Weekly Gas Market Report

AUSTRALIAN ENERGY REGULATOR

18 – 22 June 2013

Weekly summary

Prices in markets to the south increased this week as demand rose with colder temperatures. The impact in Victoria was more significant, as demand increased above 1 PJ from around mid-week when minimum temperatures dropped below 3 degrees.

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
16 Jun - 22 Jun 2013	4.87	6.05	5.73	6.48
% change from previous week	29	16	15	4
12-13 financial YTD	4.47	5.16	5.07	5.88
% change from previous financial YTD	38	55	35	71

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)
16 Jun - 22 Jun 2013	4.87	2314.29	994
% change from previous week	29	-	15
12-13 financial YTD	4.47	-	561
% change from previous financial YTD	38	-	-2

* 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)
16 Jun - 22 Jun 2013	6.05	6.44	5.06	302	307
% change from previous week	16	21	-59	7	10
12-13 financial YTD	5.16	5.35	10.62	240	239
% change from previous financial YTD	55	72	-74	2	4

Figure 4: Adelaide STTM

	Ex ante price ($/GJ)	Ex post price ($/GJ)	MOS payments ($000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
16 Jun - 22 Jun 2013	5.73	5.77	26.07	97	97
% change from previous week	15	18	40	7	15
12-13 financial YTD	5.07	5.02	9.77	68	66
% change from previous financial YTD	35	35	-5	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)
16 Jun - 22 Jun 2013	6.48	7.68	2.82	120	122
% change from previous week	4	17	31	-18	-17
12-13 financial YTD	5.88	5.95	2.42	143	142

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

The ex post price in Brisbane reached $11.65/GJ (from $6.38/GJ ex ante) on Tuesday 18 June due to a 12.5 TJ imbalance.

Adelaide saw prices reasonably stable at around $6/GJ from Tuesday, with demand in the region reaching just below 100 TJ/day. The hub also saw counter-acting MOS deliveries occurring throughout the week.

Prices in Sydney also rose as demand increased above 300 TJ throughout the week, with the ex ante price reaching $7.99/GJ on Friday.

In Victoria, demand increased above 1.1 PJ from around the middle of the week as minimum temperatures fell to around 3 degrees over a number of days.

This saw a number of schedule prices being set in the $5/GJ to $7/GJ range. On 21 June, the requirement for LNG was notified from 3 pm and the 2 pm price increased to $6.90/GJ. On this

gas day, around 20 TJ of LNG was vaporised below 100 tonnes/hr and positive ancillary payments occurred for the first time since June 2009. Around $27 000 in ancillary payments was accrued during the 2 pm schedule.

Sat 22 June saw around 5 TJ of override scheduled in the Victorian gas market between 6pm and 10pm, due to aggregate participant forecasts falling below AEMO's override threshold. This is the first positive override for under forecasting since the end of the previous month,

More generally, high demand in the region has seen market notices indicating restrictions to export flows going north through Culcairn on a number of days.

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[2], and injection/withdrawal bids[3]. 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

