

Weekly summary

The average price in Brisbane and Sydney decreased significantly compared to the previous week. In Brisbane, the ex ante price fell to its lowest level on record to effectively zero on 1 October. A number of other days across the week were also at the 2nd and 3rd lowest levels (\$0.825/GJ and \$0.90/GJ respectively), leading to a record low weekly average price of \$0.88/GJ. In Sydney, the ex post price fell to zero on two occasions, while ex ante and ex post prices across the week were below \$3/GJ on all but two days.

QGC registered two new facilities on the Bulletin Board associated with its LNG train – Ruby Jo and Bellvue (yet to commence reporting).

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
28 Sep - 04 Oct 2014	3.28	2.86	3.11	0.88
% change from previous week	-4	-27	-11	-50
14-15 financial YTD	3.64	3.82	3.81	2.27
% change from previous financial YTD	-11	-13	-23	-61

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

Figure 2: Victorian gas market

	Price (\$/GJ)	Ancillary payments (\$000)*	BOD forecast demand quantity (TJ)
28 Sep - 04 Oct 2014	3.28	-	487
% change from previous week	-4	-	-5
14-15 financial YTD	3.64	-	782
% change from previous financial YTD	-11	-	4

¹ The weighted average daily imbalance price applies for Victoria.

* Note: only positive ancillary payments, reflecting system constraints will be shown here.

More detailed analysis on the VGM is provided in section 1.

Figures 3 to 5 show average ex ante and ex post gas prices, Market Operator Service (MOS) balancing gas service payments together with the related daily demand quantities against historical averages for the Sydney, Adelaide and Brisbane STTM hubs, respectively.

Figure 3: Sydney STTM

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
28 Sep - 04 Oct 2014	2.86	2.16	12.99	227	223
% change from previous week	-27	-45	-32	-7	-7
14-15 financial YTD	3.82	3.87	18.44	281	283
% change from previous financial YTD	-13	-9	48	2	5

Figure 4: Adelaide STTM

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
28 Sep - 04 Oct 2014	3.11	3.13	12.50	57	57
% change from previous week	-11	-9	-33	-6	-4
14-15 financial YTD	3.81	3.74	14.78	83	82
% change from previous financial YTD	-23	-26	-36	-2	-4

Figure 5: Brisbane STTM

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
28 Sep - 04 Oct 2014	0.88	0.77	1.94	122	123
% change from previous week	-50	-56	78	-27	-25
14-15 financial YTD	2.27	2.24	1.17	160	160
% change from previous financial YTD	-61	-62	-26	11	10

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 (**Bulletin Board**), as well as gas powered generation (GPG) volumes in each state, and section 6 provides information on the gas supply hub at Wallumbilla.

Significant Market Events or Issues this week

Ruby Jo production data – large increase in reported Roma zone flows

From 1 October, flows from QGC's Ruby Jo production facility in Queensland's Roma region commenced being reported on the Bulletin Board. This joins export LNG associated flows already being reported by APLNG's Condabri Central production facility reported since mid-June. Both facilities have been built for respective LNG export projects. The map at the back of this report

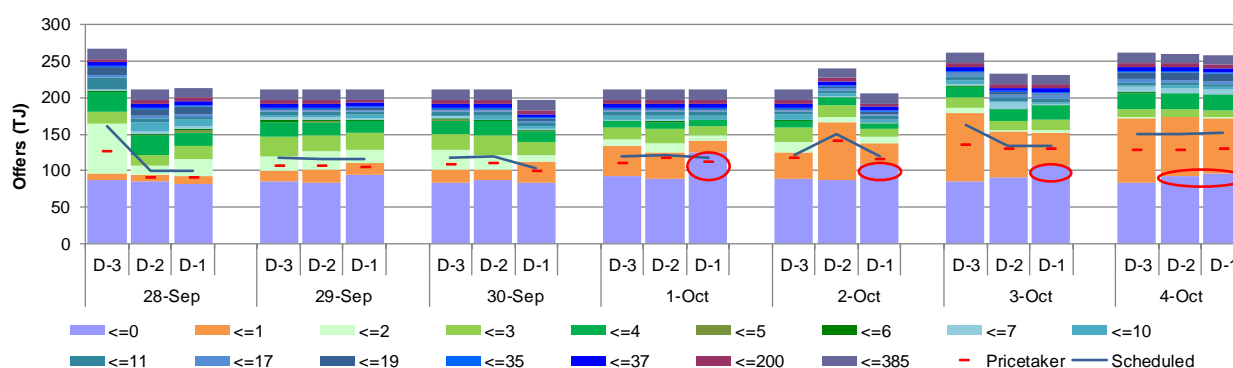
highlights the large extra volume of average daily Roma production with the addition of Ruby Jo production of about 180 TJ per day.

Brisbane ex ante floor prices and low demand

In Brisbane, diminished demand across the week resulted from the Swanbank E gas-powered generator going offline from 28 September. This accounted for a reduction of around 40-55 TJ of reduced gas demand until Friday evening when the unit returned to service (see figure 4.3). This did not have a significant impact on the prices as Stanwell reduced its supply offers in line with the lack of gas demand at the unit (see figure 6).

Prices in the Brisbane hub were low across the week in all schedules. A number of participants rebid gas to the floor price from mid-week. On 1 October, a large volume of supply was rebid to zero (36.2 TJ across the hub), which was influenced to a larger degree by AGL's additional floor priced offers (29.8 TJ) surpassing other participants' changes. As a result of the additional low priced gas in the ex ante schedule, the price fell by around \$1/GJ to \$0.0007/GJ. Similarly, the following days saw additional quantities of offers rebid to zero (up to 20.4 TJ) in the hub and ex ante prices for the remainder of the week were set at \$0.90/GJ (see figure 6).

