

24 – 30 June 2012

Weekly summary

The average daily ex ante price in all markets exceeded \$5/GJ this week with record average daily prices in Adelaide and Brisbane. The average price in Sydney decreased slightly compared to the previous week, but remained above \$7/GJ, with the price reaching a maximum of \$10/GJ on Monday 25 June.

Long term statistics and explanatory material

A range of longer term data covering gas prices, flows and demand is available on the AER's website at <http://www.aer.gov.au/node/456>. Also available on the AER's website at <http://www.aer.gov.au/node/451> is a document explaining how to interpret the data provided in each weekly gas market report.

Market overview

Figure 1 sets out the average daily prices (\$/GJ) in the Victorian Declared Wholesale Market (**VGM or Victorian gas market**) and for the Sydney (**SYD**), Adelaide (**ADL**) and Brisbane (**BRI**) Short Term Trading Market hubs (**STTM**) for the current week compared to historical averages.

Figure 1: Average daily prices – all markets (\$/GJ)¹

	Victoria	Sydney	Adelaide	Brisbane
24 Jun - 30 Jun 2012	5.46	7.40	5.49	5.21
% change from previous week	-4	-11	5	20
11-12 financial YTD	3.28	3.45	3.79	3.51
% change from previous financial YTD	34	20	20	-

Figure 2 compares average weekly gas prices, ancillary market payments and scheduled injections against historical averages for the Vic gas market.

Figure 2: Victorian gas market

	Price (\$/GJ)	Ancillary payments (\$000)	BOD forecast demand quantity (TJ)
24 Jun - 30 Jun 2012	5.46	-	1019
% change from previous week	-4	-	4
11-12 financial YTD	3.28	-	582
% change from previous financial YTD	34	-	-5

*Note: From February 18, only positive ancillary payments, reflecting system constraints will be shown here

More detailed analysis on the Victorian declared wholesale market is provided in Section 1.

¹ The weighted average daily imbalance price applies for Victoria.

Figures 3 to 5 show average ex ante and ex post gas prices, MOS balancing gas service payments together with the related daily demand quantities against historical averages for the Sydney, Adelaide and Brisbane wholesale gas markets, respectively.

Figure 3: Sydney STTM

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
24 Jun - 30 Jun 2012	7.40	5.76	46.71	311	300
% change from previous week	-11	-28	-26	-1	-4
11-12 financial YTD	3.45	3.19	40.45	236	232
% change from previous financial YTD	20	-39	18	-5	-8

Figure 4: Adelaide STTM

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
24 Jun - 30 Jun 2012	5.49	5.53	4.92	93	92
% change from previous week	5	4	-66	21	10
11-12 financial YTD	3.79	3.76	10.21	68	67
% change from previous financial YTD	20	14	-45	8	4

Figure 5: Brisbane STTM

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
24 Jun - 30 Jun 2012	5.21	3.98	4.09	164	160
% change from previous week	20	-3	1	2	3
From market start (1 Dec)	3.51	3.18	9.32	156	152

More detailed analysis of the STTM hubs is found in sections 2 to 4.

Section 5 provides analysis on production and pipeline flows on the National Gas Bulletin Board, as well as gas-powered generation volumes in each state.

Significant Market Events or Issues this week

Queensland Gas Pipeline

On 23 June, Jemena revised its linepack capacity adequacy flag for its Queensland Gas Pipeline to 'RED' on the Gas Market Bulletin Board², indicating involuntary load shedding or restrictions to 'firm' load shipped on the pipeline. This was related to unplanned maintenance being carried out on the Rolleston compressor engine, reducing capacity by around 30 TJ. The expected completion of compressor maintenance was set for Friday 6 July.

² <http://www.gasbb.com.au/mapoverview.aspx>

Victoria

On Tuesday 26 June the forecast beginning of day demand climbed to over 1 PJ (1000TJ), with a high beginning of day (BOD) forecast seeing the price set at \$6.58/GJ for 6 am. As temperatures fell and demand increased into the last two scheduling horizons, prices increased above \$8/GJ at 6 pm and \$11.47/GJ for the 10 pm schedule (see figures 1.1 and 1.2). Further analysis indicates LNG was cleared in merit order for the last two schedules. The volume weighted imbalance price (VWIP) for the gas day was \$6.66/GJ.

On Wednesday 27 June, morning temperatures dropped below 5 °C. This coincided with the highest BOD demand forecast (above 1.1 PJ) for the week and a 6 am price of \$8/GJ (see figures 1.1 and 1.2). Further analysis indicates that:

- On this day, LNG was cleared in merit order in all schedules, with volumes of LNG increasing through the day as LNG was gradually rebid into lower price bands. The number of market participants rebidding LNG on this day was 5, higher than on any other day this week.
- Actual demand for the day was 1.05 PJ, well below the BOD forecast and slightly lower than the previous day. This reflected over-forecasting of demand by market participants.

The resultant VWIP of \$8.10/GJ was the second highest this winter.

Sydney

Daily ex ante prices were \$6.49/GJ or higher throughout the week,

On Monday 25 June, the ex ante price peaked at \$10/GJ, although this was only the second highest forecast demand day for the week (see figure 2.1 below).

On Wednesday 27 June, MOS increase volumes on Eastern Gas Pipeline (EGP) were 5.4 TJ. Although this was a relatively small volume of MOS compared to other days this week including 30 June (see below), high priced EGP MOS offer volumes meant the cost of MOS services nevertheless reached \$97 000 (see figure 2.4(a),(b)).

