

STTM EVENT: CONTINGENCY GAS TRIGGER – GAS DAY 23 JULY 2015 AT SYDNEY HUB

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DOCUMENT REF: STTM ER 15/003

VERSION: 1

DATE: 8 September 2015

FINAL

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Glossary

Terms or Abbreviations	Explanation
AEMO	Australian Energy Market Operator
AEST	Australian Eastern Standard Time
APA	APA Group
CG	Contingency gas
DWGM	Declared Wholesale Gas Market
EGP	Eastern Gas Pipeline
FO	STTM Facility Operators
JGN	Jemena Gas Networks
MIS	Market Information System
MOS	Market Operator Services
MSP	Moomba to Sydney Pipeline
NGR	National Gas Rules
STTM	Short Term Trading Market
TJ	Terajoule

Important Notice

Purpose

AEMO has prepared this report in accordance with rule 497 of the National Gas Rules (Rules), using information available as at the date of the report, unless otherwise specified.

Disclaimer

AEMO has made every effort to ensure the quality of the information in this report but cannot guarantee its accuracy or completeness. Any views expressed in this report are those of AEMO unless otherwise stated, and may be based on information given to AEMO by other persons.

Accordingly, to the maximum extent permitted by law, AEMO and its officers, employees and consultants involved in the preparation of this report:

- make no representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of the information in this report; and
- are not liable (whether by reason of negligence or otherwise) for any statements or representations in this report, or any omissions from it, or for any use or reliance on the information in it.

1 Summary and purpose

On 22 July 2015, Jemena Gas Networks (JGN) notified AEMO that it believed a contingency gas (CG) trigger event had occurred for gas day 23 July 2015. The CG trigger event was an event upstream of an STTM distribution system that could reasonably be expected to adversely affect the supply of natural gas to that STTM distribution system. The upstream incident was a valve closure 162 km south east of the Moomba Gas Plant (Moomba), isolating flows from Moomba into the Moomba to Sydney Pipeline (MSP), which could not be re-opened on the same day.

In accordance with the National Gas Rules (NGR), AEMO subsequently convened a number of assessment conferences and industry conferences to assess the likely impact of the CG trigger event and determine the nature and timing of any appropriate responses.

The event was closed at 16:37 on 23 July 2015, following confirmation from APA that the valve had been reopened and normal flow reinstated. The market was notified of AEMO's determination that no CG was required for gas day 23 July 2015 and future gas days.

As there was no CG scheduled there are no market pricing impacts to report.

Please note that all times in this report are expressed in Australian Eastern Standard Time (AEST).

2 Background

2.1 Event reporting requirements

Rule 497 of the National Gas Rules (NGR) requires AEMO to publish a report within 30 business days after the conclusion of a reviewable event.¹ In this instance, the reviewable event is a contingency gas trigger event² in respect of which AEMO published a notice under rule 441 .

The report must include:

- a description of the reviewable event;
- AEMO's assessment of –
 - the actions taken by Trading Participants, STTM facility operators, STTM distributors and AEMO in relation to the reviewable event;
 - the effect of the reviewable event on the operation of the STTM;
 - whether the provisions of Part 20 of the NGR (i.e. the rules relating to the STTM) were adequate to address the reviewable event; and
 - any other matter that AEMO considers relevant;

¹ Rule 497(2) of the NGR defines a reviewable event as:

- (a) an administered price cap state, administered ex post pricing state, market administered scheduling state or market administered settlement state, or a series of such states that relate to the same underlying event or circumstances; or
- (b) a contingency gas trigger event in respect of which AEMO publishes a notice under rule 441 and (if applicable) the scheduling and provision of contingency gas in relation to that contingency gas trigger event.

² Rule 440(1) of the NGR define four contingency gas trigger events:

- a) Pressure conditions are forecast to be under or over acceptable operating levels at a hub or a custody transfer point. Note that intraday pressure issues can arise even when supply and withdrawal is balanced over the day.
- b) An STTM facility is forecast to be unable to meet the normal seasonal levels of daily delivery capacity to the hub.
- c) An event, upstream of an STTM distribution system, could reasonably be expected to adversely affect the supply of natural gas to that STTM distribution system.
- d) Price taker bids in an ex ante market schedule or an outlook schedule issued by AEMO are not fully scheduled due to inadequate supply of natural gas to that hub on that gas day.

For the purposes of this event, the trigger under rule 440(1)(a) applied.

