

21 – 27 April 2013

Weekly summary

Prices in Brisbane decreased from the previous week, while prices in the other regions remained below \$5/GJ.

Long term statistics and explanatory material

The AER has published an [explanatory note](#) to assist with interpreting the data presented in its weekly gas market reports. The AER also publish a range of [longer term statistics](#) 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)¹

	Victoria	Sydney	Adelaide	Brisbane
21 Apr - 27 Apr 2013	4.81	4.94	4.83	5.35
% change from previous week	10	4	0	-8
12-13 financial YTD	4.47	5.15	5.07	5.81
% change from previous financial YTD	47	66	39	84

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)
21 Apr - 27 Apr 2013	4.81	-	468
% change from previous week	10	-	-8
12-13 financial YTD	4.47	-	526
% change from previous financial YTD	47	-	-1

* Note: 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.

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.

¹ The weighted average daily imbalance price applies for Victoria.

Figure 3: Sydney STTM

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
21 Apr - 27 Apr 2013	4.94	4.88	9.20	235	233
% change from previous week	4	9	9	-4	-1
12-13 financial YTD	5.15	5.36	10.76	236	235
% change from previous financial YTD	66	87	-72	4	6

Figure 4: Adelaide STTM

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
21 Apr - 27 Apr 2013	4.83	4.83	11.52	51	49
% change from previous week	0	0	47	-8	-5
12-13 financial YTD	5.07	5.00	8.30	66	64
% change from previous financial YTD	39	39	-22	1	0

Figure 5: Brisbane STTM

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
21 Apr - 27 Apr 2013	5.35	4.89	1.23	131	128
% change from previous week	-8	-17	-3	-14	-16
12-13 financial YTD	5.81	5.75	2.39	145	144

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

On 25 April, the 4th ever (since STTM commencement) flow direction constraint price (FDCP) was set at \$0.0788/GJ in the Adelaide hub. It was envisaged such prices would be rare before market start in any STTM hub as it requires more backhaul gas bids to be scheduled above (or at) the market price than forward haul gas offers scheduled to the hub (below or at the market price). Nevertheless this has been the outcome in Adelaide on a number of occasions recently as volumes of offers to the Adelaide hub on the Moomba to Adelaide Pipeline (MAP) have declined.

The pricing mechanism allows additional gas offers (above the ex ante market price) on a pipeline to be scheduled to satisfy bids above the ex ante market price on a pipeline (as ‘backhaul’ gas scheduled cannot physically exceed ‘forward haul’ under the market rules). In this instance, 8010 GJ was scheduled to flow to the hub on the MAP, but 8381 GJ of backhaul was cleared to be withdrawn on MAP from the hub. An extra 371 GJ of MAP offers were scheduled (above the market price) to facilitate more trade – leading to Origin supplying an additional 371 GJ to Simply

Energy, who were willing to buy gas above the price of Origin's offer. The AER published an addendum to its 11–17 November 2012 Gas Weekly report which explains FDCPs in more detail (<http://www.aer.gov.au/node/18671>).

As deliveries of gas to the Elizabeth zone (inside the Adelaide hub) cannot physically access gas injected from the SEAGas pipeline, and as net flows on MAP to Adelaide were zero, this resulted in a requirement for additional gas that needed to be sourced from MAP. Increase MOS on MAP provided an extra 7181 GJ of gas physically delivered into Adelaide, but this led to counter-acting MOS, with 8105 GJ of MOS stored as decrease MOS on the SEAGas pipeline (SEAGas did not physically deliver as much as scheduled/nominated). The total MOS service payment was around \$36 000.

Detailed Market Analysis

21 – 27 April 2013

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 forecasts², and injection/withdrawal bids³. 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.⁴