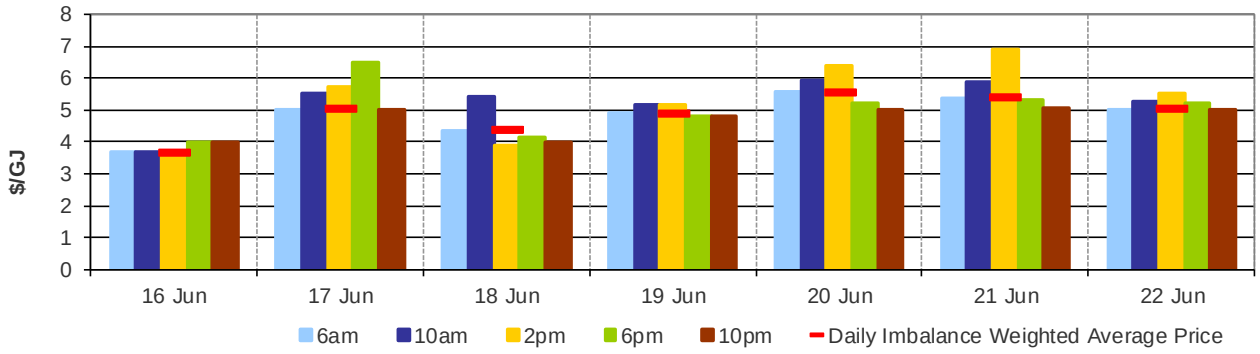
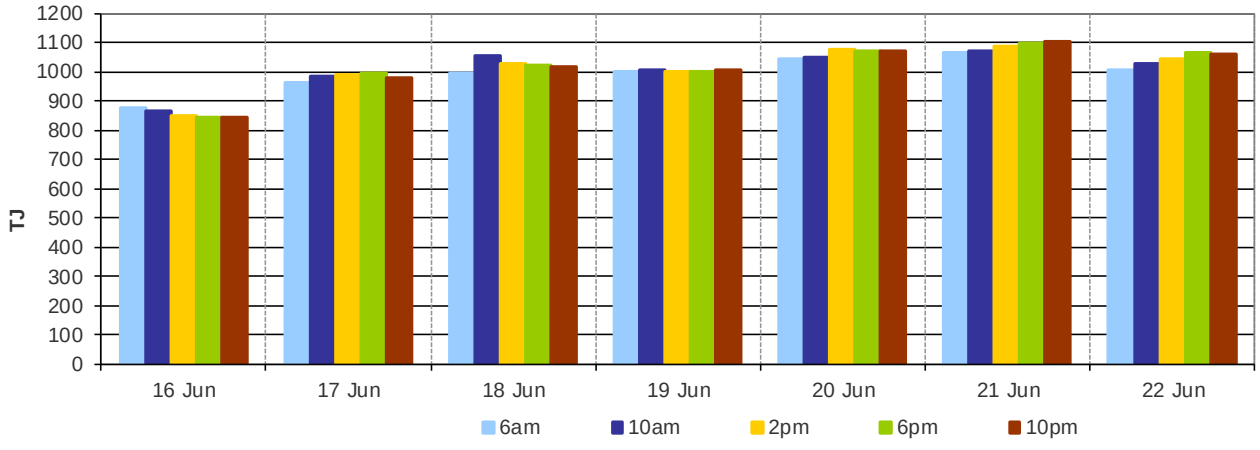


Figure 1.2: Demand forecasts



[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.

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Figure 1.3: Injection bids by price bands