- in the case of a reviewable event which is a contingency gas trigger event, if applicable, AEMO's reasons for not scheduling any price steps that were:
 - contained in contingency gas offers and were below the high contingency gas price; or
 - contained in contingency gas bids and were above the low contingency gas price.

2.2 Review of Division 8 of the National Gas Rules

Rule 493 requires AEMO to review the operation of Division 8 of the NGR (Part 20, Division 8 of the NGR outlines the contingency gas arrangements for the STTM) after the first time contingency gas is scheduled in respect of a contingency gas trigger event. AEMO must undertake the review in accordance with the extended consultative procedure outlined in rule 9A of the NGR.

As no contingency gas was scheduled in this instance, a review of Division 8 is not required.

2.3 Contingency gas process

The NGR and STTM Procedures define a process that AEMO, as the market operator, must facilitate and administer whereby contingency gas can be scheduled. Contingency gas is a mechanism for balancing supply and withdrawals at a hub when both the ex ante market and bilateral intraday pipeline flow variations are unable (or not expected to be able) to match supply and demand within or over a gas day. Contingency gas provides pipeline operators and distributors with a means of avoiding, or at least minimising, the need to involuntarily curtail shippers supplying the hub or users at the hub.

In the STTM, facility operators are responsible for the operation of their respective facilities. As such, the contingency gas process, and AEMO's decision making in respect of the need for contingency gas to be scheduled, is dependent on input from trading participants and facility operators on supply/demand requirements and the physical operation and capabilities of the facilities on any given gas day. Therefore, the process by which contingency gas is scheduled is consultative, in which AEMO assesses the situation and leads a discussion with the industry on what response is needed and what is possible.

The contingency gas process includes the following sub-processes:

1. Trigger Event
2. Assessment Conference
3. Industry Conference
4. Contingency Gas Determination
5. Confirmation of Contingency Gas bids and offers
6. Scheduling Contingency Gas
7. Notification Requirements

Appendix A provides a summary of the contingency gas process.

3 Contingency gas trigger event

On 22 July 2015, Jemena Gas Networks (JGN) notified AEMO that it believed that a contingency gas (CG) trigger event had occurred for gas day 23 July 2015, under the National Gas Rule 440(1)(c). Rule 440(1)(c) relates to an event upstream of an STTM distribution system that could reasonably be expected to adversely affect the supply of natural gas to that STTM distribution system. The upstream incident was a valve closure 162 km south east of the Moomba Gas Plant (Moomba), isolating flows from Moomba into the Moomba to Sydney Pipeline (MSP), which could not be re-opened on the same day.

4 Event description

22 July 2015

At 10:47, APA advised AEMO that a Main Line Valve (MLV) had closed, isolating supply from Moomba into the Moomba Sydney Pipeline (MSP). APA's assessment was that the valve had failed in error as there was no indication that a second valve had closed. APA advised that deliveries for gas day 22 July were forecast to be met from Culcairn receipts and linepack with pressure at Wilton expected to remain above minimum. APA also advised that the issue was expected to be resolved later in the day (i.e. afternoon of 22 July). APA did not consider this to be a contingency gas trigger event, as supply to the STTM distribution system was expected to be maintained.

Between 15:00 and 16:00, APA provided AEMO an update on the incident and advised their shippers, Jemena Gas Networks (JGN) and the Department of Industry (DOI) of the valve failure and its decision to change Bulletin Board (BB) linepack adequacy flag to Amber. APA also noted that:

- due to an unforeseen weather event, repair crews were unable to get to site until 9:00 – 10:00 AEST on the following day with reinstatement estimated to take 1-2 hours.
- initial assessment indicated that supply would be met from linepack and Culcairn receipts and that the MSP would not reach critical linepack levels until after the evening peak on gas day 23 July.

At 17:16, JGN called AEMO seeking information from AEMO regarding the gas supply situation on the MSP as there had not been an update from APA regarding their capacity to supply the Sydney Hub since 15:30.

Following this call from JGN, AEMO sought updates from APA about supply for gas day 23 July stating that JGN had expressed concern about supply adequacy including the possibility of starting to plan curtailment. AEMO advised APA that updated flow and linepack information was needed. AEMO also phoned the EGP to confirm forecast spare capacity.

At 18:00, AEMO called JGN and discussed that an assessment conference would provide a forum to determine if adequate supply could be arranged. JGN advised AEMO that it considered that this event was a CG trigger event for gas day 23 July as it was believed that the event could restrict gas supply to the Sydney hub.