Figure 6: Brisbane STTM hub offers in price bands for each gas day schedule



Sydney ex post floor prices and capacity prices

On 29 and 30 September in Sydney, over forecast demand in the hub saw around 12.5 TJ of decrease MOS required on both days (see figure 2.4). Ex ante prices were low on these days at \$2.50/GJ. This was influenced by an additional supply of floor priced gas by AGL (around 24 TJ), rebid from bands priced up to \$4/GJ, leading to over 99 per cent of scheduled supply on both days being provided by \$0/GJ offers. Due to the negative imbalance of around 13 TJ on both days resulting from forecast errors, the ex post prices reduced to the floor.²

On 1 and 2 October, constrained capacity on the Moomba to Sydney Pipeline (MSP) due to maintenance saw capacity prices set on a further two occasions (see figure 7).³ There was an abundance of low priced MSP gas which could not be scheduled to supply the hub (see figure 8) resulting in higher ex ante prices and also equivalent capacity prices on both days, which is the mechanism used to compensate shippers with firm transportation rights.⁴

On these days, all offers scheduled on the MSP were priced at the floor leading to capacity prices being set at the ex ante price. For both days provisional capacity prices first appeared in the D-2 schedule.

Similar to the previous week, there was no as-available gas scheduled displacing firm offers.

² An ex post price of zero has only occurred on one other occasion on 6 August 2011.

³ Two capacity prices were also recorded on the pipeline during the previous week. Maintenance on the MSP is expected to be complete in April 2015.

⁴ Firm shippers are compensated by non-firm shippers whose gas was scheduled (with the volume of displaced gas charged at the capacity price).

Figure 7: Capacity and scheduled quantity on the Moomba to Sydney Pipeline (MSP)

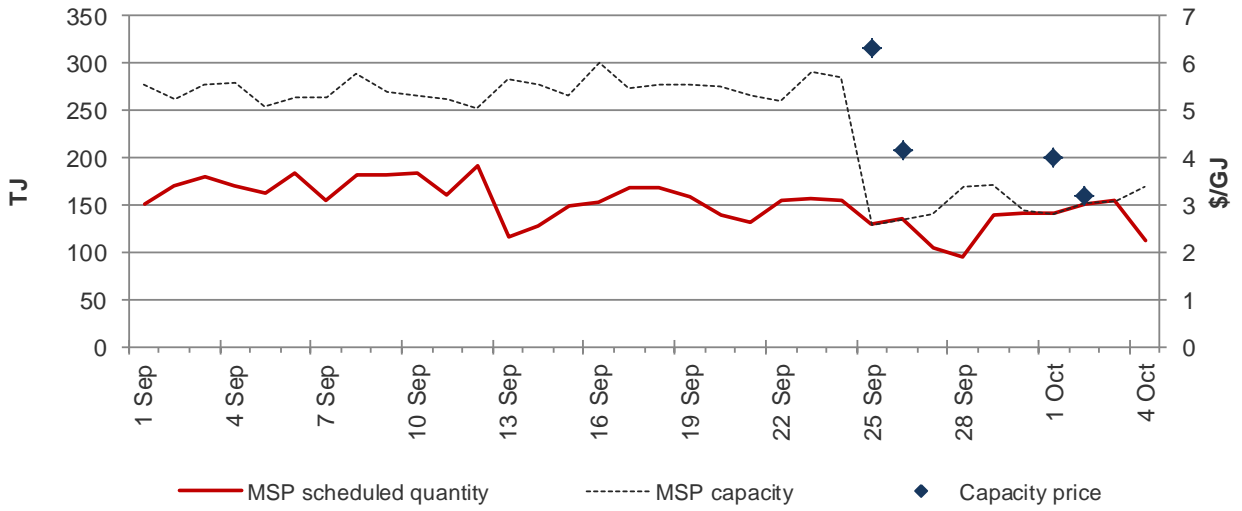
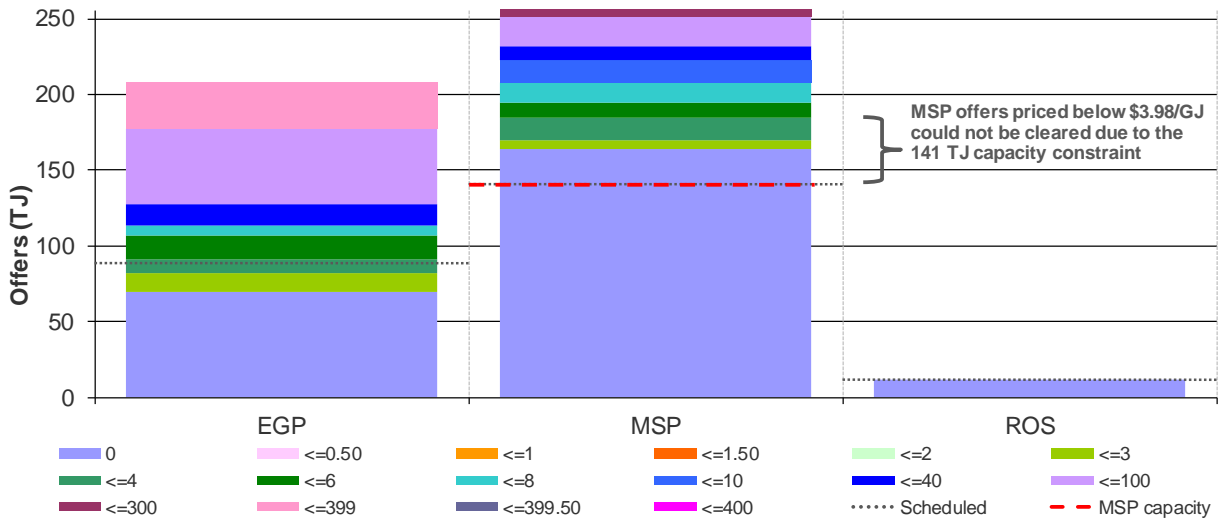


Figure 8: Sydney hub offers in price bands (\$/GJ) by pipeline for 1 October 2014



Detailed Market Figures

28 September – 4 October 2014

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 forecasts⁵, and injection/withdrawal bids.⁶ 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.⁷

