

26 June – 2 July 2022

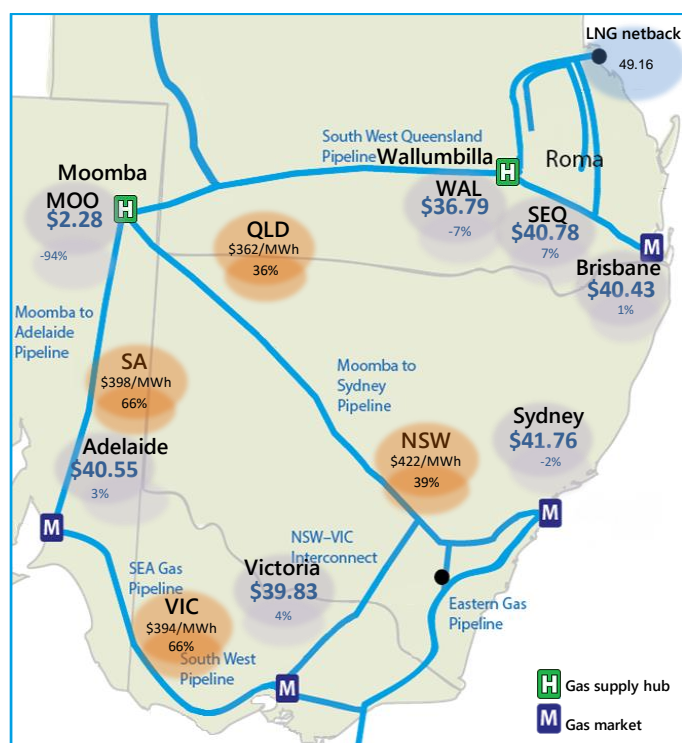
Weekly Summary

The Administered Price Cap (APC) continued to cap prices at \$40/GJ in the Victorian market this week.

Downstream wholesale gas market prices (marked M on the map below) increased in Brisbane, Victoria and Adelaide and decreased in Sydney (percentage change from previous week shown on map).

At the Wallumbilla upstream supply production hubs (marked H), the average day ahead prices decreased at the WAL, SEQ and MOO¹ trading points. The map also includes prices to compare price trends across electricity and gas markets.

Map: Gas Market Prices, LNG netback price (\$/GJ), NEM prices (\$/MWh)



Note: The LNG netback price is the 29 June 2022 assessment for the front month forward LNG netback price assessed: <https://www.accc.gov.au/regulated-infrastructure/energy/gas-inquiry-2017-2025/lng-netback-price-series>

The prices on the map for SEQ, WAL and MOO reflect only trades day ahead, to highlight price differentials between market and arbitrage opportunities.

For the first time since the week beginning 8 May, LNG contemporaneous netback prices² exceeded domestic spot prices ([see detailed market analysis](#)).

¹ The low priced MOO trade was coupled with a trade at WAL by the same parties for over \$40 as part of a movement of gas between the 2 locations – the standalone MOO price is not then an indicator of the price at MOO for gas.

Trading in the Wallumbilla gas supply hub was concentrated around deliveries for products at WAL (577 TJ longer term and 194 TJ short term) this week (see section 6).

Mainland gas powered generation significantly increased in Victoria and South Australia. This is the fifth week in a row where the average daily gas usage by GPGs exceeded 500 TJ per day.

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) for the current week, and demand levels, compared to historical averages. Regions shown include the Victorian Declared Wholesale Market (or **Victorian Gas Market - VGM**) and for the Sydney (**SYD**), Adelaide (**ADL**) and Brisbane (**BRI**) Short Term Trading Market hubs (**STTM**).

Figure 1: Average daily prices and demand – all markets (\$/GJ, TJ)³

	Victoria		Sydney		Adelaide		Brisbane	
	Price	Demand	Price	Demand	Price	Demand	Price	Demand
26 Jun - 02 Jul 2022	39.83	1012	41.76	334	40.55	77	40.43	88
% change from previous week	4	19	-2	-1	3	11	1	-2
21-22 financial YTD	14.60	560	15.08	256	15.54	55	15.14	85
% change from previous financial YTD	156	-1	143	0	138	-4	140	-20

² The ACCC LNG netback price is a measure of an export parity price that a gas supplier can expect to receive for exporting its gas. It is calculated by taking the price that could be received for LNG and subtracting or 'netting back' the costs incurred by the supplier to convert the gas to LNG and ship it to the destination port.

³ Average daily quantities are displayed for each region. The weighted average daily imbalance price applies for Victoria.

Figure 2 sets out price and demand information for the voluntary Wallumbilla, South East Queensland and Moomba Gas Supply Hubs (GSH).

Figure 2: Average prices and total quantity – Gas Supply Hubs (\$/GJ, TJ)⁴

	Moomba		South East Queensland		Wallumbilla	
	Price	Quantity	Price	Quantity	Price	Quantity
26 Jun - 02 Jul 2022	2.28	5	36.72	28	30.23	771
% change from previous week	-94	-67	51	-92	-8	4
21-22 financial YTD	10.16	297	16.47	5596	15.08	21908
% change from previous financial YTD	234	-12	169	-10	152	38

Figure 3 illustrates the daily prices in each gas market, as defined in figures 1 and 2.

Figure 3: Daily gas market prices (\$/GJ)

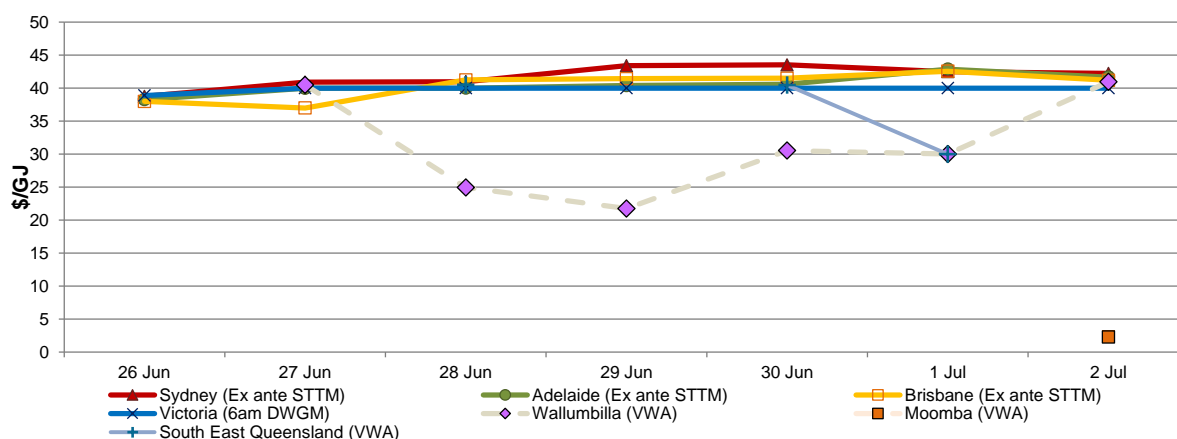


Figure 4 compares average ancillary market payments (for the VGM) and balancing gas service payments (STTM) against historical averages.

Figure 4: Average daily ancillary payments (\$000)

	Victoria Ancillary Payments*	Sydney MOS	Adelaide MOS	Brisbane MOS
26 Jun - 02 Jul 2022	-	25.90	7.76	1.25
% change from previous week	-	-27	2	132
21-22 financial YTD		23.12	8.88	0.90
% change from previous financial YTD		16	17	-74

* Ancillary payments reflect the compensation costs for any additional injections offered at a price higher than the market price. Note: only positive ancillary payments, reflecting system constraints will be shown here.

⁴ The prices shown for the GSH in Moomba, South East Queensland and Wallumbilla are volume weighted average (VWA) prices for all products traded across the period. The total quantity contributing to the weighted price is displayed for these GSH. Reported values for Moomba are the aggregate of trades on the Moomba to Adelaide Pipeline (MAP) and the Moomba to Sydney Pipeline (MSP). Historic trades for RBP and SWQP are grouped under WAL, (including in-pipe trades on the RBP).

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

Figure 5 shows the quantity and volume weighted prices of products traded in the Gas Supply Hub locations at Moomba, South East Queensland and Wallumbilla.

Figure 5: Gas Supply Hub products total traded for the current week (\$/GJ, TJ)⁵

	Moomba		South East Queensland		Wallumbilla*	
	VWA price	Quantity	VWA price	Quantity	VWA price	Quantity
Balance of day	-	-	40.50	1.0	40.73	64.0
Daily	-	-	30.00	10.0	25.92	201.0
Day ahead	2.28	5.0	40.78	10.0	36.79	46.0
Weekly	-	-	40.00	7.0	-	-
Monthly	-	-	-	-	30.00	460.0
Total	2.28	5.0	36.72	28.0	30.23	771.0

* includes non-netted (off-market) trades.

