# Weekly Gas Market Report



29 July – 4 August 2012

## Weekly summary

Prices in all markets were around 12 per cent higher than the previous week, while demand was consistent. There were some high prices in the Sydney hub on Thursday and Friday. On Thursday, the hub ex ante and ex post prices reached \$12.90/GJ and \$13.68/GJ respectively. On Friday, the ex post price was \$13/GJ.

## Long term statistics and explanatory material

The AER has published an <u>explanatory note</u> to assist with interpreting the data presented in its weekly gas market reports. The AER also publish a range of <u>longer term statistics</u> on the performance of the gas sector including gas prices, production, pipeline flows and consumer demand.

#### 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)<sup>1</sup>

	Victoria	Sydney	Adelaide	Brisbane
29 Jul - 04 Aug 2012	5.57	7.63	6.32	6.39
% change from previous week	13	9	12	12
12-13 financial YTD	5.80	6.84	6.65	5.71
% change from previous financial YTD	62	88	69	-

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)
29 Jul - 04 Aug 2012	5.57	-	963
% change from previous week	13	-	5
12-13 financial YTD	5.80	-	957
% change from previous financial YTD	62	-	3

<sup>\*</sup>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.

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)
29 Jul - 04 Aug 2012	7.63	8.68	10.27	317	320
% change from previous week	9	-8	-36	7	4
12-13 financial YTD	6.84	7.60	15.52	304	306
% change from previous financial YTD	88	139	-74	2	6

Figure 4: Adelaide STTM

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
29 Jul - 04 Aug 2012	6.32	6.58	2.65	94	94
% change from previous week	12	22	-52	3	5
12-13 financial YTD	6.65	6.88	7.03	95	94
% change from previous financial YTD	69	72	-36	5	4

Figure 5: Brisbane STTM

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
29 Jul - 04 Aug 2012	6.39	5.45	2.87	159	156
% change from previous week	12	11	28	0	-1
From market start (1 Dec)	5.71	5.04	3.74	161	158

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**

In Sydney, the Thursday gas price was around \$13/GJ despite a decrease in demand from the previous day. One factor behind the high price was a reduction in offers between \$1–\$6/GJ relative to the previous day, which resulted in higher priced gas offers being scheduled in order to meet demand.

The high \$13/GJ ex post price in Sydney on Friday was influenced by higher actual demand than forecast and the pricing of offers. While forecast demand was 305 TJ, actual demand was higher at 321 TJ which left the hub 'short' 16 TJ. When the 16 TJ imbalance was included with offers and bids for calculation of the ex post price, the resultant ex post price was more than double the ex ante price of \$6.05/GJ. This was because only small volumes (less than 16 TJ) were offered at prices in between \$6.05/GJ and \$13/GJ.

## **Detailed Market Analysis**

#### 29 July - 4 August 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 forecasts<sup>2</sup>, and injection/withdrawal bids<sup>3</sup>. 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.<sup>4</sup>



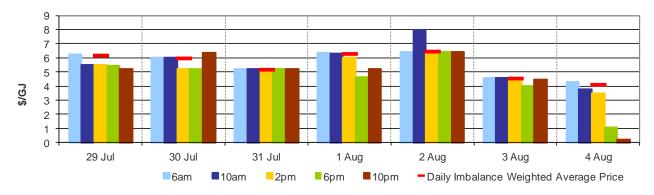


Figure 1.2: Demand forecasts

1200 1100 1000 900 800 700 600 500 400 300 200 100 29 Jul 30 Jul 31 Jul 2 Aug 1 Aug 3 Aug 4 Aug 2pm 6pm 6am ■10am ■ 10pm

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<sup>&</sup>lt;sup>2</sup> 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.

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.

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Figure 1.3: Injection bids by price bands