Figure 1.1: Prices by schedule

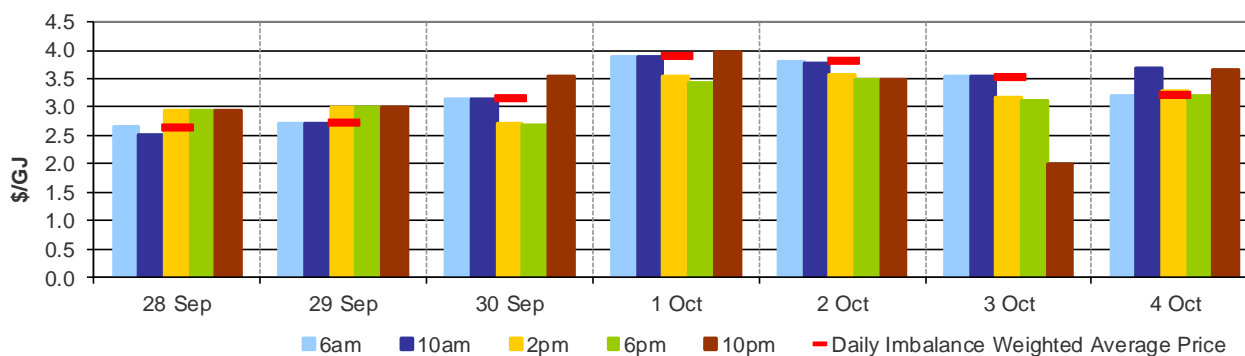
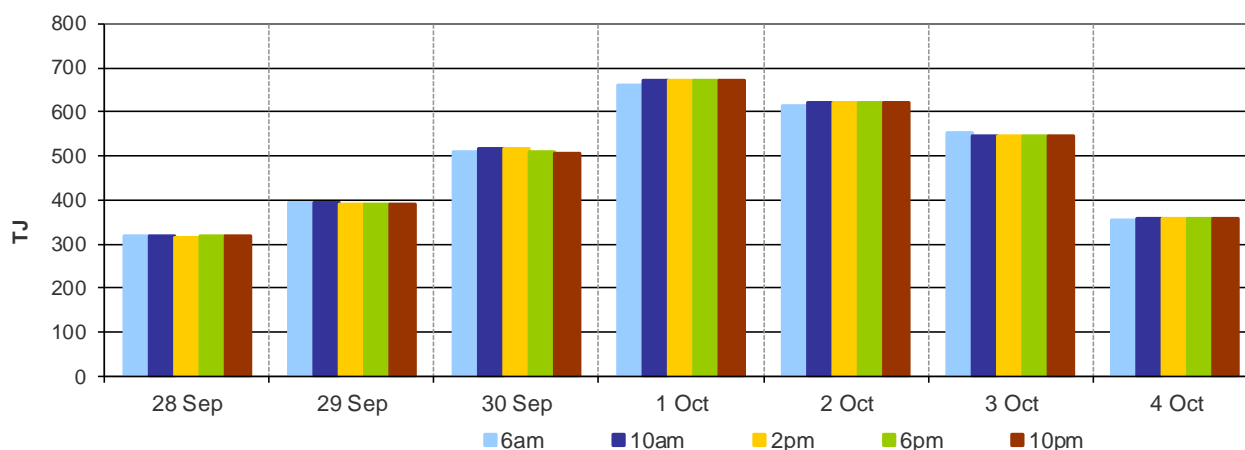


Figure 1.2: Demand forecasts



⁵ 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.

⁶ 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.