Figure 1.1: Prices by schedule

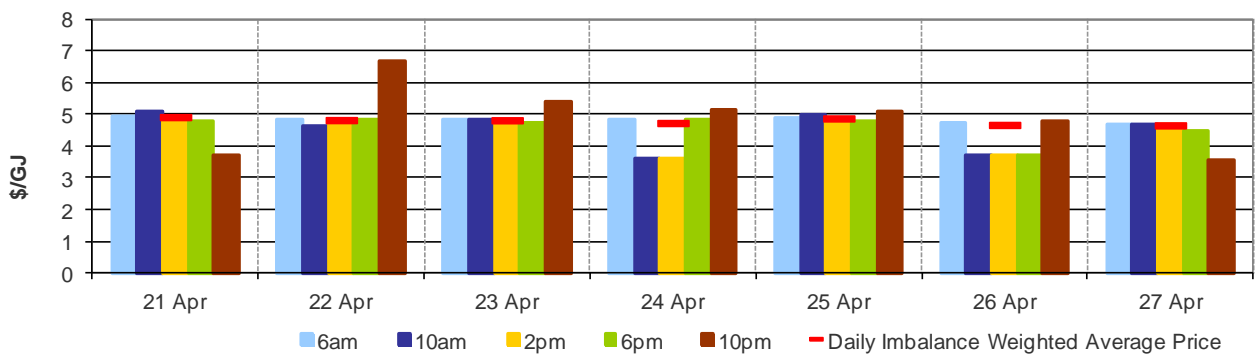
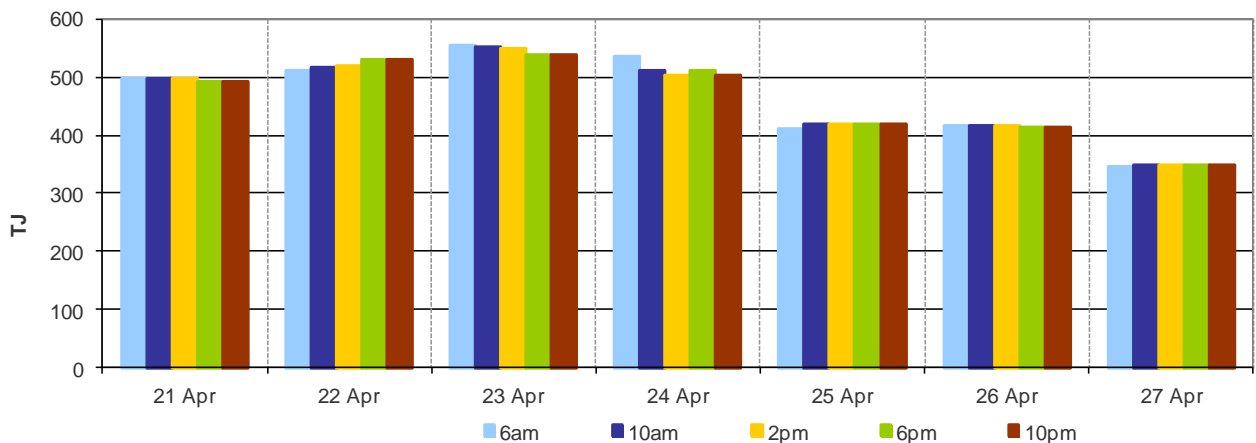


Figure 1.2: Demand forecasts



² 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.

³ 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.

