

STTM EVENT REPORT - GAS DAY 31 DECEMBER 2011 AT BRISBANE HUB

PREPARED BY: Market Performance

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Glossary

Terms or Abbreviations	Explanation
AEMO	Australian Energy Market Operator
AEST	Australian Eastern Standard Time
APA	APA Group
MOS	Market operator services
MIS	Market Information System
MSD	MOS step allocation data (daily file). Note MSD files are only submitted for pipelines.
NGR	National Gas Rules
PAD	Facility Allocation data (daily file). Note PAD files are submitted for all facilities.
RBP	Roma to Brisbane Pipeline
STTM	Short Term Trading Market

1 Summary and purpose

On 1 January 2012, determination of the ex post imbalance price for gas day 31 December 2011 at the Short Term Trading Market (STTM) Brisbane hub was delayed from 1:30pm to 5:30pm. The determination of the ex post imbalance price was delayed because the APA Group was unable to submit the STTM facility allocation notice for the Roma to Brisbane Pipeline (RBP) by the 12:30pm ex post cut-off time. AEMO systems determined a provisional ex post imbalance price (\$3.25/GJ) using default allocation quantities for the RBP.

APA successfully re-submitted a valid STTM facility allocation notice prior to the second delayed ex post cut-off of 4:30pm. However, a defect in the AEMO systems caused the delayed ex post imbalance prices (\$3.25/GJ) to be calculated using default allocation quantities rather than the valid STTM facility allocations.

This report reviews these events.

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

2 Background

2.1 Event reporting requirements

Section 7.6 of the STTM Procedures requires AEMO to publish a report¹ if:

- data submitted to AEMO by an STTM facility operator under rules 414 or 419 of the National Gas Rules (NGR) fails validation, and has lead to confirmation or substitution of data; or
- an STTM facility operator fails to provide data under rule 414 and 419 and this has lead to the substitution of data.

AEMO must publish the report within 30 business days of the conclusion of the event.

2.2 Allocation data and the ex post imbalance price

By 4.5 hours after the start of each gas day, the allocation agent for the relevant STTM facility is required to submit the STTM facility allocation for the previous gas day. The gas day starts at 6:30am at the Sydney and Adelaide hubs, and 8:00am for the Brisbane hub.

The STTM facility allocations provide AEMO with the final delivered quantity of gas for the relevant gas day. The STTM facility allocations are used as an input into the calculation of the ex post imbalance price for the gas day in question. The ex post imbalance price is one of the prices used to determine a trading participant's deviation payment or charge.

If the STTM facility allocations are not submitted by 4.5 hours after the start of the gas day, an extended period is made available for the allocation agent to deliver the STTM facility allocations for the relevant facility by 8.5 hours after the start of the gas day.

If the STTM facility allocations are not submitted by 8.5 hours after the start of the gas day, AEMO will use default allocations for the relevant facility to generate the ex post imbalance price by 9.5 hours after the start of the gas day.

For any STTM pipeline, the daily STTM facility allocation notice consists of two files, a facility allocation file and a market operator service (MOS) step allocation file (also known² as the PAD and MSD files respectively). For each STTM facility allocation notice, the PAD file is required to be

¹ Under clause 7.6 of the STTM Procedures, the report must include: a description of the event; AEMO's assessment of the actions taken by STTM facility operators and AEMO in relation to the event; AEMO's assessment of the effect of the event on the operation of the STTM; and any other matter than AEMO considers relevant.

² Refer to STTM participant build pack and STTM participant build pack business validations addendum.

submitted before the MSD file and the two files are typically submitted a few minutes apart by the pipeline operators. Validations by the AEMO STTM systems are performed as follows:

- *Individual PAD and MSD validations*—validations are performed individually on the facility allocations (PAD) and MOS step allocation file (MSD) for each pipeline facility at the time the pipeline operator submits each file;
- *The PAD/MSD matching check*—a validation is run to check that the total MOS quantities (excluding overrun MOS) in both the facility allocation file and MOS step allocation file for each pipeline match. This is run at the time the MOS step allocation file is submitted. The MSD submission is rejected if it fails this test.
- *The PAD/MSD cut-off check*—in case the PAD and MSD sequence³ is not followed, the STTM system also performs a daily check, at the D+1⁴ allocation submission cut-off time, that there is a valid matching pair of facility allocations and MOS step allocation files for each STTM pipeline. Accordingly, this is required to be run at 11:00am for the Sydney and Adelaide hubs and 12:30pm for the Brisbane hub. In the absence of a matching pair of valid allocation files, default allocations for the relevant STTM pipeline are applied and used as an input into the calculation of the provisional or ex post imbalance price.

As far as the NGR and STTM Procedures are concerned these two files are treated as one allocation notice and neither can be considered to be validly submitted without the other.