⁷ 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

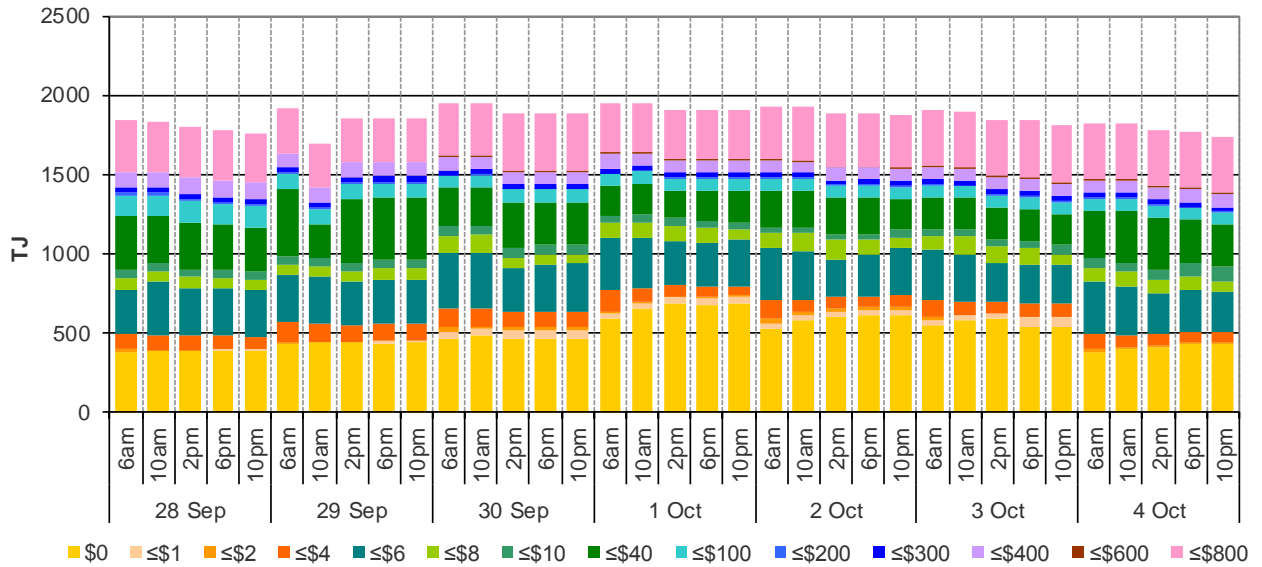


Figure 1.4: Withdrawal bids by price bands

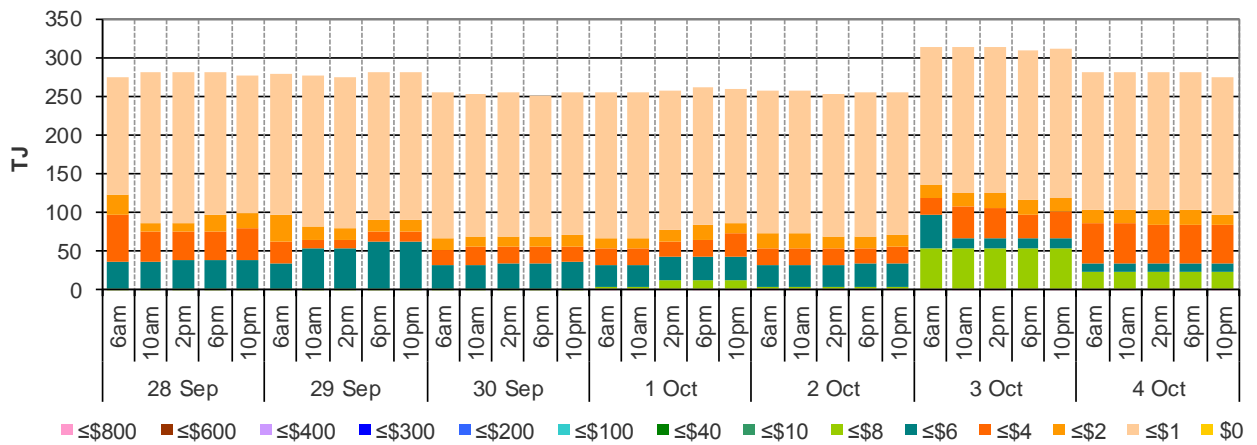
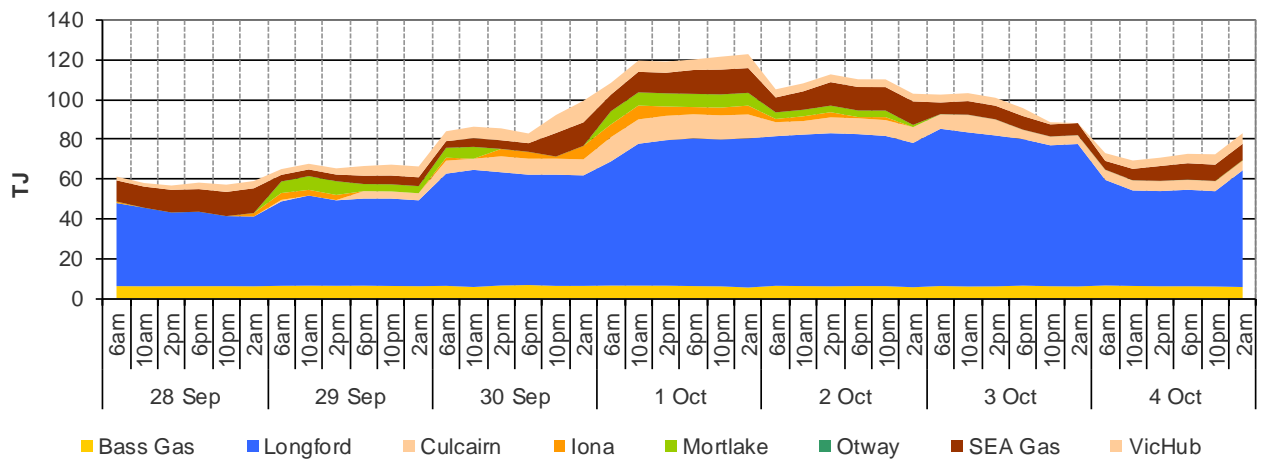


Figure 1.5: Metered Injections by System Injection Point



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.⁸ 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.⁹

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)	2.34	2.50	2.50	3.99	3.18	2.52	3.01
Ex ante quantity (TJ)	209	234	234	242	241	237	192
Ex post price (\$/GJ)	2.34	0.00	0.00	4.15	3.18	2.50	2.98
Ex post quantity (TJ)	207	221	221	246	242	236	190

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

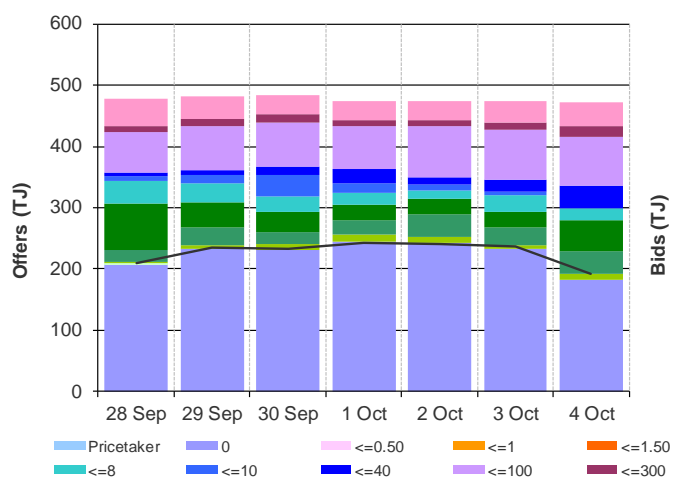
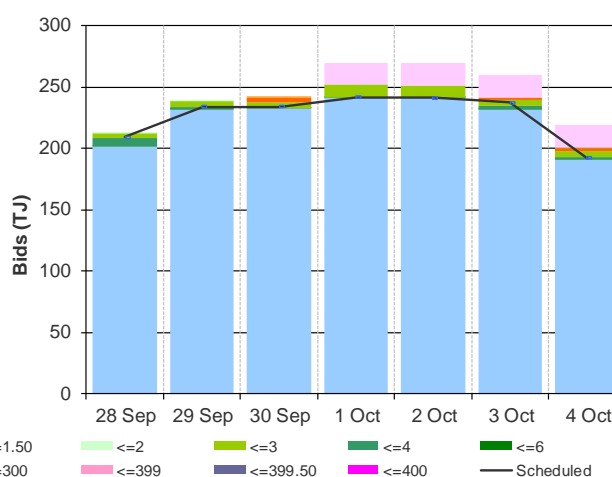


Figure 2.2 (b): Daily hub bids in price bands (\$/GJ)



⁸ 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.

