Gas Market Report

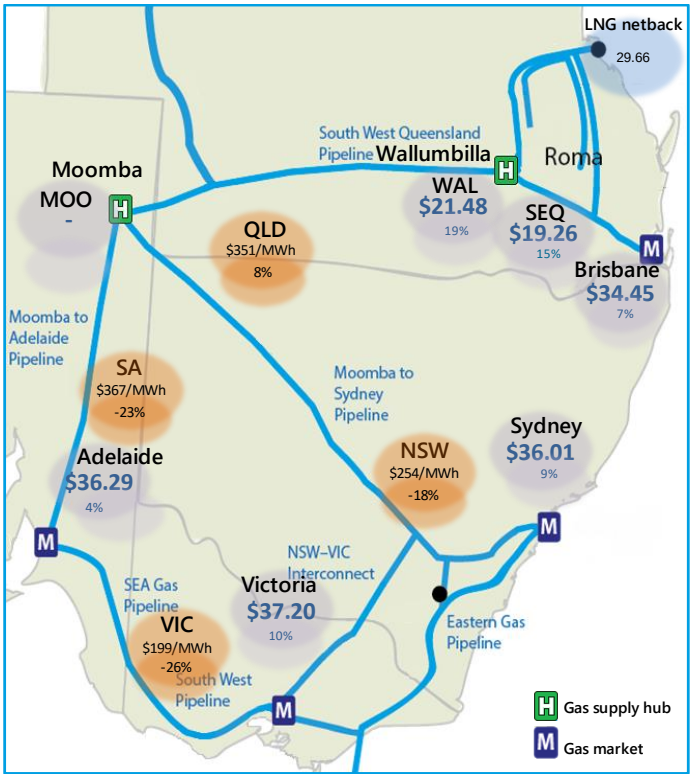
AUSTRALIAN ENERGY REGULATOR

15 – 21 May 2022

Weekly Summary

Domestic gas prices continue to remain high while demand in Brisbane eased this week. Downstream wholesale gas market prices (marked M on the map below) increased in all four markets (percentage change from previous week shown on map). At the Wallumbilla upstream supply production hubs (marked H), the average price increased at the SEQ trading point and more significantly at the WAL trading point. Gas Prices relative to NEM prices (orange bubbles) and the contemporaneous LNG netback price (top right) are also shown on the map.

Map: Gas Market Prices, NEM prices (QLD/SA/NSW/VIC) and LNG Netback price*



*The LNG netback price is the 26 May 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

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

Mainland gas powered generation decreased (GPG) compared to the previous week, most notably in Victoria where GPG usage fell from 110 TJ to 25 TJ. LNG export pipeline flows were higher this week despite higher domestic spot prices (see map at section 5).

On 15 – 21 May, multiple reporting thresholds outlined in the STTM Significant Price Variation Guideline were exceeded. The AER will investigate and publish a further report on

these events in or before September 2022. Our analysis below identifies drivers of these significant price variation events as a complement to this further reporting.

Summary figure 2: Significant price variation threshold breaches - Variation >$7/GJ between D-2 and D-1 price

Gas day	Market	D-2 provisional price ($/GJ)	D-1 ex ante price ($/GJ)	Figure	Threshold breach description
15-May	Sydney	26.51	37.88	18	Controllable demand bid
16-May	Brisbane	24.99	35.00	13	Supply offer bid
	Sydney	28.51	37.22	19	Controllable demand bid
17-May	Adelaide	30.00	37.44	11	Supply offer bid
	Brisbane	25.00	41.97	14	Supply offer bid
	Sydney	30.00	42.00	20	Controllable demand bid
18-May	Brisbane	25.00	37.34	15	Supply offer bid
19-May	Brisbane	25.00	35.34	16	Supply offer bid
20-May	Adelaide	29.20	37.96	12	Supply offer bid
21-May	Brisbane	21.91	29.50	17	Supply offer bid

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)[1]

	Victoria		Sydney		Adelaide		Brisbane	
	Price	Demand	Price	Demand	Price	Demand	Price	Demand
15 May - 21 May 2022	37.20	727	36.01	280	36.29	65	34.45	82
% change from previous week	10	7	9	-5	4	18	7	-5
21-22 financial YTD	11.58	515	12.24	249	12.52	53	12.34	85
% change from previous financial YTD	117	-1	115	0	107	-4	111	-19

[1] 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)[2]

	Moomba		South East Queensland		Wallumbilla	
	Price	Quantity	Price	Quantity	Price	Quantity
15 May - 21 May 2022	-	-	19.26	302	21.48	407
% change from previous week	-	-	15	82	19	-77
21-22 financial YTD	8.62	282	12.00	3914	11.82	17714
% change from previous financial YTD	184	-17	121	-20	114	30