On Saturday 30 June, there was a difference of \$3.69 between the ex ante price and the ex post price, which was lower at \$3.22/GJ (see figure 2.1). This price variance occurred because forecast hub demand used for setting the ex ante price was 32 TJ higher than actual demand used in setting the ex post price. This over-forecast also led to of 34 TJ of decrease MOS services being required on the Moomba to Sydney Pipeline (see figures 2.4(a) and (b)).

Adelaide

Average daily ex ante prices in Adelaide this week climbed to their highest level since market start, reaching \$5.49/GJ, exceeding the previous record from the week prior by 28 cents/GJ. Hub demand was also higher than the previous week.

Brisbane

Average daily ex ante price reached their highest level to date at \$5.21/GJ. The daily ex ante price exceeded \$5.50/GJ on five days this week (see figure 4.1). Further analysis indicates that these higher prices appear to have been influenced by a decrease in volumes offered between \$2/GJ and \$3/GJ compared to the previous week.

Detailed Market Analysis

24 – 30 June 2012

1 Victorian Declared Wholesale Market

In the Victorian Gas Market gas is priced five times daily at 6 am, 10 am, 2 pm, 6 pm and 10 pm. However, the volume weighted gas price on a gas day tends towards the 6 am price which is the schedule at which most gas is traded.

The main drivers of price are demand forecasts together with bids to inject or withdraw gas from the market. For each of the five gas day pricing schedules, figures 1.1 to 1.4 below show the daily prices, demand forecasts³, and injection/withdrawal bids⁴. Figure 1.5 provides information on which system injection points were used to deliver gas, in turn indicating the location and relative quantity of gas bids cleared through the market. Gas is priced five times daily (at 6 am, 10 am, 2 pm, 6 pm and 10 pm) when the first schedule and four reschedules apply, while the last 8-hour schedule has been separated into two 4-hour blocks for a consistent comparison with other scheduled injection volumes. The main drivers of price are demand forecasts and gas bids.⁵

Figure 1.1: Prices by schedule

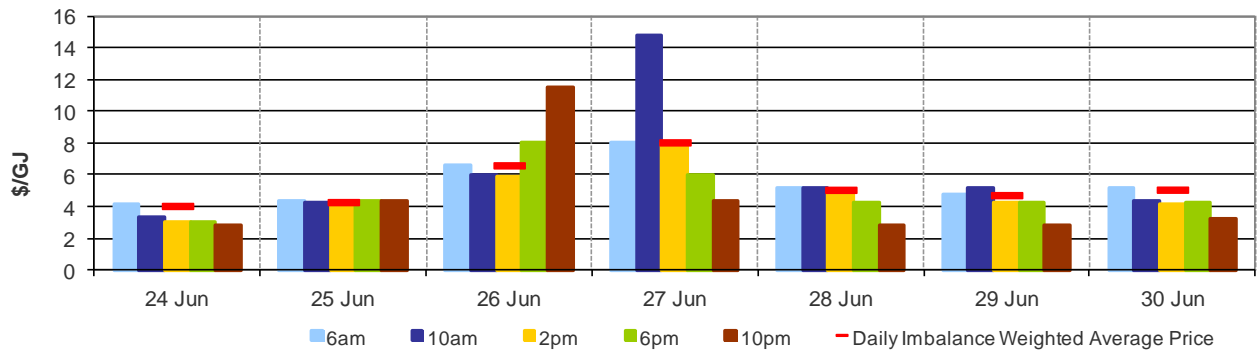
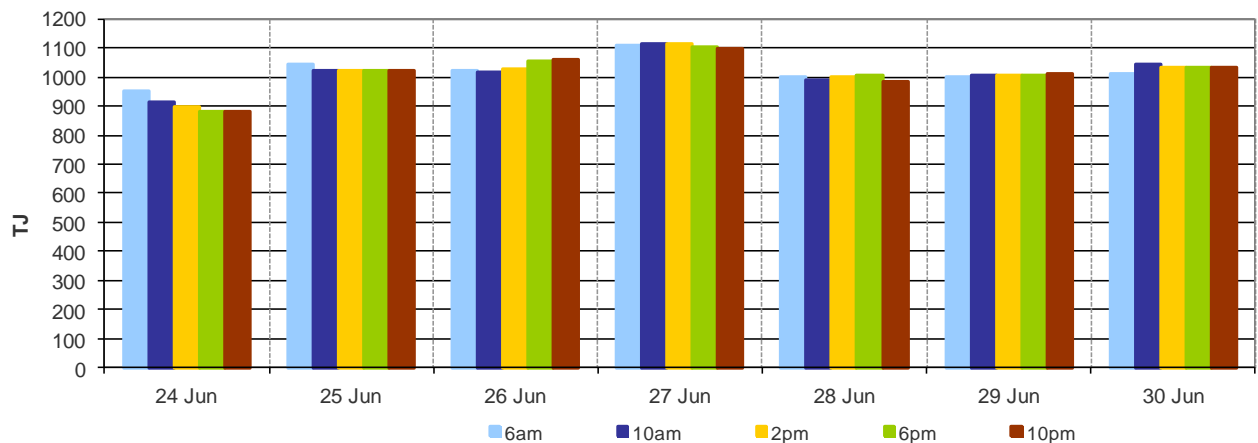


Figure 1.2: Demand forecasts



³ These are Market Participants' aggregate demand forecasts adjusted for any override as applied by AEMO from time to time. The main driver of the amount of gas scheduled on a gas day are these forecasts which are forecasts that cannot respond to price or in other words is gas delivered regardless of the price.