Figure 6 shows Bulletin Board pipeline flows for the three LNG export pipeline facilities and the production output at related production facilities in the Roma region.

Figure 6: Average daily LNG export pipeline and production flows (TJ)*

	APLNG	GLNG	QCLNG	Total
Production	1539	952	1093	3584
Export Pipeline Flows	1688	983	357	3028
% change from previous week (pipeline flows)	3	3	-18	0
21-22 financial YTD flows	1493	1049	1312	3854

* Production quantities represent flows from facilities operated by APLNG, Santos and QGC. Gas from individual facilities may also supply the domestic market, other LNG projects or storage facilities.

⁵ Further information about new product trading locations in Victoria (Culcairn) and Sydney (Wilton) is available in section 6. Gas Supply Hub).

Detailed market analysis

Table 1: Key events this week

Date	Event	Market Affected	Description
26 Jun - 2 Jul	Administered Price Cap (APC) continues High Shadow prices	Victoria	Multiple schedules of high shadow prices leading to cumulative pricing threshold (CPT) continuing to be exceeded through week
26 Jun – 2 Jul	QCLNG ½ - 1 LNG train outage continues reducing export flows*	East Coast (Supply)	Creates greater available domestic supply if production maintained
1 July	QCLNG Woleebee Creek production returns from outage*	East Coast (Supply)	Increased production

Note: Information on the Bulletin Board indicates both outages commenced around 16 June

Victorian Administered Price Cap continues – Multiple High Shadow Prices

The price in the Victorian market continued to be capped at \$40/GJ this week as a result of high cumulative prices leading to the application of an Administered Price Cap (APC).

When APCs are in place, a scheduled price continues to be calculated based on participant's offers and bids. The scheduled price also known as the shadow price reveals the price where the market would have cleared but for the price cap.

Shadow prices are used in the calculation of the 7-day cumulative price. For example, for a price cap to be lifted in the declared wholesale gas market (**DWGM**), the shadow price would have to be less than \$40/GJ over a 7-day period.

The cumulative price at the end of the week (2 July) of \$8,510/GJ was much higher than the threshold of \$1,440/GJ. There were ten \$800/GJ shadow prices in the Victorian market through the beginning of this week, which drove the high cumulative price calculation.

Offers into the DWGM at the Iona injection point increased towards the end of the week which was consistent with Iona storage levels starting to reduce again (see Figure 9). This usage of storage followed the storage holding steady over most of the previous week.

QCLNG continues ½ - 1 LNG train outage as Woleebee creek returns to production

QCLNG continues its ½ - 1 LNG train outage which started on 16 June and is expected to end on 18 July 2022.⁶ Pipeline flows on the Wallumbilla Gladstone Pipeline (WGP – formerly known as the QCLNG Pipeline) as shown on the Bulletin Board dropped to under 800 TJ per day from mid-June.

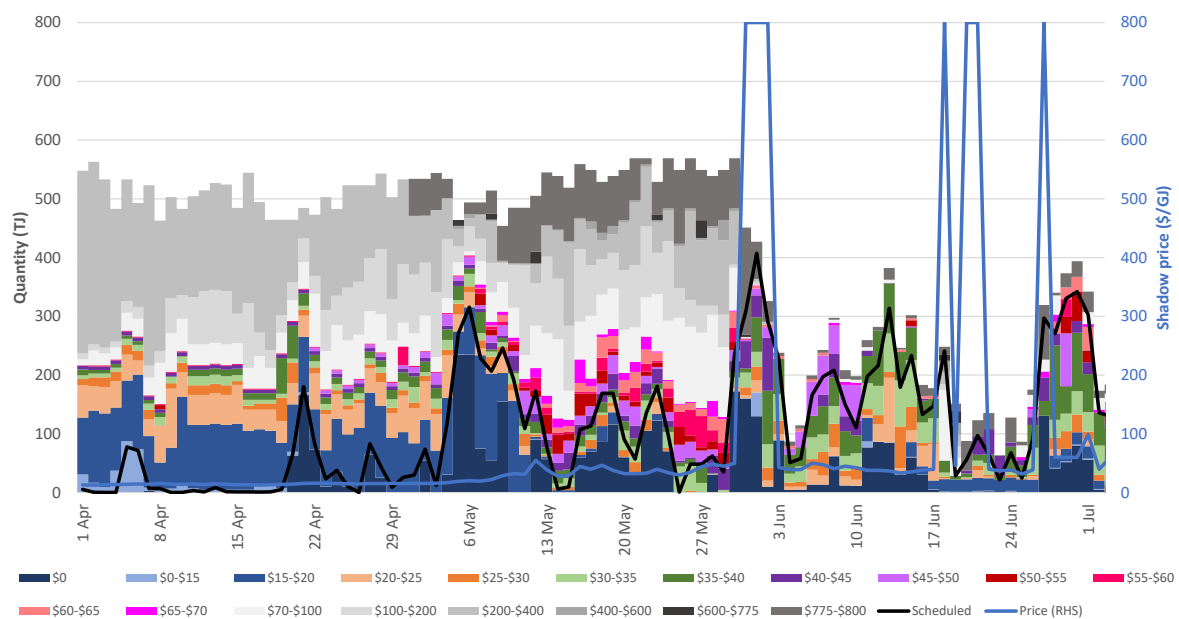
Bulletin Board production data similarly shows that QCLNG's Woleebee Creek production facility experienced an outage from 16 June. Average production levels at this facility were

⁶ Australian Energy Market Operator, [LNG Maintenance – QCLNG Update](#), June 2022.

662 TJ per day since January 2022. Production dropped down to zero on 25 June and remained at that level until the plant returned from the outage on 1 July.

June Market Conditions

Figure 7: Injection bid bands at Iona storage facility

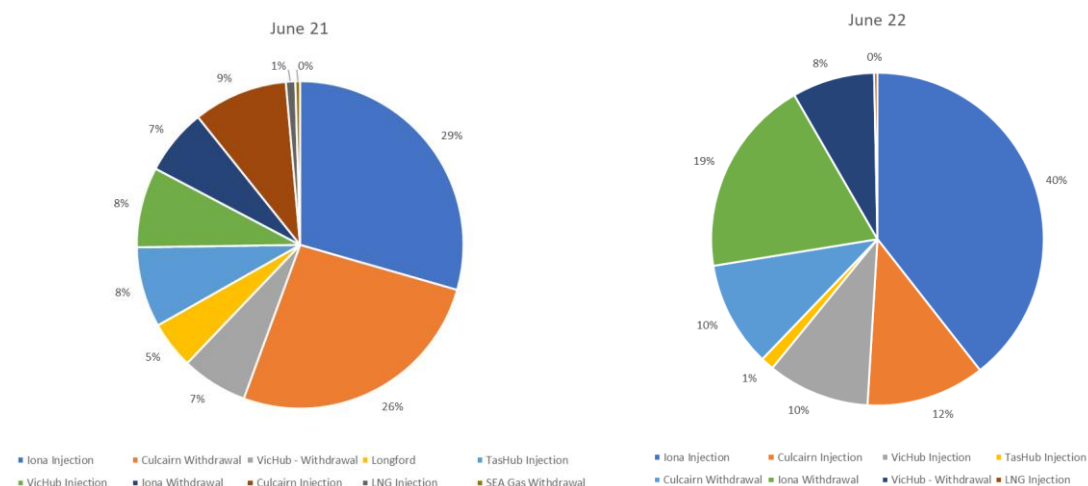


Source: AER analysis using DWGM injection data.

