificates* to be allocated to the *auction participant*;
- (b) the *auction fees* payable for participation in that *capacity certificates auction* and the *capacity certificates* to be allocated to the *auction participant*;
- (c) the date on which payment is due; and
- (d) the time on the payment date at which payment is due.

4.12.9. Payment

- (a) Auction statements will include GST.

- (b) By 12.00 pm on the 5th business day after an auction statement is made available under clause 4.12.8 the *auction participant* must pay to AEMO in cleared funds the total amount stated to be payable to AEMO by that *auction participant* in its auction statement, whether or not the *auction participant* disputes the amount payable.
- (c) If an *auction participant* does not pay the total amount payable under an auction statement in accordance with clause 4.12.9, the *capacity certificates* referred to in the auction statement will not be allocated to the *auction participant* and will automatically be made available for allocation by AEMO at subsequent *capacity certificates auctions*.

4.12.10. Settlement facilities

- (a) Subject to subclause 4.12.10(b), *auction participants* must use the electronic cash transfer system designated by AEMO for the payment of amounts under these *capacity certificates auction procedures*.
- (b) AEMO may make an electronic funds transfer facility available to *auction participants* for use if the designated electronic cash transfer system is not available for settlement.

4.12.11. Capacity auction allocation

AEMO will allocate to an *auction participant* the *capacity certificates* for each *auction product* as specified in an auction statement as soon as practicable provided that:

- (a) the total amounts owing by the *auction participant* as set out in the auction statement are paid in full in accordance with these *capacity certificates auction procedures*; and
- (b) the *auction participant* is an *eligible person* at the time the *capacity certificates* are to be allocated.

4.12.12. Retailer of last resort

- (a) If the *RoLR process* is initiated in respect of a *Retailer* the *capacity certificates* that are held by that *Retailer* on the *RoLR gas day* will be automatically transferred to each *declared host Retailer* with effect from the *RoLR gas day*.
- (b) Where there are multiple *declared host Retailers*, *capacity certificates* will be transferred in proportion of the number of MIRNs which are to be transferred to each *declared host Retailer* to the number of MIRNs for which the relevant *Retailer* was recorded as FRO on the *gas day* immediately before the *RoLR gas day*.
- (c) The *capacity certificates* transferred to the *declared host Retailer* pursuant to clause 4.12.11(a) will be *capacity certificates* for each month from and including the month in which of the *RoLR gas day* occurred until and including the month immediately prior to the start of the rolling forward period for which an Auction Notice has yet to be published as at the *RoLR gas day*.
- (d) Any *capacity certificates* held by the *Retailer* and not transferred to the relevant *declared host Retailers* in accordance with this clause 4.12.12 will be relinquished as required by rule 332.

4.13. First and transitional capacity certificates auctions

4.13.1. First capacity certificates auction

By no later than 1 October 2022, AEMO will publish the notice for the first *capacity certificates auction*, setting out:

- (a) the date and time of the first *capacity certificates auction* (which will be prior to 31 December 2022);
- (b) the auction quantity for each capacity certificate type and each month covered by the first *capacity certificates auction*; and
- (c) any other information AEMO considers relevant or convenient to include in the notice.

4.13.2. Transitional capacity certificates auction

- (a) Prior to the first *capacity certificates auction*, AEMO will conduct one or more transitional *capacity certificates auctions* to auction transitional *auction quantities*.
- (b) The last transitional *capacity certificates auction* prior to the first *capacity certificates auction* is the final transitional *capacity certificates auction*.
- (c) Transitional auction quantities are auction quantities that would have otherwise been allocated at a *capacity certificates auction* prior to the first *capacity certificates auction*.
- (d) A transitional *capacity certificates auction* will be for *auction products* from January 2023 to December 2025.
- (e) By no later than 1 July 2022, AEMO will *publish* a notice on the timing for the transitional *capacity certificates auctions*, setting out:
 - (i) the number of transitional *capacity certificates auctions* that will be conducted;
 - (ii) the date and time of the transitional *capacity certificates auctions* (which must be prior to the first *capacity certificates auction*);
- (f) AEMO must *publish* Auction Notices for transitional *capacity certificates auctions* in accordance with rule 328B(8) setting out:
 - (i) the date and time of each transitional *capacity certificates auction* (which will be prior to 31 December 2022);
 - (ii) the auction quantity for each *capacity certificate type* and each month covered by a transitional *capacity certificates auction*; and
 - (iii) any other information AEMO considers relevant or convenient to include in the notice.
- (g) Each *auction product* in a transitional *capacity certificates auction* will be subject to the transitional capacity release schedule set out in Table 7.
- (h) The transitional capacity release schedule will only apply for transitional *capacity certificate auctions* notified under clause 4.13.2(d) .

- (i) Any *auction quantities* that remain unallocated after a transitional *capacity certificates auction*, that is not the final transitional *capacity certificates auction*, will be added to the tranche for the next transitional *capacity certificates auction* for that *auction product*.
- (j) Any *auction quantities* that remain unallocated after the final transitional *capacity certificates auction* will be allocated in the first *capacity certificates auction* per the capacity release schedule in Table 6.
- (k) If there is more than one transitional *capacity certificates auction*, then the *auction quantities* determined per the transitional capacity release schedule in Table 7 will be divided for each transitional *capacity certificates auction* into equally sized tranches, one tranche per transitional *capacity certificates auction*.

Note: for example if there are two transitional *capacity certificates auctions* there would be two tranches (one per auction) with 50% of the auction quantity determined under table 2 allocated to each tranche.

Table 7 Transitional capacity release schedule

Auction products (months)	Auction quantity
January 2023 – June 2023	80% of the CC Modelled Capacity for the <i>auction product</i>
July 2023 – December 2023	60% of the CC Modelled Capacity for the <i>auction product</i>
January 2024 – June 2024	45% of the CC Modelled Capacity for the <i>auction product</i>
July 2024 – December 2024	30% of the CC Modelled Capacity for the <i>auction product</i>
January 2025 – June 2025	15% of the CC Modelled Capacity for the <i>auction product</i>
July 2025 – December 2025	0% of the CC Modelled Capacity for the <i>auction product</i>

4.14. Terms of use of the auction platform

Definitions in this clause 4.14:

Principal User means in relation to the Auction Platform, an *auction participant*; and

System means in relation to an *auction participant* and its authorised users, the Auction Platform.

4.14.1. Authorised user identities

- (a) A Principal User must provide to AEMO complete and accurate identification, contact and other information as reasonably required to enable separate authorised user identities and direct contact details to be established for each of the Principal User's representatives for the purposes of the representative's access to the System.
- (b) Each authorised user identity is defined by reference to a single user name and password (user identity). A Principal User is responsible for all activities that occur using the user identity of any of its representatives.
- (c) A Principal User must maintain, and must ensure each of its representatives maintains, the confidentiality and security of each user identity created for a representative of the Principal User such that the user identity is only used by the relevant representative.
- (d) A Principal User must notify AEMO immediately if it becomes aware of any unauthorised disclosure or use of a user identity created for a representative of the Principal User.

- (e) AEMO may suspend or revoke the access of a representative of a Principal User to the System for any reason at any time. The Principal User must ensure that its representative ceases access immediately on notice of the suspension or revocation from AEMO.
- (f) A Principal User must ensure that its authorised users comply with the terms of use for the System in clause 4.14.2 as if the authorised user were the Principal User.
- (g) AEMO may require authorised users to agree to terms of use when accessing the System, including terms relating to the use of personal information provided to AEMO in accordance with AEMO's privacy policy.

4.14.2. System terms of use

- (a) A Principal User must not permit use of or access to the System by any third party, other than its representatives nominated in accordance with the Procedures.
- (b) A Principal User must not:
 - (i) alter or remove any copyright, trademark or other proprietary mark, logo or notice of AEMO or of any other company, organisation or public authority appearing anywhere in the System;
 - (ii) modify or edit the data, text, images, material and information in the System or publish or sell any information from the System including by making that information available on any website;
 - (iii) reverse engineer, transfer, adapt or modify any software used in connection with any part of the System;
 - (iv) attempt to damage or corrupt (including through the introduction of any malicious software) any software or data of AEMO or any third party used in connection with any part of the System; or
 - (v) attempt to gain unauthorised access to the System, the server on which the System is stored or any server, computer or database connected to the System.
- (c) A Principal User must at all times ensure that no improper, fraudulent or unlawful use is made of the System directly or indirectly including any activity which is prohibited under any law of the Commonwealth or States of Australia or elsewhere.
- (d) A Principal User must not:
 - (i) engage in any activities or actions in connection with the System that may infringe or misappropriate the Intellectual Property Rights of others or that is defamatory or discriminatory or otherwise found by AEMO to be offensive or unacceptable; or
 - (ii) attempt to probe, scan or test the vulnerability of the System or the services or networks connected to the System or to breach security or authentication measures without express authorisation of AEMO.
- (e) A Principal User must not interfere with or disrupt the System or the services or networks connected to the System, including by deliberate attempts to overload a system or by allowing the introduction of any harmful virus or other code that may have harmful, disruptive, contaminating, malicious or destructive elements.

4.14.3. Rights in the system

- (a) All Intellectual Property Rights in each System and the content and layout of the System are owned by AEMO or its licensors and are subject to copyright.
- (b) A Principal User registered under these Procedures and its authorised users has a nonexclusive, non-transferable right to access the applicable System and to use the functionality of the System in accordance with these Procedures, any applicable interface protocol and any access and licensing agreement entered into under the applicable interface protocol. The System must not be used in any way that is not authorised by these Procedures or the applicable interface protocol.

5. Capacity Certificates Transfer Procedures

5.1. Purpose

These are the Wholesale Market Capacity Certificates Transfer Procedures (Victoria) (**Procedures**) made in accordance with section 91BL of the NGL and rule 331(2).

5.2. Scope

These Procedures detail the process for *Market Participants* to undertake a *capacity certificate* transfer.

Capacity certificates are used by *Market Participants* to provide tie breaking rights in *scheduling* of same price bids.

5.3. Capacity certificates listing service

- (a) A notification under rule 330(1) and 330(2) must be made by submitting a capacity listing request via the Capacity Certificates listing platform and will be subject to reasonable validation parameters.
- (b) A capacity listing request must contain the following details:
 - (i) the month and year of the *capacity certificates*;
 - (ii) the *capacity certificate type*;
 - (iii) the *capacity certificates zone*;
 - (iv) whether the listing is for a sale or purchase;
 - (v) the name of the listing party;
 - (vi) the contact details of the listing party; and
 - (vii) the date the listing expires;
 - (viii) any other details reasonably determined by AEMO.
- (c) As soon as reasonably practicable after receipt of a valid capacity listing request, AEMO must post a corresponding capacity listing on the Capacity Certificates listing platform containing the information provided in the listing request.
- (d) AEMO must remove or close a capacity listing on any expiry date specified in the capacity listing request.
- (e) To avoid doubt, a capacity listing request on the Capacity Certificates listing platform is not an offer capable of acceptance by another person.

5.4. Bilateral transfer of capacity certificates

- (a) A Market Participant that is the current holder of a *capacity certificate* may transfer the whole or part of the certificated right, measured in GJ per gas day, in respect of the *auction product* for that *capacity certificate* to another *Market Participant* by submitting

an application to transfer to AEMO via the Capacity Certificates transfer system containing the details specified in the *electronic communication procedures*.

For the avoidance of doubt, an *auction product* applies to a calendar month of *capacity certificates*.

- (b) The other Market Participant to the transfer must submit a confirmation of the transfer to AEMO via the Capacity Certificates transfer system no later than 11.59 pm on the day the application to transfer was submitted.
- (c) If the other Market Participant to the transfer does not submit a confirmation of the transfer to AEMO via the Capacity Certificates transfer system no later than 11.59 pm on the day the application to transfer was submitted, the application to transfer is automatically void.
- (d) The requirements for an eligible transfer of *capacity certificates* between parties are:
 - (i) the transferee and transferor must both be registered as *Market Participants* at the date of the application and the date of the transfer;
 - (ii) AEMO has not issued a suspension notice under Part 19 of the NGR to either the transferee or the transferor as at the date of the application and the date of the proposed transfer;
 - (iii) a complete application to transfer is received at least 3 business days before the first day of the month to which the *capacity certificates* relate; and
 - (iv) a confirmation of the transfer is received by AEMO via Capacity Certificates transfer system from the other *Market Participant* to the transfer no later than 11.59 pm on the day the application to transfer was submitted.
- (e) AEMO will notify the applicants as soon as reasonably practicable of acceptance or rejection of application to the transfer of the *capacity certificates*.
- (f) A transfer of *capacity certificates* is not complete until AEMO notifies the applicants of the acceptance of the application to transfer and if AEMO fails to notify the applicants of acceptance of a transfer by 1:00 am on the day after the application to transfer was submitted the application to transfer is automatically deemed to be rejected.