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

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

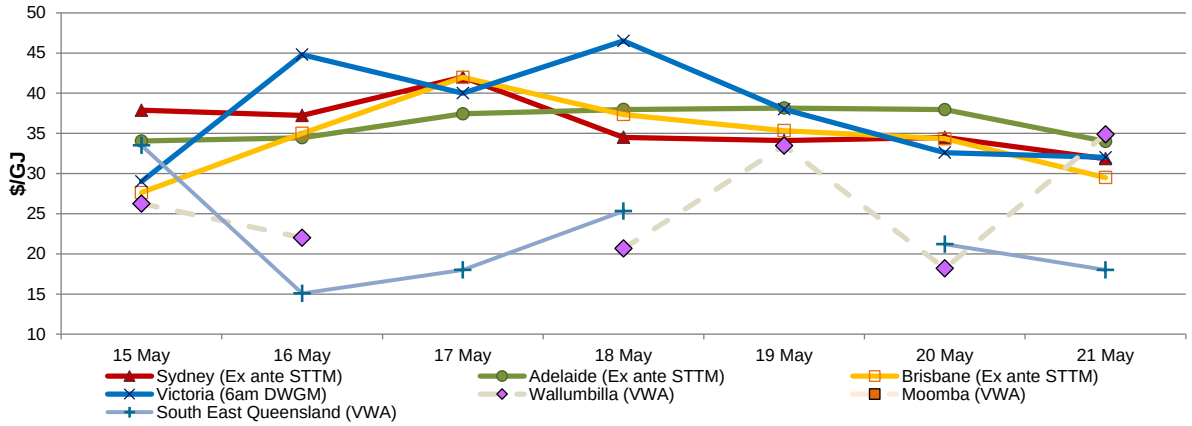


Figure 4 compares average ancillary market payments (for the VGM) and Market Operator Service balancing gas (MOS) service payments (for the STTM) against historical averages.

Figure 4: Average daily ancillary payments ($000)

	Victoria Ancillary Payments*	Sydney MOS	Adelaide MOS	Brisbane MOS
15 May - 21 May 2022	-	31.93	12.24	0.61
% change from previous week	-	14	-63	-54
21-22 financial YTD		20.45	8.96	0.90
% change from previous financial YTD		6	15	-76

* 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.

[2] 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)[3]

	Moomba		South East Queensland		Wallumbilla*	
	VWA price	Quantity	VWA price	Quantity	VWA price	Quantity
Balance of day	-	-	26.58	30.0	27.03	47.0
Daily	-	-	20.54	121.0	18.66	117.0
Day ahead	-	-	25.00	27.0	30.53	27.0
Weekly	-	-	-	-	-	-
Monthly	-	-	15.00	124.0	20.67	216.0
Total	**-**	**-**	**19.26**	**302.0**	**21.48**	**407.0**

* 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	1534	939	1656	4129
Export Pipeline Flows	1557	992	1262	3811
% change from previous week (pipeline flows)	0	4	2	2
21-22 financial YTD flows	1491	1061	1367	3918

* 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.

Detailed market analysis

Record weekly high prices

Domestic spot prices again increased (4-10%) to record weekly highs across all four downstream wholesale gas markets.

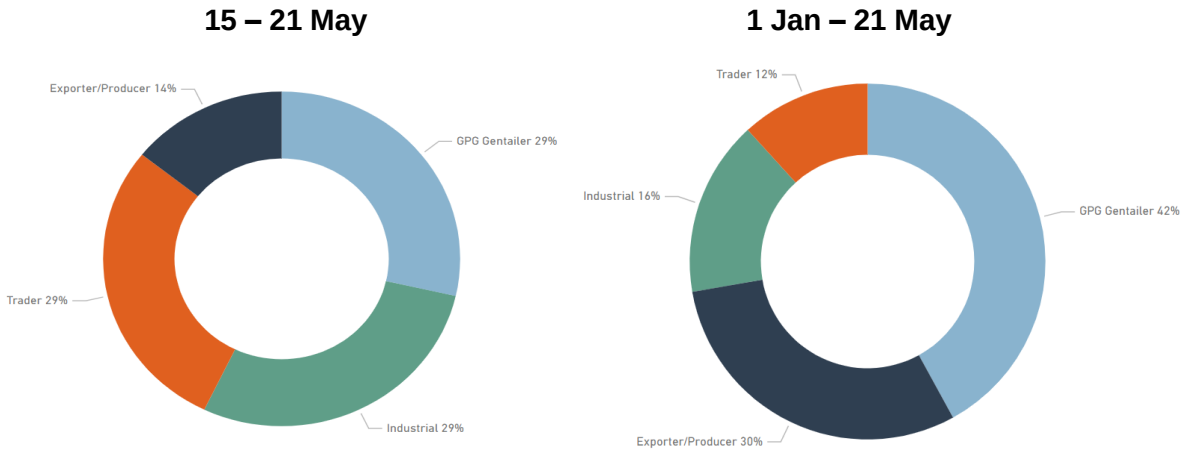
The ex ante price in the Brisbane STTM hit a record high of $41.97/GJ on 17 May, a 20% increase from the previous day ($35.00/GJ). An exporter/producer offer set the record high Brisbane price.

Across the whole week, gas powered generators/retailers, traders and industrials equally set the ex ante prices in the Brisbane STTM. This is in comparison to the period 1 January to 21 May, where gas powered generators/retailers, were the predominant ex ante price setters

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

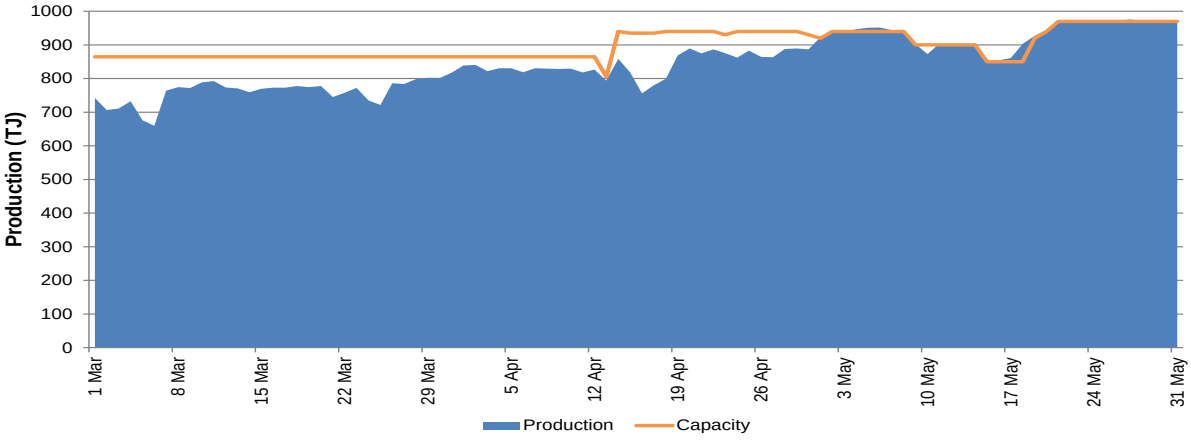
(see figure 7). Also note that exporter/producers reduce from an average of 30% since January, to only 14% this week.