⁹ 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 (MOS ‘commodity’ payments/charges).

Figure 2.3: SYD net scheduled and allocated gas volumes (excluding MOS) by STTM facility

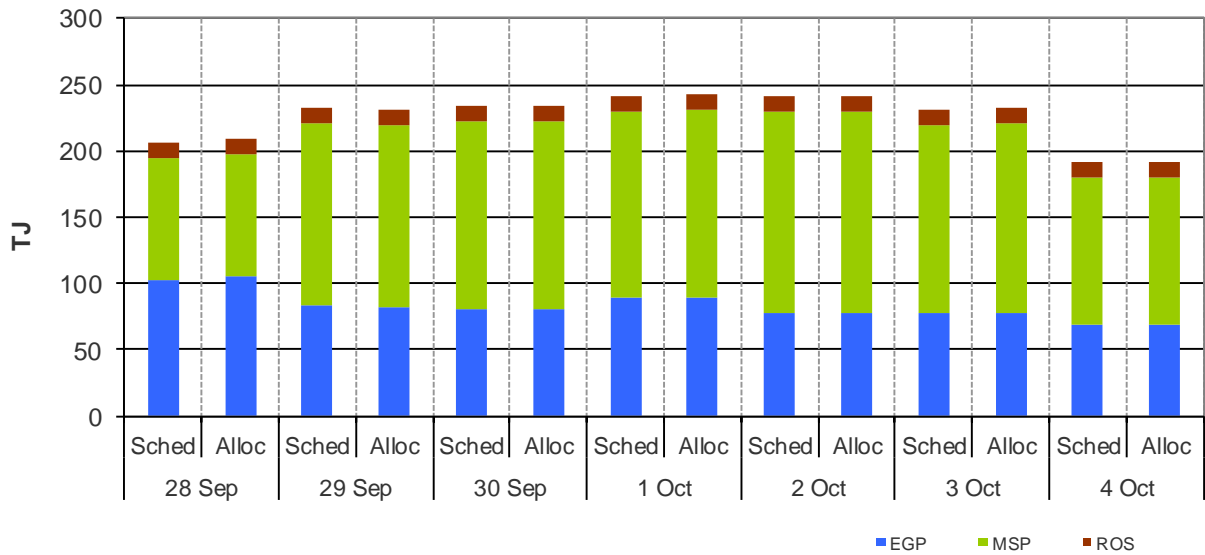


Figure 2.4 (a): SYD STTM MOS allocations (TJ)

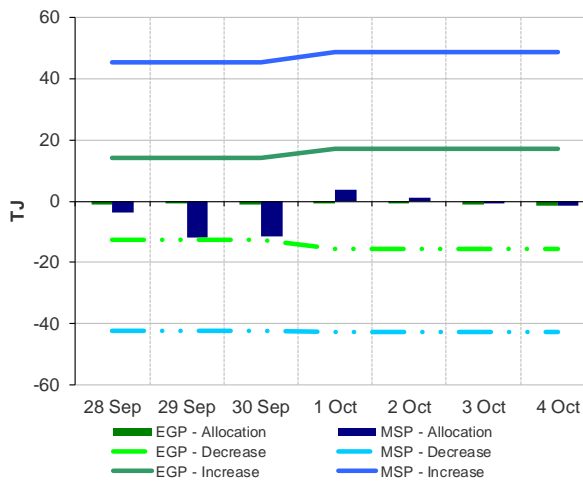
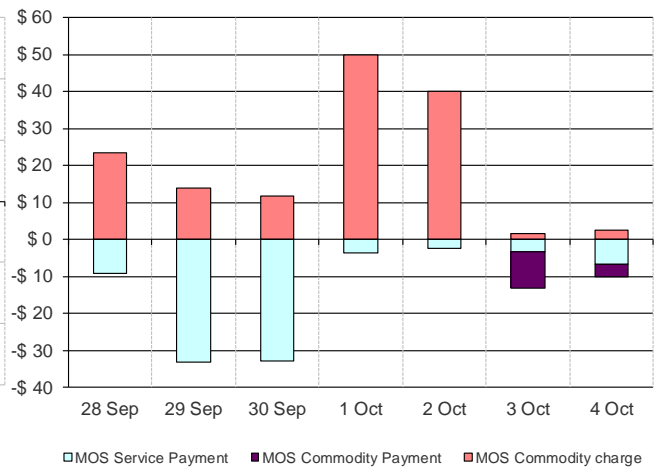


Figure 2.4 (b): Service payments and commodity payments/charges (\$000)



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)	3.21	3.20	3.21	3.12	3.06	3.04	2.96
Ex ante quantity (TJ)	43	58	62	69	68	57	45
Ex post price (\$/GJ)	3.21	3.20	3.20	3.12	3.04	3.18	2.96
Ex post quantity (TJ)	45	57	60	65	64	63	46

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

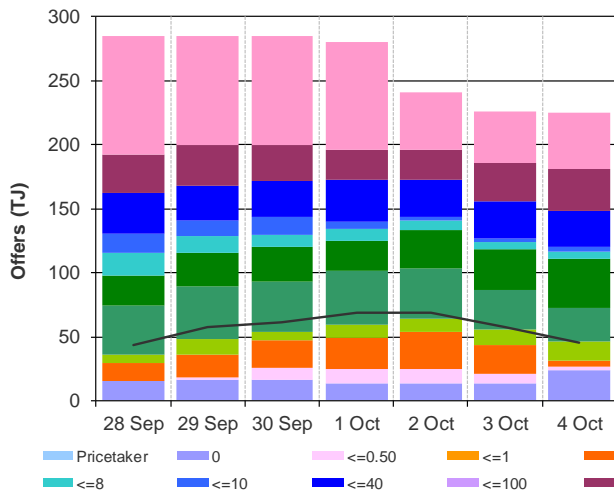


Figure 3.2 (b): Daily hub bids in price bands (\$/GJ)