5.5. Allocation of capacity certificates at direction of declared transmission system service provider

- (a) Following a direction by the Australian Energy Regulator under rule 329C, the *declared transmission system service provider* must notify AEMO and provide a copy of the direction.
- (b) AEMO is required to allocate *capacity certificates* at the direction of the *declared transmission system service provider* under rule 329D.
- (c) The *declared transmission system service provider* must direct AEMO to make the allocation to a *Market Participant* in accordance with the *electronic communication procedures*

- (d) The relevant *Market Participant* must confirm the request for allocation of *capacity certificates* by no later than 11.59 pm on the day the direction in section (c) was submitted in accordance with the *electronic communication procedures*
- (e) If the relevant *Market Participant* has not confirmed the request for allocation by no later than 11.59 pm on the day the direction to allocate was submitted, the direction to allocate the *capacity certificate* is automatically void.
- (f) The requirements for an allocation of *capacity certificates* are:
 - (i) the recipient must be registered as a *Market Participant* at the date of the direction to allocate and the date the allocation is confirmed;
 - (ii) AEMO has not issued a *suspension notice* under Part 19 of the NGR to recipient as at the date of the direction to allocate and the date the allocation is confirmed;
 - (iii) a direction to allocate and confirmation is received at least 3 business days before the first day of the month to which the *capacity certificates* relate; and
 - (iv) a confirmation of the allocation is received by AEMO from the relevant *Market Participant* no later than 11.59 pm on the day the direction to allocate was submitted by the *declared transmission system service provider*.
- (g) AEMO will notify the *declared transmission system service provider* and the *Market Participant* as soon as reasonably practicable of completion of the allocation of the *capacity certificates*.

6. LNG Reserve Procedure

6.1. Purpose

These are the Wholesale Market LNG Reserve Procedures (Victoria) (**Procedures**) made in accordance with section 91BL of the NGL and rule 286A.

6.2. Scope

These Procedures relate to the operation of the AEMO *LNG reserve*.

6.3. Contracting and Refilling AEMO LNG Reserve

6.3.1. Contracting for LNG storage capacity

At all times during the relevant years, AEMO is required under the Rules to have in force an *LNG storage agreement* with an *LNG Storage Provider* and contract for use of any *uncontracted LNG storage capacity* as at 1 March and purchase gas for storage on its behalf as LNG, with the objective of achieving the target level by the start of the winter months in the *relevant year*.

- (a) The *LNG Storage Provider* must provide the information detailed in paragraph (c) for AEMO to determine the *uncontracted LNG storage capacity*.
- (b) AEMO may contract for use of any *uncontracted LNG storage capacity* for the winter months of a *relevant year* that becomes available after 1 March of that year.
- (c) The *LNG Storage Provider* must provide to AEMO as soon as possible after the end of the *gas day* commencing on 1 March each year the:
 - (i) *uncontracted LNG storage capacity* assigned to the *LNG Storage Provider*;
 - (ii) *non-market LNG storage capacity* assigned to the *LNG Storage Provider*; and
 - (iii) *operational LNG storage capacity* assigned to the *LNG Storage Provider*.

reconciled to that day's data provided for *Market Participant's LNG stock* under rule 279(4) and *Market Participant's LNG storage capacity* under rule 281(5).

6.3.2. Acquisition of gas for storage in AEMO's LNG reserve

AEMO may withdraw gas from the DTS to refill AEMO's *LNG reserve*. The process for AEMO to withdraw gas into AEMO's *LNG reserve* is:

- (a) AEMO will agree a refill schedule with the *LNG Storage Provider*.
- (b) AEMO will publish the forecast refill schedule and inform *Market Participants* via SWN as required by rule 286C(1) of the:
 - (i) initial refill schedule AEMO has agreed with the *LNG Storage Provider*; and
 - (ii) in the event that the *LNG Storage Provider* notifies AEMO of a material change to the refill schedule, AEMO will publish the amended forecast refill schedule and

inform *Market Participants* via SWN, on the next business day after AEMO is notified.

- (c) A change to a refill schedule will be material if:
 - (i) the LNG refill rate has been amended by more than 50% from the rate previously published for more than 6 *gas days* during the previous week.
- (d) AEMO may enter a demand forecast in market systems via WebExchanger that equates to the refill schedule quantity agreed with the *LNG Storage Provider* for each *gas day*.

Note: the demand forecast may be updated from time to time as and when the refill schedule is amended to minimise deviations.

6.4. Relinquishment and Disposal of AEMO's LNG Reserve

6.4.1. Relinquishment of LNG reserve capacity

AEMO may be required to reduce its *LNG storage capacity* for a variety of reasons, including, but not limited to:

- (a) If the LNG Storage Provider requests AEMO to relinquish all or part of AEMO's *LNG reserve* to satisfy a request for services to be provided to a *Market Participant* by means of the *LNG Storage Provider's LNG storage facility*, AEMO will relinquish the capacity to the *LNG Storage Provider*, except to the extent that relinquishing the capacity would breach AEMO's gas safety case or any other applicable legislative or regulatory instrument.
- (b) If AEMO is not required under the Rules to have a contract for use of *uncontracted LNG storage capacity* and AEMO does not otherwise require the capacity at the *LNG storage facility*, AEMO will relinquish the capacity to the *LNG Storage Provider*.

6.4.2. Disposal of AEMO Reserve Stock

AEMO may transfer its *LNG stock* if AEMO relinquishes capacity for the reasons in section 6.4.1. AEMO may be required to reduce the quantity of its *LNG stock* if the *LNG Storage Provider* undertakes maintenance that requires the reduction of *LNG stock* during the maintenance period.

- (a) The process for AEMO to transfer and reduce AEMO's *LNG stock* is to occur over 20 business days, beginning on business day (D) that AEMO is requested by the LNG Storage Provider to relinquish capacity. The process will be as follows:
 - (i) On business day D+1, AEMO will make an offer to all *Market Participants*, via SWN, to sell and transfer to those *Market Participants* an amount of AEMO's *LNG stock* on the terms and conditions in section 7.4.3 and at the price determined in accordance with section 7.4.4;
 - (ii) Subject to any terms in AEMO's offer, AEMO will allow *Market Participants* up to 12 PM AEST on business day D+5 to accept the offer;
 - (iii) A *Market Participant* may only accept the offer for all or part of the offered *LNG stock* in the manner and form specified in the offer;

- (iv) Subject to any terms in AEMO's offer, except for any *LNG stock* accepted and paid for by the date and time for payment, from business day D+11 (or the date on which all *Market Participants* that hold available *LNG storage capacity* have rejected AEMO's offer, if earlier), AEMO will coordinate with the *LNG Storage Provider* to reduce AEMO's *LNG stock* by business day D+20 and AEMO will enter an *LNG injection bid* in accordance with the *gas scheduling procedures* to reduce AEMO's *LNG stock*.

6.4.3. Terms and Conditions of an AEMO LNG stock transfer

LNG Stock Transfer Terms

- (b) Subject to 7.4.3(c), AEMO agrees to sell and transfer to each *Market Participant* that accepts an offer made by AEMO under 7.4.2 (referred to herein as a Buyer) the quantity of *LNG stock* at the price specified in AEMO's offer to that *Market Participant* on the terms in this section 7.4.3.
- (c) Subject to 7.4.3(c), each Buyer agrees to purchase and accept transfer from AEMO the quantity of *LNG stock* at the price specified in AEMO's offer to that *Market Participant* on the terms in this section 7.4.3.
- (d) Subject to any terms in AEMO's offer, the quantity of *LNG stock* that AEMO will sell and transfer to each Buyer and that each Buyer agrees to purchase and accept transfer from AEMO will be on a first come first serve basis based on the time at which AEMO receives the Buyers acceptance of the offer made by AEMO under 7.4.2 as recorded in AEMO's systems.

LNG stock transfer invoice calculation

- (e) AEMO will email to each Buyer an *LNG stock* transfer invoice.
- (f) A *LNG stock* transfer invoice amount will state the total purchase price payable by the Buyer determined in accordance with section 7.4.5 and the total quantity of *LNG stock* that AEMO will authorise the *LNG storage provider* to transfer to the Buyer.

LNG stock transfer payment

- (g) Unless specified otherwise in AEMO's offer, a Buyer must pay the purchase price to AEMO by the payment date and time specified in the *LNG stock* transfer invoice, which will be no later than 12.00 PM AEST on business day D+10, by electronic funds transfer (EFT) in Australian dollars to the AEMO account specified in the *LNG stock* transfer invoice.
- (h) If GST is payable on a taxable supply (as defined in A New Tax System (Goods and Services) Tax Act 1999 (Cth)) made by AEMO to a Buyer under these terms:
 - (i) a *LNG stock* transfer invoice issued in relation to that taxable supply must set out the amount of GST; and
 - (ii) the amount payable for that taxable supply will be the purchase price plus GST.

6.4.4. Transfer of LNG stock

- (a) Upon receipt by AEMO of payment in full of the purchase price from a Buyer in accordance with these terms, AEMO will authorise the *LNG Storage Provider* to transfer the quantity of *LNG stock* specified in the LNG stock transfer invoice to that Buyer by recording the Buyer as the holder of that quantity of *LNG stock* in the register of LNG storage capacity entitlement required to be kept by the *LNG Storage Provider* under rule 281(5) of the Rules.
- (b) The Buyer must ensure that at the time of transfer of the *LNG stock* from AEMO to the Buyer, the Buyer will have the right to sufficient available *LNG storage capacity* at the *LNG storage facility* to store the *LNG stock* transferred from AEMO to the Buyer.
- (c) As between AEMO and the Buyer, title to, and risk and loss of or damage to, and liability for injury or damage caused by, *LNG stock* transferred by AEMO to the Buyer passes to the Buyer on receipt by AEMO of payment of the full purchase price.
- (d) AEMO is not liable for and makes no warranty regarding the merchantability or suitability for any purpose of *LNG stock* transferred by AEMO to the Buyer and AEMO does not warrant that *LNG stock* transferred by AEMO to a Buyer is of any particular quality or meets any specification.
- (e) If a Buyer does not pay the purchase price in full by the due date for payment, the agreement between AEMO and that Buyer for the transfer and purchase of the *LNG stock* to which the purchase price relates is automatically terminated and AEMO may dispose of the *LNG stock* in any manner determined by AEMO.

6.4.5. Methodology for determining the price of an AEMO LNG Stock transfer

The pricing methodologies AEMO may use to determine a price for the *LNG stock* transfer include, during a winter period (as defined in the *system security procedures*), the cost of liquefaction at the date of AEMO's offer to transfer plus the greater of the following values:

- (a) sum of charges for AEMO to fill the AEMO *LNG Reserve* divided by the quantity in the reserve, adjusted for previous *LNG stock* transfers and any quantity of *LNG stock* injected into the market.
- (b) the average of the *market price* set at the current day 6:00AM schedules for the current day and last 6 days.

NOTE: The purpose of this pricing methodology is to enable *Market Participants*, who have been charged the gas commodity cost and the liquefaction cost, to receive the maximum benefit when the opportunity cost of LNG sale is high during the Winter period.

During a non-winter period when disposal or relinquishment is required in a short timeframe, the cost of liquefaction at the date of AEMO's offer to transfer plus the lower of the following values:

- (a) sum of charges for AEMO to fill the AEMO *LNG Reserve* divided by the quantity in the reserve, adjusted for previous *LNG stock* transfers and any quantity of *LNG stock* injected into the market.

- (b) the average of the *market price* set at the current day 6:00AM schedules for the current day and last 6 days.

NOTE: The purpose of this pricing methodology is to enable *Market Participants*, who have been charged the gas commodity cost and the liquefaction cost, to receive the maximum value of the gas commodity from the sale.

6.5. Cost recovery and return of proceeds from AEMO's LNG Reserve

The Allocation Factor is used to allocate cost recovery and return of proceeds in relation to AEMO's *LNG Reserve* to each *Market Participant*.

The Allocation Factor for a relevant year is determined after the last revision allocation is provided to AEMO for the preceding financial year. This generally occurs in late December each calendar year for the preceding financial year.

6.5.1. Calculation of the Allocation Factor

AEMO will calculate for each *relevant year* an Allocation Factor for each *Market Participant* based on the withdrawal *allocations* for each *Market Participant* in the financial year ending prior to the start of the *relevant year*. AEMO will undertake the following steps to perform this function:

- (a) AEMO will use the withdrawal *allocation* available by 31 December each year in respect of withdrawals in the most recent financial year ending prior to that 31 December to determine the Withdrawal Assignment for each *Market Participant* for the *relevant year* commencing immediately after that 31 December.

NOTE: AEMO expects the withdrawal allocation to use quantities from the *revised statements* publish as per rule 249(1) for the previous financial year. In the event *revised statements* are delayed AEMO will use the latest allocation available.