⁴ 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

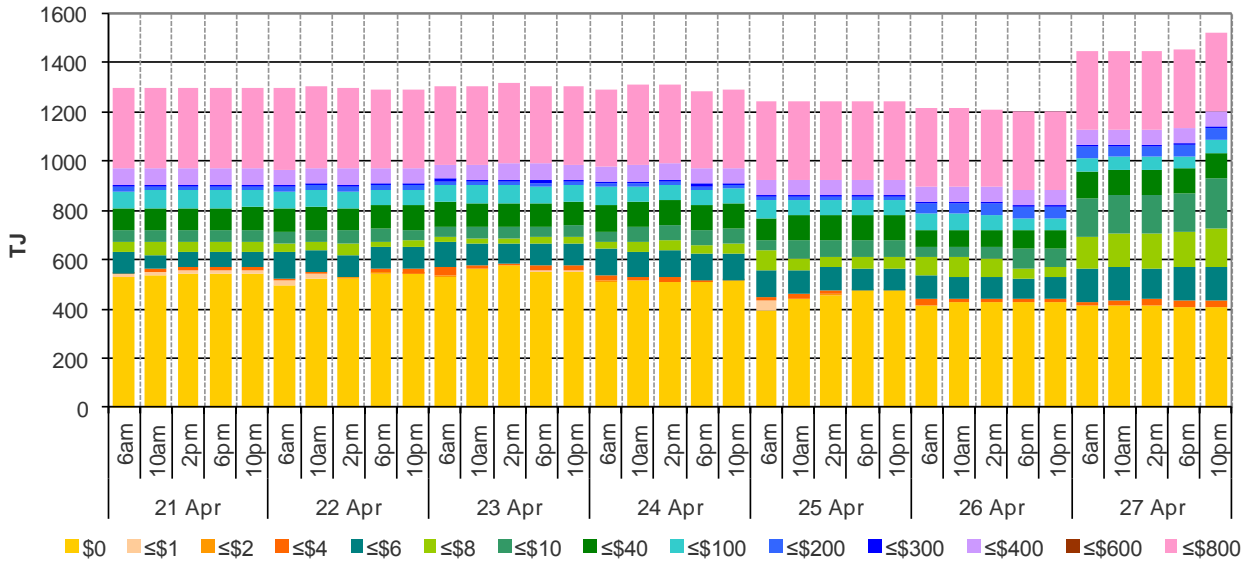


Figure 1.4: Withdrawal bids by price bands

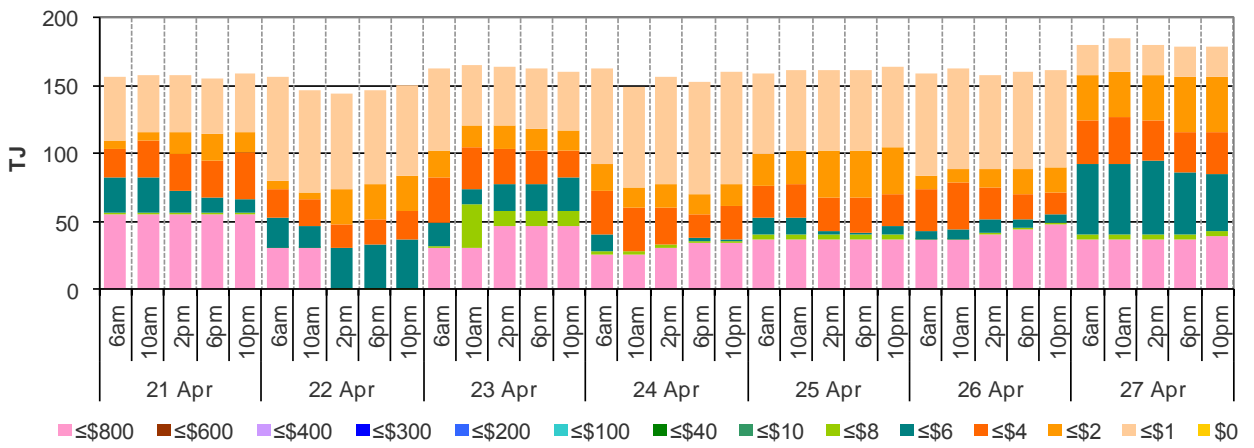
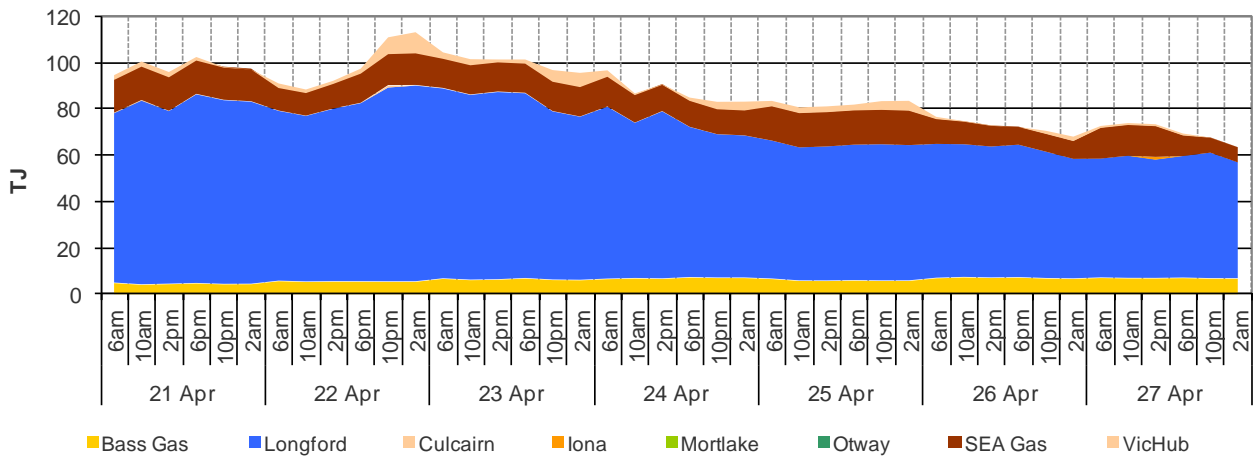


Figure 1.5: Metered Injections by System Injection Point



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.⁵ 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)	4.88	4.94	4.94	4.98	4.95	4.95	4.95
Ex ante quantity (TJ)	226	245	243	249	219	242	220
Ex post price (\$/GJ)	4.94	4.94	4.94	4.94	4.88	4.56	4.95
Ex Post quantity (TJ)	230	248	246	244	216	231	218