As JGN had advised AEMO that it believed a CG trigger event had occurred, in accordance with the NGR, AEMO commenced the CG process by publishing a notice of the occurrence of the CG trigger event and convening an assessment conference.

The first assessment conference was held at 19:00 with the STTM Facility Operators (FO) and STTM distributors. APA, having received final Shipper nominations, determined that there would be total shortfall of 70TJ for the Sydney hub for gas day 23 July should supply from Moomba not be resumed early on 23 July as expected. On a linear consumption this would have provided adequate supply until approximately 20:00 gas day 23 July at which time critical linepack levels would have been reached. This 70TJ shortfall for the Sydney hub for gas day 23 July was discussed during the assessment conference and it was determined that renominations on the

EGP and MSP (via Culcairn in the Declared Wholesale Gas Market (DWGM)) may alleviate the supply shortfall without the need to schedule CG.

An industry conference was held at 20:00 with Trading Participants (TP), STTM FOs and the STTM distributor. AEMO informed attendees that an assessment conference had identified a supply shortfall of 70TJ on the MSP and potential industry responses (by renominating flows on EGP and MSP (via Culcairn)) were sought.

A second assessment conference at 21:00 identified that the shortfall was reduced to 3TJ following renominations at that time. JGN advised that this shortfall was manageable, however it should be reassessed once APA had personnel onsite.

The 22:00 D+1 (gas day 23 July) schedule in the DWGM indicated that full export capacity at Culcairn was not bid and scheduled, which AEMO considered to be a material change in the expected flow to the MSP via Culcairn. This increased the shortfall at the Sydney hub from 3TJ to 13TJ, so a third assessment conference was called. At the assessment conference at 22:34, renominations on the EGP were determined to be sufficient to meet the 13TJ shortfall.

At 23:58, based on information provided at the assessment conferences, AEMO notified the market that contingency gas would not be required at the Sydney hub for gas day 23 July.

23 July 2015

A final assessment conference was held at 13:00, where APA informed attendees that the crew had arrived onsite and were equalising pressure via a bypass around the valve that had closed. Sufficient gas was being supplied to the Sydney hub and equalisation process is going well.

A final industry conference was held at 14:00, where AEMO informed attendees that the third assessment conference had concluded that currently no CG is required.

At 15:33, APA advised AEMO that the line valve had been fully opened and flow from Moomba into MSP had resumed.

At 16:27, AEMO notified the market that the CG event for gas day 23 July was now closed following confirmation from APA that the valve had been reinstated.

For a detailed chronology of the event, refer to Appendix B.

5 AEMO's assessment

5.1 Actions taken by participants, facility operators, and AEMO

APA's efforts to remedy the valve closure were hampered by bad weather, which was beyond their control.

APA's advice to AEMO at 10:47 that the valve had closed and they were taking steps to remedy the situation with the expectation that the valve would be reopened the same day. This was APA's 'heads up' to AEMO in case the situation worsened and the contingency gas process needed to be activated. There was a reasonable expectation at that time that the situation would be resolved the same day.

APA updated AEMO at 14:25 that while bad weather had delayed the arrival on site, APA still expected the situation to be resolved on the same day.

Between 15:00 and 15:30: APA became aware that the bad weather would delay the arrival of the helicopter on site until the morning of next day; and advised its shippers, JGN, AEMO and the Commonwealth Department of Industry. APA also changed the linepack adequacy flag to amber on the Gas Bulletin Board. APA's assessment of nominations for gas day 23 July at the time was that critical pipeline linepack levels would not be reached until after the evening peak for gas day 23 July. APA advised that it considered that there was no need to call a CG trigger event as it did not believe that supply of natural gas to the distribution system was threatened; it expected that

supply would be restored in time. APA noted that while this could change when more accurate information became made available after crews reached site, this was not expected.

At 15:30, not all participants at the Sydney hub had been notified of the situation. Some participants may have been aware of the situation by the change of the linepack adequacy on the gas bulletin board. Although not required under the NGR or the STTM Procedures, APA could have requested that AEMO issue a market notice³ advising all Sydney hub participants of the situation ensuring information symmetry. In this case, the impact of not issuing the market notice is likely to have been minimal, given the ex-ante market price and schedules were published earlier, and there was no action a trading participant could take until more certain information became available. Once the CG process began, all participants at the Sydney hub were informed and were able to take action to resolve the situation.