- (b) AEMO will calculate, using the Withdrawal Assignment of each *Market Participant* for the *relevant year*, the total Withdrawal Assignment for all active *Market Participants* at the start of each month.
- (c) For the avoidance of doubt, a special revisions event, altering the *allocation* for the financial year on which the Withdrawal Assignment was calculated, will not cause the Withdrawal Assignment to be recalculated as this value is fixed for past months. Future months Withdrawal Assignment and Allocation Factor will incorporate the special revision quantity.
- (d) Each *Market Participant's* Allocation Factor will be calculated (and recalculated as required by rule 286B(9)) on the basis of each active *Market Participants* share of the total Withdrawal Assignment.
- (e) An active *Market Participant* is any *Market Participant* during a month that has not been:
 - (i) issued with a *suspension notice*; or
 - (ii) deregistered from the *Market*
 during that month.

- (f) The Withdrawal Assignment, in GJ, and the Allocation Factor will be published by AEMO to each *Market Participant*.

Example 1: Calculation of the Allocation Factor including a new participant

The following example shows the calculation of the Allocation Factor in a scenario where each *Market Participants* remains active in the *Market* during the calendar year following the base financial year from which the Allocation Factor is determined.

In the following example there are 4 *Market Participants* that were active in the base financial year. An addition *Market Participant*, Company E, has entered the market in December, after the base financial year.

Company E in this instance is assigned a 0% Allocation Factor.

Table 8 Example of a new participant on Allocation Factor calculation

Market Participant	Total Withdrawals (Financial Year 2021/2022)	Withdrawal Assignment (Year 2023)	Allocation Factor (AF) (Year 2023)
Company A	200	200	28.6%
Company B	300	300	42.9%
Company C	150	150	21.4%
Company D	50	50	7.1%
Company E		0	0%
Total	700	700	100%

Example 2: Recalculation of Allocation Factor following Market Participant suspension or deregistration

In the event AEMO is informed of a *Market Participant* being issued with a suspension notice or being deregistered from the *Market* then AEMO will rerun the calculation of the *Allocation Factor*. The suspended or deregistered *Market Participants* Withdrawal Assignment from the base financial year will be removed from the calculation (including from the total Withdrawal Assignment). The remaining participants will receive a percentage share of the residual Total Withdrawal Assignment to determine their amended *Allocation Factor* for the remainder of the *relevant year*.

The following example shows the calculation of the Allocation Factor where a *Market Participant* (Company D) is deregistered or suspended in the *Market* during a *relevant year*.

In this instance the Withdrawal Assignment for Company D is treated as 0 GJ when the Allocation Factor is recalculated after the company is suspended or deregistered.

Table 9 Example of a suspended or deregistered participant on Allocation Factor calculation

Market Participant	Total Withdrawals (Financial Year 2021/2022)	Withdrawal Assignment (Year 2023)	Allocation Factor (AF) (Year 2023)
Company A	200	200	30.8%
Company B	300	300	46.2%
Company C	150	150	23.2%
Company D	50	0	0%
Company E		0	0%

Market Participant	Total Withdrawals (Financial Year 2021/2022)	Withdrawal Assignment (Year 2023)	Allocation Factor (AF) (Year 2023)
Total	700	650	100%

6.6. Provision of information

6.6.1. Publication of information about AEMO's LNG reserve

The six-monthly LNG summary report, required by rule 286C(2), to be published by:

- (a) 1 May will detail the changes in AEMO's *LNG Reserve* for the previous October to March period; and
- (b) 1 November will detail the changes in AEMO's *LNG Reserve* for the previous April to September period.

The information to be published in the report is detailed in rule 286C(2) and will be published on AEMO's website.

7. Gas Scheduling Procedures

7.1. Purpose

These are the Wholesale Market Gas Scheduling Procedures (Victoria) (**Procedures**) made in accordance with section 91BL of the NGL and rule 206.

7.2. Scope

These Procedures relate to *scheduling* gas injections and withdrawals in the *Market*.

7.3. Legal and Regulatory Framework

These Procedures have been made under section 91BL of the National Gas Law.

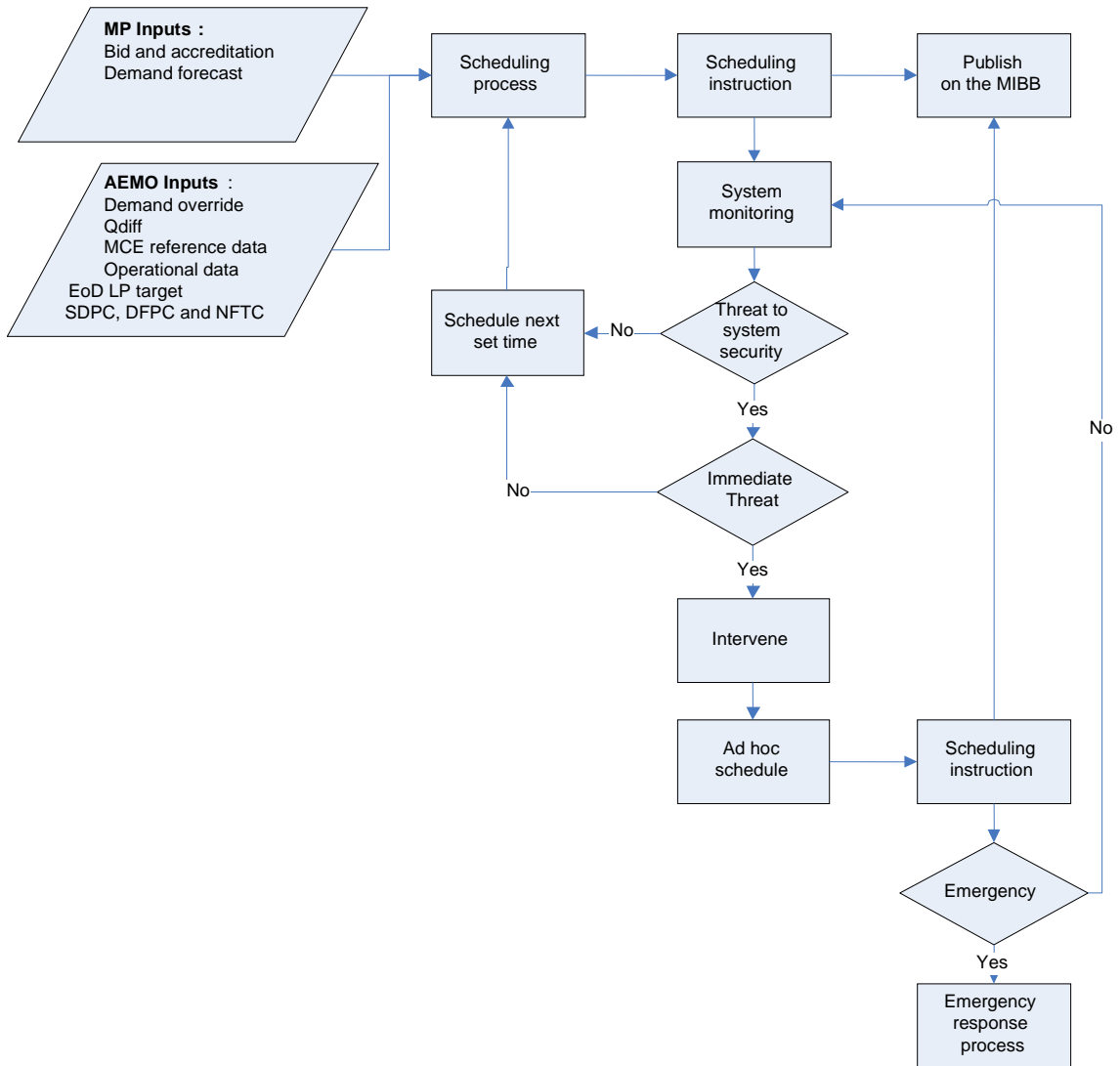
These Procedures also address AEMO's actions in the context of *emergencies*. Section 53 of the National Gas (Victoria) Act 2008 requires AEMO to publish a 'gas emergency protocol'. AEMO has published the Gas Emergency Protocol in compliance with that requirement. Additionally, the Minister may issue directions to AEMO in respect of the Gas Emergency Protocol or its operation under section 54.

Finally, the Minister has powers under Part 9 of the Gas Industry Act 2001 to proclaim that a shortage of gas supply exists and exercise certain powers, including direct AEMO in the circumstances.

7.4. Overview of gas scheduling

7.4.1. Scheduling process overview

Figure 1 Process for scheduling gas in the DWGM by AEMO



7.4.2. Scheduling instructions

AEMO will issue *scheduling instructions* to *Market Participants*, and, in the case of the scheduling of *LNG injection bids*, the *declared LNG storage provider*. The issued *scheduling instructions* will specify the quantities of gas which each *Market Participant* is required, in accordance with the Rules, to inject or withdraw in each hour of the *gas day*.

The scheduling instructions will normally be issued using the *operating schedule* published on the MIBB . However, if AEMO is unable to *publish* an *operating schedule* or *Market Participants* are unable to access the MIBB to retrieve their *scheduled injections* or *scheduled withdrawals*,

AEMO may issue *scheduling instructions* to *Market Participants* or the *declared LNG storage provider* by telephone, followed up with an email confirmation of the instructions.

7.4.3. Scheduling objectives

AEMO will, to the extent practicable, attempt to satisfy the following objectives when issuing *scheduling instructions*:

- (a) ensure that enough gas is made available for withdrawal from the DTS during each *gas day* to satisfy withdrawal and linepack requirements;
- (b) operate the DTS within the *system security procedures* and avert or minimise threats to *system security*; and
- (c) minimise the cost of satisfying demand for gas, taking into account:
 - (i) *operating schedules*;
 - (ii) *injection bids* and *withdrawal bids* by *Market Participants*;
 - (iii) any operational agreements, including operating agreements for interconnecting pipelines and the *service envelope agreement*;
 - (iv) information from the accreditation of *controllable quantities* of injections and withdrawals for individual *Market Participants* and locations where more than one *Market Participant* injects or withdraws gas through a common *connection point* or meter;
 - (v) plant or facility outages;
 - (vi) maintenance of the DTS;
 - (vii) *market injection point* constraints, *market withdrawal point* constraints;
 - (viii) DTS constraints;
 - (ix) any direction under the Gas Industry Act 2001 (Vic) or *intervention* by AEMO under the Rules;
 - (x) the practicality in compressor ramping up and down, time and the technical limitations and implications of starting and stopping compressors for short periods;
 - (xi) where LNG is scheduled to be vaporised:
 - (A) the time taken to start the vaporisation processes and implement it;
 - (B) the technical limitations and practicality in starting and stopping vaporisation over short periods; and
 - (C) the minimum practical rate of vaporising LNG; and
 - (xii) any other matter which AEMO reasonably considers is required to be taken into account to achieve the objectives of minimising the cost of satisfying demand and maintaining the security of the DTS.

When issuing *scheduling instructions*, AEMO may adjust the inputs to or outputs from the *scheduling* process where it reasonably considers this is required to reflect operational practicalities.

All material factors which AEMO takes into account for the purposes of preparing an *operating schedule* will be recorded by AEMO so that the *gas scheduling procedures* can be properly audited.

7.5. Inputs to gas scheduling

Section 7.5 sets out the inputs and assumptions used by AEMO for the purposes of producing *operating schedules* and *pricing schedules* under normal operating conditions. This section provides more information about some of those inputs and assumptions.

7.5.1. AEMO demand forecasts and demand forecast overrides

AEMO determines its own demand forecasts.

Prior to producing an *operating schedule*, AEMO will compare its *demand forecast* with the Market Participants' aggregate *demand forecast* and may apply a *demand forecast override*.

A *demand forecast override* is an amount added or subtracted by AEMO to the *Market Participants' aggregate demand forecast* for each hour so as to ensure that an appropriate amount of gas is *scheduled* for that *gas day* to maintain adequate linepack over the day and therefore maintain *system security*.

AEMO will apply a *demand forecast override* if:

- (a) the *Market Participants' aggregate demand forecast*, including any updated *demand forecasts* submitted by *Market Participants*, differ from AEMO's aggregate demand forecast by more than the amounts specified in the Demand Override Methodology; or
- (b) AEMO reasonably considers that scheduling the DTS without applying a *demand forecast override* creates an unacceptable risk of *curtailment*, threat to *system security*, or generates circumstances where a threat to *system security* may occur.

7.5.2. Demand Override Methodology

AEMO must prepare and publish a DWGM Demand Override Methodology setting out how it will determine and apply *demand forecast overrides*.

7.5.3. Compressor commitment

The commitment of compressors will depend on the following criteria:

- (a) availability of compressors;
- (b) gas demand for the *gas day*;
- (c) injections and withdrawals at different locations;
- (d) BoD linepack;
- (e) EoD linepack target;
- (f) expected injections and withdrawals by location; and
- (g) total forecast demand for the following day.