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

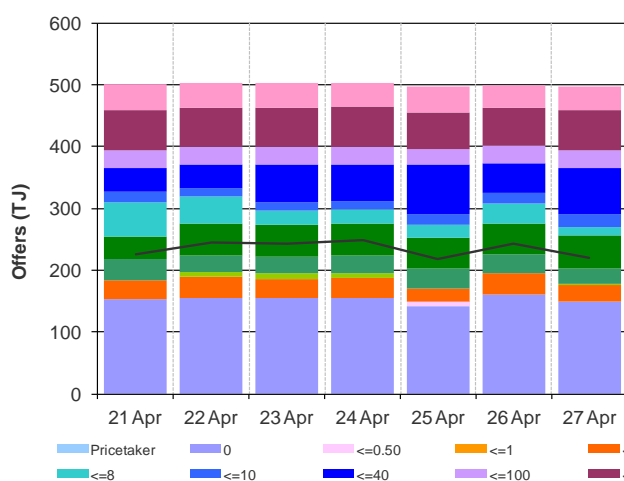
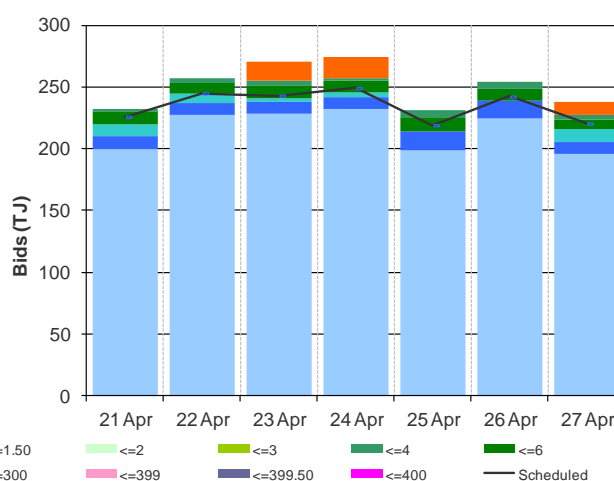


Figure 2.2(b): Daily hub bids in price bands (\$/GJ)



⁵ 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.

⁶ MOS service payments involve a payment for a MOS increase service when the actual quantity delivered exceeds final gas nominations for delivery to a hub, and a payment for a MOS decrease service when the actual quantity delivered is less than final nominations. 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

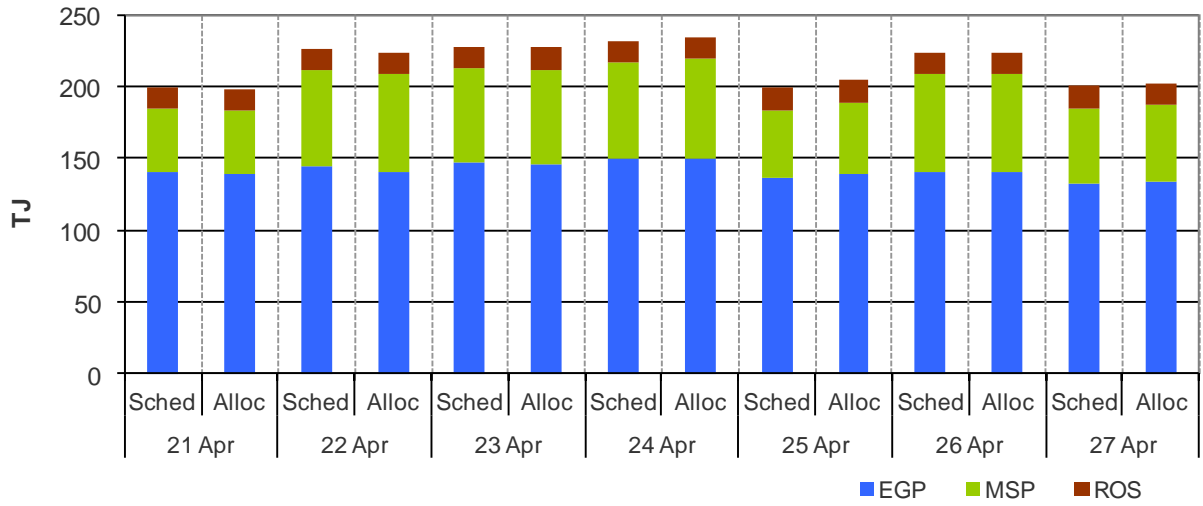


Figure 2.4 (a) SYD STTM MOS allocations (TJ)