At 18:00, JGN advised AEMO that a CG trigger event had occurred. JGN reached this conclusion on the basis of its own supply/demand balance assessment – noting that forecast nominations on the MSP for gas day 23 July would not be met without the valve being reopened. Notwithstanding APA's expectations that the valve would be reopened in time, JGN expressed concerns that there was a risk that there could be further delays in opening the valve and restoring supply to MSP from Moomba and deliveries to Sydney.

AEMO notes that there were differing views on whether a CG trigger event had occurred at any point in time. The view or belief is formed using the information available at the time and reasonable expectations of what the downstream impacts are from that upstream event. If parties do not have a common understanding of risks or uncertainties, nor the same information, it follows that differing views would emerge.

The uncertainties present were:

- There was no certainty of when APA would reach site the next day and how long it would take to reopen the valve (after equalising pressures across it) to restore full supply.
- There was no knowledge of what spare operational capacity was available on EGP and how much could be utilised if there was a delay in opening the valve the next day.

JGN's assessment of risk of a supply/demand imbalance led it to believe that there was a material risk of supply to the distribution network and that a CG trigger event had occurred. By initiating the CG process, JGN provided AEMO and other facility operators the opportunity to discuss the supply/demand situation and to share information required to fully assess the event. An additional benefit of calling the CG trigger event at this point was that it provided time for a response through renominations instead of scheduling CG. This may not have been possible if the CG process had been delayed until the next day.

At the 19:00 assessment conference and subsequent conferences all parties acted reasonably in considering the event and exploring options and alternatives to scheduling contingency gas. As a result, participants were able to renominate supply from the MSP to other facilities negating the need for contingency gas to be scheduled.

AEMO market communications operated as expected:

- MIS Report INT 666 - Market Notice Reports were published advising that: a contingency gas trigger event had occurred, when industry conference were to be held, and the contingency gas determination. The determination was also published on the EMO website⁴.

³ Refer to "Instructions for Raising a Facility Operator Market Notice, available at http://www.aemo.com.au/Gas/Policies-and-Procedures/Short-Term-Trading-Markets/~media/Files/Other/retailgas/Instructions_for_raising_Facility_Operator_Market_Notices1.ashx. This was a voluntary process agreed at the consultative forum meeting in May 2012.

⁴ The contingency gas determination can be found at: <http://www.aemo.com.au/Gas/Policies-and-Procedures/Short-Term-Trading-Markets/Contingency-Gas>

- SMS and/or emails were also sent to participants advising them of the market notice content.
- Whispir messaging service was used to advise (via email and SMS) contingency gas contact(s) of the facility operators and the distributor of contingency gas assessment conferences.

5.2 The effect of the reviewable event on the operation of the STTM

As there was no contingency gas scheduled, there are no market pricing impacts to report.

However, shippers who renominated supply from the MSP to other facilities to balance supply and demand then faced possible deviation charges. A Market Schedule Variation (MSV) deals with the impacts of deviations from renominations. Although the volumes in the MSV transactions for gas day 23 July were high compared to other days in that week, the variation charges were comparable.

5.3 Whether the provisions of Part 20 of the NGR were adequate to address the reviewable event.

In accordance with Division 8 of the NGR (contingency gas), the contingency gas process was initiated as a result of the occurrence of a trigger event and concluded with the assessment conference and subsequent notification that no contingency gas was required.

To the extent that the exercise of Division 8 was limited on this occasion, there is nothing to suggest that the provisions of Division 8 or Part 20 of the NGR more generally, are not adequate.

5.4 Other matters

AEMO noted that AGL did not provide separate representative as a STTM Facility Operator and STTM Shipper. On this occasion, the same contingency gas contact attended both the Assessment Conferences and Industry Conferences which may cause a conflict of interest. This raises an issue more broadly in relation to facility operators sharing common personnel for some or all areas of the corporate group's gas market operations.

As a result, a facility operator's representative at a contingency gas assessment conference may also be involved in the trading activities of a related business, which may or may not be carried out by a separate legal entity. The information provided by parties and subsequent discussions at the assessment conference may provide a commercial advantage to a trading participant if it is known only by that trading participant.

This raises a question of whether it is appropriate for an organisation to send the same contingency gas contact to both the assessment conferences and industry conferences as well as whether there should be a specific requirement of confidentiality imposed on assessment conference attendees. AEMO will raise this matter with the Gas Wholesale Consultative Forum for discussion.