AEMO will specify an initial commitment of required compressors as an input to the MCE for *scheduling*. The MCE optimises the operation of committed compressors by determining the required power output for each committed compressor. Power output is constrained by the minimum and maximum operating limits of each compressor.

As far as practicable, AEMO will:

- (a) assess the effect of the compressor commitment in the *operating schedule* on:
 - (i) *system security*, in accordance with the *system security procedures*;
 - (ii) compressor operations; and
 - (iii) locational (Nodal) prices in the *operating schedule*; and
- (b) adjust compressor commitments to produce an *operating schedule* that:
 - (i) schedules pipeline pressures above minimum operating pressures and below maximum operating pressures, and in which all expected demand is satisfied, taking into account that the MCE alerts the operator to a non-feasible solution where any pipeline pressure is below the defined minimum operating pressure (refer to clause 7.7).
 - (ii) is feasible;
 - (iii) achieves a reasonable and practical balance between the starting and stopping of compressors over short time periods (i.e. 3 - 4 hours) and the objective of minimising the cost of satisfying demand over the day, taking into account that the MCE does not optimise the full costs and practicalities of starting and stopping compressors; and
 - (iv) reasonably satisfies the objective of minimising the cost of satisfying demand, taking into account the effects of compressor operations on locational (nodal) prices.

7.5.4. End of gas day linepack target

The DTS typically operates with a reasonably constant rate of hourly injections of *gas* from the *market injection points*. The total hourly demand swings from levels below the injection rates during off peak periods to above the injection rates during peak periods. Linepack varies over the day, as it is the difference between the normally constant injection rate and the normally variable withdrawal rate accumulated over the day. A certain amount of linepack is required to maintain minimum system pressures, but linepack beyond that level can be used as a source of supply for future hours.

AEMO's objective in setting EoD linepack targets is to ensure sufficient gas in the pipelines at the end of each day so that:

- (a) AEMO's reasonable expectation of the following day's demand will be met at all *market withdrawal points* and times during that *gas day*; and
- (b) pressures will not fall below minimum, or rise above maximum, limits of operation during a *gas day*.

AEMO will set the EoD total system linepack target when producing *operating schedules* and *pricing schedules*, and may also set EoD linepack targets for linepack zones for operational reasons in an *operating schedule* when required. The MCE *schedules* an EoD linepack quantity in accordance with the target specified by AEMO for the system total in the *operating schedules* and *pricing schedules*.

AEMO will determine the EoD total system linepack target by balancing *system security* with market requirements according to the following inputs and criteria:

- (a) minimum required EoD linepack level is maintained at all *market withdrawal points* and at all times during a *gas day*, especially in winter operation;
- (b) use of system linepack capacity is maximised to cope with various operational scenarios in responding to gas market operation;
- (c) sufficient linepack “head room” is retained for demand forecast error in order to prevent potential breaches of maximum operational pressures;
- (d) appropriate compressor operation is achieved;
- (e) injection and withdrawal rates at each *market injection point* or *market withdrawal point* (as relevant);
- (f) the total demand level and demand profile, as affected by weather conditions and usage by large customers (e.g. gas-fired power generation demand);
- (g) seasonal factors (i.e. time of year); and
- (h) *system security*.

AEMO may change the EoD total system linepack target from time to time where it reasonably considers it is necessary to maintain efficient and safe system operational conditions. AEMO will notify *Market Participants* of any changes to EoD total system linepack target by an SWN.

7.6. Operating data

Operating data is used by AEMO on the following basis:

- (a) Nodal pressures are provided by AEMO’s SCADA. This data is extrapolated to determine starting conditions that AEMO applies to produce the current *gas day* initial and intra-day *operating schedules* and *pricing schedules*.
- (b) Subject to paragraph (c), AEMO will use the metered *gas* quantities that are imported from SCADA to market systems to determine any Qdiff value to be applied when producing current *gas day* intra-day *operating schedules* and *pricing schedules*.
- (c) AEMO may substitute data for the purpose of producing *operating schedules* and *pricing schedules* when any SCADA data is not accurate or not available during any *gas day*, due to either communication or hardware problems.

7.7. Market Clearing Engine reference data

The MCE models the DTS using MCE reference data, which comprises Node configuration, withdrawal zones, pipe segments, linepack zones, compressor characteristics and the MCE Factors. This data is necessary for the MCE to be able to produce Feasible Operating Schedules.

AEMO will:

- (a) *publish* the details of the current MCE reference data on the MIBB;
- (b) apply an appropriate change management process to make any changes to MCE reference data. Reasons for change may include system operation requirements, alterations to the physical system or variations to the MCE Factors; and
- (c) notify *Market Participants* by SWN of any significant changes made to MCE reference data, such as adding or removing withdrawal zones, linepack zones, pipe segments, compressor stations or changes to the MCE Factors.

7.8. Market Participant data

Market Participants must communicate their intentions to inject *gas* into or withdraw *gas* from the DTS each day in accordance with the *electronic communications procedures*.

7.8.1. Market Participants bids

Market Participants must submit *bids* in accordance with the Rules and the *electronic communications procedures*.

Market Participants may:

- (a) make *bids* applicable for a specified date-time period (such as a single day or span many days); and
- (b) update *bids* any time up to the bid submission time specified in the Rules.

If a *Market Participant* submission is invalid, AEMO will not use that submission for *scheduling* and, as soon as practicable after it becomes aware of the invalidity, AEMO will notify the *Market Participant* in accordance with the *electronic communications procedures*.

Each *bid* that is valid will be:

- (a) date-time stamped;
- (b) assigned a unique identifier; and
- (c) stored in AEMO's database for audit purposes.

An updated *bid* must be for the whole of the *gas day*, and must be consistent with the quantity scheduled in respect of that *bid* for the current and preceding *scheduling intervals* on that *gas day*.

7.8.2. Market Participants demand forecast

Market Participants must submit *demand forecasts* in accordance with the Rules and the *electronic communication procedures*.

Demand forecasts may be updated by *Market Participants* at any time up to the times specified in the Rules.

When producing schedules, AEMO will use the most recent valid *Market Participants' demand forecasts* for the first hour of the relevant *scheduling horizon* until the end of the *gas day*.

Market Participants may provide AEMO with a validation threshold against which *demand forecasts* by the *Market Participant* will be verified. If a validation threshold has been provided by a *Market Participant*, any *demand forecast* that exceeds the validation threshold provided by the *Market Participant* will be invalid.

AEMO may apply a *demand forecast override* in accordance with clause 7.5.1.

7.9. Nodal demand allocation

AEMO will allocate the aggregated *Market Participant demand forecasts* and any AEMO *demand forecast override* to each Node according to a base-load to heating-load split determined by AEMO for that Node. This split may be updated by AEMO from time to time.

7.10. Constraints

7.10.1. Supply and Demand Point Constraints

AEMO may apply a Supply and Demand Point Constraints (*SDPC*) to reflect contractual, physical and operating constraints for facilities that are external to the DTS to *market injection points* and *market withdrawal points*. These are applied to both *pricing schedules* and *operating schedules*.

AEMO may also apply *SDPCs* to restrict injections or withdrawals which would exceed the physical capacity of the DTS including pipeline capacity, pipeline facility commissioning, and maintenance (e.g. maintenance of compressors) or to avert threats to *system security*. An *SDPC* that is used due to an injection limitation within the DTS are applied to *operating schedules* only and not to *pricing schedules*. An *SDPC* that is used due to a withdrawal limitation within the DTS may be applied to both the *pricing schedule* and *operating schedules*.

SDPCs consist of:

- (a) *supply point* constraints, which usually apply to the aggregate schedules on all *Market Participants* injecting gas at a particular *meter*;
- (b) *supply point* constraints which selectively constrain *injection bids* at *market injection points* where the *DWGM facility operator* has registered multiple supply sources in accordance with clause 7.10.3 and *Market Participants* have accredited multiple supply sources in accordance with clause 7.10.7; and
- (c) *demand point* constraints, which usually apply to the aggregate schedules on all *Market Participants* withdrawing gas at a single off-take *meter*.

When AEMO applies an *SDPC* to reflect the limitations of a connected facility, it will set the *SDPC* parameters at an injection or withdrawal *meter* according to information supplied by the *DWGM facility operator*, either from the terms and conditions specified in operating agreements, which are entered into between AEMO and the associated party that is injecting or withdrawing; or using information provided by such party. This information will be used to set the overall limits for the *market injection points* or *market withdrawal points* specified in the information provided, to ensure any *scheduling instruction* issued by AEMO is consistent with injection or withdrawal capabilities of the *market injection point* or *market withdrawal point* for the period that the *SDPC* applies. The *SDPC* parameters include:

Table 10 SDPC constraint parameters

SDPC parameters	Description
Hourly ramp down rate	The maximum hourly ramp down rate for the meter.
Hourly ramp up rate	The maximum hourly ramp up rate for the meter.
Minimum hourly quantity	The minimum hourly injection/withdrawal quantity. This value is 0/GJ/h by default unless set to a different value by AEMO.
Maximum hourly quantity	The maximum hourly injection/withdrawal quantity
Hourly response time	The amount of time in hours for the facility to respond to the constraint.
Flexible response	Indicates that the scheduled rate can change during a gas day.
Point expiration time	The time at which the constraint expires. By default, AEMO sets this value to 5AM unless set to a different value in consultation with the <i>DWGM facility operator</i> .
Daily minimum quantity	The minimum daily injection/withdrawal quantity. This value is 0/GJ/h by default unless set to a different value by AEMO.
Daily maximum quantity	The maximum hourly injection/withdrawal quantity

AEMO may apply and change *SDPCs* independently during the *gas day* where AEMO becomes aware of changes in the physical capabilities of a *market injection point* or *market withdrawal point* that may constrain that point.

A *DWGM facility operator* may input a *SDPC* constraint to AEMO up to the bid submission time list in rule 211.

A *DWGM facility operator* may request AEMO enter an updated *SDPC* into market systems that will cause a change of more than 5 TJ/d to the current *gas day's* schedule, between the bid submission time and schedule publication time (as listed in rule 211), by contacting the Victorian Gas Control Room.

AEMO will notify *Market Participants* of changes to *SDPCs* applied by AEMO at request of a *DWGM facility operator*, via an SWN, that will cause a change of more than 5 TJ/d to the *gas day's* schedule.

7.10.2. Distribution supply or demand point constraints

AEMO may apply a *distribution supply and demand point constraints* to reflect the distribution constraint methodology approved by AEMO under the *distribution operational coordination procedure*.

These *distribution supply and demand point constraints* operate the same as an *SDPC* (and will be referred to as an *SDPC* in AEMO communications), discussed in section 7.10.1, but are determined by the *Distributor* (not AEMO) for application at a *distribution connected facility's*

market injection point or *market withdrawal point*. These constraints are applied to both *pricing schedules* and *operating schedules*.

The submission requirements of a *distribution supply and demand point constraints*, which are similar to SDPC, are defined in the Wholesale Market Distribution Operational Coordination Procedures.

7.10.3. Supply Source Constraint

AEMO may apply a Supply Source Constraint (SSC), in the event of an outage of a supply source at a *market injection point* for which the *DWGM facility operator* or *distribution connected facility operator* has registered multiple supply sources in accordance with clause 7.10.8, the *DWGM facility operator* or *distribution connected facility operator* may advise AEMO that they will cease to inject gas from that supply source into the *Market*.

After receiving this advice, AEMO must:

- (a) set the maximum hourly quantity to zero for *injection bids* at the failed supply source from *Market Participants* who have accredited the failed supply source as one of their multiple supply sources, in accordance with clause 7.10.7; and
- (b) notify *Market Participants* of an SSC applied by AEMO at request of a facility operator, by an SWN, that will cause a change of more than 5 TJ/d to the *gas day's* schedule..

7.10.4. Directional Flow Point Constraints

A special case of the *SDPC*, a Demand Flow Point Constraint (DFPC), allows an injection and withdrawal *meter* to be paired so that the net flow is subject to a new set of constraints. The feature of the MCE is also capable of specifying different maximum flow limits depending on the net direction of flow.

Maximum hourly and maximum daily constraints can be specified in either or both flow directions and are applied on both the *operating schedule* and the *pricing schedule*.

This feature of MCE allows for financial flows to be maximised in either or both directions subject to physical limits specified in either operating agreements or operational conditions on the day.

The DFPC parameters are:

Table 11 DFPC constraint parameters

DFPC parameters	Description
maximum hourly net injection quantities	the maximum net amount of gas that can be injected in an hour;
maximum hourly net withdrawal quantities	the maximum net amount of gas that can be withdrawn in an hour;
maximum daily net injection quantities	the maximum net amount of gas that can be injected over a day
maximum daily net withdrawal quantities	the maximum net amount of gas that can be withdrawn over a day.

AEMO may apply and change DFPCs to both *operating schedules* and *pricing schedules* during the *gas day* where AEMO reasonably considers that it is needed to reflect the circumstances applicable at the relevant *market injection points* and *market withdrawal points*.