⁴ The price might also be affected by transmission or production (contractual) constraints limiting how much gas can be delivered from a locale or System Injection Point (SIP) from time to time.

⁵ The price might also be affected by transmission or production (contractual) constraints limiting how much gas can be delivered from a locale or SIP from time to time.

Figure 1.3: Injection bids by price bands

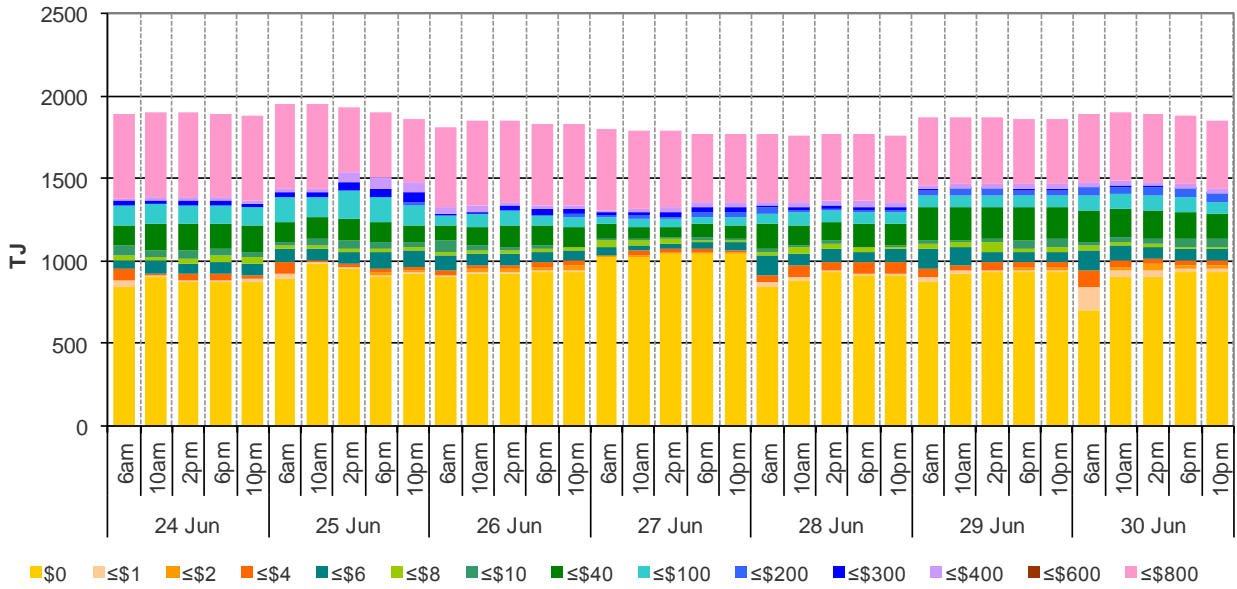


Figure 1.4: Withdrawal bids by price bands

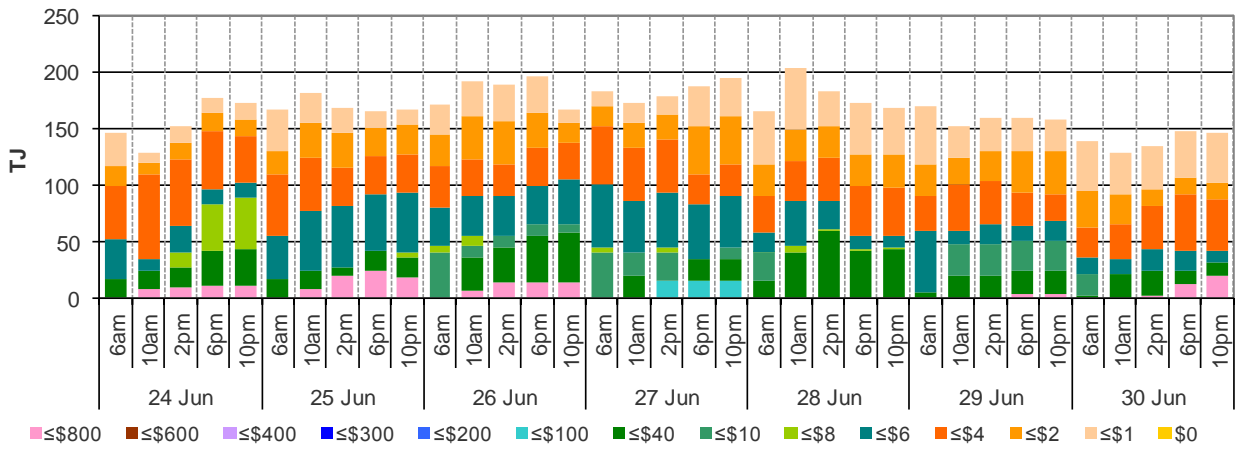
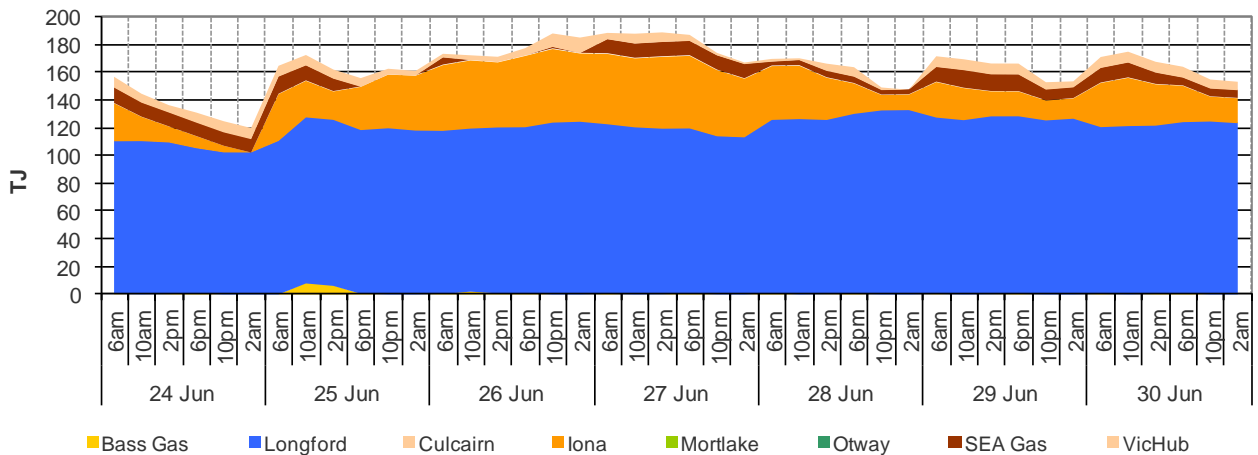