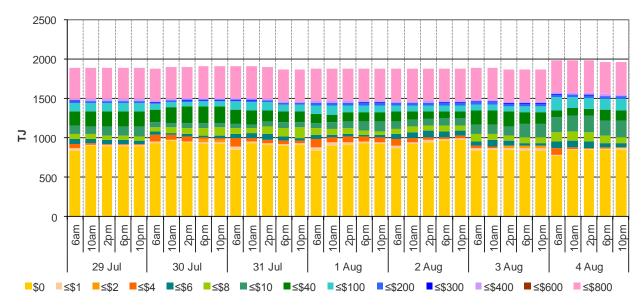


Figure 1.4: Withdrawal bids by price bands

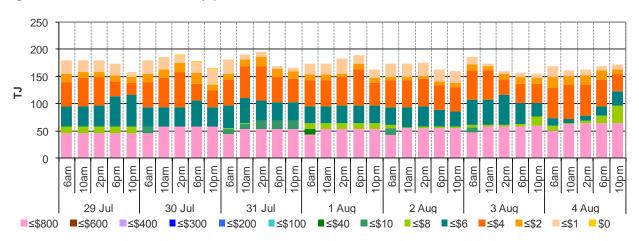
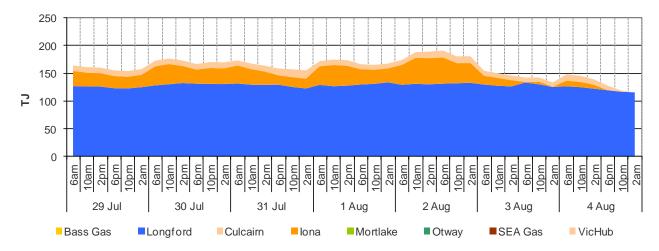


Figure 1.5: Metered Injections by System Injection Point



#### 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. 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).

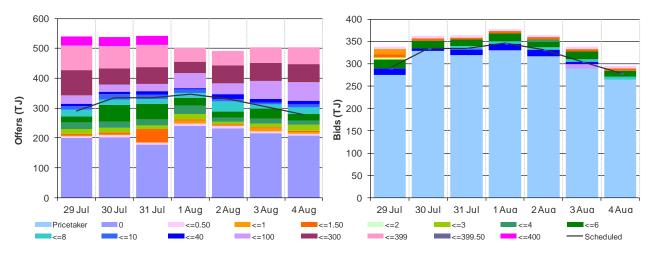
Market Operator Service balancing gas (MOS) payments arise because the amount of gas nominated on pipelines for delivery on a gas day will either exceed or fall short, by some amount, of the amount of gas consumed in the hub. In such circumstances, MOS payments are made to participants for providing a service to park gas on a pipeline or to loan gas from a pipeline to the hub.6

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)	6.98	8.00	8.40	6.02	12.90	6.05	5.05
Ex ante quantity (TJ)	290	334	334	346	331	305	279
Ex post price (\$/GJ)	6.50	6.50	9.99	6.02	13.68	13.00	5.06
Ex Post quantity (TJ)	290	323	348	346	334	321	280

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



<sup>&</sup>lt;sup>5</sup> 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.

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

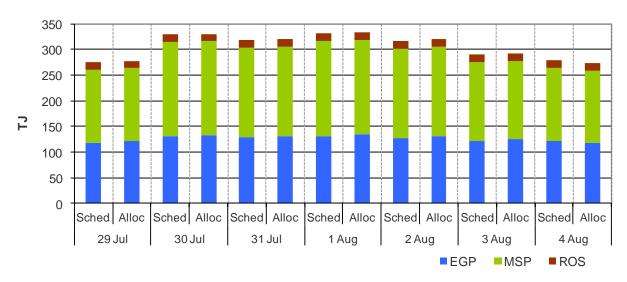
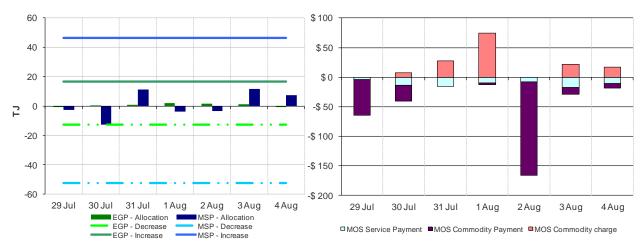


Figure 2.4 (a) SYD STTM MOS allocations (TJ)

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)	6.05	6.05	6.06	6.06	7.91	6.06	6.06
Ex ante quantity (TJ)	86	98	100	98	99	94	85
Ex post price (\$/GJ)	6.05	6.05	6.05	8.02	7.90	6.06	5.95
Ex Post quantity (TJ)	86	100	97	104	98	90	81

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

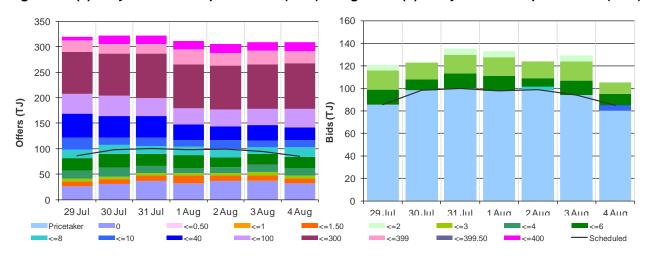


Figure 3.3: ADL STTM ex ante scheduled and allocated gas volumes by STTM facility