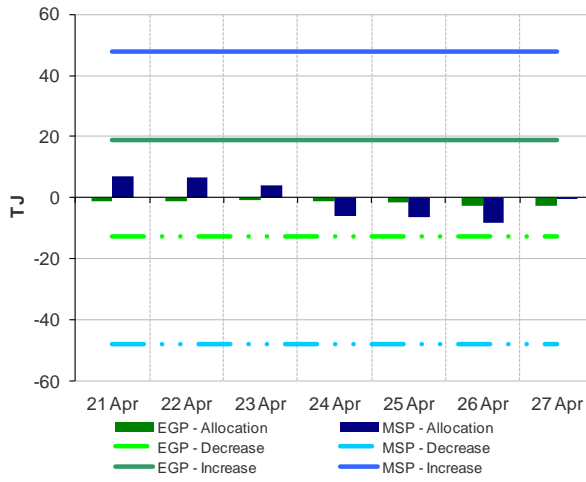
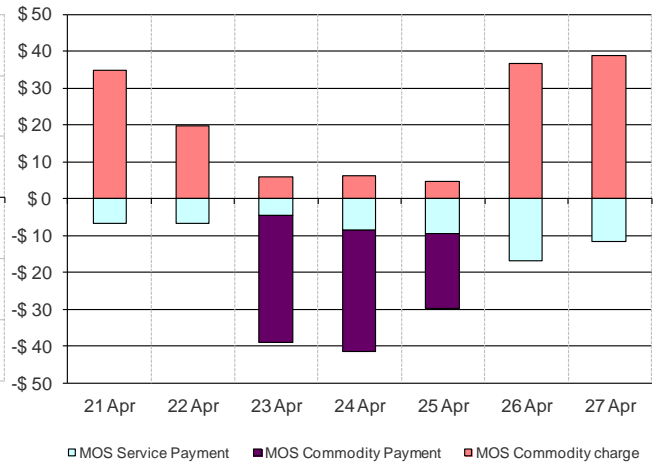


Figure 2.4 (b): Service payments and commodity payments/charges (\$000)



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)	4.96	4.96	4.92	4.76	4.70	4.77	4.76
Ex ante quantity (TJ)	42	53	60	62	48	56	35
Ex post price (\$/GJ)	4.96	4.96	4.92	4.75	4.70	4.76	4.76
Ex Post quantity (TJ)	45	52	59	56	47	50	34

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

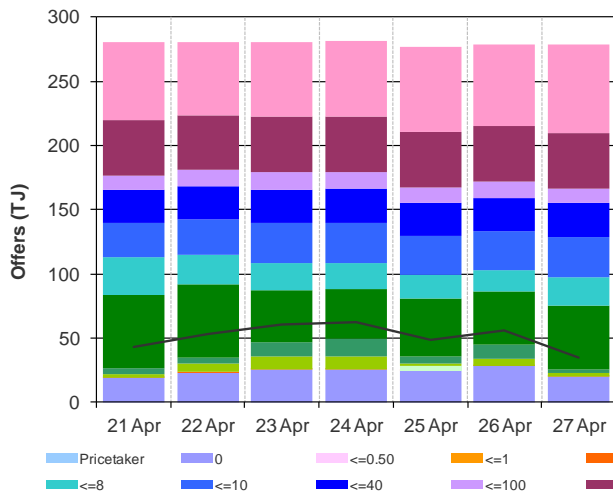


Figure 3.2(b): Daily hub bids in price bands (\$/GJ)

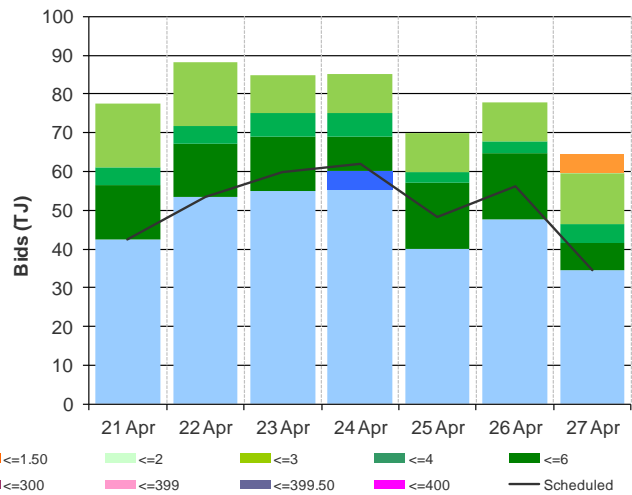


Figure 3.3: ADL STTM ex ante scheduled and allocated gas volumes by STTM facility