Iona injection bids setting prices in the Victorian market

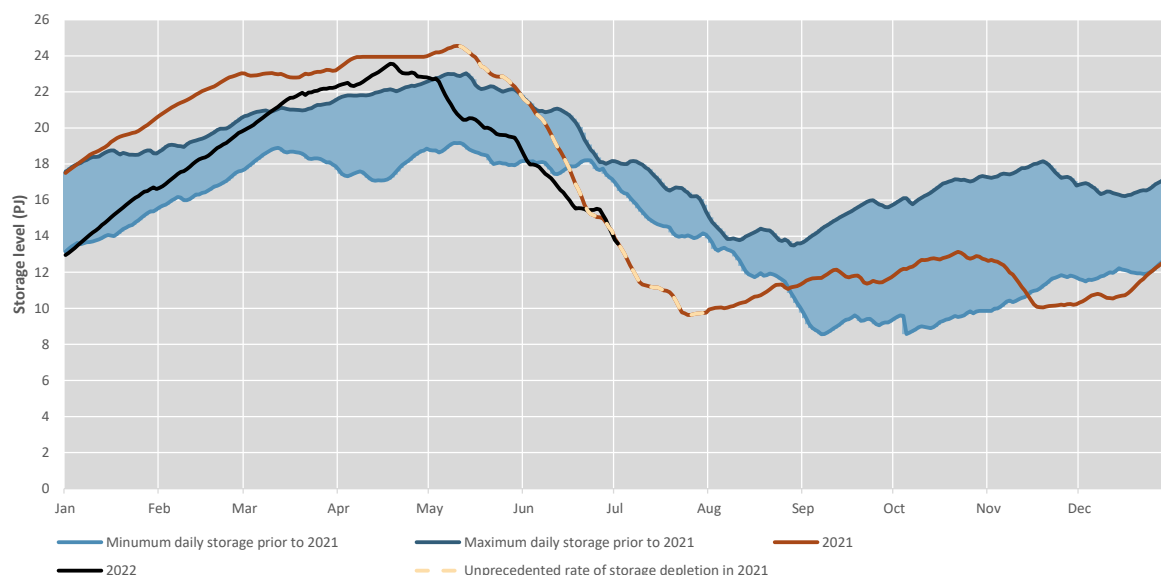
In comparison to June 2021, prices in June 2022 in the Victorian market were set more often by gas from the Iona storage facility and less often by gas from the north coming through Culcairn (Figure 8). Numerous retailers have indicated that they have reduced injection bids and/or priced gas higher into the Victorian market to preserve gas supply at Iona storage. Towards the end of June, storage levels at Iona had depleted rapidly to similar levels to 2021 June (Figure 9).

Figure 8: Price setting by location



Source: AER analysis using DWGM injection and withdrawal data.

Figure 9: Iona storage levels

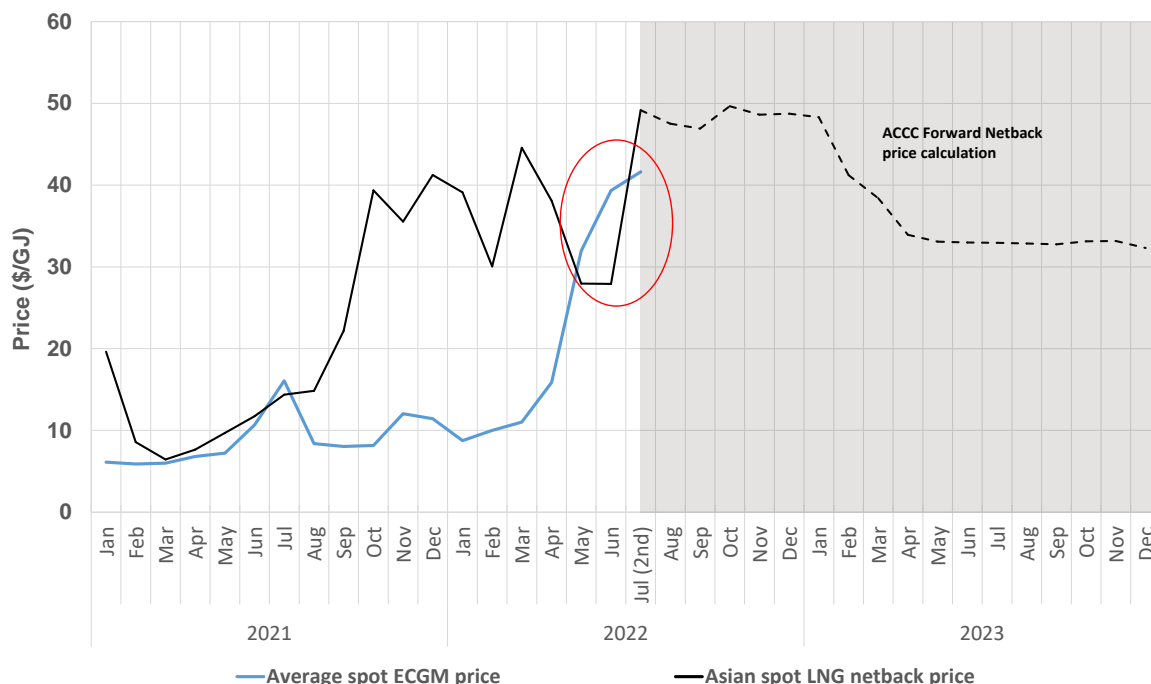


Source: AER analysis using the Natural Gas Services Bulletin Board.

LNG netback price exceeds domestic spot market prices

The 29 June 2022 ACCC assessment⁷ for the July 2022 front month forward LNG netback price was a record \$49.16/GJ, exceeding the average east coast gas price (ranging \$39.83/GJ - \$41.76/GJ in the downstream markets).

Figure 10: Average domestic spot price and Asian LNG netback price



Source: AER analysis using STTM, DWGM data and ACCC netback price series.
 Notes: The average domestic as indicated for July 2022 only includes prices for 1 – 2 June. The ACCC Forward Netback prices were assessed on 29 June 2022.

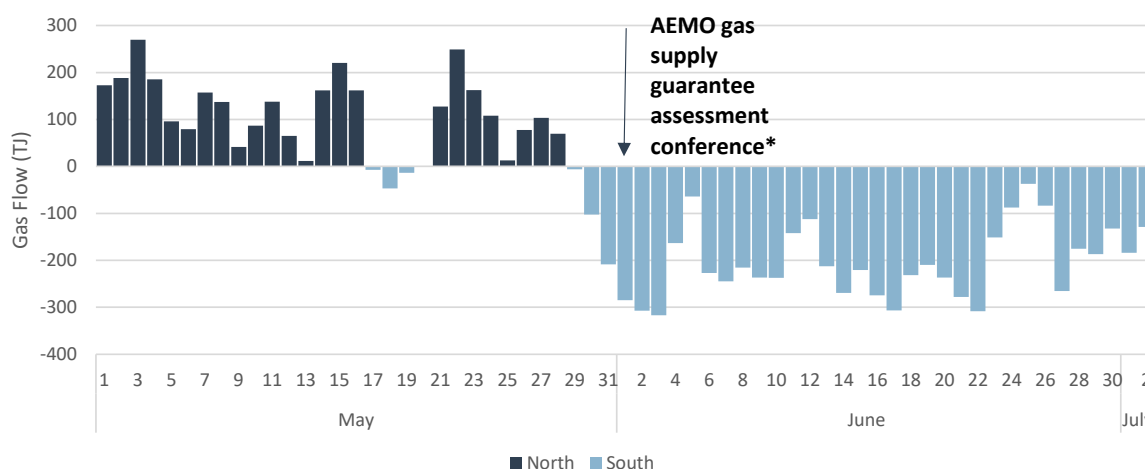
The ACCC projection of the Asian LNG netback price suggests that international prices may continue to be high in the coming months. It is likely over the next month that domestic prices will not increase to match LNG netback prices given the ongoing QCLNG outage,

⁷ Australian Competition & Consumer Commission, [LNG netback price series](#), June 2022.

followed by an APLNG outage to commence later in July creating an over-supply in the domestic market.

Gas flowed south on the QSN link⁸ into NSW, VIC and SA starting in June coinciding with a period where domestic spot prices were higher than international spot netback prices.

Figure 11: Net daily gas flows south in June



Source:

AER analysis using the Natural Gas Services Bulletin Board.

*Note:

On 1 June, AEMO issued a notice of potential Gas Supply Guarantee event for gas day 2 June (see [29 May – 4 June 2022 weekly](#)).

High Gas Powered Generation (GPG) demand

For the fifth week in a row, average daily gas usage by GPGs exceeded 500 TJ per day, having averaged less than 400 TJ per day over the last two weeks of May. Increased GPG demand was particularly prominent in New South Wales and Victoria in Q2 (Apr – Jun) 2022 with GPG usage increasing most significantly in New South Wales (225%) compared to Q2 2021.⁹ There were multiple reasons for this additional demand.

There was a 1700 MW increase in average demand for electricity in June from May, driven by the onset of a cold winter.

There were multiple coal generation outages (planned and unplanned) in May when individual mines did not meet forecasted levels of coal deliveries to generators. This resulted in a number of coal generators having dangerously low stockpiles heading into winter. In NSW, Origin Energy’s Eraring plant has struggled with production due to supply chain disruptions. Production issues at this plant are expected to continue for the rest of the year¹⁰. Further, closure of the Liddell Unit 3 in April this year has exacerbated the decrease in coal generation in Q2.