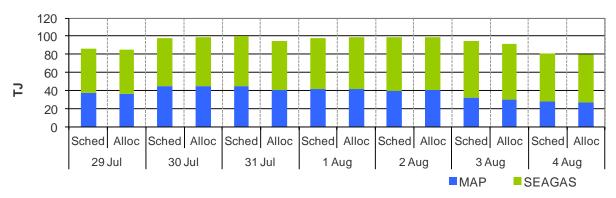
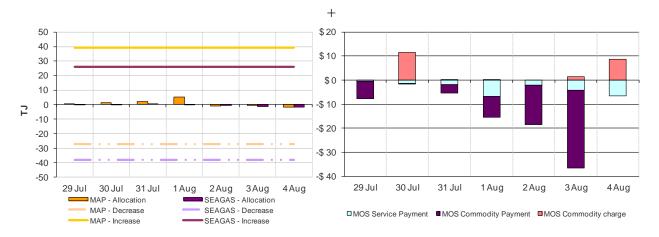


Figure 3.4 (a) ADL STTM MOS allocations (TJ)

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)	8.00	7.89	7.83	5.36	7.20	4.42	4.02
Ex ante quantity (TJ)	144	167	170	171	169	156	138
Ex post price (\$/GJ)	8.00	7.89	5.36	4.42	4.42	4.03	4.02
Ex Post quantity (TJ)	145	167	169	164	159	150	136

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

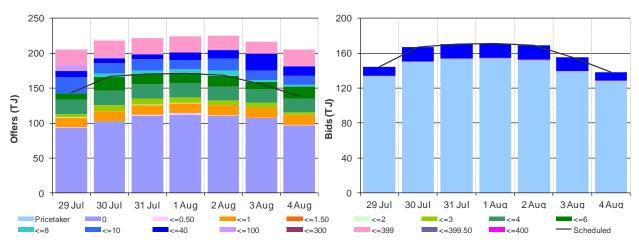


Figure 4.3: BRI STTM ex ante scheduled and allocated gas volumes by STTM facility

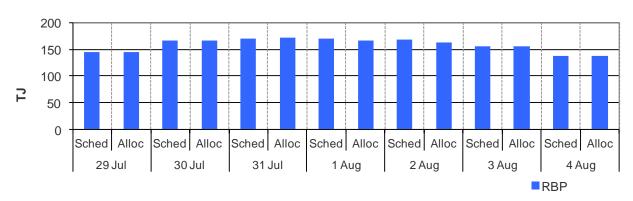


Figure 4.4 (a) BRI STTM MOS allocations (TJ)

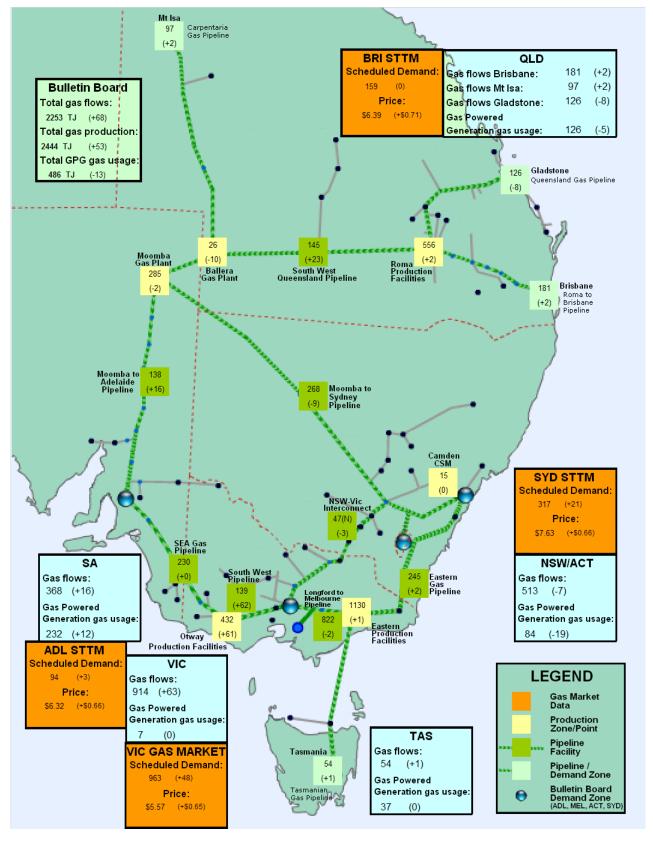
Figure 4.4 (b): Service payments and commodity payments/charges (\$000)



#### 5 National Gas Bulletin Board

Figure 5.1 shows average daily actual flows for the current week in the aqua boxes<sup>7</sup> 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)



<sup>&</sup>lt;sup>7</sup> 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