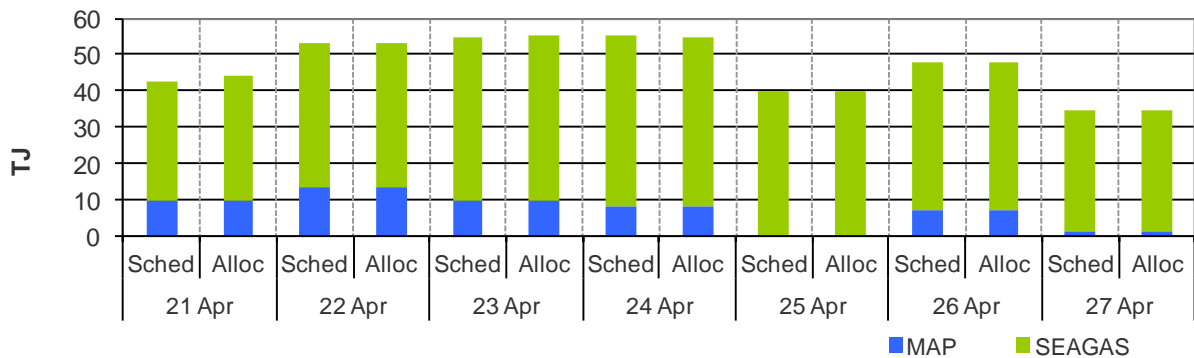


Figure 3.4 (a) ADL STTM MOS allocations (TJ)

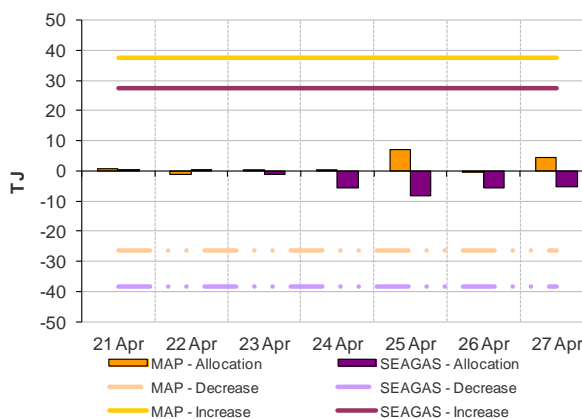
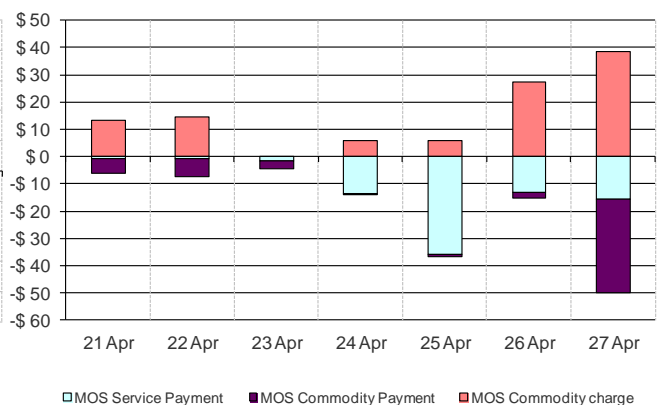


Figure 3.4 (b): Service payments and commodity payments/charges (\$000)



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)	5.40	6.65	5.40	5.40	4.94	4.84	4.83
Ex ante quantity (TJ)	138	160	159	149	104	111	97
Ex post price (\$/GJ)	4.92	5.71	5.40	4.83	4.44	4.11	4.83
Ex Post quantity (TJ)	135	159	159	143	99	103	98

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

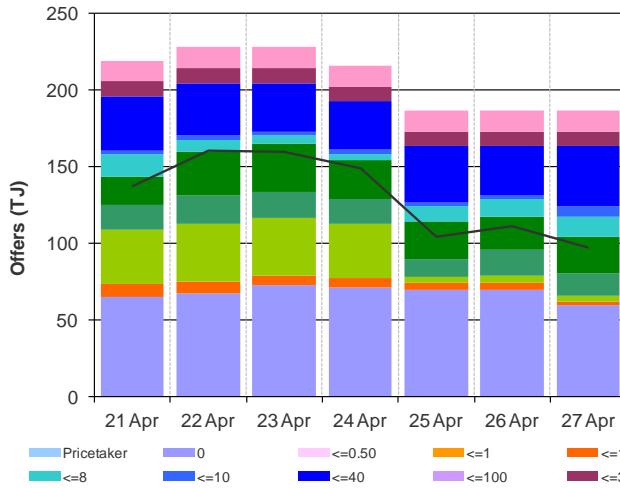


Figure 4.2(b): Daily hub bids in price bands (\$/GJ)

