



Market Administered Scheduling State - Adelaide Hub

February 2019

Short Term Trading Market – Reviewable Event

Report on the reviewable event that occurred in the Adelaide Short Term Trading Market
hub for gas day 31 December 2018

Important notice

PURPOSE

AEMO has prepared this report pursuant to clause 497 of the National Gas Rules. This publication has been prepared by AEMO using information available at 31 January 2019. Information made available after this date may have been included in this publication where practical.

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VERSION CONTROL

Version	Release date	Changes
1	13/02/2019	Final Report

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1. Description

On 30 December 2018 AEMO's systems were unable to create a gas schedule for the Adelaide Hub in the Short Term Trading Market (STTM) for gas day 31 December 2018. This required AEMO to apply administered pricing and to set the gas schedules for settlements purposes equal to the actual gas flows on the day.

These schedules are used by Trading Participants to determine how much gas to nominate to pipelines. In this situation National Gas Rule (NGR) 430 provides that AEMO must determine that a market administered scheduling state apply in the relevant hub for that gas day. The cause of this incident (failure to publish schedules) was due to a system error preventing the publication of schedules, resulting in an administered price.

As required by NGR 430, AEMO set the following parameters for the Adelaide hub for gas day 31 December 2018:

- the ex ante market price and ex post imbalance price to \$10.8711/GJ, being the 30 day average price preceding the incident;
- the capacity price for each STTM facility to \$0/GJ;
- the pipeline flow direction constraint price for each STTM pipeline to \$0/GJ; and
- the scheduled quantity is set to the actual flow for each Trading Participant, after the gas day, to ensure no deviation payments or deviation charges applied for that gas day.

A detailed chronology of events is included in A1.

2. Assessment

This is the first time in the operation of the STTM that there has been a market administered ex ante scheduling state (i.e. a failure to publish a valid ex ante schedule). An assessment of the systems and processes has highlighted there are areas that can be improved to reduce the likelihood of this incident being repeated. The cost of any change needs to be weighed up against the potential benefit. The following table provides a summary of the assessment.

Stakeholder	Category	Description	Recommendation
AEMO	Process	AEMO process did not provide sufficient instructions for the manual end dating of a complex registered facility service.	AEMO to review internal processes.
AEMO	Rules	Any deviations on the gas day are set to zero, resulting in exposure to MOS payments being minimised.	No further action at this stage, given the low likelihood of an incident such as this reoccurring.
AEMO	Systems	AEMO did not publish schedules as required by NGR 416 and 417, due to a failure of market systems to	AEMO to review alerts.

Stakeholder	Category	Description	Recommendation
		adequately create alerts for the invalid D-3, D-2 or ex ante schedules.	
AEMO	Systems	AEMO systems should not allow a duplicate entry to be created in the database (violating a primary key)	AEMO to review the logic within the manual entry system. Longer term, an assessment of the complexity of registered facility services and trading rights should be conducted.
AEMO	Systems	The INT651 – Ex Ante Market Price reports as detailed in the STTM Reports Specification indicates the 'schedule_identifier' field as being mandatory. This conflicts with the 'administered_price_period' field which can only be set to "Y" if there is no schedule.	Update the STTM Reports Specification and review any other impacted reports.
AEMO	Systems/ Process	The creation of schedules, in an administered state, is a manual process.	This should be reviewed as to whether a more systemised process should be implemented.
Market participants	Process	Participants were unclear as to what should happen in a market administered scheduling state.	Participants should review adequacy of processes to ensure ad-hoc processes are covered.
Market Participants	Systems/ Process	Schedules were not published for D-3 and D-2, indicating that participants may not be aware of these or are not using these schedules.	Participants systems and processes should be reviewed.

3. Market impact

The ex ante, and consequently the ex post prices, were set to \$10.8711/GJ based on the previous 30 day average ex ante prices. Given the time of year (with low demand due to the Christmas break), it is likely that the use of the 30 day average has resulted in a higher ex ante price than otherwise would have been the case. This reflects the higher prices seen in the earlier part of December 2018.

While the deviations were set to zero, the Market Operator Service (MOS) was relatively high (compared with other days in December 2018) with a quantity of 9.663 TJ, and a MOS Service Payment of \$19,012. The MOS quantity required was decrease, indicating that more gas than was needed was scheduled to be flowed by Trading Participants.

4. Conclusion

AEMO considers the provisions of Part 20 of the NGR were adequate, and the effect on the operation of the STTM were minimal. This was an unusual event, however, AEMO systems should have alerted to the absence of schedules and a system change will be implemented.