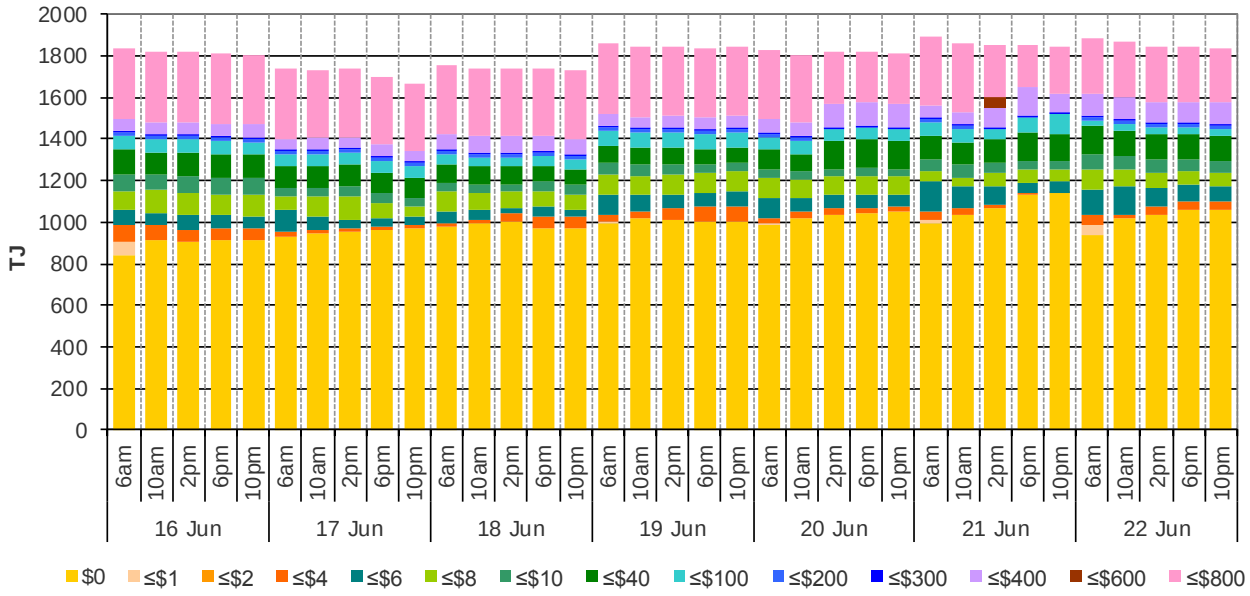


Figure 1.4: Withdrawal bids by price bands

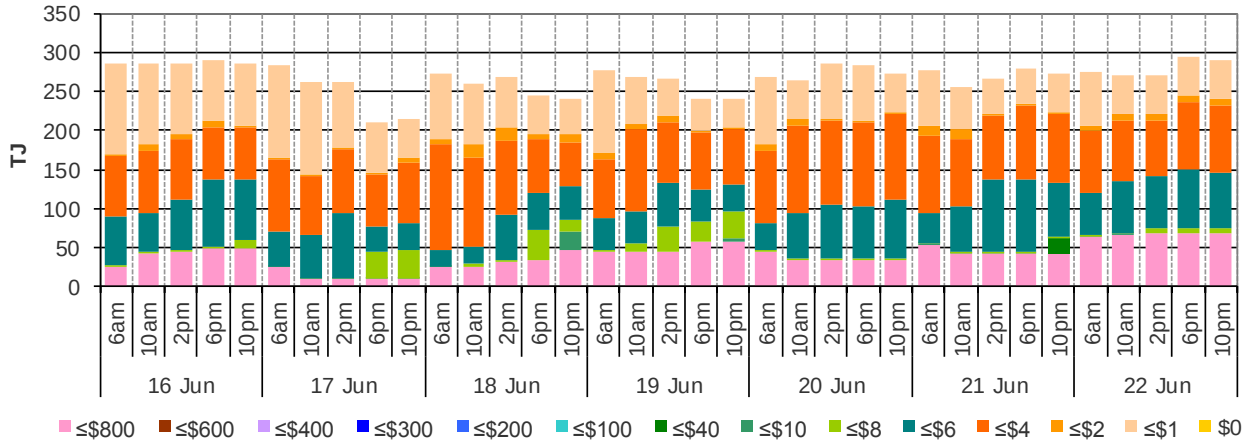
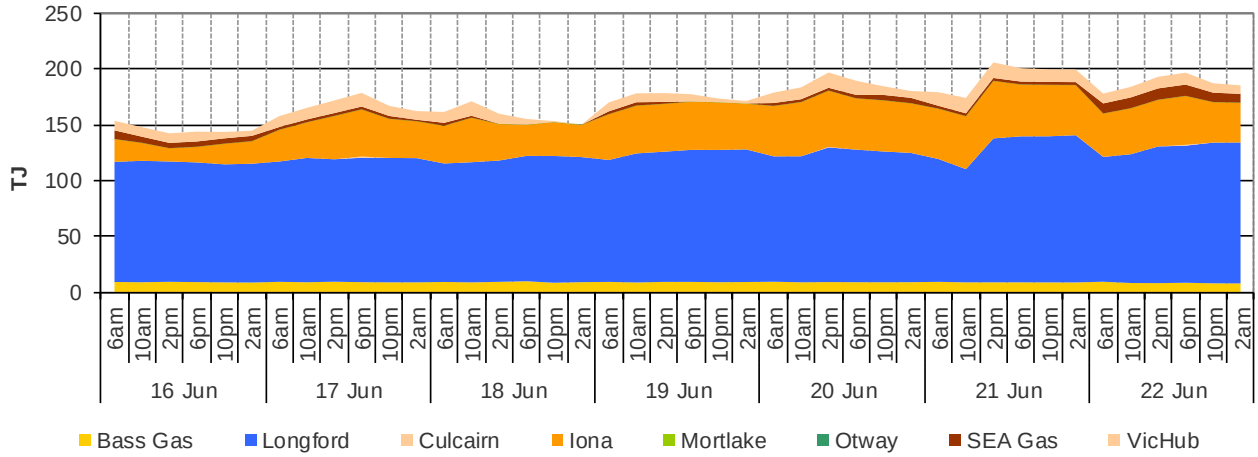


Figure 1.5: Metered Injections by System Injection Point



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.[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 ($/GJ)	5.00	5.01	6.45	5.01	6.46	7.99	6.46
Ex ante quantity (TJ)	278	317	307	324	313	306	270
Ex post price ($/GJ)	5.00	5.00	6.45	5.06	6.46	8.10	8.99
Ex Post quantity (TJ)	269	308	312	328	318	318	293