Figure 7: Brisbane STTM ex-ante price setting[4]



The average Victorian DWGM price increased 10% this week to $37.20/GJ. The Longford production facility in Victoria experienced an outage from 15 – 18 May, with capacity reduced from 900 TJ/day to 850 TJ/day during the period (see figure 8). The reduced production capacity at Longford may have put an upwards pressure on the DWGM prices.

Figure 8: Longford production



Gas begins to flow south

Gas briefly flowed south this week for the first time since mid-October 2021 (69 TJ). However, more gas flows south are required to meet southern winter demand.

LNG exports increased by 58 TJ this week despite domestic gas spot prices (Brisbane, Sydney Adelaide STTM and Melbourne) exceeding the contemporaneous LNG netback price of $29.66 (see map on first page).

Note that QCLNG and APLNG both have planned maintenance on their LNG trains. QCLNG is scheduled from 16 June – 18 July, while APLNG is scheduled from 28 July – 26 August.[5,6]

[4] Note that the price can be set by more than one participant and participant group.

[5] See Australian Energy Market Operator (AEMO), LNG Maintenance Notices, June 2022.

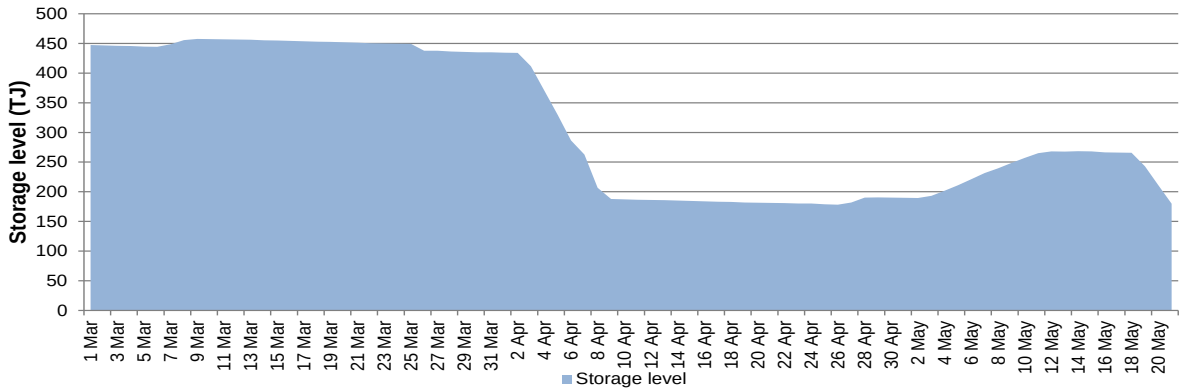
[6] QCLNG planned maintenance of ½ - 1 export train is scheduled from 16 June – 18 July, while APLNG scheduled planned maintenance on a full export train is set to commence from 28 July – 26 August.

As the associated production facilities generally do not fully close down during these LNG train outages, there may be additional offers into the domestic market during these periods.

Strong reliance on gas held in storage this winter

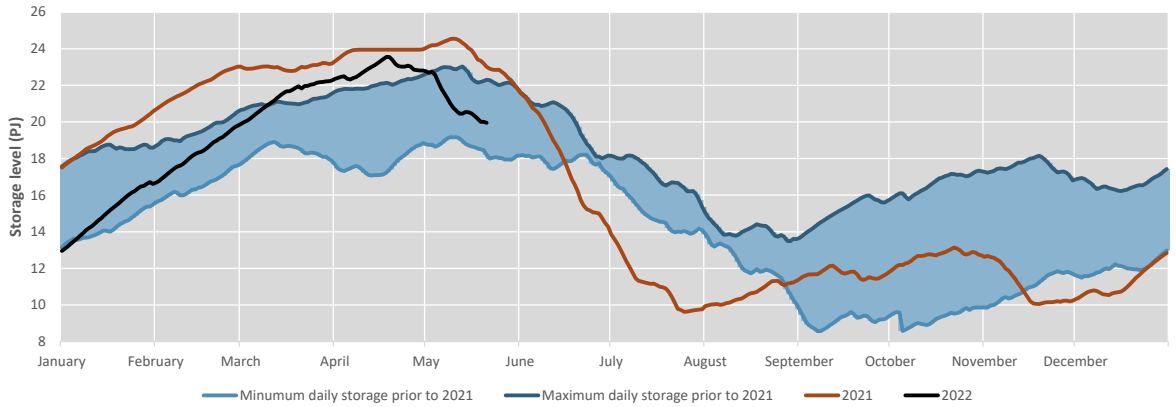
There has been a strong reliance on gas in storage due to continued high southern demand and insufficient gas flow south. AGL's Newcastle Gas Storage Facility, which supplies into the Sydney gas hub, rapidly depleted in early April. After some minor refilling it has been rapidly depleting again since 19 May (see figure 9).