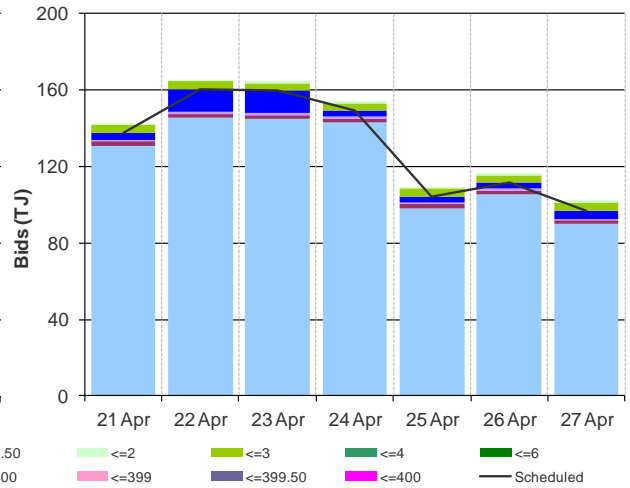


Figure 4.3: BRI STTM ex ante scheduled and allocated gas volumes by STTM facility

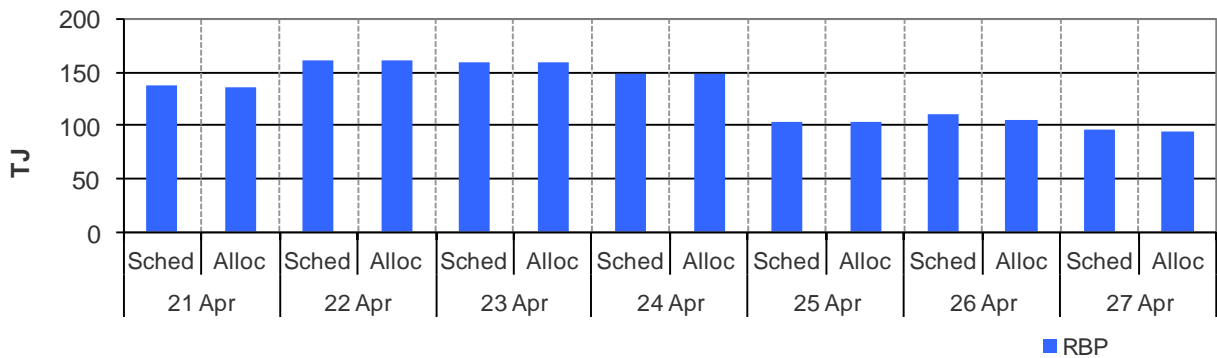


Figure 4.4 (a) BRI STTM MOS allocations (TJ)

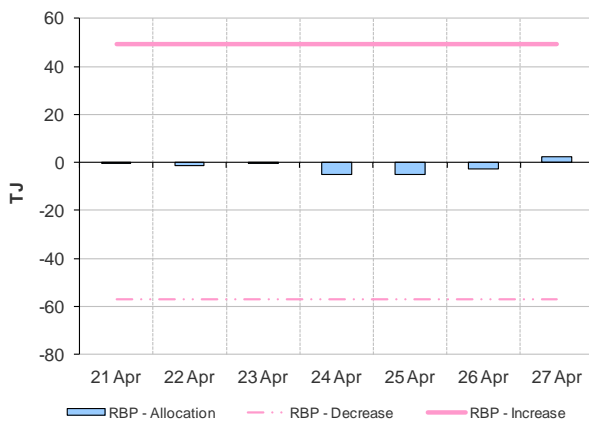
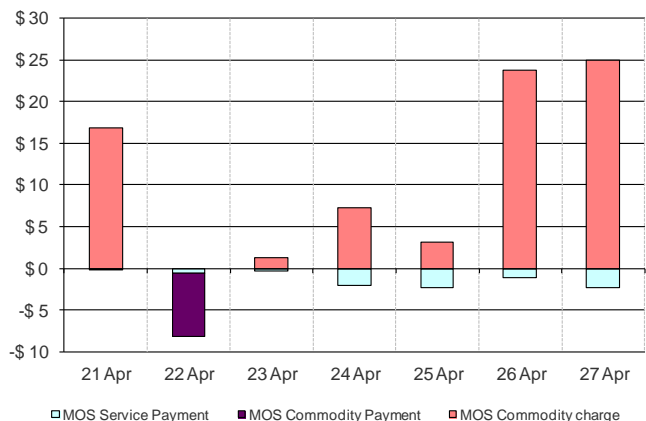