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

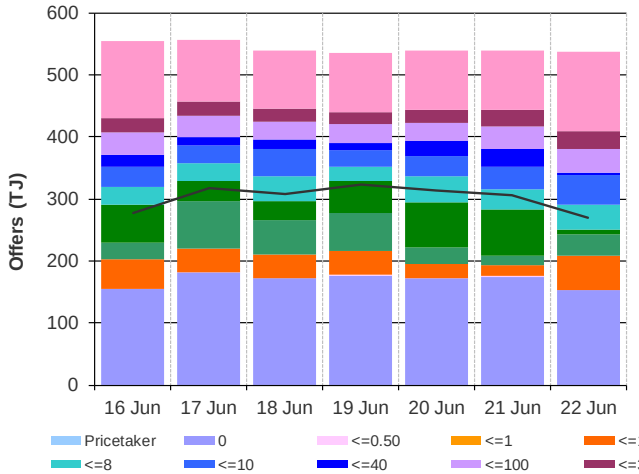
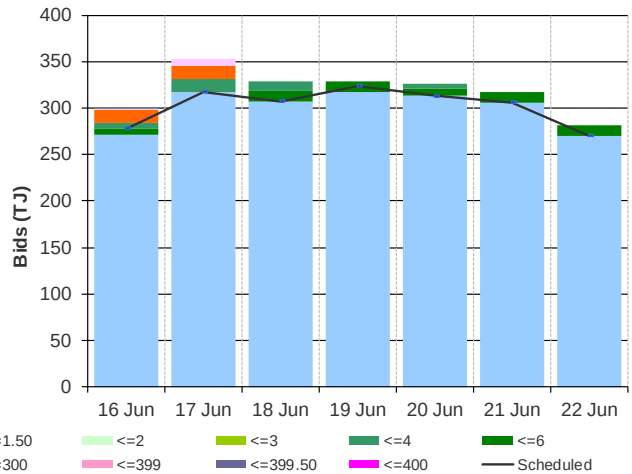


Figure 2.2(b): Daily hub bids in price bands ($/GJ)



[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

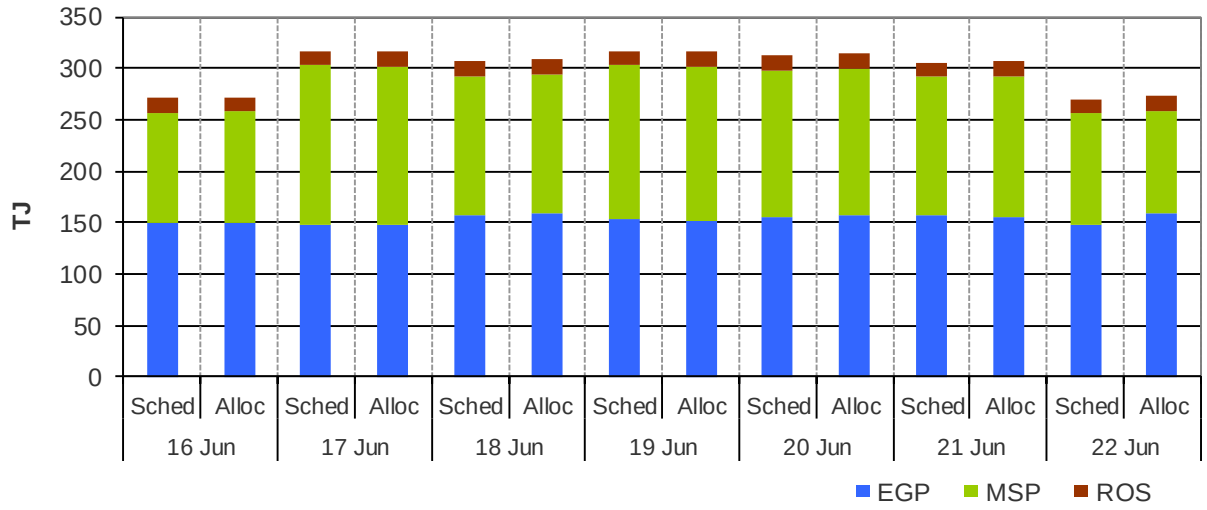


Figure 2.4 (a) SYD STTM MOS allocations (TJ)