Figure 1.5: Metered Injections by System Injection Point



2 Sydney STTM

In each STTM hub, gas is priced once before each gas day (the ex ante price) and once after the gas day (the ex post price). The main drivers of ex ante and ex post prices are demand forecasts, together with participant offers and offers to inject or bids to withdraw gas traded through the hub.⁶ Prices before and after the gas day may also vary depending on how much gas is scheduled before the gas day (setting the ex ante price) and how much gas is consumed in the hub on a gas day (setting the ex post price).

Market Operator Service balancing gas (MOS) payments arise because the amount of gas nominated on pipelines for delivery on a gas day will either exceed or fall short, by some amount, of the amount of gas consumed in the hub. In such circumstances, MOS payments are made to participants for providing a service to park gas on a pipeline or to loan gas from a pipeline to the hub.⁷

Figures 2.1 and 2.2 show daily prices, demand, offers and bids. Figures 2.3 and 2.4 show gas scheduled and allocated on pipelines, indicating the location and relative quantity of gas offers across pipelines and also the amount of MOS allocated for each pipeline.

Figure 2.1: SYD STTM daily ex ante and ex post prices and quantities

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Ex ante price (\$/GJ)	7.00	10.00	8.00	6.49	6.49	6.91	6.91
Ex ante quantity (TJ)	296	324	333	320	311	302	288
Ex post price (\$/GJ)	5.19	7.00	8.00	6.49	5.28	5.15	3.22
Ex Post quantity (TJ)	282	318	332	321	304	286	256

Figure 2.2 (a) Daily hub offers in price bands (\$/GJ)

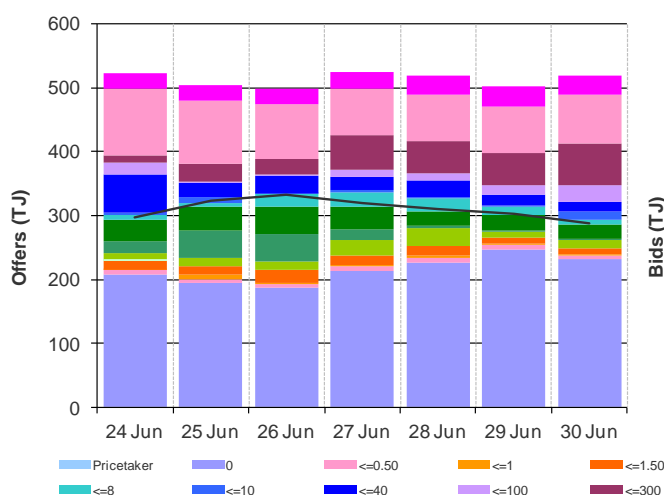
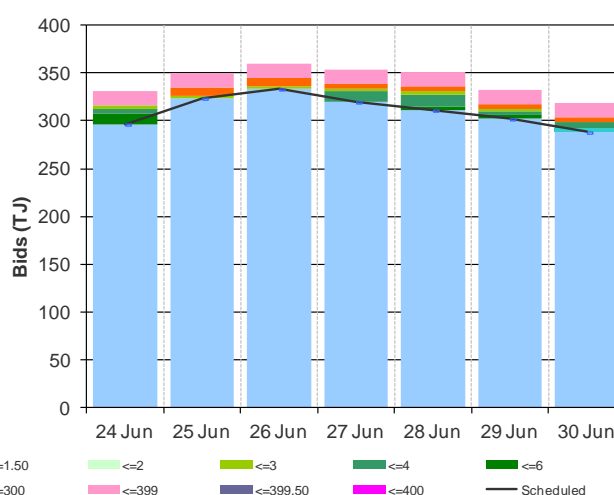


Figure 2.2(b): Daily hub bids in price bands (\$/GJ)



⁶ The main driver of the amount of gas scheduled on a gas day is the 'price-taker' bid, which is forecast hub demand that cannot respond to price and which must be delivered, regardless of the price.