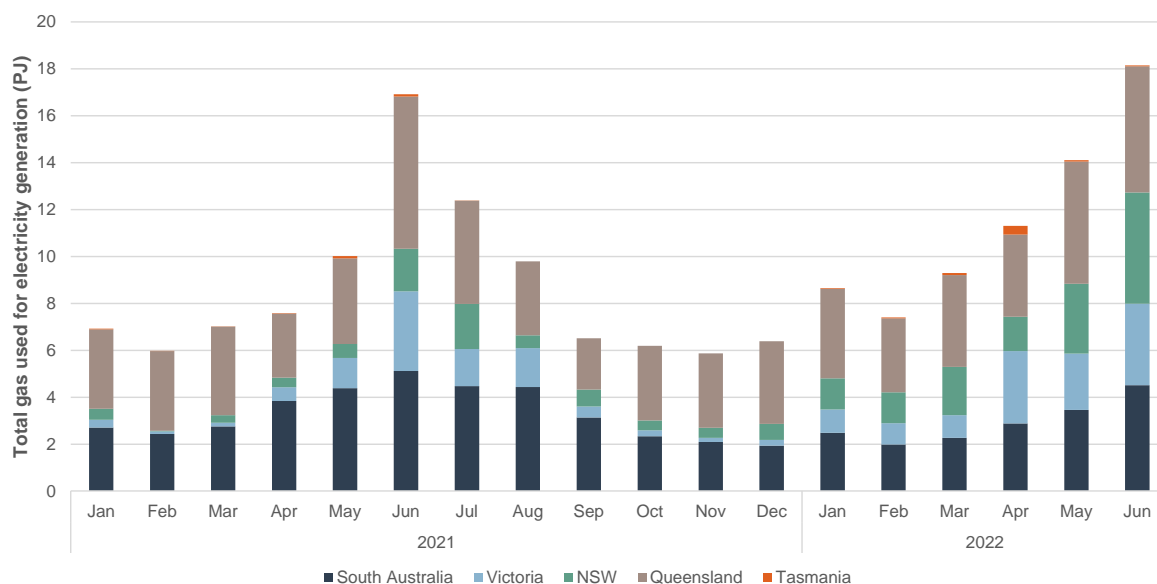
Low renewables generation has also contributed to increased demand for GPG. There were supply issues for hydro generation which contributed to hydro generators setting the price in 47% of trading intervals in Q2 2022. Further, solar generation capacity was low across April and May, which had an impact on generation and grid demand. In Queensland, solar output was down 10% across April and May in comparison to the same time last year.

⁸ Flows through Moomba on the South West Queensland Pipeline (SWQP).

⁹ Australian Energy Market Operator, [Quarterly Energy Dynamics Q2 2022](#), July 2022. Victorian GPG increased 70 %.

¹⁰ Origin Energy, [Update on operating conditions and guidance](#), June 2022.

Figure 12: Increase in GPG usage



Source: AER analysis using NEM data

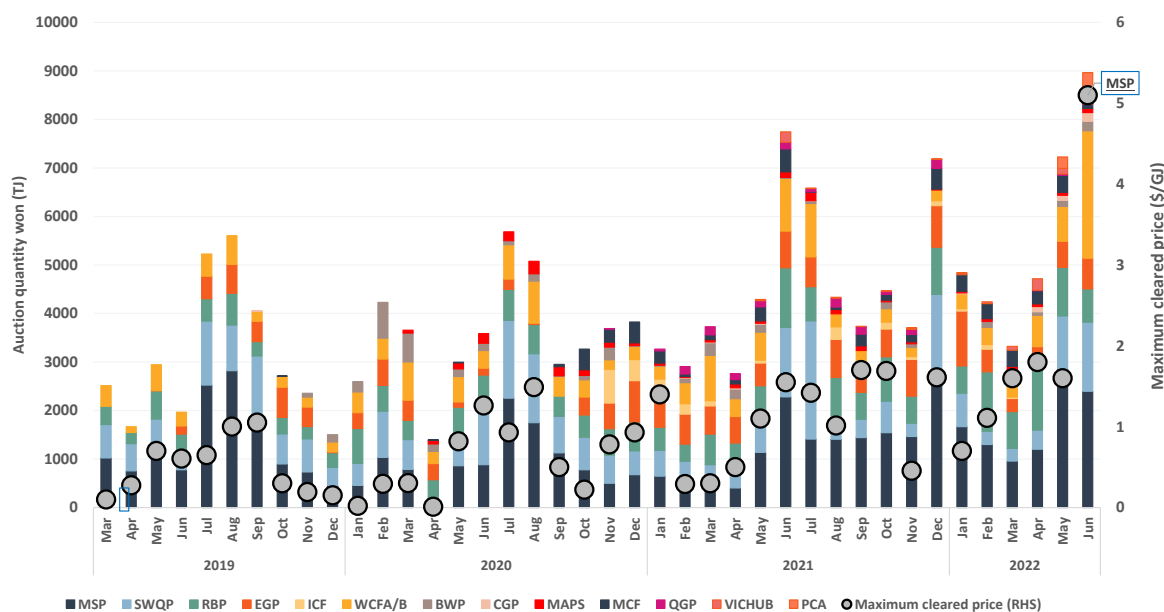
Record high volumes traded in June on the Day Ahead Auction (DAA)

Auction quantities won in June were at a record high of 8,967 TJ. Over June 2022, pipeline capacity won on the Wallumbilla Compression facilities (WCFA/B) increased by 266% in comparison to quantities won in May. The Wallumbilla compression facilities are required to move gas from most points in Wallumbilla onto the South West Queensland Pipeline (SWQP) when transporting gas south.

A significant portion of the capacity won on the MSP (6.45 PJ) was to bring gas south from Moomba (2.9 PJ).

There was a record high maximum auction price of \$5.10/GJ recorded on the MSP for 1 June, a day which coincided with very high demand in the Victorian gas market. The trade was to move 1.65 TJ of gas south, from Wilton to Culcairn.

Figure 13: Quantity won and maximum cleared price on the DAA



Source: AER analysis using DAA auction results data.

Note: Quantities shown are the monthly sum of auction products allocated on each pipeline and do not necessarily represent the physical volumes of gas that actually flowed for each gas day.

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. The imbalance weighted price on a gas day tends towards the 6 am price¹¹ which is the schedule at which most gas is traded.

The main drivers¹² of price are demand forecasts and bids to inject or withdraw gas from the market. Figures 1.1 to 1.4 below show the daily prices, demand forecasts¹³, and injection/withdrawal bids for each of the five pricing schedules. 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 injection bids cleared through the market.

Ancillary payments for gas injected above the market price are shown above in figure 4.

Figure 1.1: Prices by schedule (\$/GJ)

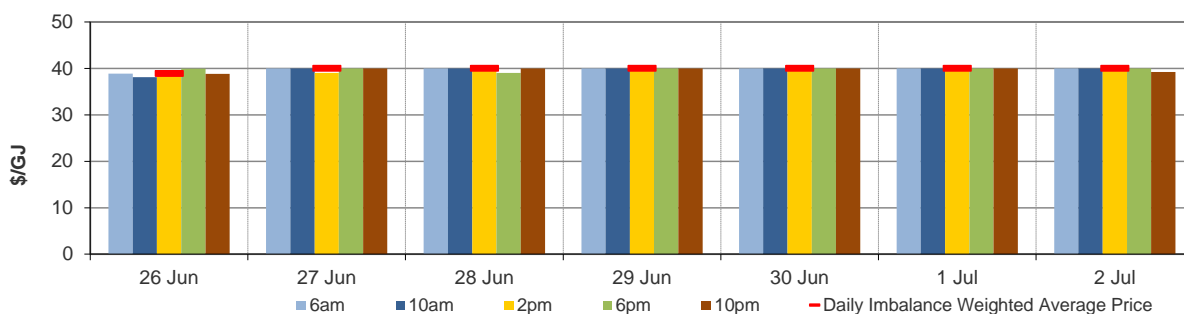
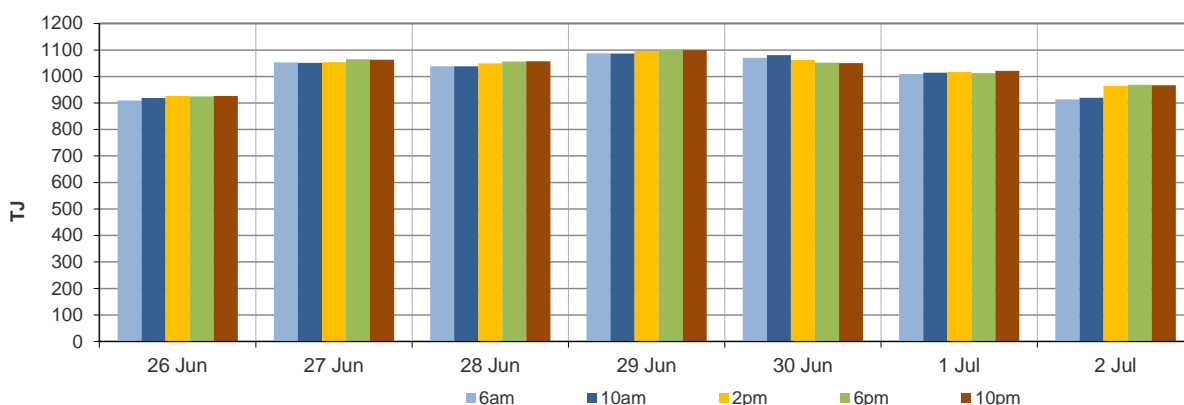


Figure 1.2: Demand forecasts (TJ)



¹¹ Prices for subsequent schedules are applied only to the differences in scheduled quantities (imbalances) to calculate the weighted price. The 6 am price applies to the entire scheduled quantity in the initial schedule.