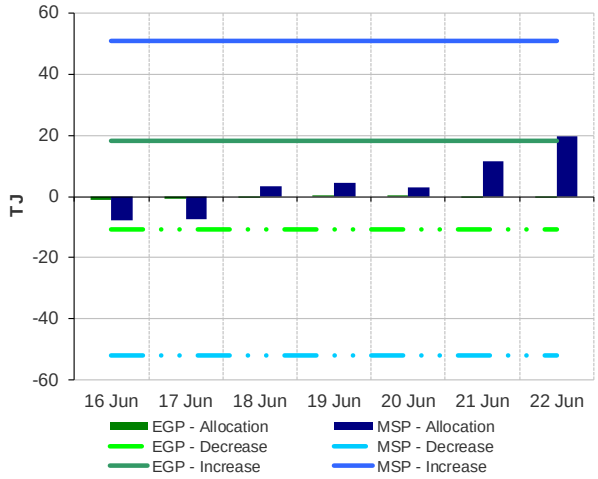
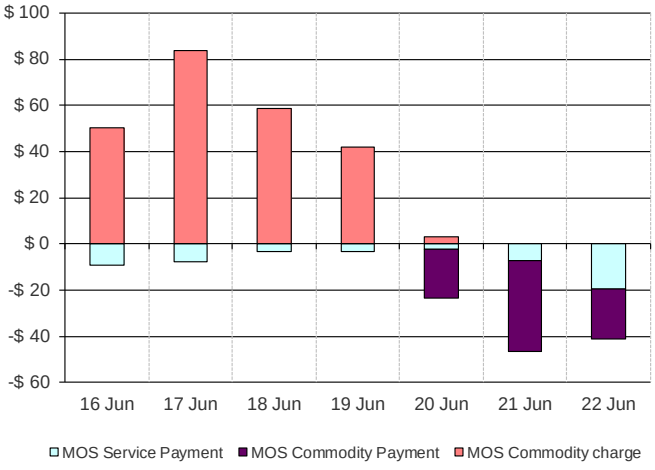


Figure 2.4 (b): Service payments and commodity payments/charges ($000)



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 ($/GJ)	5.02	5.06	6.00	6.00	6.00	6.00	6.00
Ex ante quantity (TJ)	85	94	100	105	101	100	90
Ex post price ($/GJ)	4.93	5.06	6.40	6.00	6.00	6.00	6.00
Ex Post quantity (TJ)	83	94	104	106	104	98	92

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

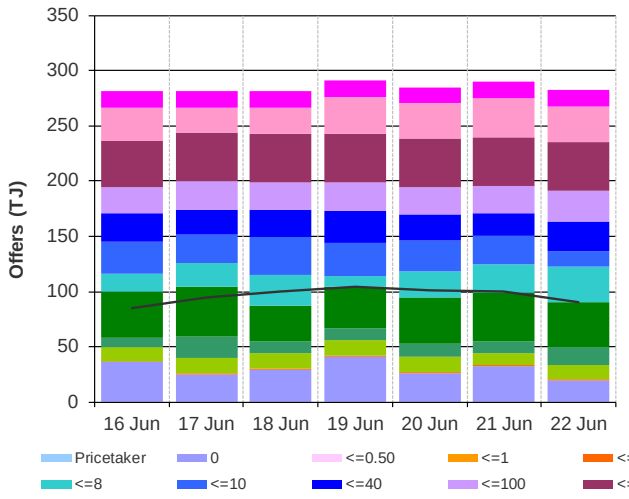


Figure 3.2(b): Daily hub bids in price bands ($/GJ)

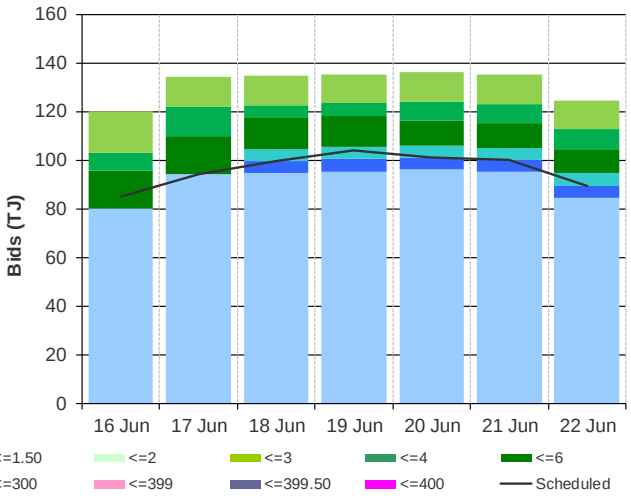


Figure 3.3: ADL STTM ex ante scheduled and allocated gas volumes by STTM facility