⁷ MOS payments involve a payment for a MOS decrease service when the quantity delivered exceeds actual final gas nominations and a MOS increase applies otherwise. As well as a MOS service payment, as shown in figure 2.4 MOS providers are paid for or pay for the quantity of MOS sold into the market or bought from the market.

Figure 2.3: SYD STTM ex ante scheduled and allocated gas volumes by STTM facility

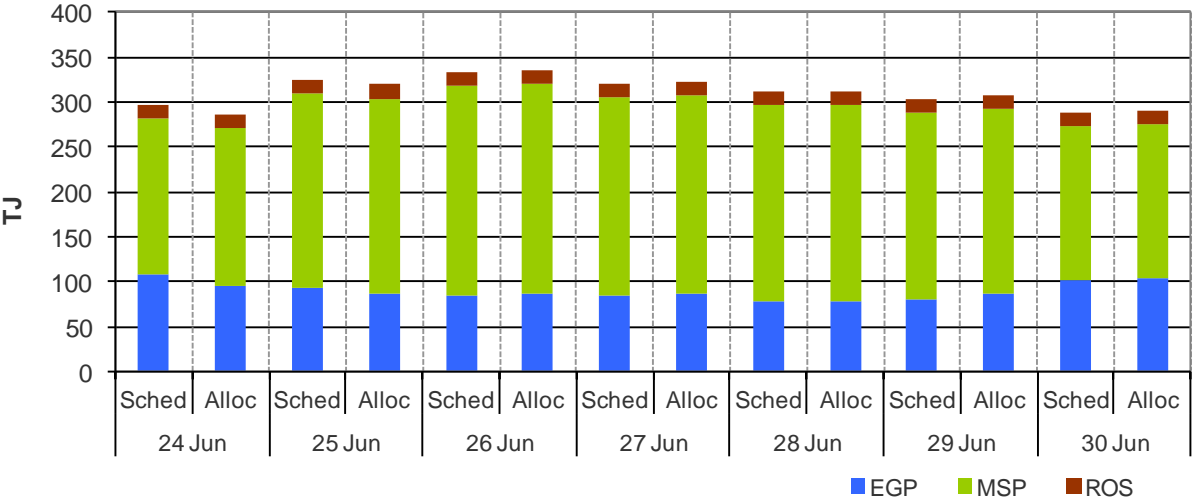
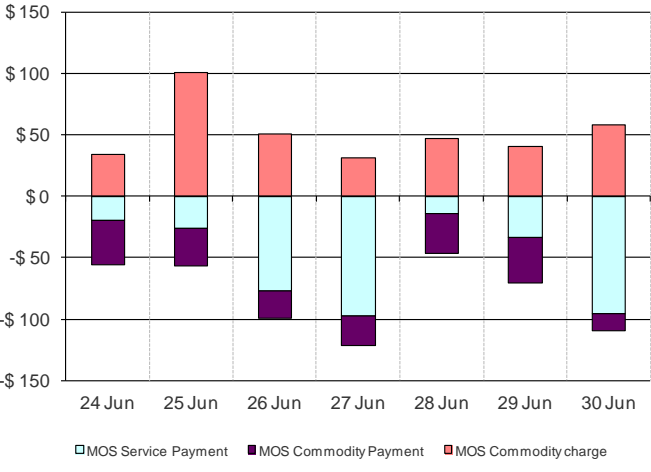
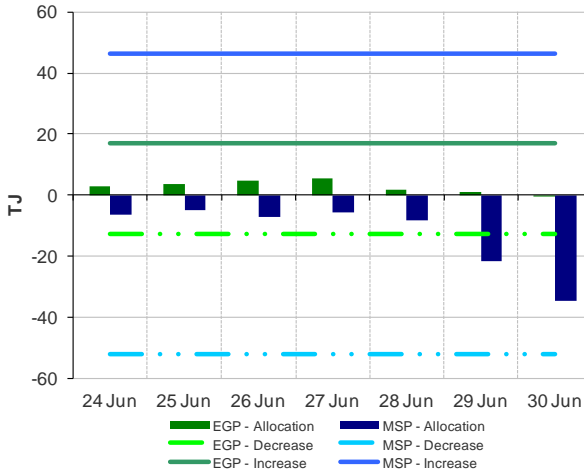


Figure 2.4 (a) SYD STTM MOS allocations (TJ)

Figure 2.4 (b): Service payments and commodity payments/charges (\$000)



3 Adelaide STTM

The Adelaide STTM hub functions in the same way as the Sydney STTM hub. The same data that was presented for the Sydney hub is presented for the Adelaide hub in the figures below.