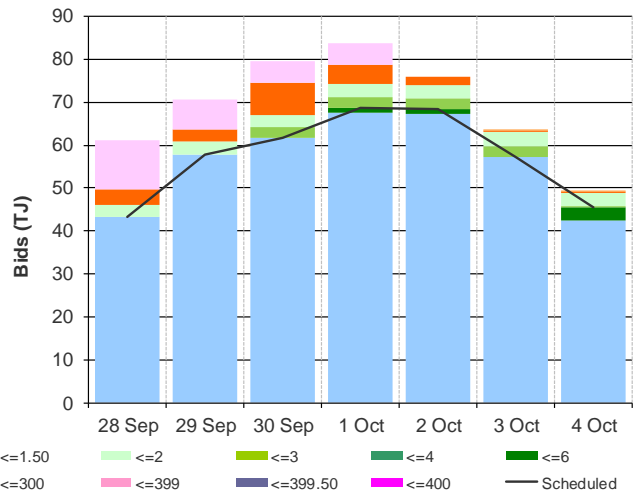


Figure 3.3: ADL net scheduled and allocated gas volumes (excluding MOS) by STTM facility

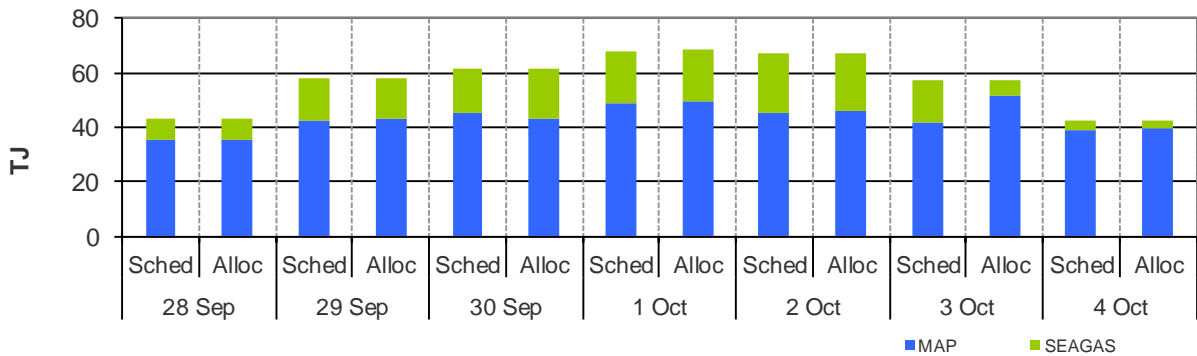


Figure 3.4 (a): ADL STTM MOS allocations (TJ)

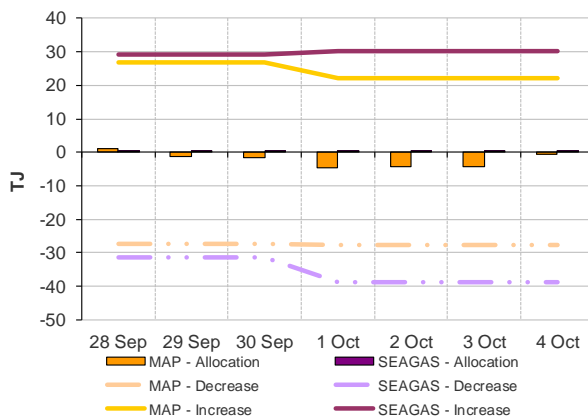
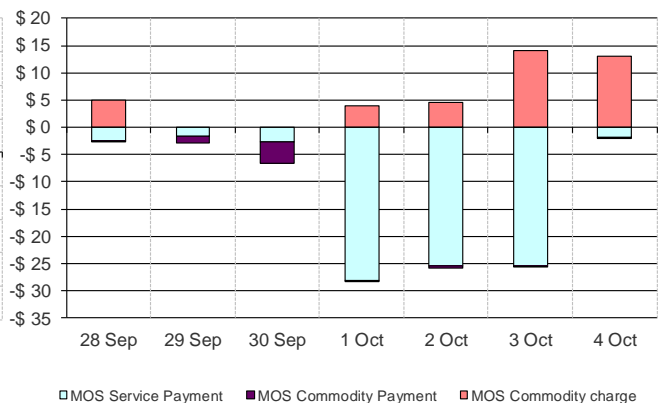


Figure 3.4 (b): Service payments and commodity payments/charges (\$000)



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)	1.04	1.58	0.83	0.00	0.90	0.90	0.90
Ex ante quantity (TJ)	100	115	104	128	121	133	151
Ex post price (\$/GJ)	1.01	0.83	0.83	0.00	0.90	0.90	0.93
Ex post quantity (TJ)	97	106	105	132	122	142	160

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

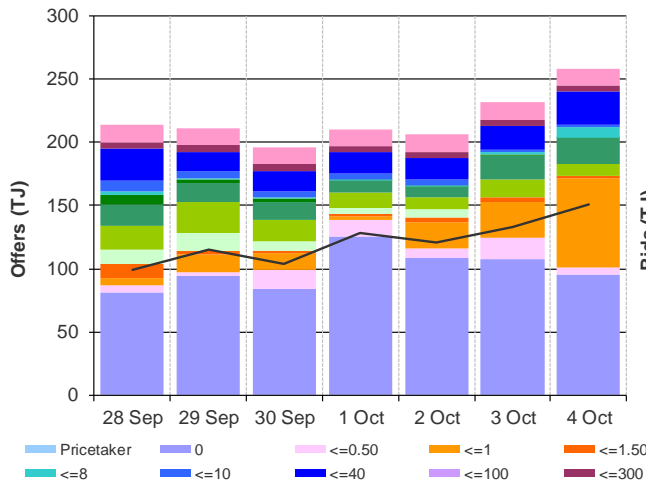


Figure 4.2 (b): Daily hub bids in price bands (\$/GJ)