AEMO also notes that communications and conferences related to the CG trigger event are not recorded, making review of the actions difficult when there are discrepancies between individual accounts of events. AEMO will explore making all communications recorded with participants.

While there were indications that supply/demand conditions in the DWGM were tightening for gas day 23 July as a result of Culcairn exports based on the D+1 schedules at 16:00 and 12:00 midnight on 22 July, provisional market prices were \$5.93/GJ and \$8.50/GJ respectively. Any participant trading only in the DWGM is unlikely to have been aware of the reasons for this and may not have been able to minimise its trading risk. In discussions after the event, participants have indicated they wish to be informed of any event impacting one gas market which may also have an impact on other gas markets. AEMO is exploring options to accommodate this.

It was observed that the contingency gas event did not impact the operation of the STTM but it did however impact the market price in the DWGM as participants were redirecting gas to Sydney via Culcairn and Longford. At the 06:00 schedule on 23 July, the price was set at \$9.75/GJ due to market participants renominating quantities to supply additional gas to the Sydney STTM hub. At the 10:00 and 14:00 schedules the price remained high, at \$10.55/GJ and \$9.95/GJ respectively. At the 18:00 schedule, the price decreased significantly to \$3.59/GJ once the CG event in Sydney STTM hub was declared closed.

5.5 AEMO's reasons for not scheduling price steps within a contingency gas bid or offer

As no contingency gas was scheduled in this instance, this section is not applicable.

Appendix A: Summary of Contingency Gas Process

This section provides a high level summary of the contingency gas process. For further information, please refer to Part 20, Division 8 of the NGR and associated provisions in the STTM Procedures. AEMO's technical guide⁵ also provides an overview of the contingency gas process.

1. *Trigger Event*—the NGR prescribed four contingency gas trigger events (see rule 441).

STTM facility operators, STTM distributors, STTM shippers, or STTM users must notify AEMO of trigger events they become aware of as soon as practicable. If AEMO is notified of a trigger event, or AEMO considers an event has occurred, AEMO issues a notice advising the market.

The occurrence of a trigger event does not mean that contingency gas will be scheduled. Rather, it triggers an assessment process which may or may not lead to contingency gas being scheduled. If required, AEMO will call on the contingency gas bids and contingency gas offers submitted the day before the gas day, until the requirement is met or until the available contingency gas is exhausted.

2. *Assessment Conference*—if AEMO is notified of a trigger event, or AEMO considers an event has occurred, AEMO is required to convene an Assessment Conference with the relevant STTM distributor, STTM facility operators, and any other person whose attendance AEMO considers reasonably necessary.

At the assessment conference, information about the trigger event is exchanged, and an assessment is made of the operational requirements for the STTM distribution network and STTM facilities for the affected gas days. An assessment is also made as to whether contingency gas is likely be needed, and if so, what quantity of contingency gas might be required, and the location and timing for delivery of that contingency gas.

3. *Industry Conference*: If the assessment conference indicates that CG is required, AEMO can convene a wider industry conference to discuss the trigger event and possible responses to it. The outcomes of the CG assessment conference assessments will be available at this conference. Trading participants may discuss commercial response to the trigger event with AEMO. However, if AEMO considers contingency gas is urgently required, it may not have time to convene the industry conference before the time by which contingency gas needs to be called. In this case, AEMO may go straight to step 4.
4. *Contingency Gas Determination*: Following the conferences, AEMO must determine the requirement for contingency gas, if any, based on the information provided to it. This will include the location and timing of when contingency gas will be required.
5. *Confirmation of Contingency Gas bids and offers*: AEMO must carry out a confirmation process with trading participants who submitted contingency gas offers or bids to confirm the actual quantity of contingency gas they expect to be able to provide within the required time. The available quantity may be more or less than the submission. The trading participant can update the total quantity available, but the offer or bid price steps cannot be changed. Price steps will be marked as unavailable if the available quantity is reduced, or the last price step will be extended if the available quantity is increased.
6. *Scheduling Contingency Gas*: Subject to the information determined in step 5, AEMO then proceeds to schedule contingency gas. To rectify a supply shortfall, AEMO calls contingency gas offers in order of increasing cost. To rectify a supply surplus, AEMO calls contingency gas bids in order of decreasing price. Quantities called will not exceed the quantities confirmed in step 5. All contingency gas offers or bids called are recorded by AEMO for settlement purposes.

⁵ Technical Guide to the STTM version 3.3, AEMO, 14 December 2011.