A DFPC can only be applied to a DTS connection point by AEMO and, if required under the *DDS constraint methodology*, by a *Distributor* for a *distribution connected facility*.

A *DWGM facility operator* may input a *DFPC* constraint to AEMO up to the bid submission time list in rule 211.

A *DWGM facility operator* may request AEMO enter an updated *DFPC* into market systems that will cause a change of more than 5 TJ/d to the current *gas day's* schedule, between the bid submission time and schedule publication time (as listed in rule 211), by contacting the Victorian Gas Control Room.

AEMO will notify *Market Participants* of any changes to DFPCs entered by AEMO, via an SWN, that will cause a change of more than 5 TJ/d to the *gas day's* schedule.

7.10.5. Financial flows during plant outages

Where there is a complete outage of a facility, AEMO will not schedule any injections or withdrawals to take place at the relevant *market injection points* or *market withdrawal points* (even where net gas flows at the points would be zero).

7.10.6. Net Flow Transportation Constraints

A NFTC allows multiple *system injection points* and *system withdrawal points* at a common location to be combined so that the net aggregate flow is constrained to reflect the physical DTS capacity (e.g. pipeline capacity).

The NFTC parameters are:

Table 12 NFTC parameters

NFTC parameters	Description
maximum hourly net injection quantities	the maximum net amount of gas that can be injected in an hour;
maximum hourly net withdrawal quantities	the maximum net amount of gas that can be withdrawn in an hour;
maximum daily net injection quantities	the maximum net amount of gas that can be injected over a day
maximum daily net withdrawal quantities	the maximum net amount of gas that can be withdrawn over a day.

AEMO must apply:

- (a) net injection NFTCs to *operating schedules* only; and
- (b) net withdrawal NFTCs to *pricing schedules* and *operating schedules*.

AEMO may apply and change NFTCs applied for a *gas day* where combined *scheduled* net flows at a common location would otherwise exceed either the maximum daily or maximum hourly transportation capacity of the pipeline.

AEMO will notify *Market Participants* of any changes to NFTCs entered by AEMO via an SWN.

7.10.7. Accreditation of Controllable Quantities

Under rule 210(1) of the Rules, AEMO and the *Market Participants* must comply with the *accreditation procedures* for the accreditation of quantities at a *market injection point* or a *market withdrawal point*.

Market Participants who wish to be eligible to receive *ancillary payments* arising from the lodgement of their *injection bids* and *withdrawal bids* of a *controllable quantity* must provide information on any constraints applicable to the deliverability of gas for their injections or withdrawals through the accreditation process (refer to clause 7.10.1).

AEMO will record any accreditation of controllable quantities as an accreditation constraint for a *Market Participant's bids* at a *meter*. AEMO will only apply accredited constraints as inputs to the MCE and such accredited constraints will be applied to both the *operating schedule* and the *pricing schedule* unless AEMO reasonably determines that the accreditation data is the cause of an infeasible *operating schedule* or *pricing schedule*.

If AEMO identifies that *bid* data that has passed validation is causing an *operating schedule* or *pricing schedule* to be infeasible, AEMO may amend intraday the accredited quantities of the relevant *Market Participant*, as described further in clause 7.19. AEMO will notify the affected *Market Participant* of any such actions undertaken by AEMO.

Accreditation quantities for a *Market Participant* may include the accreditation parameters detailed in the *accreditation procedures*.

7.10.8. Registration of multiple supply sources

A *DWGM facility operator* may apply to register multiple supply sources at a *market injection point* for the purpose of reflecting an outage of a supply source at that *market injection point*.

AEMO must register the multiple supply sources if the *DWGM facility operator* can demonstrate that appropriate arrangements are in place between the *DWGM facility operator* and the relevant *Market Participants* to allow the SSC to operate in accordance with clause 7.10.3.

7.11. Tie breaking rights from capacity certificates

7.11.1. General

- (a) In accordance with rule 214, AEMO must *schedule* equally beneficial *bids* associated with *capacity certificates* before *scheduling bids* not associated with *capacity certificates*.
- (b) For the purposes of rule 328A(4), the process for a *Market Participant* to use a *capacity certificate* at an individual *system point* is set out in this section.
- (c) Where a *tie breaking event* occurs, *capacity certificates* provide tie breaking rights to the *Market Participant* who is the registered owner of the *capacity certificates* in AEMO market systems on that *gas day*.
- (d) The quantity of *capacity certificates* available for tie breaking in each *capacity certificate zone* must be adjusted by AEMO to take into consideration constraints applied under clause 7.10 of these Procedures.

7.11.2. Tie-breaking rights

- (a) AEMO will determine the quantities of each *bid* that are supported by *capacity certificates*.

- (b) AEMO will associate a *Market Participant's capacity certificate* holdings with each *bid* step of their *injection bids* at all *market injection points* in a *capacity certificate zone* in order of increasing *bid* price to the extent of their *capacity certificate* holdings.
 - (i) Where more than one bid step of equal bid price cannot be fully associated with the remaining quantity of *capacity certificates*, AEMO must associate the remaining quantity of *capacity certificates* with each bid step in proportion of their respective bid step quantities to the total bid step quantities.
 - (ii) Where the full quantity of a bid step cannot be associated with the remaining quantity of *capacity certificate* holdings, AEMO must divide the bid step into two portions where one bid step has the remaining quantity of *capacity certificate* holdings, and the other has none.
- (c) AEMO will associate a *Market Participant's capacity certificate* holdings with each bid step of their *withdrawal bids* at all *market withdrawal points* in a *capacity certificate zone* in order of decreasing bid price to the extent of their *capacity certificate* holdings.
 - (i) Where more than one bid step of equal bid price cannot be fully associated with the remaining quantity of *capacity certificates*, AEMO must associate the remaining quantity of *capacity certificates* with each bid step in proportion of their respective bid step quantities to the total bid step quantities.
 - (ii) Where the full quantity of a bid step cannot be associated with the remaining quantity of *capacity certificate* holdings, AEMO must divide the bid step into two portions where one bid step has the remaining quantity of *capacity certificate* holdings, and the other has none.

7.12. Intra-day adjustments for injections or withdrawals of controllable quantities (Qdiff)

Gas suppliers typically operate under contracts that commit them to deliver into the DTS a quantity of *gas* over the *gas day*. These suppliers may over-inject later in the day if they under-inject in the first part of the day, so as to meet contractual amounts for daily deliveries. The same applies on the withdrawal side, for example, at interconnected pipelines.

AEMO may make an intra-day adjustment (called Qdiff) when producing *operating schedules* and *pricing schedules*. This is to recognise that the *DWGM facility operator* or *distribution connected facility operator* injecting or withdrawing *gas* at a *system point* is expected to make up any difference (of scheduled versus actual) at the time of reschedule and that there is no need to schedule additional (or less) *gas* as a result of the deviation from the *operating schedule*. Qdiff, therefore, accounts for linepack deviations arising from intraday behaviour of suppliers and minimises the cost of satisfying the demand over the day by avoiding the need for unnecessary injections of higher priced *gas*.

The Qdiff intra-day adjustment is not associated with any individual *operating schedule* or *pricing schedule* and will only be applied to *market injection points* or *market withdrawal points* by AEMO after taking into account advice received by the relevant *DWGM facility operator* or *distribution connected facility operator*.

7.13. Initial conditions

AEMO will assess the state of the DTS as it expects it will be at the start of the horizon being scheduled, taking into account:

- (a) the initial pressures at all Nodes to apply at the start of the horizon being scheduled. This information effectively defines the initial linepack levels in each pipeline represented in the *operating schedule*, and the aggregated initial linepack used in the *pricing schedule*; and
- (b) initial injection and withdrawal rates at the start of the horizon being scheduled and subject to accreditation (refer to clause 7.12).

AEMO will apply the following when producing an *operating schedule* and *pricing schedule*:

- (a) BoD injection and withdrawal rates are to be based on the end conditions of the last approved operating schedule of the previous day, except where alternative starting conditions have been accredited (refer clause 7.10.7); and
- (b) reschedule injection and withdrawal rates are to be based on the conditions at the end of the preceding hour in the last approved operating schedule.

7.14. Gas scheduling – normal state

7.14.1. Operating schedule

Operating schedules will be produced by AEMO for the current *gas day* and the *gas days* one day ahead and two days ahead, at the standard schedule times in accordance with the Rules.

7.14.2. Operating schedule inputs

Inputs to *operating schedules* will include:

- (a) data provided by *Market Participants*, including:
 - (i) *demand forecasts* (refer to clause 7.8.2);
 - (ii) *injection bids* and *withdrawal bids* (refer to clause 7.8.1); and
 - (iii) any conditions or constraints included in the accreditation of *controllable quantities* (refer to clause 7.10.7);
- (b) Total *capacity certificates* allocated to each *Market Participant* as at that *gas day*
- (c) information on physical deliverability requirements from operating agreements for locations where more than one *Market Participant* is injecting or withdrawing gas at a common point, SDPCs and DFPCs (refer to clauses 7.10.1 and 7.10.4);
- (d) constraints on the physical capacity of the DTS, including SDPCs and NFTCs (refer to clauses 7.10.1 and 7.10.6);
- (e) AEMO's *demand forecast override* (refer to clause 7.5.1);
- (f) AEMO's nodal demand *allocation* (refer to clause 7.9);

- (g) physical pipeline constraints including a model of the physical gas pipeline or other physical gas system components such as the commitment of compressors (refer to clause 7.5.3);
- (h) EoD linepack target (refer to clause 7.5.4);
- (i) MCE reference data (refer to clause 7.7);
- (j) intra-day adjustments for injections or withdrawals of *controllable quantities* (refer to clause 7.12);
- (k) initial conditions (refer to clause 7.13); and
- (l) any other input or assumption that AEMO reasonably considers is required to produce an *operating schedule* in accordance with the objectives of minimising the cost of satisfying demand and maintaining *system security*.

7.14.3. Operating schedule review process

AEMO will review *operating schedules* prior to *publication* to assess:

- (a) whether it is a Feasible Operating Schedule, taking into account:
 - (i) whether the Nodal pressures are within the normal operational pressure range;
 - (ii) whether the EoD linepack is sufficient to allow the *scheduled injections* to satisfy the *demand forecast* tomorrow within the requirements of the *system security procedures*; and
 - (iii) whether the availability of *LNG* stock is sufficient to support the *LNG* scheduled; and
- (b) the efficiency of the *operating schedule* in terms of minimising the cost of satisfying demand, taking into account:
 - (i) whether the Nodal prices are stable over the course of the day (as improving the stability of Nodal prices at Nodes across the day usually also improves the economic efficiency delivered by the resultant *operating schedule*);
 - (ii) whether any Nodal prices are at VoLL (as VoLL will result in curtailment that may possibly be avoided e.g. through an increased compressor commitment);
 - (iii) whether any Nodal prices are negative (as negative prices are caused by an over-supply of gas that could, for example, be caused from too much compressor commitment); and
 - (iv) EoD linepack targets and compressor operations (as these may have an adverse effect on nodal prices, and thence efficiency, or may give rise to ancillary payments).

Prior to *publication*, AEMO may, if time permits, adjust the AEMO inputs as referred to in clause 7.14.2, including *demand forecast overrides*, compressor commitments and constraints (as required), and amend the *operating schedule* to minimise the cost of meeting market, operational and *system security* objectives.

The last published *operating schedule* constitutes AEMO's issued *scheduling instructions* at the time to all *Market Participants* and *DWGM facility operators*.

The review process is set out in the next table.

Table 13 Schedule review process

If after checking, the operational schedule is:	And:	Then:
Infeasible	There is sufficient time:	Adjust input data Rerun <i>operating schedule</i> ; and If needed, repeat these steps until <i>operating schedule</i> is feasible
	There is insufficient time	Refer to clause 7.19
Feasible		Review the efficiency of the <i>operating schedule</i> in accordance with clause 7.14.3. <ul style="list-style-type: none"> if AEMO reasonably considers it will improve efficiency in the resultant <i>operating schedule</i>, adjust compressor commitments and re-run the <i>operating schedule</i>; and if needed, repeat these steps whilst time permits.

7.15. Pricing schedule

The *pricing schedule* determines the *market price*. The *market price* applies to all locations for the *scheduling horizon*. AEMO will publish *pricing schedules* for current day, one day ahead, and two day ahead *gas days* and amendments to those *pricing schedules* by the times provided in the Rules.

The *pricing schedule* will not be updated where AEMO publishes an ad hoc *operating schedule* between the standard schedule times. For the avoidance of doubt, *market price* is not revised for ad hoc *operating schedules*.

The *pricing schedule* produces a *schedule* of the gas injections and withdrawals at each Node per hour. An important characteristic of the *pricing schedule* is that it does not contain a model of the DTS or other physical gas system components. The *pricing schedule* is, therefore, an ideal schedule where the DTS is represented as a gas supply pipeline system that takes into account physical DTS withdrawal limitations (as withdrawal NFTCs), *Market Participant bids* and *demand forecasts* (including any *demand forecast override* quantity), accreditations of *controllable quantities*, SDPCs and DFPCs.