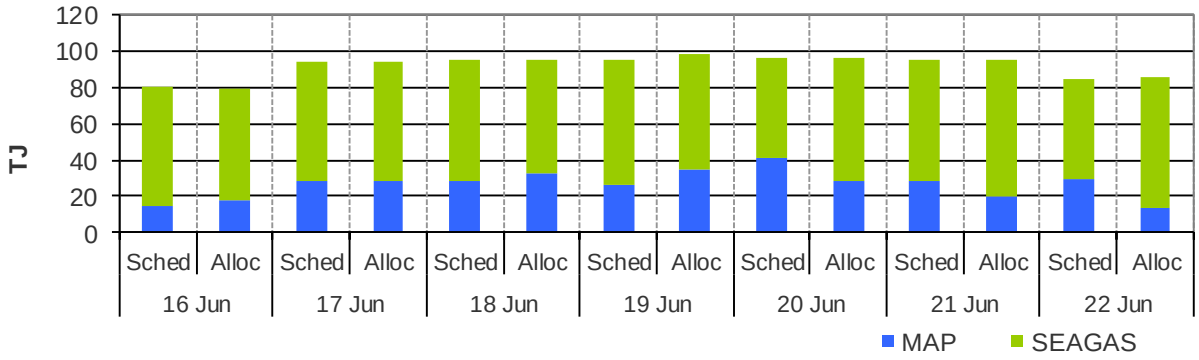


Figure 3.4 (a) ADL STTM MOS allocations (TJ)

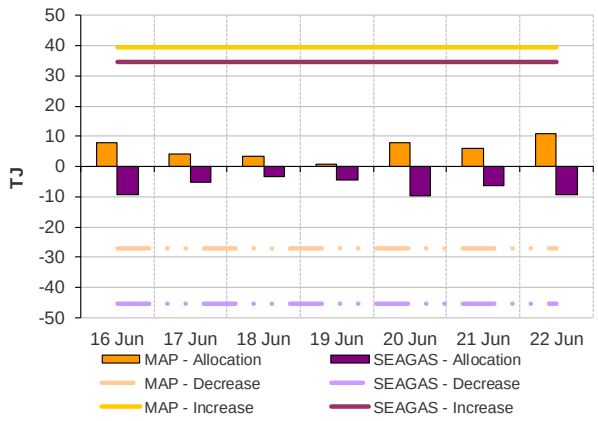
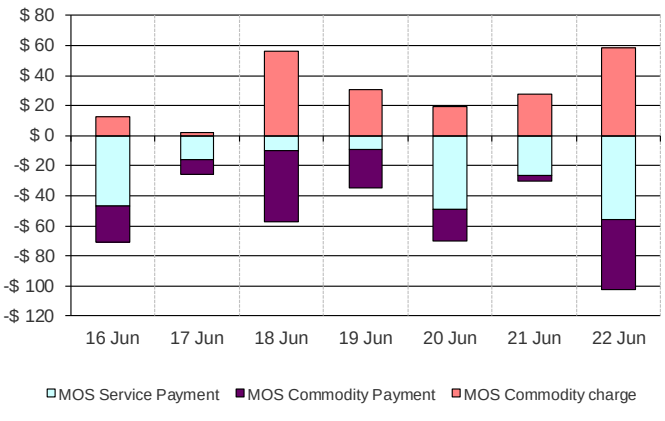


Figure 3.4 (b): Service payments and commodity payments/charges ($000)



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 ($/GJ)	5.11	5.11	6.38	7.40	7.40	7.40	6.59
Ex ante quantity (TJ)	105	122	122	131	128	123	108
Ex post price ($/GJ)	6.38	6.38	11.65	7.75	7.40	7.60	6.59
Ex Post quantity (TJ)	107	124	134	132	127	123	108

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

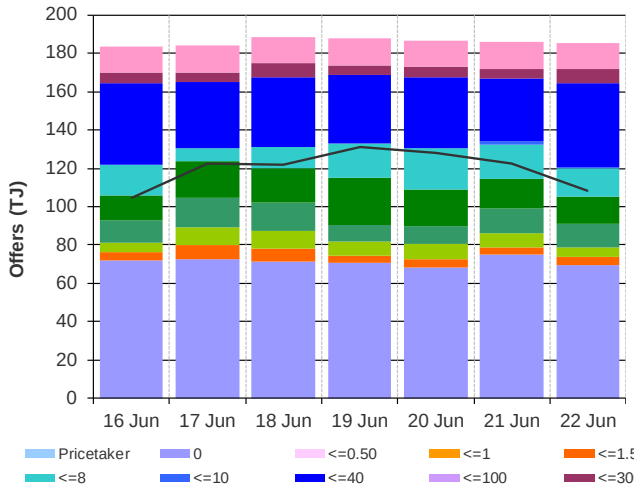


Figure 4.2(b): Daily hub bids in price bands ($/GJ)