¹² 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.

¹³ These are market participants' aggregate demand forecasts adjusted for any override as applied by AEMO from time to time. These forecasts must be scheduled and cannot respond to price like withdrawal bids.

Figure 1.3: Injection bids by price bands (TJ)

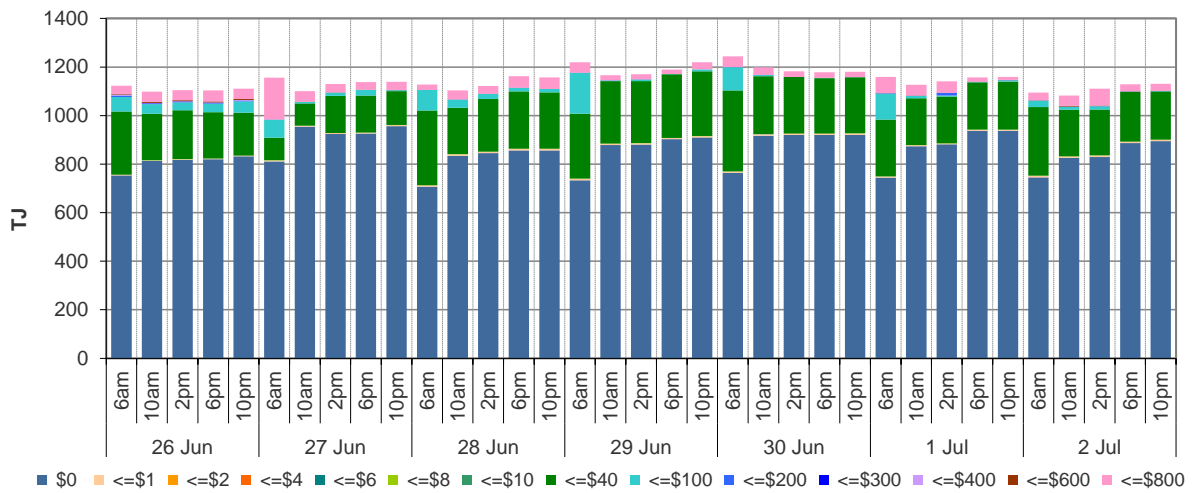


Figure 1.4: Withdrawal bids by price bands (TJ)

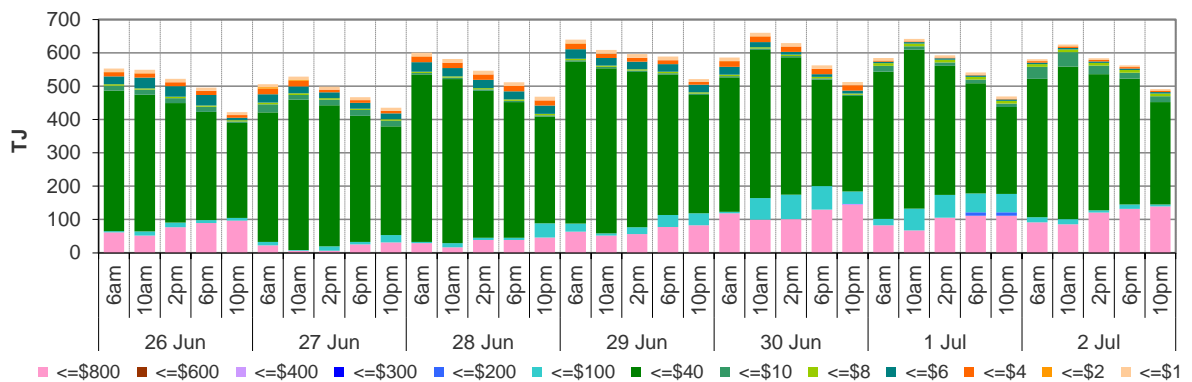
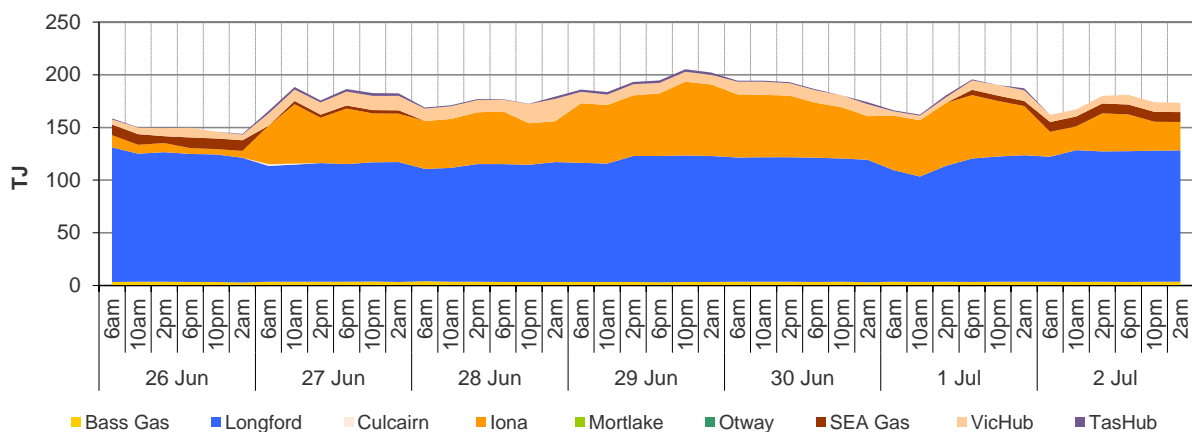


Figure 1.5: Metered Injections by System Injection Point (TJ)



Note that in figure 1.5, the last 8-hour schedule from 10 pm has been separated into two 4-hour blocks to provide a consistent comparison with earlier scheduled injection volumes.

2. Sydney STTM

In each STTM hub, a daily gas price is calculated before the gas day (the ex ante price) and after the gas day (the ex post price). The main drivers of these prices are participant demand forecasts and offers to inject or bids to withdraw gas traded at the hub.¹⁴ Divergences in ex ante and ex post prices for a gas day may occur due to differences in scheduled (forecast) and allocated (actual) quantities. Pipeline acronyms are defined in the [user guide](#).

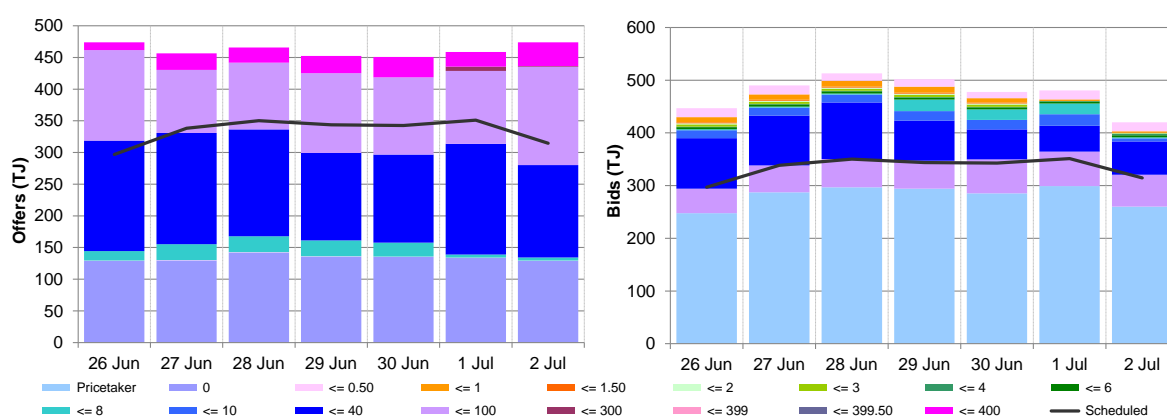
Market Operator Service balancing gas (MOS) payments arise because the amount of gas nominated on pipelines for delivery on a gas day will either exceed or fall short, by some amount, of the amount of gas consumed in the hub. In such circumstances, MOS payments are made to participants for providing a service to park gas on a pipeline or to loan gas from a pipeline to the hub.¹⁵

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 to supply the hub, 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)	38.75	40.90	40.99	43.41	43.54	42.51	42.23
Ex ante quantity (TJ)	297	338	350	344	343	351	315
Ex post price (\$/GJ)	39.57	42.89	42.05	45.50	47.78	42.73	44.00
Ex post quantity (TJ)	306	358	363	364	377	356	343

Figure 2.2: SYD daily hub offers and bids in price bands (\$/GJ)



¹⁴ 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.