7.15.1. Pricing schedule inputs

Inputs to *pricing schedules* include:

- (a) data provided by *Market Participants*, including:
 - (i) *demand forecasts* (refer to clause 7.8.2);
 - (ii) *injection bids* and *withdrawal bids* (refer to clause 7.8.1);
 - (iii) any conditions or constraints included in the accreditation of *controllable quantities* (refer to clause 7.10.7);
- (b) Total *capacity certificate* allocated to each *Market Participant* as at that *gas day*

- (c) constraints on physical deliverability requirements from operating agreements for locations where more than one *Market Participant* is injecting or withdrawing gas at a common *market injection point* or *market withdrawal point*, SDPCs, and DFPCs (refer to clauses 7.10.1 and 7.10.4);
- (d) withdrawal constraints on the physical capacity of the DTS, including SDPCs and NFTCs (refer to clauses 7.10.1 and 7.10.6);
- (e) AEMO's *demand forecast override* (refer to clause 7.5.1);
- (f) AEMO's Nodal demand *allocation* (refer to clause 7.9);
- (g) EoD linepack target (refer to clause 7.5.4);
- (h) MCE reference data, (refer to clause 7.7);
- (i) intra-day adjustments for injection or withdrawal of *controllable quantities* (refer to clause 7.12);
- (j) initial conditions (refer to clause 7.13); and
- (k) any other input or assumption that AEMO reasonably considers is required to produce a *schedule* in accordance with the objectives of minimising the cost of satisfying demand and maintaining *system security*.

7.15.2. Pricing schedule review process

AEMO will review *pricing schedules* prior to *publication* to assess whether:

- (a) *Market price*, injections, controllable and uncontrollable withdrawals, and system linepack match expectations, taking into account:
 - (i) information from accreditation of quantities;
 - (ii) SDPCs applied at *market injection points* and *market withdrawal points*;
 - (iii) DFPCs applied at bi-directional *market injection points* and *market withdrawal points*;
 - (iv) withdrawal NFTCs applied at a common location to *system injection points* and *system withdrawal points*;
 - (v) total *demand forecast* (*Market Participant's demand forecast* for the Market plus any AEMO *demand forecast override*);
 - (vi) initial conditions; and
 - (vii) the EoD linepack target; and
- (b) the *market price* is consistent with *bids* that were scheduled.

AEMO may publish a *market price* sensitivity report linked with various *demand forecast* profiles. The profiles correspond to $\pm 10\%$ *deviation* from the total demand forecast, which may change from time to time.

7.16. Responding to abnormal market conditions

A normal operating state for the DTS is described in the *system security procedures*. If the DTS operates outside this state then it may result in a threat to *system security*. AEMO's process to mitigate a threat to *system security* via the DWGM *scheduling* process is outlined in this section.

7.16.1. Plant or facility outages

AEMO will assess the *system security* impact of any plant outage and may amend relevant SDPCs and DFPCs to reflect the outage in subsequent *operating schedules*.

If, in AEMO's reasonable consideration:

- (a) a delay in rescheduling until the next *standard schedule time* may threaten *system security*, AEMO may *publish* an ad hoc *operating schedule* applying appropriate SDPCs and DFPCs to reflect the outage; or
- (b) a delay in rescheduling until the next *standard schedule time* is not likely to threaten *system security*, AEMO may amend relevant SDPCs and DFPCs to reflect the outage and apply these in the schedules published at the next *standard schedule time*.

7.17. Ad hoc operating schedules

Where AEMO revises and publishes an *operating schedule* outside the *standard schedule times*, it is known as an ad hoc *operating schedule*. For the avoidance of doubt, late *publication* of an *operating schedule* is not an ad hoc *operating schedule* (refer to clause 7.19).

Publishing an ad hoc *operating schedule* as the revised *scheduling instruction* is classified as an intervention under the Rules (excepting day-ahead and two-day-ahead schedules). AEMO must declare a threat to *system security* prior to publishing an ad hoc *operating schedule*, and may only publish an ad hoc *operating schedule* due to a *system security* threat in accordance with rule 215(4) and rule 343.

AEMO will take into account various factors when considering the need for an ad hoc *operating schedule*, including:

- (a) significant *demand forecast* increase due to unexpected cold weather or unexpected gas-fired power generation;
- (b) unexpected high demand prior to or during evening peak that requires an increased rate of peak shaving gas, LNG vaporisation;
- (c) loss of plant or facility; and
- (d) other operational reasons, such as a tripped compressor, or gas quality considerations.

AEMO will notify *Market Participants* of the *publication* of any ad hoc *operating schedules* by an SWN in accordance with clause 7.22.

AEMO will not revise or update the applicable *pricing schedule* or *market price* when it publishes an ad hoc *operating schedule*. The *pricing schedule* published at the last *standard schedule time* is not updated until the next *standard schedule time* regardless of any ad hoc *operating schedules* published during the *scheduling interval*. *Market price* only changes at the

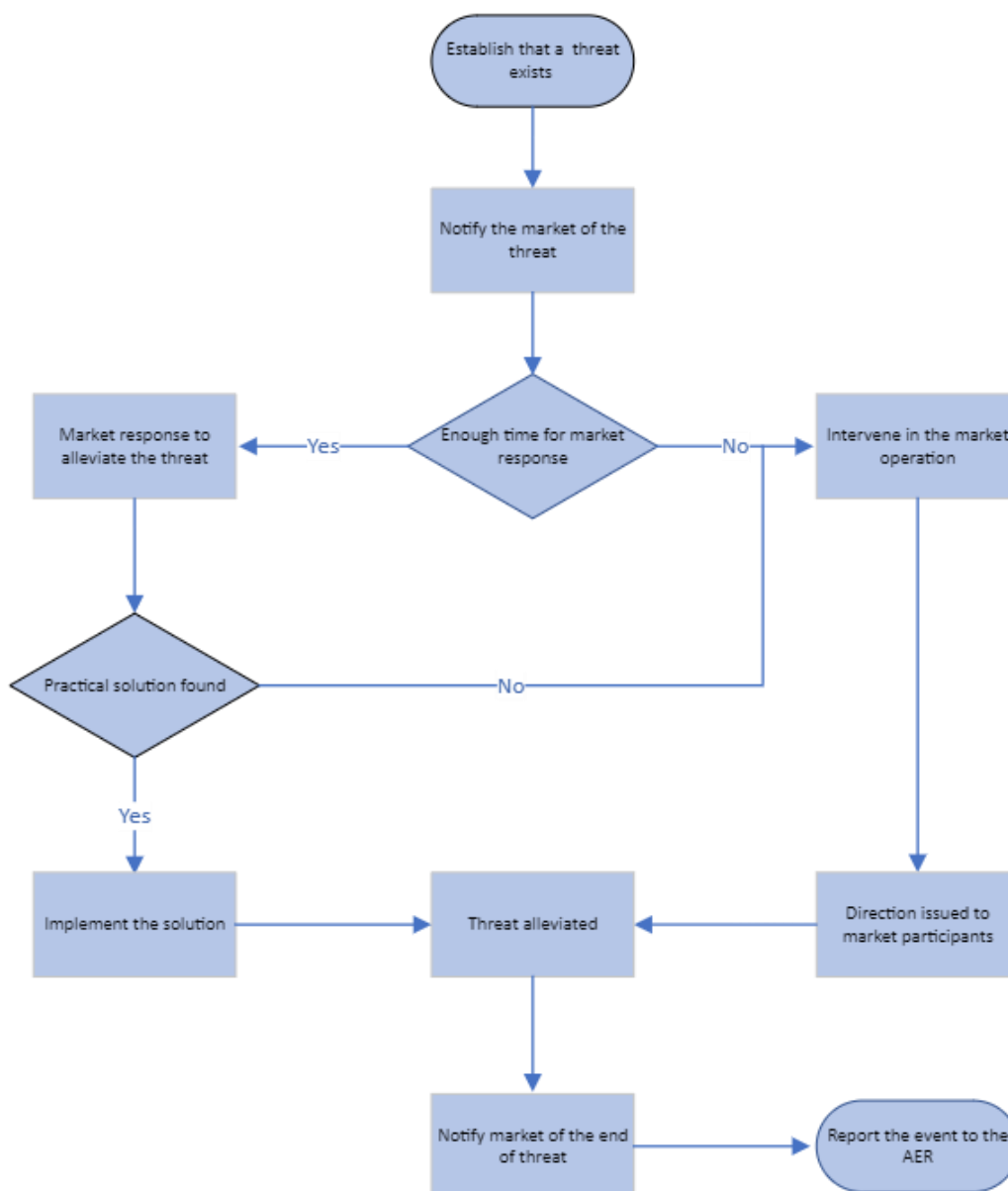
fixed times (*standard schedule times*) and *ancillary payments* will, as far as practicable, apply as a result of any *ad hoc operating schedule* or other forms of intervention.

7.18. Threats to system security

7.18.1. Introduction

Figure 2 depicts the process followed by AEMO in response to a threat to *system security*.

Figure 2 AEMO response to a threat to system security



Examples of events that may create a threat to system security include:

- (a) gas demand exceeding DTS capacity;
- (b) a significant unforeseen increase in gas demand;
- (c) gas supply sources incapable of meeting foreseen gas demand;

- (d) a breakdown of the DTS equipment such as compressors or LNG vaporisers;
- (e) a transmission pipeline incident;
- (f) a distribution incident that significantly affects injections into or withdrawals from the DTS;
or
- (g) a gas supply incident, including gas quality excursions leading to off-specification gas in the DTS.

If, at any time, AEMO reasonably considers there is a likelihood that system pressures may fall outside the range of allowable system operating pressures and time permits, AEMO will immediately establish if the threat can be alleviated by normal rescheduling or requires an ad hoc *operating schedule* under rule 215(4) of the Rules (see clause 7.17).

Where time does not permit, or AEMO considers commercial market responses are inadequate, AEMO will intervene in the operation of the *Market* by taking any measures it believes are reasonable and necessary in accordance with section 7.18.4 and section 7.18.5.

AEMO may declare an *emergency* in accordance with the Gas Emergency Protocol where it reasonably considers this step to be required to assist it with directly co-ordinating and managing action to alleviate the threat to *system security*.

7.18.2. Notification of threat to system security

If AEMO believes that there is a threat to *system security* that cannot be alleviated through normal scheduling processes including the publication of ad hoc *operating schedules*, it will advise all *Market Participants* of:

- (a) the nature and general magnitude of the threat;
- (b) the estimated likely duration of the threat;
- (c) the shortfall in *gas* supplies likely to occur during that period;
- (d) the latest time AEMO will need to intervene in the operation of the *Market* if the threat does not subside without intervention by AEMO; and
- (e) the withdrawal zones within the DTS in which the threat to *system security* is, or is likely, to be located.

Notification will be made by an SWN in accordance with *electronic communication procedures*.

AEMO may, as part of the above notice or by separate subsequent notice, seek *Market Participant* advice regarding its best estimates of the following:

- (a) whether the *Market Participant* is in a position to make additional injections or withdrawals of *gas* and whether the *Market Participant* would need to reschedule maintenance or other work in order to do so;
- (b) whether the *Market Participant* is in a position to inject non-firm *gas* into the DTS;
- (c) whether the *Market Participant* is in a position to inject off-specification *gas* into the DTS;
- (d) the period of notice the *Market Participant* would require before making additional injections or withdrawals under paragraphs (a), (b) and (c); and

- (e) the costs the *Market Participant* would incur in facilitating or implementing an injection or withdrawal under paragraphs (a), (b) and (c).

AEMO will as soon as practicable advise all *Market Participants* of any significant change in the information provided by an SWN in accordance with the *electronic communication procedures*.

7.18.3. Notification of return to normal operating conditions

AEMO will advise all *Market Participants* immediately of the cessation of the threat to *system security* and the return to normal operating conditions when it reasonably considers that the threat to *system security* to be at an end.

This notification will be made by an SWN in accordance with the *electronic communication procedures*.

7.18.4. Alleviation of a threat through market response

It may be possible for *Market Participants* to assist in alleviating a threat to *system security* through changes to their *bids*.

If AEMO reasonably considers that a threat to *system security* will subside without intervention, AEMO will:

- (a) advise those *Market Participants* that AEMO considers would be required to take action if the threat to *system security* is not resolved without *intervention*, including *Market Participants* whose *bids* are likely to be scheduled in accordance with an *operating schedule*, of the following information:
 - (i) the existence of the threat to *system security*; and
 - (ii) the likely nature of any requirement if AEMO determines that it should intervene; and
- (b) keep all *Market Participants* informed with up-to-date information about the threat to *system security* and measures taken to avert the threat.