The technical guide can be found on AEMO's website at: <http://aemo.com.au/STTM/sttmgen.html>

7. AEMO continues to monitor the situation and liaise with participants until the situation is rectified. This response does not preclude the need for involuntary curtailment. AEMO may also request participants to reduce their response; however, this will be voluntary because responses may already be committed. If a provider is able to reduce its response, then AEMO will issue scheduling instructions and reduce the quantity of contingency gas called for settlement purposes.

Appendix B: Detailed Chronology of the Contingency Gas Trigger Event

Gas day 22 July 2015

Comments from	Time (AEST) (approximate)	Event/Action
22 July 2015		
APA	2:00	APA Control room identified a suspected valve closure on the MSP at MW162 (Binerah Downs) 162 km from Moomba. MSP receipts at Moomba were diverted into SWQP. Helicopter despatched to Cobar to transport field technicians to site with an ETA of 13:30.
AEMO & APA	10:47	APA called AEMO and advised that there is an issue on the MSP. The issue is that a Main Line Valve (MLV) has closed. However there was no indication that the second MLV had closed. Therefore APA believed this valve has closed in error. The closure of this valve was isolating supply from Moomba into the Moomba Sydney Pipeline (MSP). Crew despatched by helicopter and due to arrive on site by 13:30. Reinstatement of flow through bypass or re-opening of valve considered to be the likely remedy once crew arrive on site. Deliveries for gas day 22 July were forecast to be met from Culcairn receipts and linepack with pressure at Wilton expected to remain well above minimum.
APA	14:25	Advised AEMO that helicopter has been delayed due to bad weather and anticipated arrival on site now expected at 15:30 - 16:00.
APA	15:00	Received advice from field crew that helicopter will not get to site today due to bad weather and has returned to Cobar, with plans to continue to site first light on Thursday, gas day 23 July.
APA	15:03	Changed Bulletin Board line pack adequacy flag to Amber with the following information: Suspected line valve closure between Moomba and Bulla Park, investigation pending.
APA	15:00 – 15:30	Advised shippers, JGN, AEMO and DOI of incident and decision to change BB to Amber. At this stage supply for gas day 22 July was forecast to be met and initial assessment of nominations for gas day 23 indicated that supply would be met from linepack and Culcairn receipts until field crews reached site with sufficient time to call CG if situation on site was not as expected and reinstatement was assessed to take longer than anticipated. Assessment showed pipeline would not reach critical linepack levels until after the evening peak on gas day 23 and crews were expected to arrive on site by 9:00-10:00 with reinstatement estimated to take 1-2 hours. Decision was made to not call a CG trigger event until more accurate information was available when crews reached site.
JGN and AEMO	16:37	JGN sought advice from AEMO in relation to the contingency gas events and what criteria must be met to trigger such an event. AEMO provided JGN with the necessary information via email.
APA	17:00	Arrangements put in place for a second helicopter and crew to be despatched from Moomba at first light on 23rd.

Comments from	Time (AEST) (approximate)	Event/Action
JGN	17:05	There were several discussions with key Jemena managers in relation to load shedding and contingency gas.
JGN and AEMO	17:16	Jemena formed Supply Management Team (SMT) There was no information/update from APA regarding their capacity to supply the Sydney Hub. Capacity planning confirmed that the supply issue on the MSP would cause an imbalance in the Sydney Hub, and forecast nominations for the 23rd July would not be met. It was decided by the SMT that criteria under NGR 440(c) had been met and AEMO was contacted via their 24/7 contingency gas phone number to enquire about the gas supply situation on MSP which may lead to a CG event. AEMO responded that they will investigate and call Jemena back at 18:00 AEST.
AEMO	17:30	AEMO sought updates from APA about supply for gas day 23 July stating that JGN had expressed concern about supply adequacy including the possibility of starting to plan curtailment and JGN were considering this to be a CG event, AEMO advised APA that updated flow and linepack information was needed.
AEMO	17:35	AEMO called Jemena EGP to seek information on current and predicted capacity on the Eastern Gas Pipeline (EGP) which Jemena EGP provided.
AEMO	17:54	AEMO called APA for additional information and update. APA advised that the situation had not changed from earlier advice. AEMO advised that MSP flow information was required including what flows could be supported on 23 July
AEMO	18:00	AEMO called JGN and discussed that an assessment conference would provide a forum to determine if adequate supply could be arranged. JGN advised AEMO that it considered that this event was a CG trigger event for gas day 23 July as it was believed that the event could restrict gas supply to the Sydney hub. As a trigger event for CG had occurred, AEMO commenced the CG process.
AEMO	18:30	AEMO notified the STTM FOs and STTM distributor at the Sydney hub via Whispir messaging service (using SMS and email) that an AC will be held at 19:00 AEST.
AEMO	18:46	AEMO notified the market that a CG trigger event had occurred via a market notice and also via email and SMS.
AEMO	19:00	At the AC #1, JGN advised that they were concerned about meeting schedule nominations for gas day 23 July. They sought updates from STTM Pipeline Operators and whether they need to enact curtailment process. APA advised that crew is expected to arrive onsite at 10:00 AEST on 23 July and they expect to be able to make a full assessment of the issue and that a full reinstatement would be expected in 2 hours. APA provided linepack conditions, total demand, Culcairn injection and availability of linepack depletion on the MSP. Jemena EGP provided their linepack conditions, current nominations for gas day 23 July and the potential to flow additional capacity on the EGP. AGL provided their Rosalind Park production and noted that they would be