A1. Chronology

Date/ Time	Details
21 Dec 2018	STTM facility operator confirms Trading Participant's request to end date contracts, noting the change needed to be implemented by 28 December 2018. The change is scheduled for Monday 24 December 2018.
24 Dec 2018	AEMO end dates Trading Participant's registered facility service and trading rights
28 Dec 2018 15:00	<p>The D-3 schedule (Schedule ID 36200) for gas day 31 December 2018 was run at 15:00 market time and automatically approved. This schedule recorded a D-3 provisional price of \$10.3690/GJ but failed to record trading right quantities to the database.</p> <p>This schedule was determined to be invalid on 30 December 2018.</p> <p>AEMO published an INT702 – Trading Participant Provision Schedule report for gas day 31 December 2018 that did not include any quantities for the Adelaide hub affiliated trading rights.</p> <p>There were no error messages for this scheduled identified in AEMO systems and no alarms were generated.</p>
29 Dec 2018 15:00	<p>The D-2 schedule (Schedule ID 36210) for gas day 31 December 2018 was run at 15:00 market time and automatically approved. This schedule recorded a D-2 provisional price of \$9.8699/GJ but failed to record trading right quantities to the database.</p> <p>This schedule was determined to be invalid on 30 December 2018.</p> <p>AEMO published an INT702 – Trading Participant Provision Schedule report for gas day 31 December 2018 that did not include any quantities for the Adelaide hub affiliated trading rights.</p> <p>There were no errors for this scheduled identified in AEMO systems and no alarms were generated.</p>
30 Dec 2018 13:00	<p>The ex ante market schedule (Schedule ID 36218) for gas day 31 December 2018 was published at 13:00 market time and automatically approved. This schedule recorded an ex ante price of \$8.9690/GJ but failed to record trading right quantities to the database.</p> <p>AEMO published an INT701 - Trading Participant Ex Ante Schedule report for gas day 31 December 2018 that did not include any quantities for the Adelaide hub affiliated trading rights.</p> <p>There were no errors for this schedule identified in AEMO systems and no alarms were generated by market systems.</p>
30 December 2018 14:00	Several participants log calls with AEMO's Support Hub and AEMO's STTM On-Call. The scheduling outcome is investigated by IT Gas On-Call and Gas System Operations (GSO) STTM On-Call.
30 Dec 2018	AEMO internal conference call was held by the AEMO Emergency Coordination Team to review and discuss the incident. Meeting concluded with an agreement that a

Date/ Time	Details
16:30	market administered scheduling state was required and that investigations were to continue.
30 Dec 2018 17:07	Market administered scheduling state entered into market systems for the Adelaide Hub.
30 Dec 2018 17:18	Market notice sent to participants: <i>"Under NGR 430, AEMO has determined that a market administered scheduling state applies at the ADL hub for gas day 31/12/18. The ex-ante price is set to \$10.8711/GJ. The administered state has arisen because no valid ex ante market schedule and no valid provisional schedules were issued for the ADL hub for gas day 31/12/18. Ex ante and ex post imbalance prices are set based on the 30-day rolling average of ex ante prices, including ex ante prices valid for the previous gas day D-1. The market will be updated with any developments."</i>
30 Dec 2018 17:20	GSO and Gas Applications teams identified that there were duplicate copies of log data
30 Dec 2018 18:37	Expedited IT Change implemented by the Gas Applications team to remove the duplicate primary key violation for the duplicate logs.
30 Dec 2018 19:17	Data replicated in UAT environment and a fix is successfully tested with test schedules. AEMO IT Duty Manager notified of outcome.
31 Dec 2018	Prudential team prepares to create schedule based on facility operator allocations for gas day 31 December 2018. GSO tested processes for the ex post schedule to run on 1 January 2019. GSO continued to respond to queries from market participants about gas nominations and settlement during a market administered scheduling state.
1 Jan 2019 10:50 to 11:07	Auto run and approve functionality in market systems is turned off (10:50) by GSO and ex post schedules run (11:00) and approved manually. <ul style="list-style-type: none"> - Sydney Hub Ex Post schedule (Schedule ID 36242) manually approved. - Adelaide Hub Ex Post schedule (Schedule ID 36243) manually disapproved. - Administered Ex Post Market State for the Adelaide hub for gas day 31 December 2018.
1 Jan 2019 11:19	Market notice sent to participants: <i>"Under NGR 430(2)(b), AEMO has determined that an administered ex post pricing state applies at the ADL hub for gas day 31/12/18. This administered ex post pricing state has resulted from the Market Administered Scheduling State for gas day 31/12/18. The ex post price is set equal to the ex-ante price of \$10.8711 /GJ. The administered ex post pricing state for the hub applies for the entire gas day."</i>

Date/ Time	Details
	<p><i>The AEMO preliminary investigation has been conducted and with the likely cause identified, no further administered market states should be required. AEMO will produce a reviewable event report in accordance with NGR 497."</i></p> <p>Note: This notice incorrectly stated that an administered ex post pricing state had occurred. The market administered scheduling state determines the ex post price as being equal to the ex ante price.</p>
<p>1 Jan 2019 11:30</p>	<p>Auto run and approval functionality in market systems is turned on.</p>
<p>1 Jan 2019 15:00</p>	<p>Market system automatically runs a delayed Ex Post schedule (Schedule ID 36252) for the Adelaide Hub. A priority 1 alarm activates to ensure that the schedule is not approved.</p>
<p>1 Jan 2019 15:17</p>	<p>Adelaide delayed Ex Post schedule rejected manually by GSO.</p> <p>Auto run and approval functionality in SPI is turned back on so that Brisbane provisional schedules are produced normally.</p> <p>GSO continues to monitor schedule production for the rest of the day.</p>