Figure 9: Newcastle Gas Storage levels



Similarly, in Victoria, storage levels at the Iona storage facility decreased 425 TJs this week (see figure 10). While storage levels where historically high in April, there has been rapid depletion in May. Storage levels now sits at normal levels for this time of year.

Figure 10: Iona continues to deplete



Significant price variation (SPV) analysis

Similar to the previous week (8 – 14 May), there has been high volatility in the spot markets and a steep increase in prices triggering the AER's reporting requirements in relation to the STTM and VGM.

Specifically, and in relation to the STTM, across the last 2 weeks there have been 22 increases of more than $7 between the D-2 schedule and ex ante schedule but no decreases of a similar magnitude.

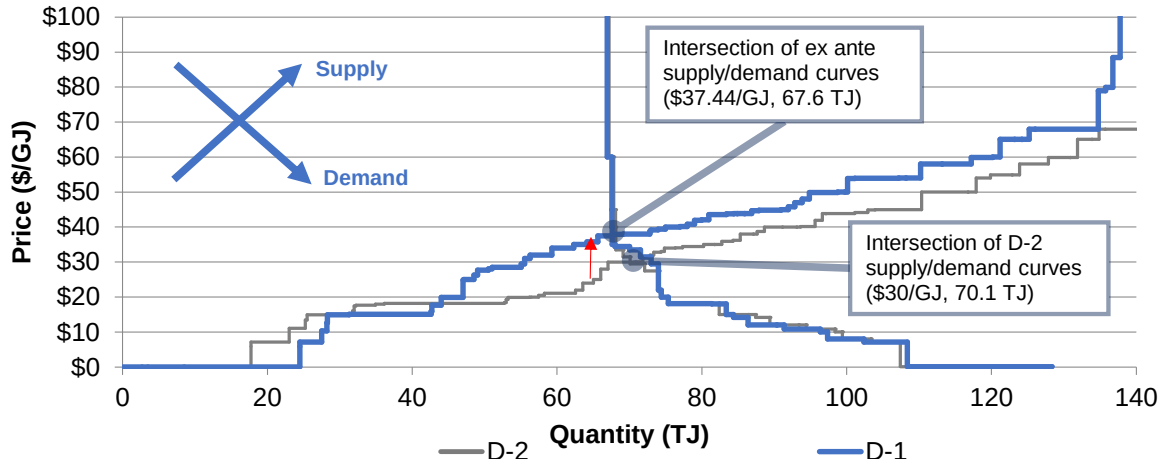
With regards to the STTM events this week, the main drivers where:

> **Change in supply offer bids**: the D-1 price in Adelaide and Brisbane deviated from the D-2 forecast price by more than $7/GJ on 7 occasions (Figures 11-17)
>
> **Change in controllable demand bids:** the D-1 price in Sydney deviated from the D-2 forecast price by more than $7/GJ on 3 occasions (Figures 18-20)

These deviations constitute SPV events in accordance with rules 355(2) and 498(2) of the National Gas Rules. The AER will publish a detailed report on these outcomes following further investigation. Below is a brief description of these events.

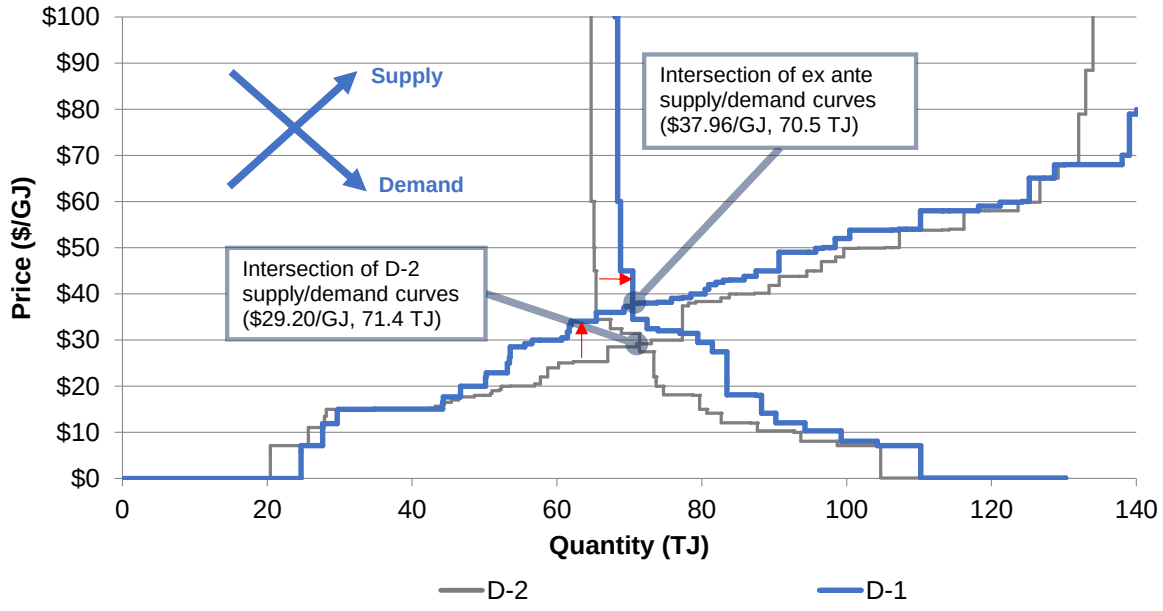
SPV preliminary analysis - Adelaide

Figure 11: Adelaide provisional and ex ante bid and offer curves (17 May)



On 17 May in Adelaide, ex ante rebidding removed 17.5 TJ of offers priced below $25/GJ from the D-2 supply curve, largely from GPG gentailer participants, with only 2.2 TJ and 2.4 TJ shifted to $25-30/GJ and $35-40/GJ price ranges respectively.[7] This led to an upward shift in the supply curve, resulting in the ex ante price ($37.44/GJ) increasing by $7.44/GJ compared to the D-2 provisional schedule price ($30/GJ).