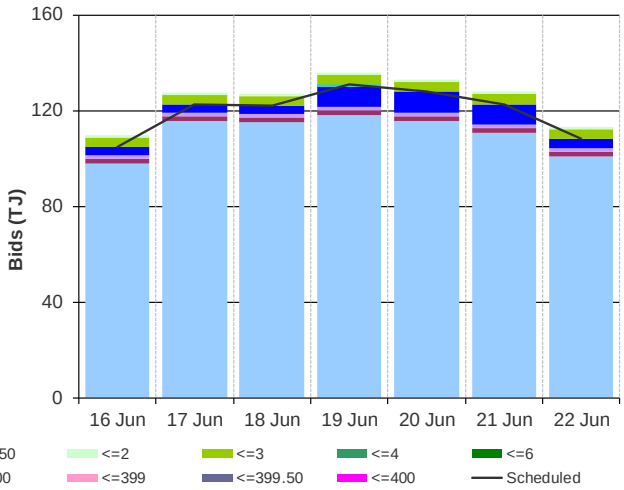


Figure 4.3: BRI STTM ex ante scheduled and allocated gas volumes by STTM facility

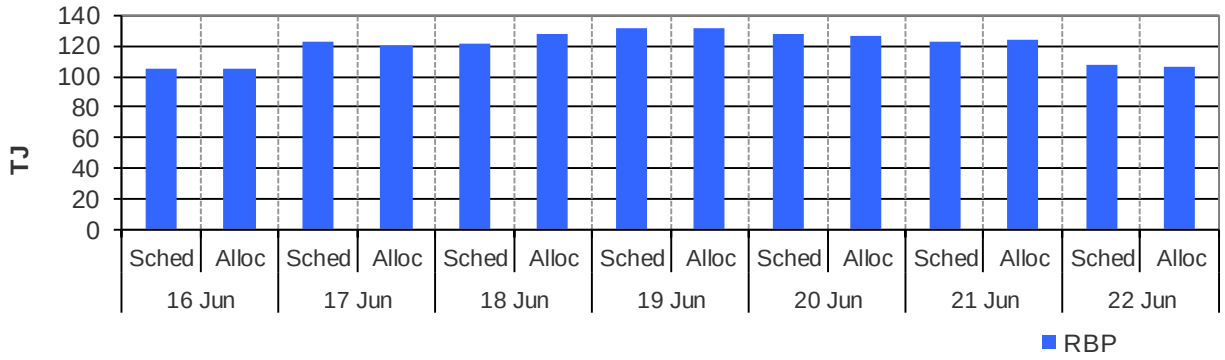


Figure 4.4 (a) BRI STTM MOS allocations (TJ)

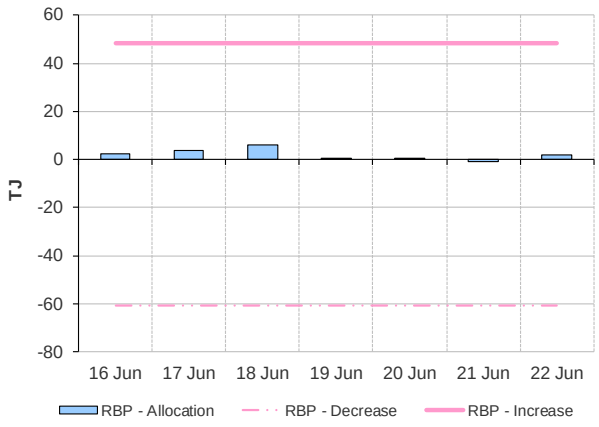
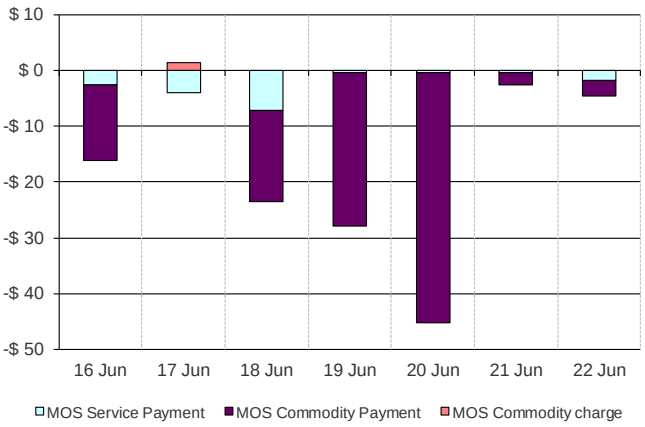