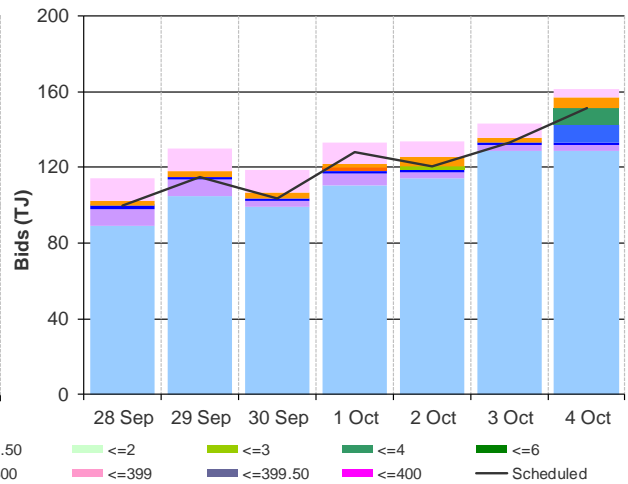


Figure 4.3: BRI net scheduled and allocated gas volumes (excluding MOS) by STTM facility

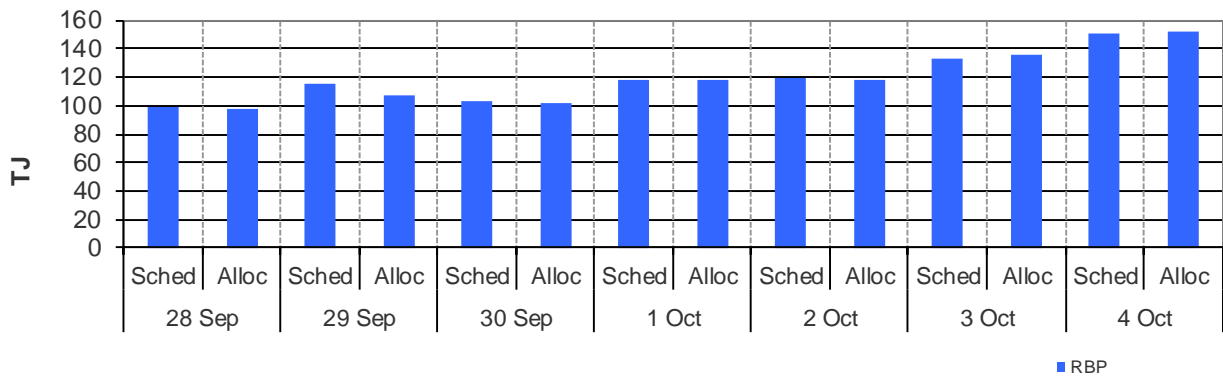


Figure 4.4 (a): BRI STTM MOS allocations (TJ)

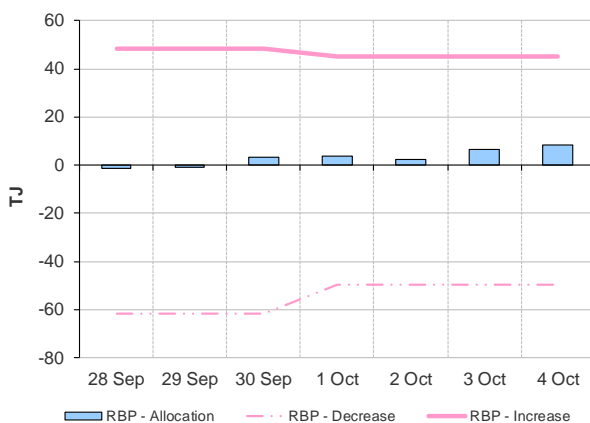
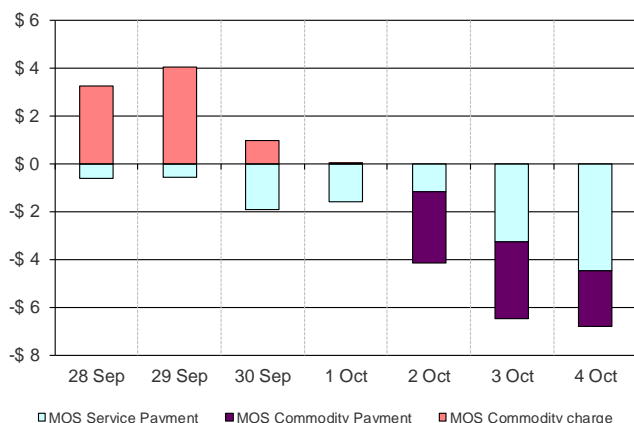