¹⁵ 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 hub supply (excluding MOS)

Figure 2.3 shows the daily scheduled and allocated quantities sorted by facility for Sydney this week. For a more detailed description of this figure, please refer to the user guide.

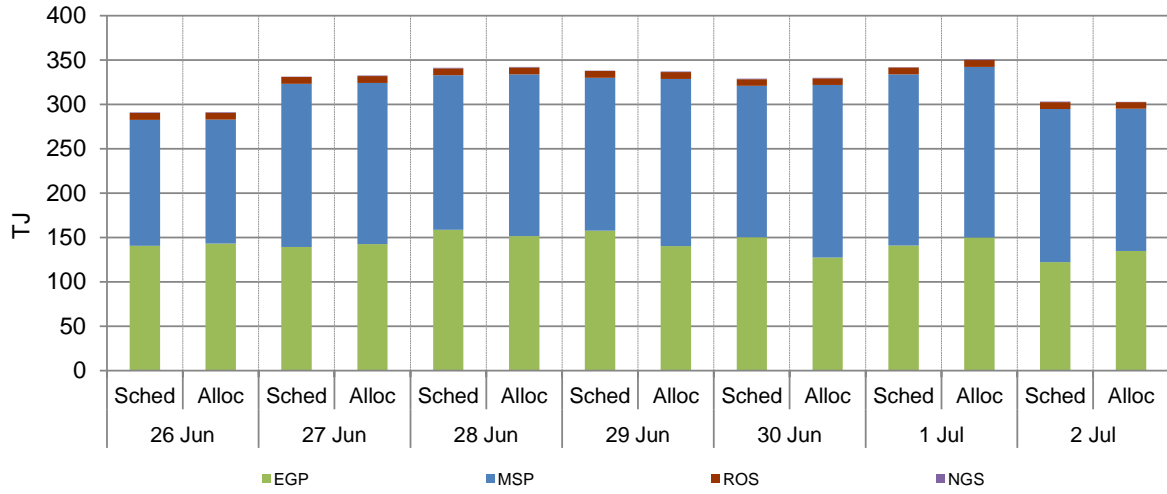
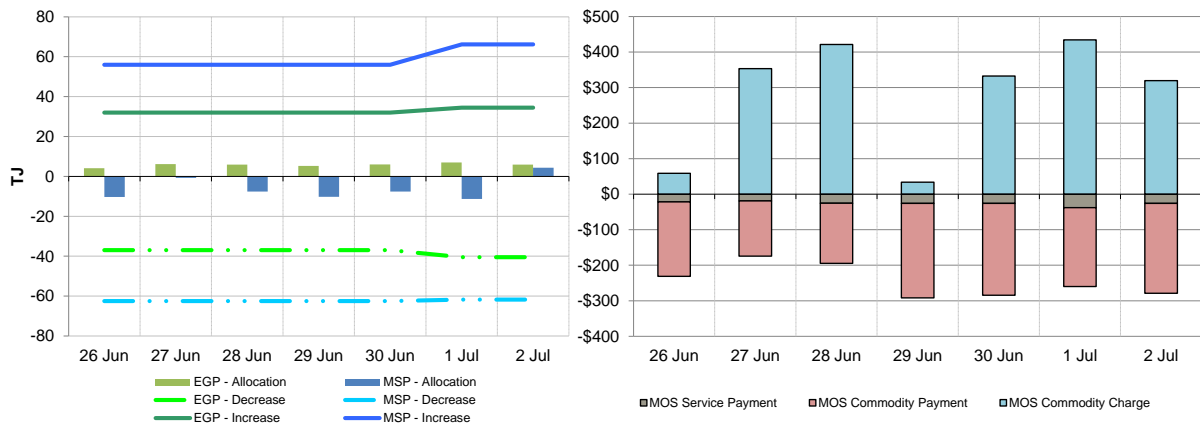


Figure 2.4: SYD MOS allocations (TJ), service payments and commodity payments/charges (\$000)¹⁶



¹⁶ The commodity cost of MOS illustrated on the right of the figure represents the commodity quantity at the D+2 ex ante price. Commodity payments and charges for a given gas day relate to quantities traded two days earlier. That is, the commodity cost for services provided on Sunday will appear in the chart for Tuesday, when the D+2 price is set. In contrast, service payments are shown alongside the day they occurred.

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)	38.26	39.99	40.00	40.40	40.60	42.88	41.68
Ex ante quantity (TJ)	67	82	81	81	78	80	73
Ex post price (\$/GJ)	38.20	39.93	39.99	40.01	40.00	43.90	40.90
Ex post quantity (TJ)	64	77	75	78	73	85	68

Figure 3.2: ADL daily hub offers and bids in price bands (\$/GJ)

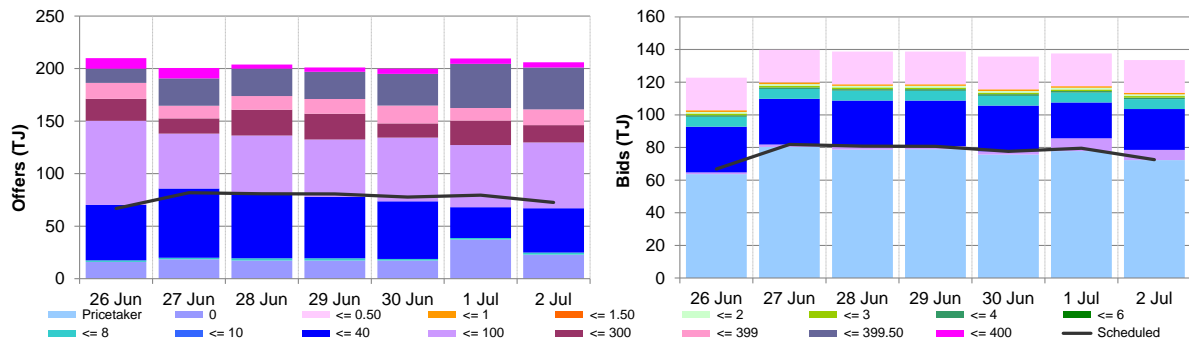


Figure 3.3: ADL net scheduled and allocated gas hub supply (excluding MOS)

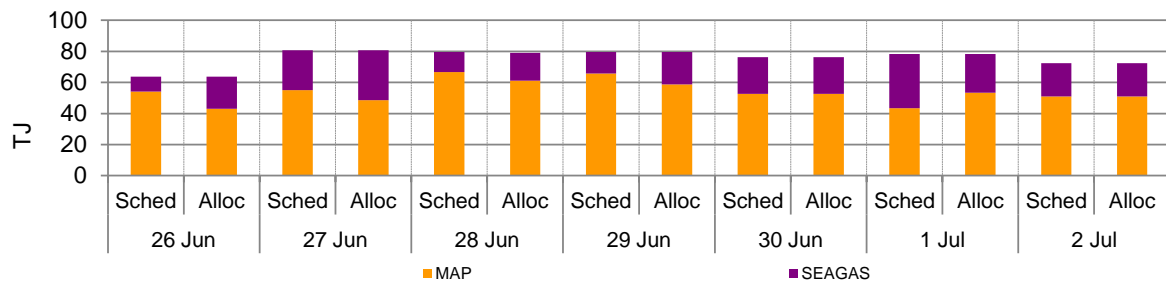
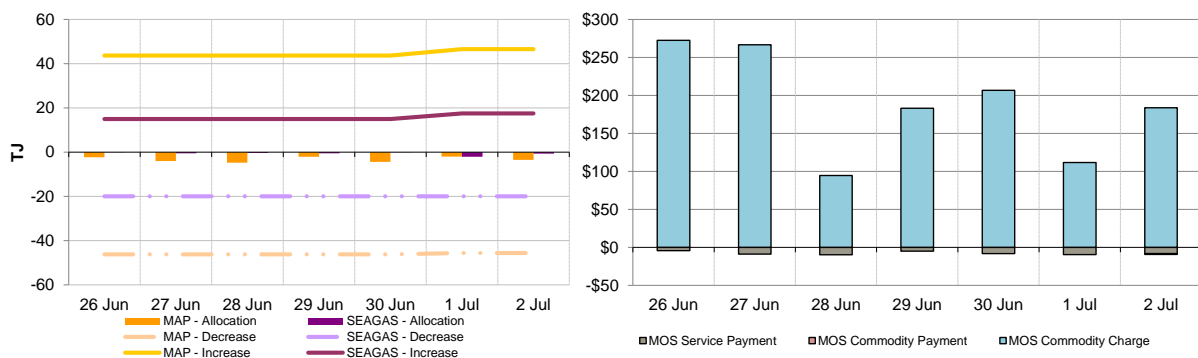