Comments from	Time (AEST) (approximate)	Event/Action
		<p>able to renominate to alleviate the issue.</p> <p>The AC identified that a 70TJ of shortfall may occur in the Sydney hub for gas day 23 July 2013.</p> <p>The AC identified that renominations on the Eastern Gas Pipeline (EGP) and MSP (via Culcairn) may alleviate the issue for gas day 23 July 2015; therefore an Industry Conference (IC) was called.</p>
AEMO	19:28	AEMO notified the market using email and SMS that an Industry Conference (IC) was to be held at 20:00 AEST.
AEMO	20:00	<p>At the IC, AEMO noted that AGL did not have a separate representation as a STTM FO and STTM Shipper.</p> <p>AEMO informed attendees that an AC was held, and the AC determined a supply shortfall of 70TJ on the MSP to the SYD hub.</p> <p>AEMO seek industry response from Trading Participants, by renominating flows on EGP and MSP (via. Culcairn).</p> <p>APA provided an overview of the incident.</p> <p>APA and Jemena EGP provided the same information as the provided in the assessment conference.</p> <p>AEMO provided timeline that renominations to EGP and MSP (via. Culcairn), to be made by 21:00.</p> <p>Trading Participants indicated that they would renominate to EGP and MSP (via Culcairn).</p> <p>AEMO to convene an Assessment Conference at 21:15 AEST for STTM FO and STTM Distributors to assess renominations and gas supply/demand balance.</p>
AEMO	20:38	AEMO notified the STTM FO and Distributors via Whispir messaging service (using SMS and email) that an AC will be held at 21:15.
AEMO	21:15	<p>At the AC #2, APA and Jemena EGP provided update on renominations on MSP (via. Culcairn) and EGP respectively.</p> <p>Following renominations, shortfall was reduced to 3TJ, noting Jemena EGP is expecting further renominations within the next 30 minutes.</p> <p>AEMO asked Jemena Gas Networks (JGN) with the revised shortfall, whether they believe CG will be required, at this stage.</p> <p>Jemena Gas Networks replied that the 3TJ shortfall is manageable, however believe reassessment should be made once APA have personnel onsite.</p>
AEMO	22:00	<p>The D+1 (gas day 23 July 2015) schedule in DWGM, indicated flows at Culcairn into NSW of 109TJ, compared to the expected 120TJ from Assessment Conference #2.</p> <p>AEMO's enquiry indicated a bid was placed at 05:46 AEST on 22 July (i.e. prior to the trigger event).</p>
AEMO	22:15	<p>AEMO confirmed DWGM D+1 schedule injection and withdrawal bids at Culcairn.</p> <p>This information leads to a material change for the CG event changing the</p>