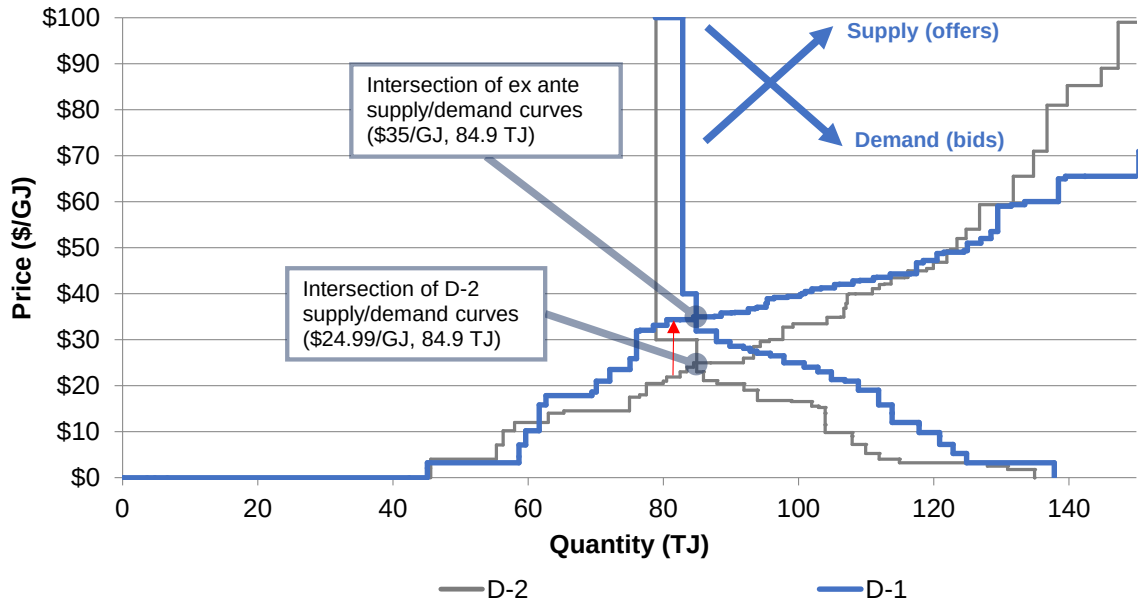
Figure 12: Adelaide provisional and ex ante bid and offer curves (20 May)



On 20 May in Adelaide, ex ante rebidding removed 16.7 TJ of offers priced below $30/GJ from the D-2 supply curve, largely from GPG gentailers, with most of this quantity shifted to prices above $50/GJ, shifting the offer curve up (vertically). Revised demand forecasts (up 2.6 TJ) and controllable demand rebidding (adding 5.4 TJ of demand priced above $30/GJ – however most of this was not scheduled) also shifted the demand curve up (to the right). The combined uncontrollable (pricetaker) demand increase, and higher offer prices were the main drivers of the $8.76/GJ increase between the D-2 provisional ($29.20/GJ) and ex ante ($37.96/GJ) prices.

[7] 3.3 TJ of supply offers were also removed from the $30-35/GJ price range.

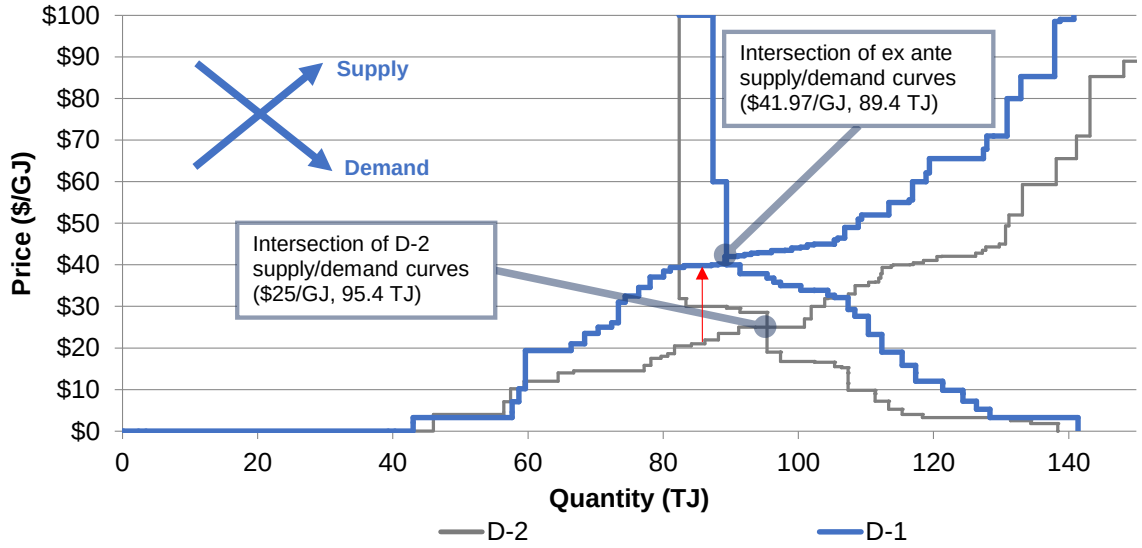
Figure 13: Brisbane provisional and ex ante bid and offer curves (16 May)



On 16 May in Brisbane, rebidding by GPG gentailers and industrial participants reduced the quantity of gas offers priced under $30/GJ by 19.7 TJ, while an additional 20 TJ of gas was offered in the ex ante schedule priced above $35/GJ (largely by traders – Eastern Energy and SGMT).