Figure 3.4: ADL MOS allocations (TJ), service payments and commodity payments/charges (\$000)



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)	38.00	37.00	41.25	41.45	41.51	42.57	41.20
Ex ante quantity (TJ)	78	88	93	91	91	94	81
Ex post price (\$/GJ)	37.49	37.50	41.05	41.45	41.55	41.33	40.00
Ex post quantity (TJ)	74	90	91	92	93	91	77

Figure 4.2: BRI daily hub offers bids in price bands (\$/GJ)

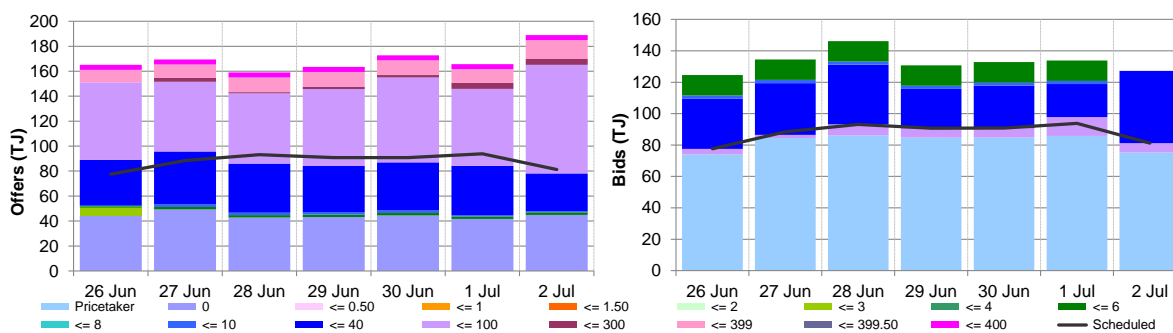


Figure 4.3: BRI net scheduled and allocated gas hub supply (excluding MOS)

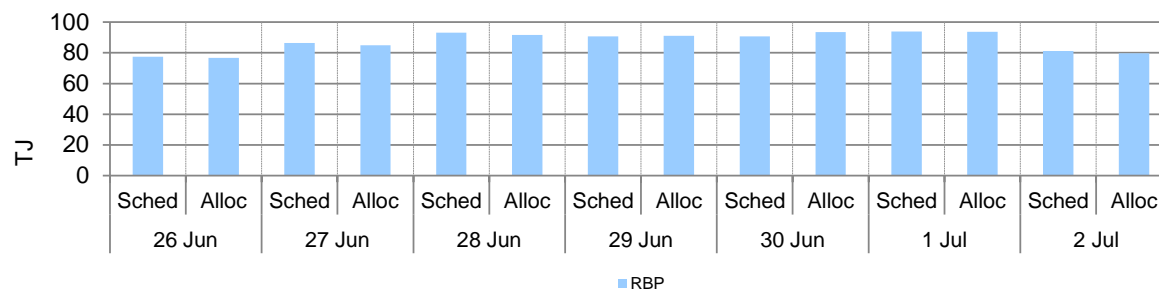
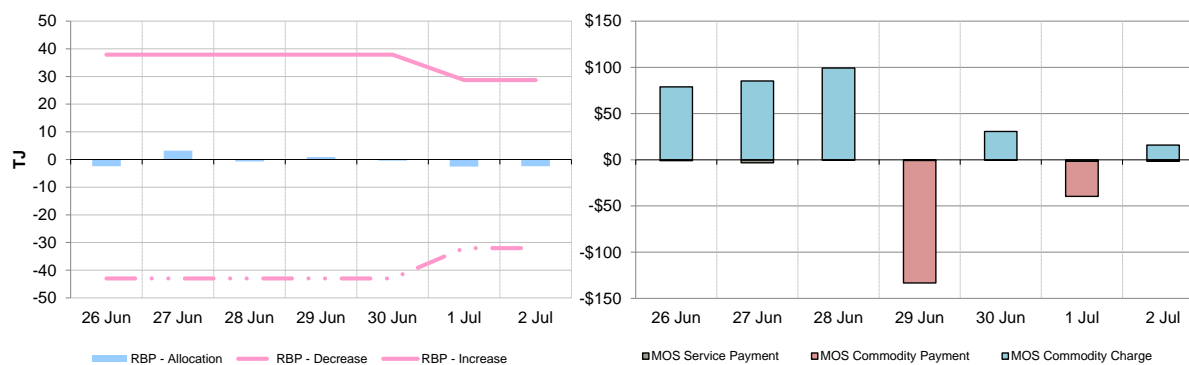


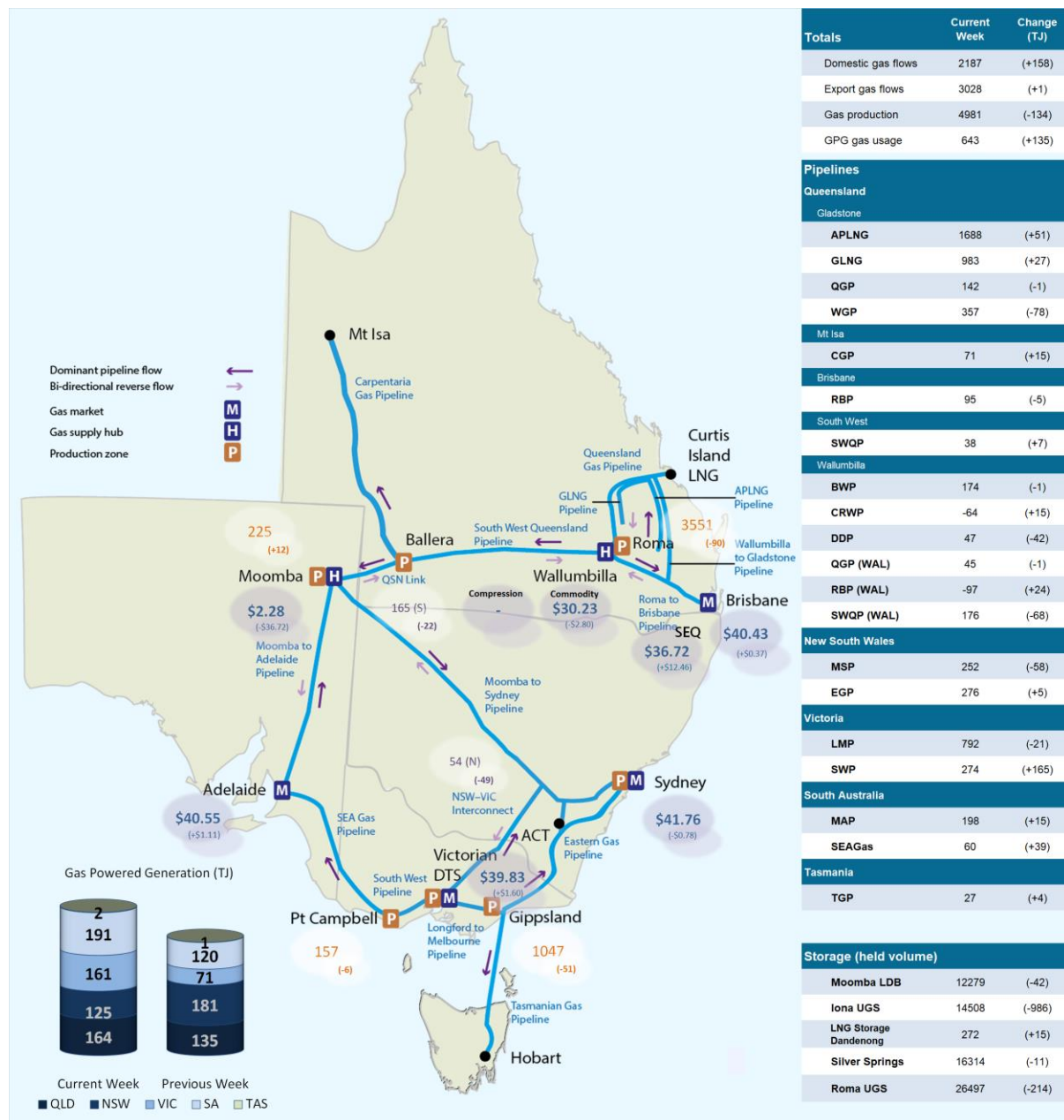
Figure 4.4: BRI MOS allocations (TJ), service payments and commodity payments/charges (\$000)



5. National Gas Bulletin Board

Figure 5.1 shows average daily actual flows for the current week¹⁷ from the Bulletin Board (changes from the previous week's average are shown in brackets). Average daily prices¹⁸ are provided for gas markets and gas supply hubs. Average daily quantities are provided for gas powered generation for each region.