AEMO will provide the above advice by an SWN as detailed in the *electronic communication procedures*. AEMO may also initiate further contact by telephone with *Market Participants* in order to encourage a market response to alleviate the threat to *system security*.

7.18.5. Alleviation of the threat through AEMO intervention

If AEMO reasonably considers that a threat to *system security* is unlikely to subside without *intervention*, AEMO will intervene in the *Market* by taking measures it believes are reasonable and necessary to overcome the threat to *system security*.

AEMO may, if it reasonably considers that the actions available to it under the National Gas Law and the Rules might not be adequate to alleviate the threat, seek intervention by the Victorian government under the Gas Industry Act 2001.

Without in any way limiting the actions available to AEMO, reasonable and necessary actions that AEMO may take include:

- (a) scheduling AEMO's *LNG reserve* in accordance with rule 285(2);

- (b) *curtailment* in accordance with the Gas Load Curtailment and Gas Rationing and Recovery Guidelines, subject to paragraph (b);
- (c) increasing withdrawals;
- (d) requiring *Market Participants* to use reasonable endeavours to inject available gas to which the *Market Participant* is entitled, but which has not been *bid* on the relevant *gas day* or which is non-firm gas, recognising in the case of non-firm gas the uncertainties associated with the supply and injection of that gas;
- (e) requiring any *Market Participant* to inject off-specification gas into the DTS; and
- (f) requiring *Market Participants* to do any reasonable act or thing that AEMO believes necessary in the circumstances.

AEMO may determine a new SDPC and apply it only to the *operating schedule* when it intervenes in the market if it reasonably considers that this is required to produce the required outcomes. In so doing, AEMO may apply an amended minimum hourly quantity by a SDPC to an *operating schedule* to schedule additional peak shaving gas (e.g. LNG) or any other gas supply for operational needs.

7.18.6. LNG scheduled as out of merit order gas for system security purposes during standard schedule time

If LNG is *scheduled* as out of merit order gas as an operational response for *system security* purposes (i.e. peak shaving gas), AEMO will notify *Market Participants* by an SWN of low linepack conditions as soon as possible after the first *operating schedule* incorporating operational response LNG is approved and will declare a threat to *system security* in accordance with rule 341.

This includes scheduling AEMO's LNG reserve to provide gas, when *Market Participant's* LNG injection bids are insufficient to mitigate a threat to *system security*, as outlined in section 7.20.1.

AEMO will also notify *Market Participants* by an SWN when the linepack condition changes or when LNG is no longer required to relieve the threat to *system security*.

7.18.7. Directions

Refer to the Gas Emergency Protocol for the issue of directions and management of *emergencies*.

7.19. Gas Scheduling in Abnormal Conditions

This section describes how AEMO will complete the scheduling process in circumstances where abnormal conditions exist. The following are deemed to be abnormal conditions:

- Condition 1 *Scheduling* to address facility outages, interruptions, or supply deficiency
- Condition 2 Unable to produce both the *pricing schedule* and *operating schedule* by the required *standard schedule time*

Condition 3 Unable to produce an *operating schedule* (*pricing schedule* is valid) by the required *standard schedule time*

Condition 4 Unable to approve either the *pricing schedule* or *operating schedule* by the required *standard schedule time*

Condition 5 Unable to publish either the approved *pricing schedule* or approved *operating schedule* by the required *standard schedule time*

Condition 6 Publish an ad hoc *operating schedule* due to potential threat to *system security*

Condition 7 *Market Participants* unable to submit *scheduling* input data by the required *bid* submission times

Condition 8 Unable to produce a Nodal demand

Unless stated otherwise, all conditions will apply only to current day and intra-day *pricing schedules* and *operating schedules* not Day+1 or Day+2 forecast schedules

Table 14 Condition 1 – Scheduling to address facility outages, interruptions, or supply deficiency

If due to:	AEMO will:	if this is not possible, or does not resolve matters:
Facility Outages, Interruptions OR Supply Deficiency	If the conditions do not give rise to a threat to <i>system security</i> : a) adjust the AEMO inputs as defined in clause 7.14.2 and 7.15.1 as required b) run revised schedule If revised <i>operating schedules</i> are feasible: a) publish standard schedules at the next <i>scheduling interval</i> b) notify <i>Market Participants</i> of the event and actions undertaken	if time permits and further steps may resolve the matter: a) repeat process
	if the conditions give rise to a threat to <i>system security</i> : a) notify <i>Market Participants</i> of threat to <i>system security</i> as soon as possible if time permits: a) assess whether adjustment of AEMO inputs as defined in clause 4.1.1 and 7.15.1 may resolve the threat b) if so, adjust operator inputs accordingly c) re-schedule if revised <i>operating schedules</i> are feasible, then: a) if ad hoc <i>operating schedule</i> is needed refer to Abnormal Condition 6 b) notify <i>Market Participants</i> of the event and actions undertaken	if time permits and further steps may resolve the matter: a) repeat process if time does not permit or repeating unlikely to resolve: a) intervene in the market and issue directions as required (refer to clauses 7.18.5 and 7.18.6) b) notify <i>Market Participants</i> of the event and actions undertaken

Table 15 Condition 2 – Unable to produce both the pricing schedule and operating schedule by the required standard schedule time

If due to:	AEMO will:	if this is not possible, or does not resolve matters:
bid data that AEMO is able to identify as either corrupt, missing or otherwise causing the problem	a) adjust the accreditation constraints applicable to the relevant bid(s) that appear to be causing the problem b) re-run the <i>operating schedule</i> and <i>pricing schedule</i> c) notify the <i>Market Participant</i> involved of the issue and the steps undertaken	a) re-approve the most recently approved <i>operating schedule</i> and <i>pricing schedules</i> as the updated schedules; b) declare an <i>administered price period</i> and set the administered price flag (manual) c) review the <i>market price</i> of the re-approved <i>pricing schedule</i> and if greater than the APC, manually cap at the APC d) notify <i>Market Participants</i> of the event and actions undertaken
failure of MCE or TMM or other related systems, including: a) failure to transfer data to MCE/TMM from associated applications; or b) corruption of data; or	a) re-approve the most recently approved <i>operating schedule</i> and <i>pricing schedule</i> as the updated schedules b) declare an <i>administered price period</i> and set the administered price flag c) review the <i>market price</i> of the re-approved <i>pricing schedule</i> and if greater than the APC, manually cap at the APC	if the conditions do not give rise to a threat to <i>system security</i> : a) continue to repeat process at the next <i>standard schedule time</i> . if the conditions give rise to a threat to <i>system security</i> : a) intervene in the market and issue directions as required (refer to clauses 7.18.5 and 7.18.7)

If due to:	AEMO will:	if this is not possible, or does not resolve matters:
c) any other issues that prevent the solution of a Feasible Operating Schedule.	d) notify <i>Market Participants</i> of the event and actions undertaken	b) notify <i>Market Participants</i> of the event and actions undertaken

Table 16 Condition 3 – Unable to produce an operating schedule (pricing schedule is valid) by the required standard schedule time

If due to:	AEMO will:	if this is not possible, or does not resolve matters:
<p>Failure of MCE or TMM to produce a Feasible Operating Schedule, including:</p> <p>a) corruption of data; or</p> <p>b) any other issues (including input data) that prevent the solution of a Feasible Operating Schedule.</p>	<p>if time permits:</p> <p>a) assess whether adjustment of AEMO inputs as referred to in clause 7.14.2 may resolve the issue and adjust accordingly</p> <p>b) re-run <i>operating schedule</i> with the adjusted inputs to achieve a Feasible Operating Schedule</p> <p>c) repeat process if <i>operating schedule</i> is still not feasible and time permits</p>	<p>If the <i>pricing schedule</i> is physically achievable within system operating limits, and can be used as the <i>operating schedule</i>:</p> <p>a) create the <i>operating schedule</i> from the <i>pricing schedule</i> (i.e. use the <i>pricing schedule</i> as the <i>operating schedule</i>) for the <i>scheduling horizon</i></p> <p>b) approve both <i>pricing schedule</i> and <i>operating schedule</i></p> <p>If the <i>pricing schedule</i> is not physically achievable within system operating limits, and cannot be used as the <i>operating schedule</i>:</p> <p>a) re-approve the most recently approved <i>operating schedule</i> and <i>pricing schedules</i> as the updated schedules</p> <p>b) declare an <i>administered price period</i> and set the administered price flag (manual)</p> <p>c) review the <i>market price</i> of the re-approved <i>pricing schedule</i> and if greater than the APC, manually cap at the APC</p> <p>d) notify <i>Market Participants</i> of the event and actions undertaken</p>

Table 17 Condition 4 – Unable to approve the pricing schedule and operating schedule by the required standard schedule time

If due to:	AEMO will:	if this is not possible, or does not resolve matters:
Failure to approve <i>pricing schedule</i> and <i>operating schedule</i> on time	<p>If there is a Feasible Operating Schedule and Valid Pricing Schedule available AEMO will:</p> <p>a) approve the <i>operating schedule</i> and <i>pricing schedule</i></p> <p>b) declare an <i>administered price period</i> and set the administered price flag (manual);</p> <p>c) review the <i>market price</i> of the approved <i>pricing schedule</i> and if greater than the APC, manually cap at the APC</p> <p>d) notify <i>Market Participants</i> of the event and actions undertaken</p> <p>If there is a Valid Pricing Schedule but no Feasible Operating Schedule AEMO will:</p> <p>a) create an <i>operating schedule</i> from the Valid Pricing Schedule</p>	No further action

If due to:	AEMO will:	if this is not possible, or does not resolve matters:
	<ul style="list-style-type: none"> b) approve the <i>operating schedule</i> and <i>pricing schedule</i> c) declare an <i>administered price period</i> and set the administered price flag d) review the <i>market price</i> of the approved <i>pricing schedule</i> and if greater than the APC, manually cap at the APC e) notify <i>Market Participants</i> of the event and actions undertaken <p>If there is no Valid Pricing Schedule and Feasible Operating Schedule AEMO will:</p> <ul style="list-style-type: none"> a) re-approve the most recently approved <i>operating schedule</i> and <i>pricing schedule</i> as the updated schedules b) declare an <i>administered price period</i> and set the administered price flag (manual) c) review the <i>market price</i> of the re-approved <i>pricing schedule</i> and if greater than the APC, manually cap at the APC d) notify <i>Market Participants</i> of the event and actions undertaken 	

Table 18 Condition 5 – Unable to approve the pricing schedule and operating schedule by the required standard schedule time

If due to:	AEMO will:	if this is not possible, or does not resolve matters:
<p>Delay in publication of either/both schedules on MIBB.</p>	<p>If the <i>pricing schedule</i> or <i>operating schedule</i> is anticipated to be published in a timely manner</p> <ul style="list-style-type: none"> a) the approved, but unpublished, <i>pricing schedule</i> or <i>operating schedule</i> continue to apply; b) notify <i>Market Participants</i> of the expected late publication of schedule/s; and c) notify <i>Market Participants</i> of the actual publication time when the relevant <i>pricing schedule</i> or <i>operating schedule</i> is published 	<p>If only the <i>operating schedule</i> has not been or will not be published on time</p> <ul style="list-style-type: none"> a) the published <i>pricing schedule</i> and the approved but unpublished <i>operating schedule</i> shall continue to apply; b) advise <i>Market Participants</i> of their <i>operating schedules</i> until such time as the <i>operating schedule</i> is published on MIBB (if required) c) notify <i>Market Participants</i> of the event and actions undertaken <p>If both the <i>operating schedule</i> and <i>pricing schedule</i> have not been or will not be <i>published</i> on time:</p> <ul style="list-style-type: none"> a) the approved but unpublished <i>pricing schedule</i> and <i>operating schedule</i> shall continue to apply; b) declare an administered price period; and c) set the administered price flag and manually set the administered price; d) advise <i>Market Participants</i> of their <i>operating schedules</i> until such time as the <i>operating schedule</i> is <i>published</i> on the MIBB (if required) e) notify <i>Market Participants</i> of the event and the market price.