The higher offer prices were the main driver of the $10.01/GJ increase between the D-2 provisional ($24.99/GJ) and ex ante ($35/GJ) prices. Additionally, an Ampol rebid shifting 6 TJ of controllable demand from $30/GJ to $40/GJ and $100/GJ drove the ex ante price only slightly higher (around $2/GJ).

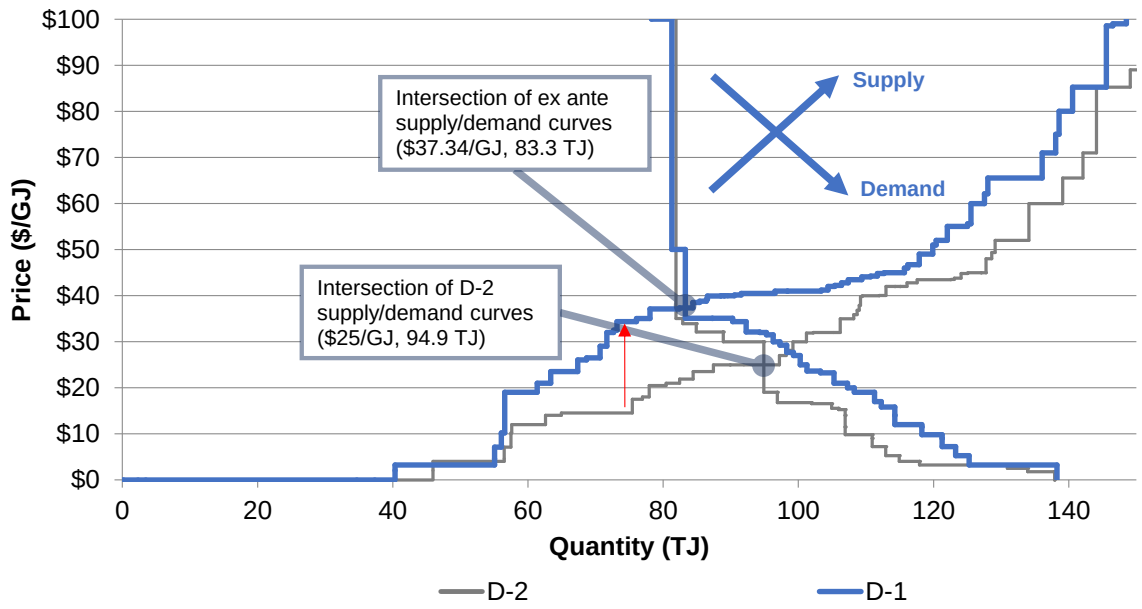
Figure 14: Brisbane provisional and ex ante bid and offer curves (17 May)



In Brisbane on 17 May, rebidding by GPG gentailer, industrial and trading participants reduced the quantity of gas offers priced under $35/GJ by over 32 TJ, while gas offered in $35-80/GJ price bands increased by around 22 TJ in the ex ante schedule.

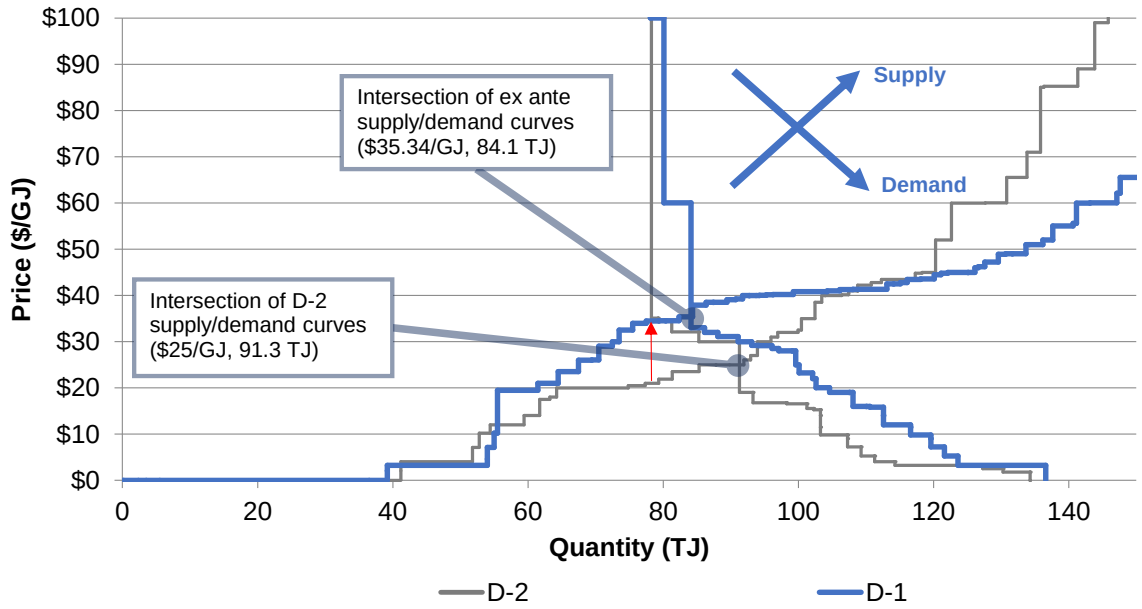
The shift in supply was the main driver of the $16.97/GJ increase between the D-2 provisional ($25/GJ) and ex ante ($41.97/GJ) prices. Additionally, an Ampol rebid changing 6 TJ of controllable demand at $30/GJ to 9 TJ at $40-100/GJ drove the ex ante price only slightly higher (up $2.63/GJ).