Figure 3.1: ADL STTM Daily ex ante and ex post prices and quantities

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Ex ante price (\$/GJ)	5.46	5.46	5.46	5.65	5.46	5.46	5.46
Ex ante quantity (TJ)	68	83	100	105	101	102	90
Ex post price (\$/GJ)	5.46	5.46	5.46	6.01	5.46	5.43	5.46
Ex Post quantity (TJ)	71	82	101	109	93	95	91

Figure 3.2 (a) Daily hub offers in price bands (\$/GJ)

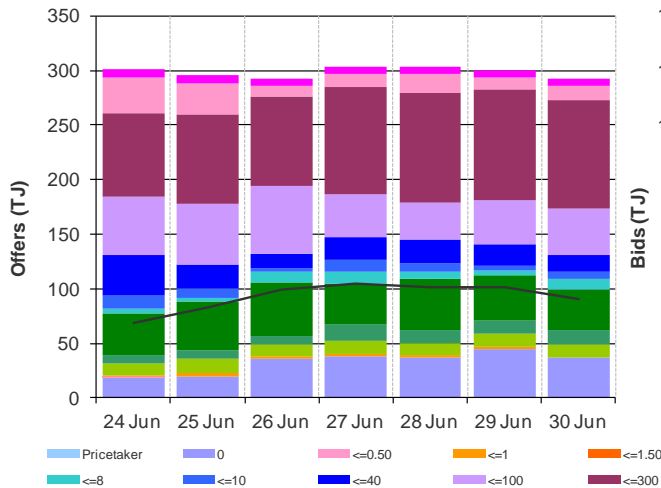


Figure 3.2(b): Daily hub bids in price bands (\$/GJ)

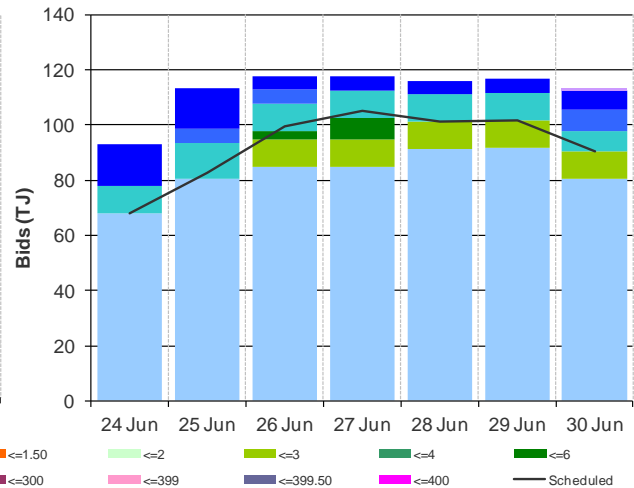


Figure 3.3: ADL STTM ex ante scheduled and allocated gas volumes by STTM facility

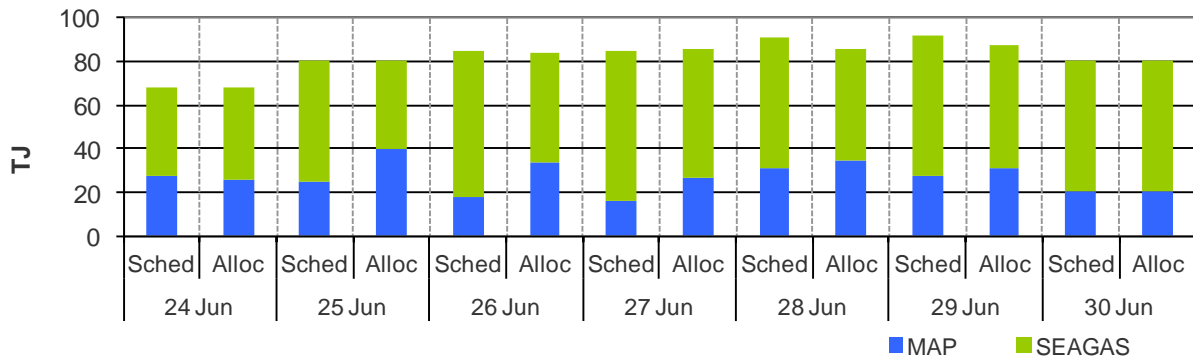


Figure 3.4 (a) ADL STTM MOS allocations (TJ)

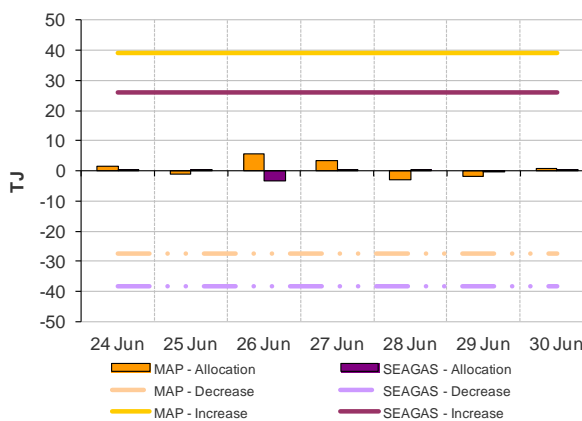
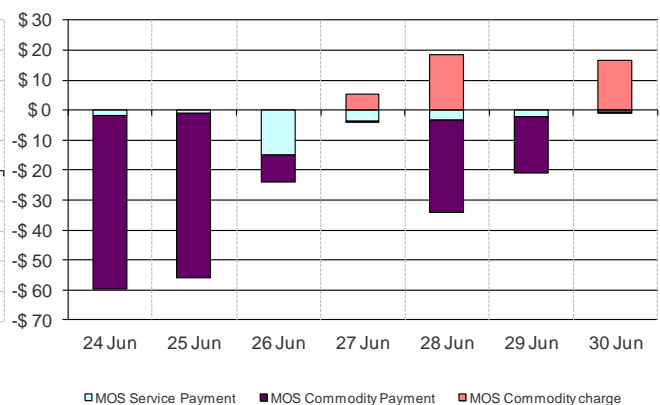


Figure 3.4 (b): Service payments and commodity payments/charges (\$000)



4 Brisbane STTM

The Brisbane STTM hub functions in the same way as the Sydney STTM hub. The same data that was presented for the Sydney hub is presented for the Brisbane hub in the figures below.