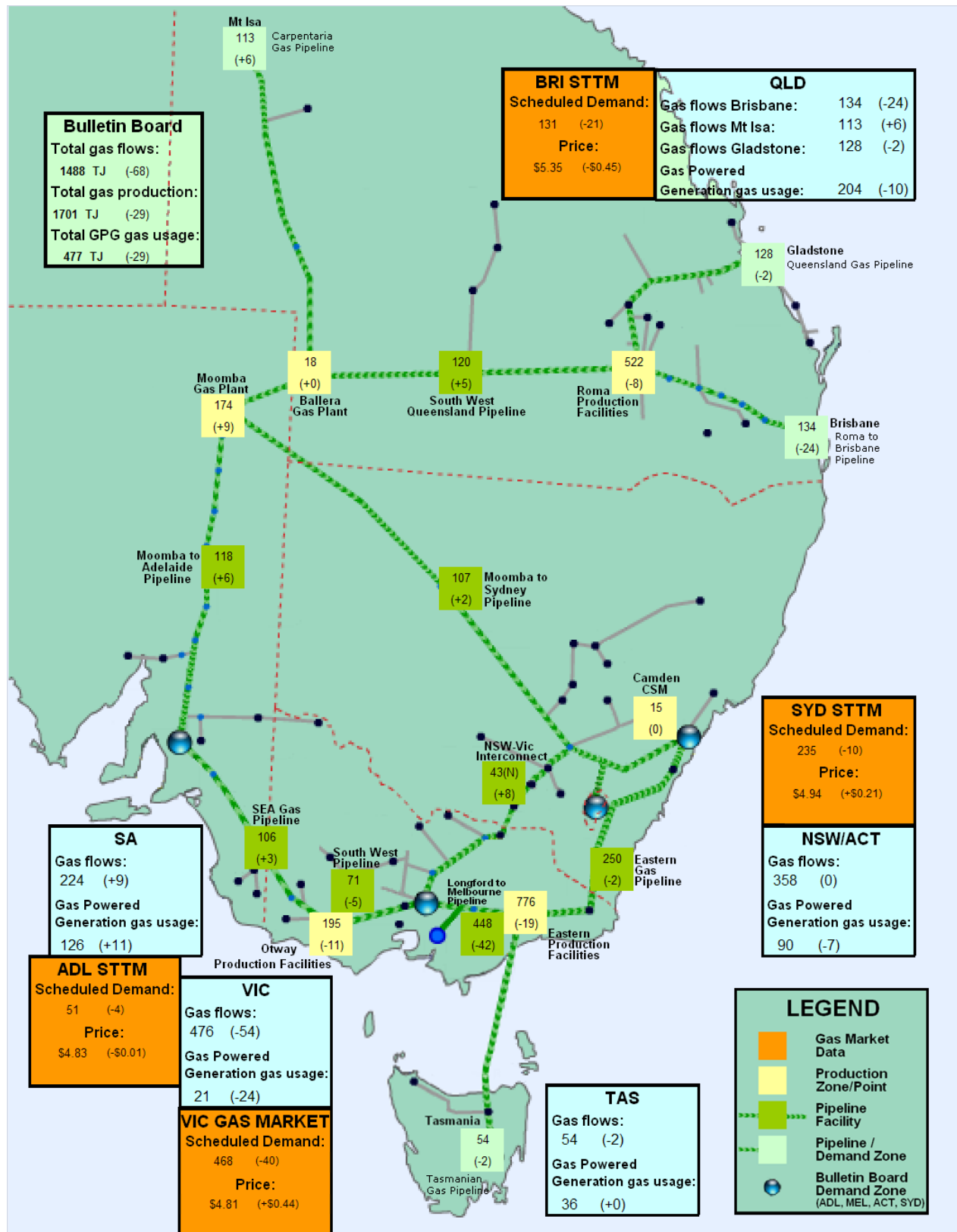
Figure 4.4 (b): Service payments and commodity payments/charges (\$000)



5 National Gas Bulletin Board

Figure 5.1 shows average daily actual flows for the current week in the aqua boxes⁷ 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)



⁷ 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 GPG volumes include gas usage that may not show up on Bulletin Board pipeline flows.