Figure 15: Brisbane provisional and ex ante bid and offer curves (18 May)



In Brisbane on 18 May, rebidding removed close to 30 TJ of supply priced below $25/GJ in the ex ante schedule (mainly from GPG gentailer and industrial offers). This drove a $12.34/GJ increase between the D-2 provisional ($25/GJ) and ex ante ($37.34/GJ) prices.

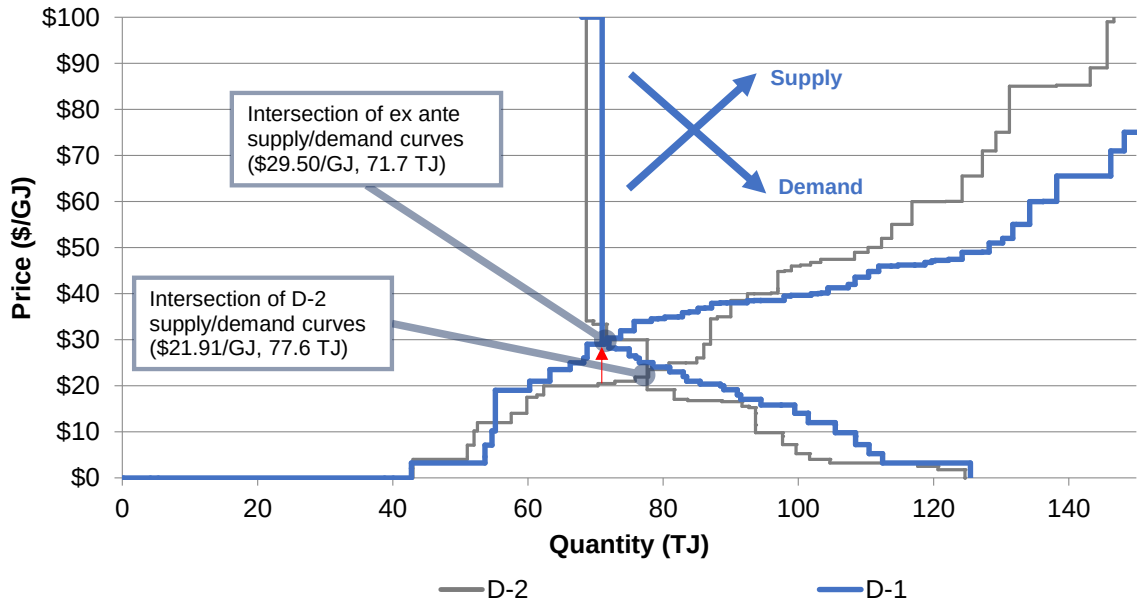
Figure 16: Brisbane provisional and ex ante bid and offer curves (19 May)



In Brisbane on 19 May, rebidding removed close to 24.5 TJ of supply priced below $25/GJ in the ex ante schedule (mainly from GPG gentailer and industrial offers), shifting roughly half of this quantity to prices around $25-40/GJ.

The shift in supply was the main driver of the $10.34/GJ increase between the D-2 provisional ($25/GJ) and ex ante ($35.34/GJ) prices. Additionally, an Ampol rebid added 6 TJ of controllable demand at $40-100/GJ in the ex ante schedule, slightly increasing the price (up $0.82/GJ).

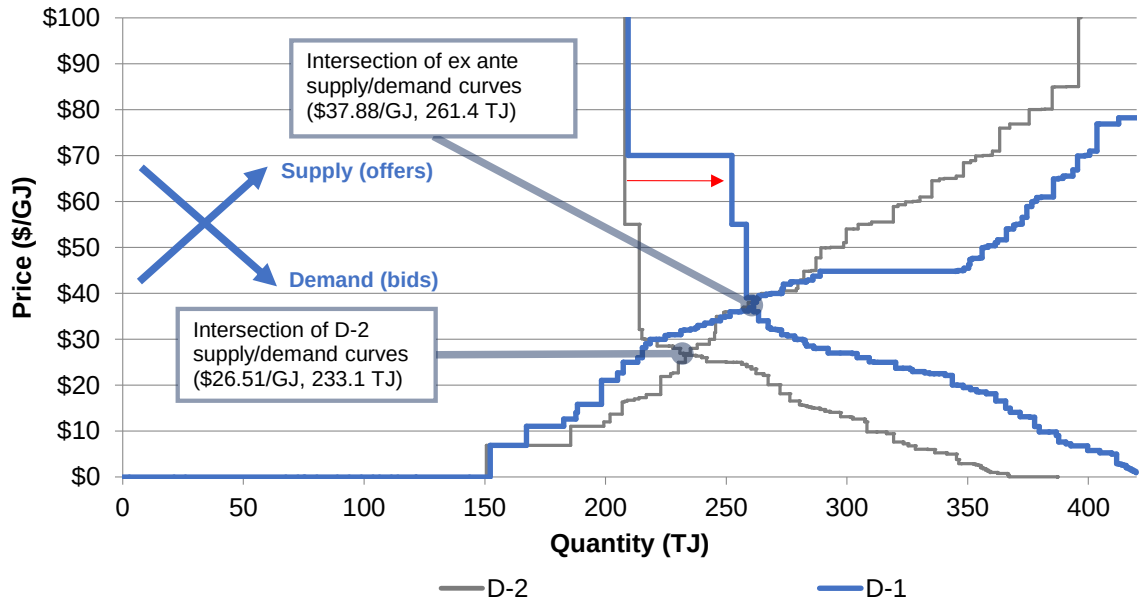
Figure 17: Brisbane provisional and ex ante bid and offer curves (21 May)



In Brisbane on 21 May, rebidding shifted 16.7 TJ of supply priced below $25/GJ to higher prices in the ex ante schedule (mainly from GPG gentailer and industrial offers). This drove a $7.59/GJ increase between the D-2 provisional ($21.91/GJ) and ex ante ($29.50/GJ) prices.