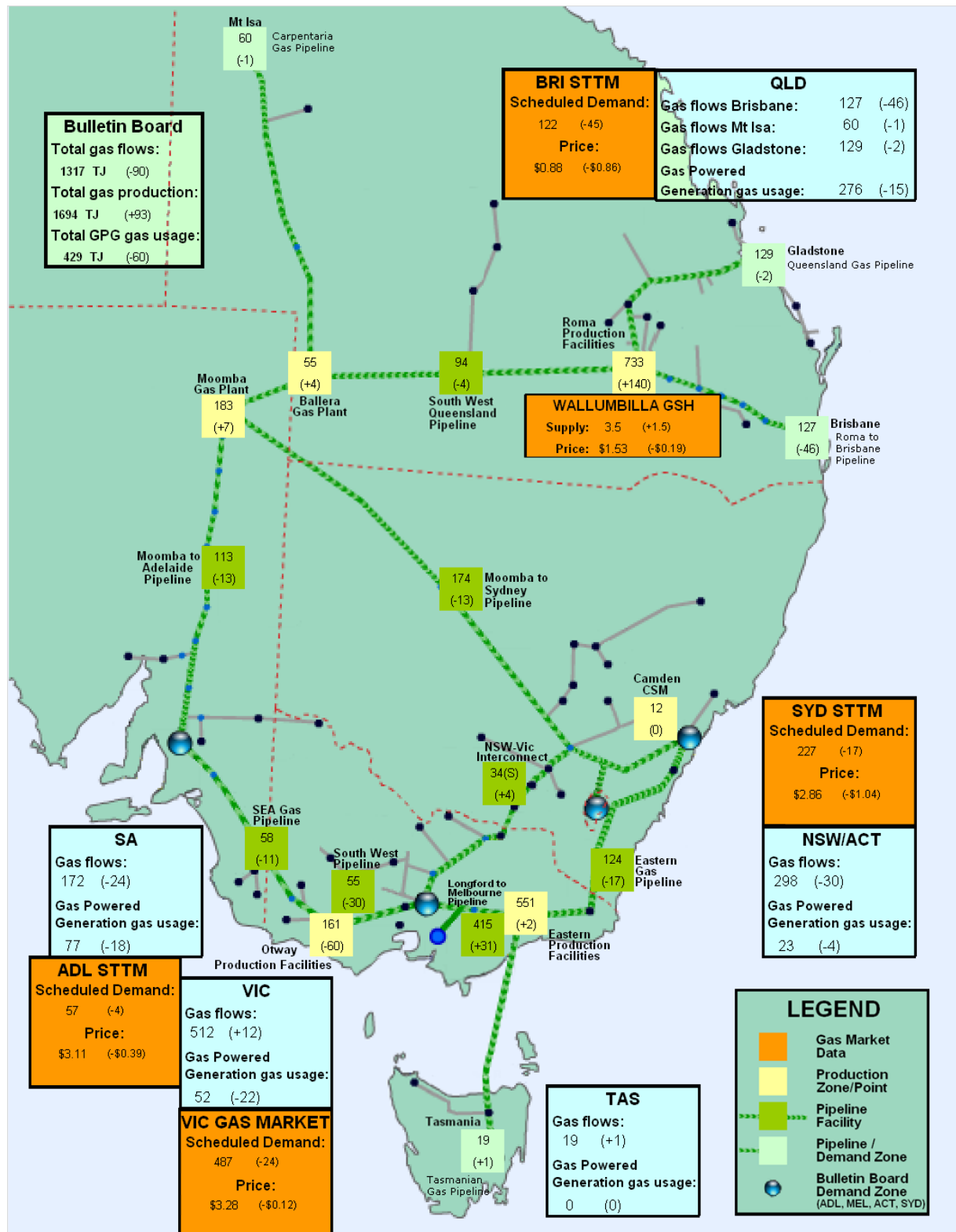
Figure 4.4 (b): Service payments and commodity payments/charges (\$000)



5 National Gas Bulletin Board

Figure 5.1 shows average daily actual flows for the current week in the aqua boxes¹⁰ 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 prices¹¹ for each gas market are provided.

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



¹⁰ 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.

From October 2014, production flows reported for the Roma region include quantities of gas for LNG export trains.

¹¹ Wallumbilla supply is the average daily volume of gas 'traded', while price is a volume weighted average.

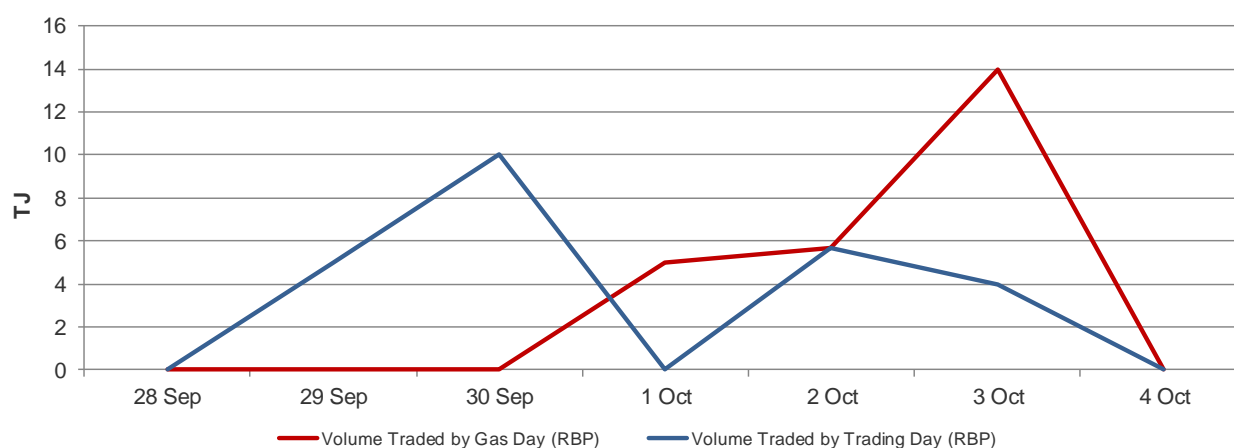
6 Gas Supply Hub

The Gas Supply Hub (GSH) was established for the trading of gas at Wallumbilla because it is located in close proximity to significant gas supply sources and demand locations and is a major transit point between Queensland and the gas markets on Australia’s east coast. The GSH is a voluntary market¹² for the supply of gas traded between separate participants, with products listed for sale and purchase at delivery points on three major connecting pipelines at Wallumbilla – the Queensland Gas Pipeline (QGP), the South West Queensland Pipeline (SWQP) and the Roma to Brisbane Pipeline (RBP). There are separate products for each pipeline (each pipeline is considered a trading location, and each has a number of delivery points) and delivery period (daily, day-ahead, balance-of-day and weekly).

Trade for intra-day, day-ahead and daily products continued this week on the RBP. There were 7 products traded for a total of 24.7 TJ of gas at a volume weighted price of \$1.53/GJ. There were no weekly products traded and no trades on the SWQP this week.

Figure 6.1 shows volumes traded¹³ on each gas day and trading day from 28 September to 4 October.

Figure 6.1: Volume Traded (by Gas Day and by Trading Day)



¹² Market trade is facilitated through an electronic trading platform, with standardised terms and conditions and a market settlement facility for the short-term trading of physical gas and related products. The market is designed to complement existing bilateral gas supply arrangements and gas transportation agreements, through the placement of anonymous offers (to sell) or bids (to buy) at specified quantity and price increments, which are automatically matched on the exchange to form transactions.

¹³ Volumes shown for weekly products include the ‘daily’ volume for each relevant ‘gas day’, and the ‘weekly’ volume for each relevant ‘trading day’.