Figure 5.1: Gas market data (\$/GJ, TJ/day); Bulletin Board flows (TJ/day)¹⁹



¹⁷ Domestic gas flows are calculated as the total of: SA = MAP + SEAGAS; VIC = SWP + LMP + (flows towards Victoria on the 'NSW-VIC interconnect'); NSW/ACT = EGP + MSP; TAS = TGP; QLD (Brisbane) = RBP; QLD (Mt Isa) = CGP; and QLD (Gladstone) = QGP.

Export gas flows are calculated as the total of: the APLNG pipeline; the GLNG pipeline; and the Wallumbilla to Gladstone pipeline.

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

¹⁸ GSH supply is the average daily volume of gas 'traded', while price is a volume weighted average. Optional hub services (for compression and redirection) are shown separately from commodity trades.

¹⁹ Net flows are shown for Bulletin Board facilities, as outlined in the [user guide](#).

6. Gas Supply Hub

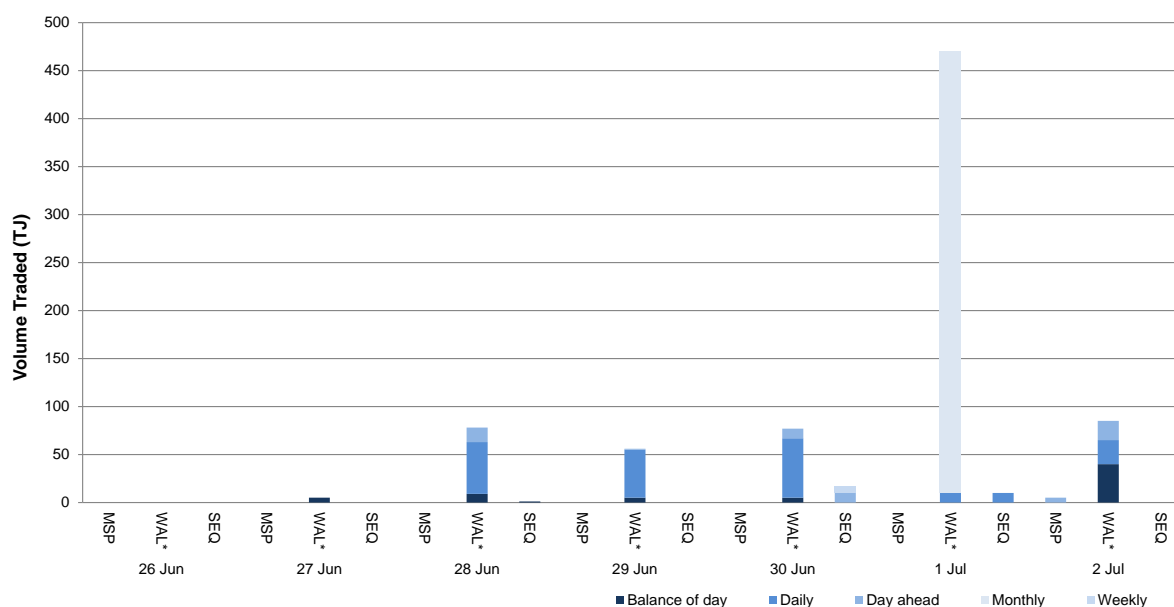
The gas supply hub was established at Wallumbilla in March 2014 to facilitate the voluntary trading of gas between participants, with products listed for sale and purchase at delivery points on three major connecting pipelines. There are separate products for each trading location and delivery period (daily, day-ahead, balance-of-day, weekly and monthly products).²⁰

The Moomba hub commenced operation from June 2016 to further facilitate trading on the **MAP** and **MSP**, with trading between the two hubs on the SWQP via a spread product (representing the price differential between the hubs). From October 2016, the addition of a Wallumbilla Compression Product was introduced to facilitate the supply hub's transition from three different trading locations into one. From March 2017, Wallumbilla transitioned into an optional hub services model, replacing the three trading locations (QGP, SWQP and RBP) with a single product at Wallumbilla (**WAL**) and an in-pipe RBP trading location at South East Queensland (**SEQ**). On 28 January 2021, trading locations at Wilton (Sydney) and Culcairn (Victoria) were introduced.

This week there were 38 trades for 804 TJ of gas at a volume weighted price of \$30.28/GJ. These consisted of 32 trades at WAL (771 TJ at \$30.23/GJ), 5 trades at SEQ (28 TJ at \$36.72/GJ) and 1 trade at MSP (5 TJ at \$2.28/GJ). There were 3 spread trades this week between SEQ and WAL.

Figure 6.1 shows the quantity of gas traded by product type for each trading day on pipeline trading locations in the Wallumbilla and Moomba Gas Supply Hubs.²¹

Figure 6.1: GSH traded quantities



²⁰ Additional information on trading locations and available products is detailed in the [user guide](#).

²¹ Non-netted (off-market) trades, allowing the selection of specific delivery point at a trading location, are included with other Wallumbilla trades (WAL*). Non-netted trades at Moomba are shown separately (MOO) from MAP and MSP.

7. Day Ahead Auction

The DAA is a centralised auction platform providing the release of contracted but un-nominated transportation capacity on designated pipelines and compression facilities across eastern Australia. The auction enables transportation facility users to procure residual capacity on a day-ahead basis after nomination cut-off, with a zero reserve price and compressor fuel provided.

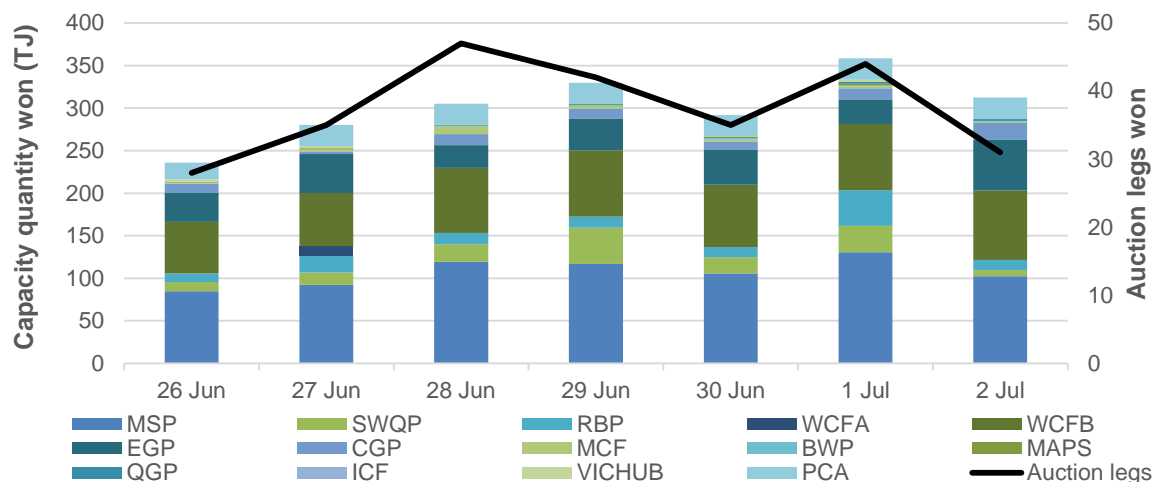
Participants may bid in to the DAA in order to procure the following services:

- park services;
- forward haul pipeline services with products offered in both directions on bi-directional pipelines;
- interruptible backhaul services; and
- stand-alone compression services.

This week, 16 participants took part in the DAA, winning 2113TJ of capacity across 13 different facilities.

Figure 7.1 shows the quantities of gas and auction legs won through the DAA by gas date, with gas deliverable up to the level of capacity procured. Auction legs reflect each individual facility transaction.²²

Figure 7.1: DAA traded quantities (TJ) and auction legs won



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²² Additional information is available in the [user guide](#) to the AER gas weekly report.