3 Event description

On 1 January 2012, APA submitted a valid⁵ PAD file for the RBP for gas day 31 December 2011 at 10:15am, in advance of the 12:30pm cut-off time for the Brisbane hub. MSD files submitted at 10:21am and 11:51am were rejected by the STTM systems because they did not contain any data.

At the 12:30pm Brisbane hub cut-off time, the STTM systems checked for a matching pair of facility allocation (PAD) and MOS step allocation (MSD) files. As there was no valid MSD submission the STTM systems defaulted the facility allocation for the RBP and triggered the delayed ex post price process. A provisional ex post imbalance price of \$3.25/GJ was determined for the Brisbane hub.

APA submitted a valid MSD file less than a minute after the cut-off time. However, the MSD file was rejected by the STTM systems as the file was compared to the default allocation⁶.

After contacting AEMO, APA Group was advised to resubmit a pair of PAD and MSD files. APA successfully submitted a new PAD file at 3:03pm and a MSD file at 3:12pm. However, due to a STTM systems defect the valid allocation submissions were not used in the calculation of the delayed ex post imbalance price. The valid allocation submissions were used in subsequent settlement processing for gas day 31 December 2011.

4 APA comments

On Sunday 1 January 2012, APA Group's primary system for publishing data produced and submitted to AEMO at 10.18am an MSD file in respect of Gas Day 31 December 2011 that did not contain data.

APA Group undertakes a daily verification process for data submitted to AEMO to allow for any necessary resubmission of data before relevant cut off times. The verification process undertaken on 1 January 2012 identified that the data was missing, and the duty Gas Contract Administrator initiated APA Group Procedures, logged a service call with APA IT Support (10.28am), and advised relevant APA Group staff.

³ For example, a second PAD file could be submitted which doesn't match the first MSD file.

⁴ D+1 refers to the day after the respective gas day D.

⁵ A PAD file is valid if the aggregate allocation is within the upper and lower validation limits.

⁶ The default allocation process sets the allocation for all facility services equal to the sum of the ex ante market schedule quantities for all trading rights related to a facility service. MOS is set to zero for all facility services.

Submitted data is verified each day using a back-up system. In the Daily Data call (a meeting held with members of relevant functional teams and a General Manager to review data prior to deadlines for publication) held at 10.30am, it was decided to use the backup system prior to the 12.30pm deadline if APA Group's IT Support area were unable to rectify the problem with the primary system in reasonable time before the deadline.

At 12.10pm the decision was made to publish from APA Group's backup system. This process was unexpectedly delayed, however, due to two separate IT communications issues arising for two employees. The first issue involved a previously undetected software compatibility issue between APA Group's remote Citrix link and the backup system, and the second related to the reliability of a remote internet connection which delayed the transfer of files.

The MSD file was ultimately produced from the backup system and submitted to AEMO at 12.30.59pm, just after the 12.30pm deadline for receipt of the file by AEMO's system.

The problem in APA Group's primary system was corrected by 12.45pm. Throughout the afternoon APA Group discussed the situation with AEMO. This included resubmitting both the PAD and MSD files as requested by AEMO. APA Group completed the submission of data from the primary system by 3.10pm.

The initial conclusion is that APA's primary system produced the MSD file with zero values due to a conflict in the software that was related to the end date for a Gas Transport Agreement that terminated on 31 December 2011. This is being investigated by the software vendor.

The following actions have been taken by APA:

- reviewing the configuration of contract end dates to check that the source of the conflict in the primary system is not present for other agreements;
- raising the issue with the software vendor. A manual workaround will be put in place until the systems are fixed;
- introducing an 11.30am cut-off for making the decision to publish from backup system to allow more time to complete this process; and
- reviewing this incident with AEMO.

APA Group has proposed a change to the STTM systems that would alert pipeline operators if a valid MSD file has not been processed by the 12:30pm cut-off time.

5 Defect description

If a valid PAD submission was received by the AEMO systems but default allocations have been used to calculate the provisional price as a result of a missing MSD at the 1st cut-off time (due to a rejected or no submission), then any attempt to resubmit the MSD file after that cut-off time will fail because the MSD file will not match the generated 'default' values (this is Defect # 9376).

Furthermore, in an attempt to bypass Defect # 9376, if the pipeline operator resubmits a set of matching PAD/MSD files then the new successfully submitted PAD file will not be used in calculating the ex-post imbalance price. This is because the system sees the earlier valid PAD and effectively closes the window for submissions for calculating the ex-post imbalance price and incorrectly disregards the resubmitted PAD file (this is Defect # 9272). The STTM systems uses those newly submitted files in subsequent settlement processing.

The software fix for Defect # 9272 is expected to be deployed by the end of February 2012. That fix will allow the market systems to use a resubmitted pair of PAD and MSD files to calculate the delayed ex post schedule price. In the event that a facility allocation has been defaulted a pipeline operator must resubmit a pair of PAD and MSD files.