Figure 4.1: BRI STTM daily ex ante and ex post prices and quantities

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Ex ante price (\$/GJ)	5.50	5.50	4.53	5.50	4.45	5.50	5.50
Ex ante quantity (TJ)	151	171	173	171	171	166	147
Ex post price (\$/GJ)	3.55	5.50	3.62	3.62	3.55	3.53	4.50
Ex Post quantity (TJ)	145	172	169	167	167	158	146

Figure 4.2 (a) Daily hub offers in price bands (\$/GJ)

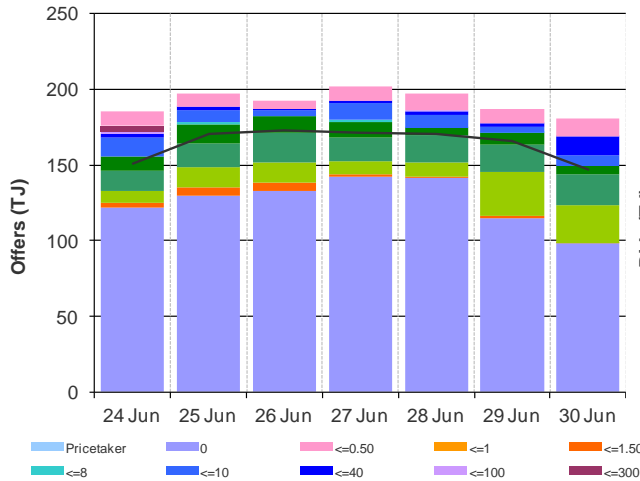


Figure 4.2(b): Daily hub bids in price bands (\$/GJ)

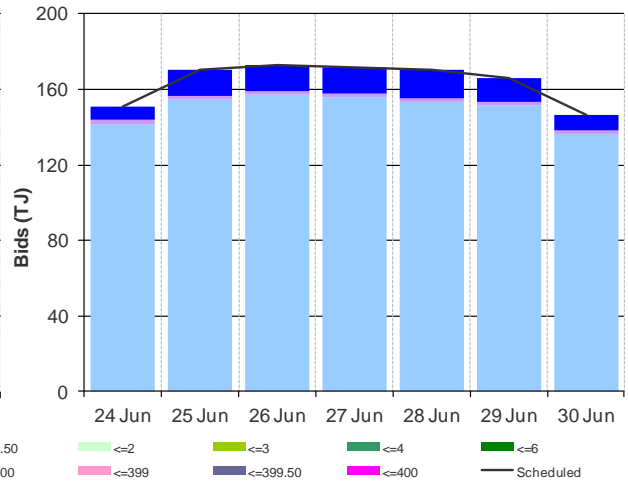


Figure 4.3: BRI STTM ex ante scheduled and allocated gas volumes by STTM facility

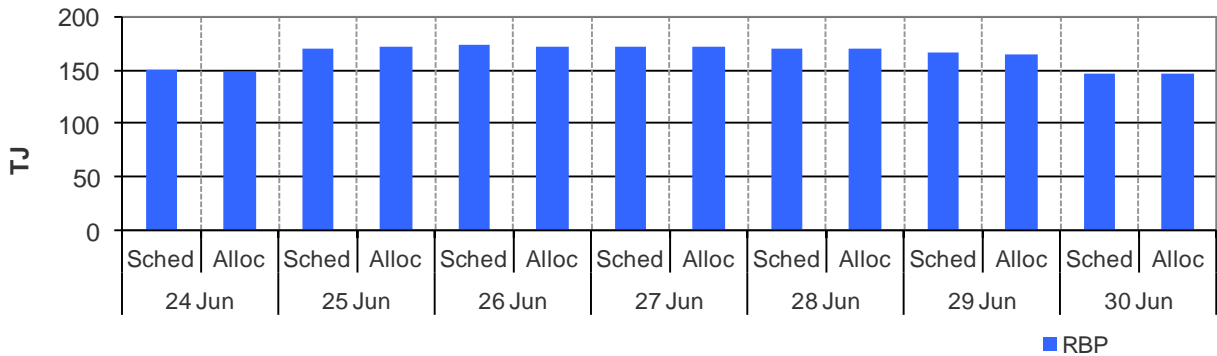


Figure 4.4 (a) BRI STTM MOS allocations (TJ)

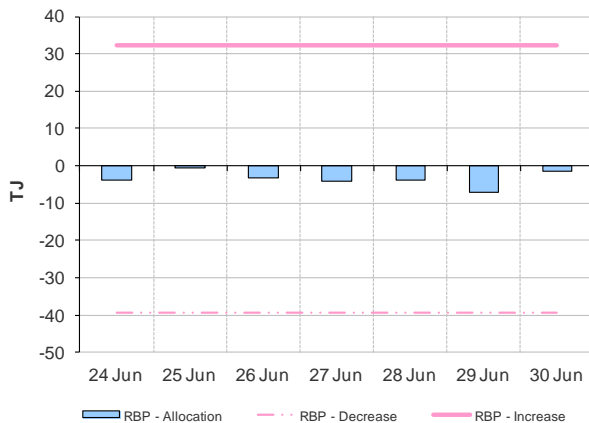
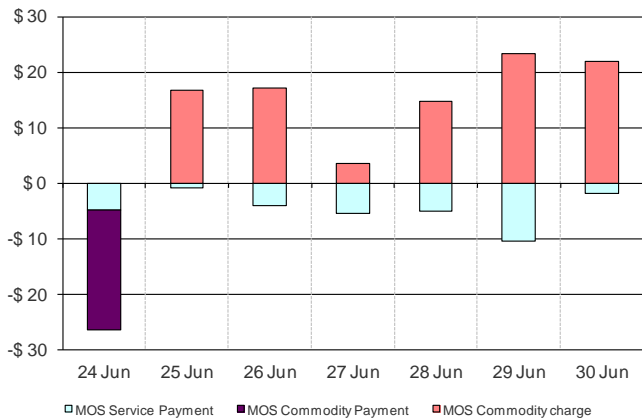