Table 19 Condition 6 – Publish an ad hoc operating schedule due to potential threat to system security

If due to:	AEMO will:	if this is not possible, or does not resolve matters:
<p>The most recently approved <i>operating schedule</i> is no longer appropriate due to a threat to <i>system security</i> that can be addressed with an ad hoc <i>operating schedule</i>.</p>	<p>a) declare and notify market participants of a threat to <i>system security</i> for an ad hoc <i>operating schedule</i></p> <p>b) produce an ad hoc <i>operating schedule</i> by:</p> <ul style="list-style-type: none"> – applying the <i>Market Participant</i> bids and <i>capacity certificate</i> information from the most recently approved <i>operating schedule</i> to the ad hoc <i>operating schedule</i> by setting the bid submission time to the one applicable in that previous schedule – applying the most up-to-date <i>demand forecasts</i> by leaving the <i>demand forecast</i> time set to the bid submission time of the start of the current <i>scheduling horizon</i> schedule (not reset to earlier schedule) – adjusting operator inputs as required – publish the new <i>operating schedule</i> if feasible <p>or</p> <p>a) produce an ad hoc <i>operating schedule</i> by copying an existing <i>operating schedule</i> for the <i>scheduling horizon</i>, overriding the scheduled quantities appropriately and publish if feasible</p> <p>b) notify <i>Market Participants</i> that an ad hoc schedule has been published</p>	<p>if the conditions give rise to a threat to <i>system security</i> that can be addressed with a further ad hoc schedule:</p> <p>a) repeat process</p> <p>b) notify <i>Market Participants</i> of the event and actions undertaken</p> <p>if the conditions give rise to a threat to <i>system security</i> that cannot be addressed with a new ad hoc <i>operating schedule</i>:</p> <p>a) intervene in the market and issue directions as required (refer to clauses 7.18.5 and 7.18.7)</p> <p>b) notify <i>Market Participants</i> of the event and actions undertaken</p>

Table 20 Condition 7 – Market Participants unable to submit scheduling input data by the required bid submission time

If due to:	AEMO will:	if this is not possible, or does not resolve matters:
<p>WebExchanger outage/failure for part/entirety of the submission window or other issue preventing <i>Market Participants</i> from submitting <i>scheduling</i> inputs</p>	<p>a) notify <i>Market Participants</i> as soon as possible of the failure</p> <p>b) produce standard schedules at the next <i>scheduling horizon</i> using the latest <i>Market Participant</i> submissions</p> <p>c) notify <i>Market Participants</i> when WebExchanger returned to service</p>	<p>No further action</p>

Table 21 Condition 8 – Unable to produce a Nodal demand

If due to:	AEMO will:	if this is not possible, or does not resolve matters:
<p>AEMO is unable to produce a Nodal demand for the next <i>scheduling horizon</i></p>	<p>a) produce standard schedules at the next <i>scheduling horizon</i> using the latest available Nodal demand (this may be the previous horizons <i>Market Participant demand forecasts</i> and applicable AEMO demand override)</p> <p>b) notify <i>Market Participants</i> of the event and actions undertaken</p>	<p>if the conditions give rise to a threat to <i>system security</i> that can be addressed with an ad hoc <i>operating schedule</i>:</p> <p>a) produce an ad hoc <i>operating schedule</i> by following Condition 6:</p> <p>b) notify <i>Market Participants</i> of the event and actions undertaken</p> <p>if the conditions give rise to a threat to <i>system security</i> that cannot be addressed with an ad hoc <i>operating schedule</i>:</p>

If due to:	AEMO will:	if this is not possible, or does not resolve matters:
		a) intervene and issue directions as required (refer to clauses 7.18.5 and 7.18.7) b) notify <i>Market Participants</i> of the event and actions undertaken

7.20. Operation of AEMO's LNG reserve

7.20.1. Scheduling AEMO's LNG reserve in response to a threat to system security

For the purposes of rule 285(3), AEMO may inject gas from AEMO's *LNG reserve* in response to a threat to *system security*, which may include for:

- (a) Locational or temporal issues (i.e. caused by surprise demand or loss of a Production Facility) requiring gas from the *LNG storage facility* to be injected, including AEMO's *LNG reserve* in the event *Market Participant's LNG injection bids* provide insufficient supply, to support pressures at the Dandenong City Gas in order to mitigate *curtailment*, or
- (b) Lack of supply for the entire DTS, in which case AEMO's *LNG reserve* will be scheduled to mitigate *curtailment* across the DTS.

The process, as required by rule 285(4)(a), for AEMO to inject gas from AEMO's *LNG reserve* in response to a threat to *system security* is:

- (a) AEMO may submit an *LNG injection bid* with a price of *VoLL* and a quantity up to and including AEMO's *LNG storage capacity*, as a standing bid for a period.
 Note: the *LNG injection bid* may be updated from time to time to reflect limitations at the *LNG storage facility* impacting AEMO's *LNG storage capacity* or AEMO's *LNG stock*.
- (b) AEMO will have an accreditation with a Maximum Hourly Quantity of 0 GJ/hr at the *LNG storage facility's system injection point* by default for each gas day.
- (c) If AEMO determines the daily quantity required to be injected from the *LNG storage facility* exceeds *Market Participant's aggregate LNG injection bid* quantity then AEMO will schedule gas from AEMO's *LNG reserve*.
- (d) If (c) applies, AEMO will adjust AEMO's *LNG reserve* accreditation's Maximum Hourly Quantity for the gas day to be a value determined in paragraph (c) over an hourly profile required to meet operational requirements, rounded up to whole GJ terms.

7.20.2. Scheduling AEMO's LNG reserve for disposal or relinquishment

AEMO may inject gas from AEMO's *LNG reserve* for disposal or relinquishment of *LNG stock* in accordance with the LNG Reserve Procedure.

The process, as required by rule 285(4)(a), for AEMO to inject gas from AEMO's *LNG reserve* for the purpose of disposal or relinquishment is:

- (a) AEMO determines the daily quantity from AEMO's *LNG reserve* for disposal or relinquishment as required by the LNG Reserve Procedures that must be injected into the DTS for the *gas day* or period of *gas days*.
- (b) AEMO may enter an injection bid for a *gas day* or period of *gas days* with:
 - (i) A bid step priced at \$0/GJ, as required by rule 286(5)(a), for a quantity equal to the *LNG stock* for disposal or relinquishment as determined in (a);

- (ii) And may also include a bid step priced at VoLL for a quantity equal to AEMO's *LNG storage capacity*.

Note: the *LNG injection bid* may be updated from time to time to reflect limitations at the *LNG storage facility* impacting AEMO's *LNG storage capacity* or AEMO's *LNG stock*.

- (c) AEMO will have an accreditation with a Maximum Hourly Quantity of 0 GJ/hr at the *LNG storage facility* by default for each *gas day*.
- (d) AEMO will adjust AEMO's *LNG reserve* accreditation's Maximum Hourly Quantity to be the *LNG stock* for disposal or relinquishment determined under the LNG Reserve Procedures, in whole GJ terms, in accordance with the *LNG storage facility* injection operating limits as defined in the *LNG Storage Provider* operating agreement.
- (e) AEMO will inform *Market Participants*, via SWN, of AEMO's *LNG injection bid* quantity, as soon as reasonably practicable after the *LNG injection bid* (in paragraph (b) above) and accreditation (in paragraph (d) above) has been entered in market systems.

7.20.3. Withdrawing gas into AEMO's LNG reserve

AEMO will arrange for refilling AEMO's *LNG reserve* in accordance with the process detailed in the LNG Reserve Procedures detailed in Chapter 6.

7.21. Administered prices

The *administered pricing procedures*, detailed in Chapter 3, specify the processes for determining administered pricing, including the *administered price cap* and AEMO's processes for declaring the commencement of and end of *administered price periods*.

7.22. Market notifications and communications

The *electronic communication procedures*, specify the processes for communication via the *electronic communication system*, along with *System Wide Notices (SWNs)*.

7.23. Compensation

Compensation can be sought under the Rules if:

- (a) AEMO *intervenes* in the Market, as per rule 343 of the NGR, then *Registered participants* may claim compensation under the *compensation procedures*.
- (b) there is an *unintended scheduling result*, under rule 217 of the NGR, then *Market Participants* may seek compensation, via the Dispute Resolution Panel process, under rule 226 of the NGR, which will be paid from the *Participant compensation fund*.

Version release history

Wholesale Market Operation Procedures (this document)

Version	Effective date	Summary of changes
0.1	1 May 2024	<p>AEMO is making amendments to these Wholesale Market Procedure to account for the AEMC’s “DWGM distribution connected facilities” and “Review into extending the regulatory frameworks to hydrogen and renewable gases” rule changes.</p> <p>AEMO is making this new Procedure consolidating the existing:</p> <ul style="list-style-type: none"> a) Wholesale Market Accreditation Procedures. b) Wholesale Market Administered Pricing Procedures. c) Wholesale Market Capacity Certificates Auction and Transfer Procedures. d) Wholesale Market LNG Reserve Procedures. e) Wholesale Market Gas Scheduling Procedures.

The version release history for each existing Procedure that forms the consolidated Procedures is summarised below. These Procedures will be superseded from 1 May 2024.

Accreditation Procedure

Version	Effective date	Summary of changes
4.0	8 Feb 2019	Amended for Capacity Trading and Day Ahead Auctions
3.0	29 Jul 2013	Amended Procedure into new template and incorporated new revocation of accreditation requirements.
2.0	15 Feb 2011	Final Version
1.1	24 Nov 2010	Appendix A and B (Accreditation Form) removed
1.0	1 Jul 2010	Rebranded and updated to reflect NGR

Administered Pricing Procedure

Version	Effective date	Summary of changes
4.0	1 July 2020	Updated Cumulative Price Threshold to \$1,400/GJ in line with 2018 Gas Market Parameter Review and adjusted Strategy 2 in Clause 5(d)
3.0	28 July 2017	<p>Addition of material curtailment trigger for an administered pricing period.</p> <p>Modification of RoLR trigger to include Major and Minor RoLR events.</p> <p>Changed to current procedure template.</p> <p>Duplication of sub-paragraph numbering in 6.3 corrected.</p>
2.1	4 May 2015	Updated to remove System Force Majeure.
2.0	24 Nov 2010	<p>Section 6.1 amended for reduction of cumulative price threshold (CPT) from \$3,700 to \$1,800.</p> <p>Changed to new procedure template.</p>
1.0	1 Jul 2010	Rebranded and updated to reflect NGR.

Capacity Certificates Auction and Transfer Procedures

Version	Effective date	Summary of changes
1.1	1 Jan 2023	<p>Minor editorial update to:</p> <ul style="list-style-type: none"> • Section 3.2 to clarify the process to setup authorised users. • Section 6.2 to clarify a DWGM SWN is sent under the Wholesale Market Electronic Communication procedures. • Section 9.9 to clarify that GST is applicable in invoices to successful Capacity Certificate Auction bidders.

Version	Effective date	Summary of changes
1.0	1 Jan 2023	First Issue. Note that these procedures will also apply for transitional capacity certificates auctions.

LNG Reserve Procedures

Version	Effective date	Summary of changes
1.0	1 March 2023	AEMO is making this new Procedure for the AEMC's DWGM interim LNG storage measures rule change.

Gas Scheduling Procedure

Version	Effective date	Summary of changes
4.2	1 Mar 2023	AEMO is implementing this Procedure change to comply with the AEMC's DWGM interim LNG storage measures rule change by adding a new chapter 6 Operation of AEMO's LNG Reserve to the Procedure. Minor editorial amendment to clarify that AEMO informs participant of threat instead of declaring a threat.
4.1	1 Jan 2023	Procedure update includes the removal of Zonal Scaling Factors and Adjusted Capacity Certificates which were removed from the updated tie breaking process.
4.0	1 Jan 2023	Procedure update includes: <ul style="list-style-type: none"> • Updated definitions • Remove references to authorised MDQ and AMDQ credits • Remove Market Participant Hedge Nomination, previously section 3.8.3 • Added tie breaking rights, see section 3.9 • Correction of minor typographic errors
3.0	31 Mar 2020	Procedure update includes: <ul style="list-style-type: none"> • Updated to new AEMO template (changes not tracked). • Incorporating withdrawal NFTC being applied in both PS and OS schedule. • Minor editorial to website location of Gas Emergency Protocol and in Chapter 7 that AEMO will send a SWN when a constraint (SDPC, DFPC, NFTC) is applied.
2.0	4 May 2015	Procedures updated to include; <ul style="list-style-type: none"> • Addition of Table 2: Acronyms Definitions • addition of abnormal scheduling conditions 7 and 8; • addition of Transmission Constraint (NFTC); • declaration of a Threat to System Security prior to publishing an ad hoc schedule; • addition of notification process for scheduling peak-shaving LNG during a standard schedule time as an operational response; • removal of the procurement of pipeline commissioning gas from Section 3.6.2; and • general updating to improve the overall clarity of the Procedures.
1.2	1 May 2012	Procedures updated to reflect that the hedge nomination and AMDQ nomination information is used for determining ITR and AMIQ, and that Market Participants can: <ul style="list-style-type: none"> • submit injection hedge nominations and agency injection hedge nominations by close proximity injection point; • update the submitted AMIQ profile in reschedules in accordance to the Rules; and • nominate and renominate authorised MDQ and AMDQ credit to system injection points via the new AMDQ nomination WebExchanger screen. Other changes include: <ul style="list-style-type: none"> • added clause 3.1A to provide the reference to Demand Override Methodology; and • changes made to improve the overall clarity of the Procedures.
1.1	1 April 2011	Updated to reflect supply and demand point constraints at system injection points with multiple supply sources, and directional flow point constraints applied to a group of selected pipeline points
1.0	1 July 2010	Rebranded and updated for NGR