6 AEMO's assessment of the actions taken

APA Group did not successfully submit the STTM facility allocation notice on 1 January 2012 for gas day 31 December 2011 by 12:30am in accordance with rule 419(1). This led to an extended period being made available for data submission, allowing until 4:30pm for allocation notice submissions. APA submitted a valid facility allocation notice at 3:12pm, as allowed under section 7.2.1B of the STTM Procedures.

APA Group was able to identify a problem with their facility allocation submission and was able to resubmit a valid facility allocation during the extended data submission window. APA Group has subsequently implemented measures to reduce the likelihood of a recurrence of the error.

A provisional ex post market imbalance price was produced just after 12:30pm in accordance with the rules. The STTM systems did not determine the delayed ex-post imbalance price in accordance with clause 7.2.1C of the STTM Procedures because it was produced using the default allocations. The delayed ex-post imbalance price should have been produced using the valid STTM facility allocation notice submitted by APA at 3:12pm.

AEMO was in the process of developing a work around for this STTM systems defect when the incident occurred. A workaround was put in place from 6 January 2012 and will remain in place until the IT fixes are implemented in late February 2012.

Market communication operated as expected.

- MIS Report INT 675 - Default Allocation Notice Report for the RBP was published just after 12:30pm because a valid STTM facility allocation notice had not been received by the 12:30pm cut-off time.
- MIS Report INT 657 - Ex Post Market Data Report which is published just after 12:30pm showed the provisional ex-post imbalance price⁷ as \$3.25/GJ. The same report published just after 4:30pm showed the ex-post imbalance price⁸ as \$3.25/GJ.
- MIS Report INT 689 - Ex Post Allocation Quantity Report which is published just after 12:30pm showed the default allocation data used in the provisional ex post schedule. The same report published just after 4:30pm again showed the default allocation data used in the delayed ex post schedule. As noted above, the default allocation was incorrectly used in the delayed ex post schedule.

AEMO notes comments raised by the APA Group in proposing a change to the STTM systems that would alert pipeline operators if valid MSD file have not been processed by the 12:30pm cut-off time. AEMO notes that the pipeline operators are able to ascertain this information from MIS Report INT675. In addition, AEMO will consider the need for further changes in light of broader amendments being proposed for the PAD and MSD time check for ex post pricing purposes.

7 Market Impacts

As a consequence of the STTM facility allocations not being submitted by 12:30pm, a provisional ex post imbalance price of \$3.25/GJ was produced by 1:30pm using a default facility allocation for the RBP. A delayed ex post imbalance price of \$3.25/GJ was produced by 5:30pm for the Brisbane hub that incorrectly used the default facility allocation. If the facility allocations that APA Group submitted at 3:12pm were used in the delayed schedule the ex post imbalance price would have been determined as \$2.0401/GJ.

The ex post imbalance price for gas day 31 December 2011 was higher than it should have been and as a result deviation payments to STTM shippers and STTM users were an aggregate of \$7,207 higher than they should have been. The higher deviation payments were funded by a higher settlement shortfall charge for the December 2011 billing period.

⁷ A provisional ex post imbalance price has a schedule type of 'PPOST' in report INT657.

⁸ The ex post imbalance price has a schedule type of 'XPOST' in report INT657.

The ex post imbalance price reports and allocation quantity reports are available from the AEMO website at: http://www.aemo.com.au/data_gas/sttm_data.html.

8 AEMO compliance issues

Rule 419(2A) requires AEMO to validate and substitute STTM facility allocations in accordance with the STTM Procedures. Clauses 7.2.1A, 7.2.1B and 7.2.1C of the STTM Procedures outline the process for validation and substitution of STTM facility allocations.

Rule 426(2) requires AEMO to determine the ex post imbalance price in accordance with the STTM Procedures. Clause 7.2.1D of the STTM Procedures sets out the inputs to the ex post price calculation and requires AEMO to use the STTM facility allocations determined in accordance with rule 419 or clause 7.2.1C of the STTM Procedures.

As noted above, in this instance the STTM systems did not determine the delayed ex-post imbalance price in accordance with clause 7.2.1C of the STTM Procedures because it was produced using the default allocations. The delayed ex-post imbalance price should have been produced using the valid STTM facility allocation notice submitted by APA at 3:12pm.

9 Is this incident a scheduling error?

The NGR (rule 364—Definitions) defines a scheduling error as a failure of AEMO to:

- schedule ex ante offers, bids or price taker bids in accordance with the NGR and STTM Procedures; or
- schedule contingency gas offers or bids in accordance with the NGR and STTM Procedures.

The NGR therefore only captures the production of the provisional and ex ante schedules by AEMO, as it is in these schedules that the ex ante bids and offers and price taker bids are scheduled.

Therefore a scheduling error can only occur as a result of an incorrectly prepared schedule and not as a result of the calculation of the ex post imbalance price. As a result, AEMO considers that the incident on 1 January 2012 for gas day 31 December 2011 is not a scheduling error for the purposes of Part 20 of the NGR.