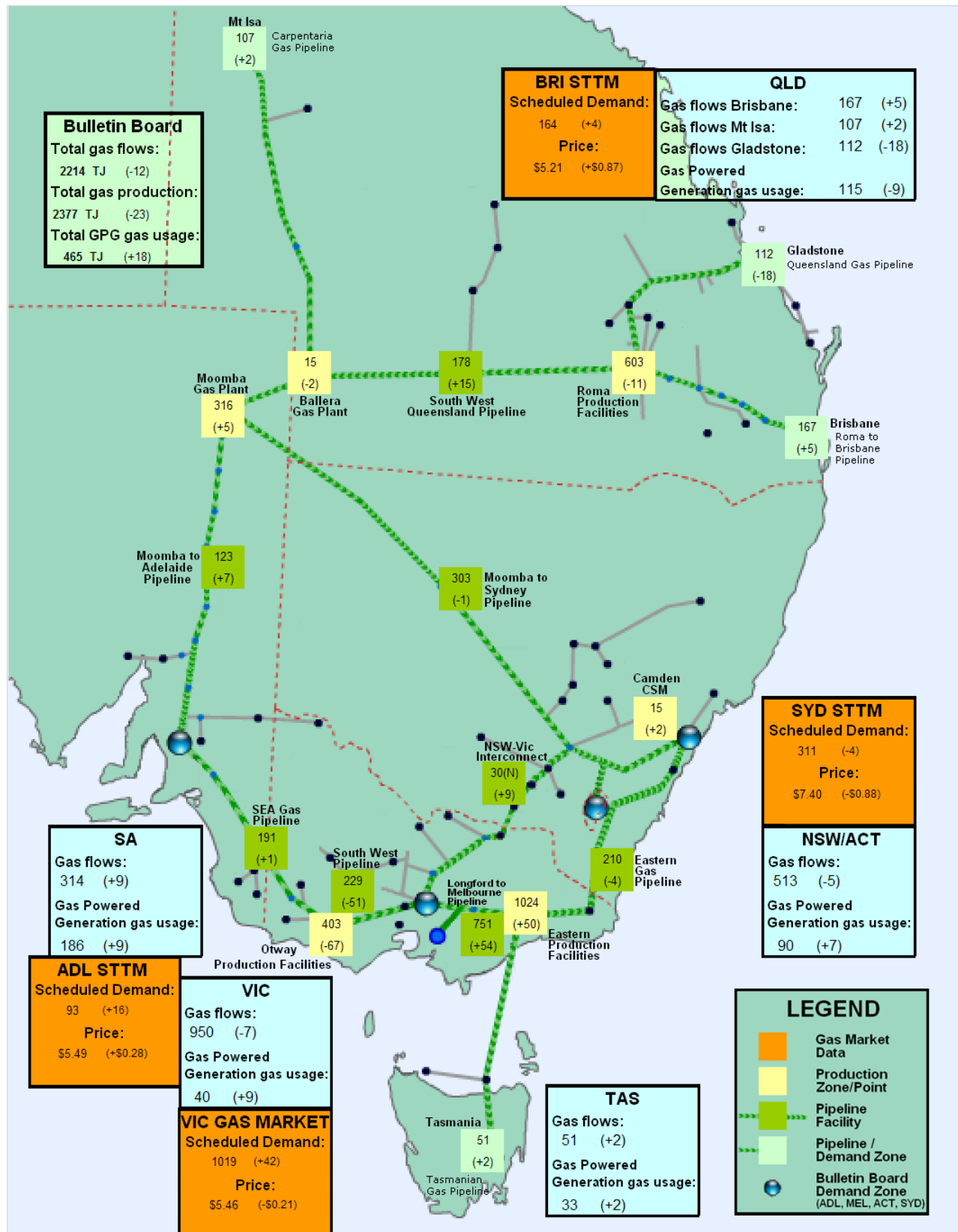
Figure 4.4 (b): Service payments and commodity payments/charges (\$000)



5 National Gas Bulletin Board

Figure 5.1 shows average daily actual flows for the current week in the aqua boxes⁸ from the Bulletin Board (changes from the previous week's average are shown in brackets). Gas-powered generation (GPG) gas usage is also shown in each region in the aqua boxes. In the orange boxes average daily scheduled volumes and prices for each gas market are provided.

Figure 5.1: Gas market data (\$/GJ, TJ); Production, Consumption and Pipeline flows (TJ)



⁸ Regional Gas Flows: SA = MAP + SEAGAS, VIC = SWP + LMP - negative(NSW-VIC), NSW/ACT = EGP + MSP, TAS = TGP, QLD (Brisbane) = RBP, QLD (Mt Isa) = CGP, QLD (Gladstone) = QGP