Comments from	Time (AEST) (approximate)	Event/Action
		<p>shortfall from 3TJ to 13TJ.</p> <p>AEMO concluded that this is a material change to the supply balance. Therefore, under Rule 442(4), AEMO confirms that an additional AC will be held.</p>
AEMO	22:19	<p>AEMO called Jemena EGP seeking updates on renomination on EGP.</p> <p>Jemena EGP informed AEMO that EGP total renominations were 60TJ (now up to full capacity), with an extra 45TJ since Assessment Conference #2.</p> <p>AEMO called APA to advise that the flow from Victoria into the MSP had been reduced at the D+1 schedule.</p>
AEMO	22:19	AEMO notified the facility operator and distributors via Whispir messaging service (using SMS and email) that an AC will be held at 22:45 AEST.
AEMO	22:45	<p>At the Assessment Conference #3, AEMO informed attendees that there has been a material change, due to the schedule outcome in DWGM at the 00:00 AEST D+1 for gas day 23 July 2015, published at 22:26 AEST 22 July 2015.</p> <p>Jemena EGP informed attendees that renomination on EGP, as at 22:45 AEST was 60TJ.</p> <p>AEMO summarised revised supply demand balance of 0TJ shortfall, and MSP may not reach minimum linepack target.</p> <p>AEMO sought counterviews on proceeding with a determination that no CG was required for gas day 23 July 2015 and confirmed another AC will be held at 12:00 AEST 23 July 2015 with updates from APA.</p> <p>With no further comments or questions were received, AEMO advised they will proceed with issuing the determination to the market.</p>
AEMO	23:58	AEMO notified the market, via a market notice and also via email and SMS, that contingency gas will not be required at SYD hub for gas day 23 July 2015.

Gas day 23 July 2015

Comments from	Time (AEST) (approximate)	Event/Action
23 July 2015		
AEMO	9:10	<p>APA advised AEMO that there were delays getting to site, due to fog at Moomba and next attempt would be made at 10:30 AEST with flight time of 2h, more information should be available at 13:00 AEST.</p> <p>Both parties agreed that the AC should be delayed to about 13:00 AEST due to delays to APA reaching site (so there would not be sufficient information).</p>
AEMO	11:26	AEMO notified the facility operator and distributors at the Sydney hub via Whispir messaging service (using SMS and email) that the proposed Assessment Conference at 12:00 AEST will be delayed until about 13:00

Comments from	Time (AEST) (approximate)	Event/Action
		AEST
APA	12:05	Crew arrive on site and asses situation as a single valve closure, reinstatement work is commenced.
AEMO	12:19	APA called AEMO to advise that APA personnel had arrived on site and had opened the bypass valve to start reducing the pressure drop across the main isolation valve so that it could be opened. APA advised that pressure should be equalised in 10 minutes.
AEMO	12:35	AEMO notified the facility operator and distributors at the Sydney hub via Whispir messaging service (using SMS and email) that an Assessment Conference will be held at 13:00 AEST.
AEMO	13:00	At the AC #4, APA provided a status update that personnel onsite are equalising pressure across the valve that had closed. Estimated time to reopen valve is 13:15 to 13:30 AEST. Jemena EGP advised that EGP is flowing gas as per renominations, with no foreseeable issues. AGL advised that Camden (Rosalind Park) is flowing gas, and that Newcastle Gas Storage (NGS) would not be flowing gas. JGN sought estimated time/confirmation from APA that valve will open, and whether personnel will remain on site. APA confirmed that valve is expected to be opened by 13:15/30 AEST, and personnel will remain onsite until further notice. AEMO summarised and concluded that sufficient gas is being supplied to the Sydney hub, and equalisation process is going well. AEMO will hold another Industry Conference at 14:00 AEST to advise the market on current situation, and that no CG will be required for 23 July 2015 or future gas days.
AEMO	13:13	AEMO notified the market using email and SMS that an Industry Conference was to be held at 14:00 AEST.
AEMO	14:00	AEMO informed attendees that an AC was held at 13:00 AEST, and concluded that currently no CG is required. APA provided attendees a status update and informed Participants that the issue on MSP is being resolved, and that onsite personnel are in the process of opening the line valve. APA expect to meet scheduled flows for gas day 23 July 2015 and expect normal operations for future gas days. APA advised that they will update the Gas Bulletin Board (GBB) linepack flag to GREEN once valve is fully opened. Jemena EGP confirmed EGP is flowing as scheduled. AGL confirmed Camden is flowing as scheduled. JGN confirmed they have no concerns as nominations are being met. AEMO proposed CLOSURE of CG event, upon confirmation from APA that valve is fully opened. AEMO advised attendees that a market notice will be sent to advise of event status upon confirmation from APA and GBB LP flag update.

Comments from	Time (AEST) (approximate)	Event/Action
AEMO	15:33	APA advised via email to AEMO that the line valve has been opened and flow from Moomba into MSP has commenced. AEMO confirmed that GBB LP flag for MSP has been updated to GREEN. AEMO make a revised CG determination that CG event is CLOSED.
AEMO	16:27	AEMO notified the market using email and SMS that the CG event for gas day 23 July 2015 is now closed.