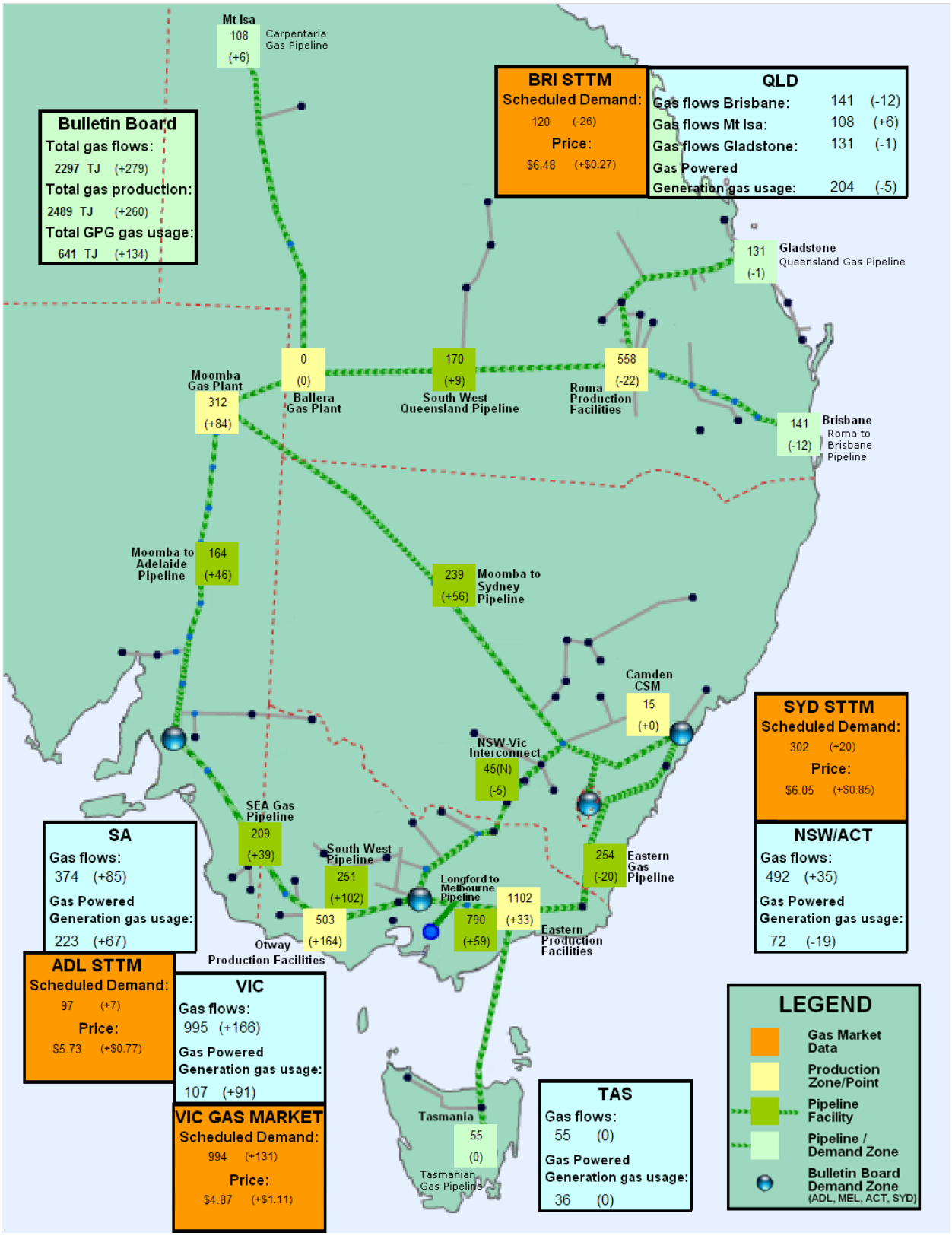
Figure 4.4 (b): Service payments and commodity payments/charges ($000)



5 National Gas Bulletin Board

Figure 5.1 shows average daily actual flows for the current week in the aqua boxes[7] 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.