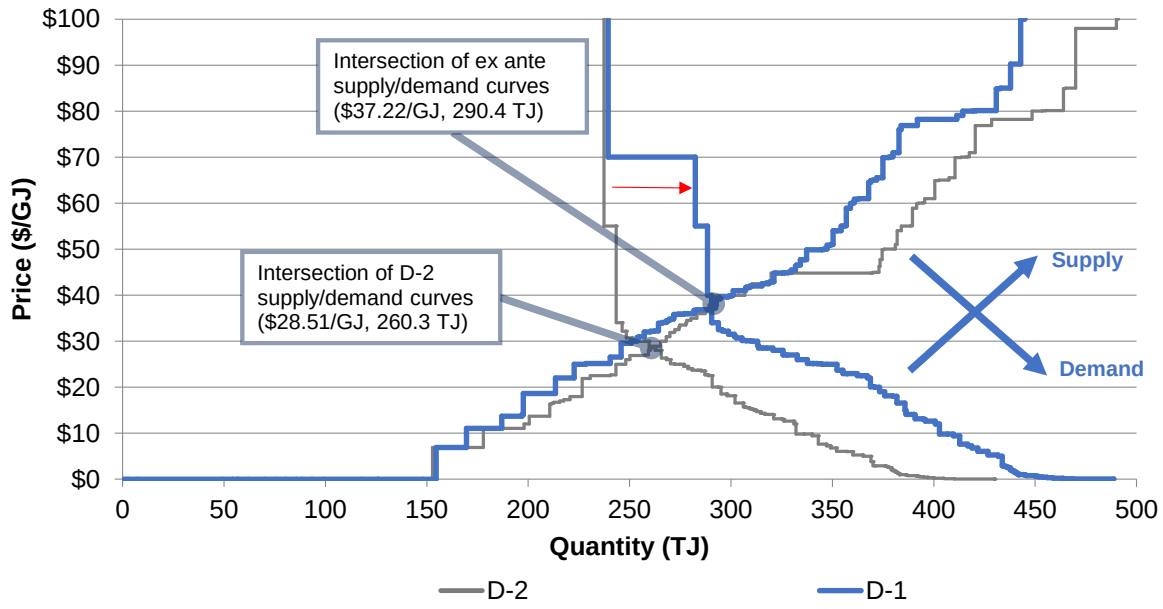
SPV preliminary analysis - Sydney

Figure 18: Sydney provisional and ex ante bid and offer curves (15 May)



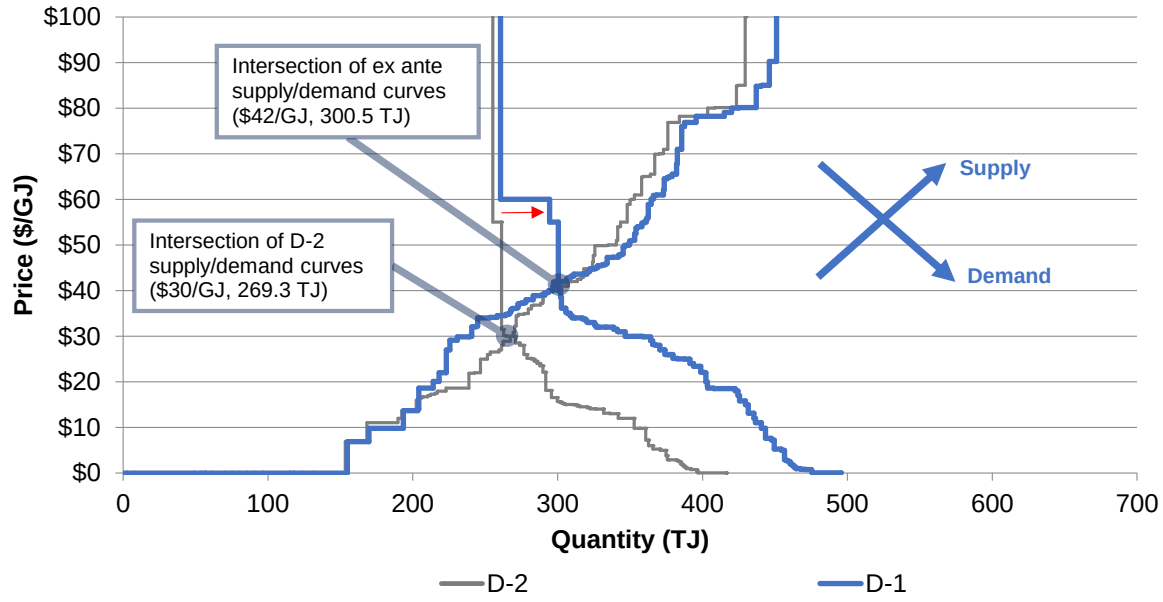
In Sydney, on 15 May, Snowy Hydro added a 43 TJ controllable demand bid to the ex ante schedule at $70/GJ, leading to a shift in the demand curve. This was the main driver of the $11.37/GJ price increase from the D-2 provisional ($26.51/GJ) to the ex ante schedule ($37.88/GJ).

Figure 19: Sydney provisional and ex ante bid and offer curves (16 May)



In Sydney, on 16 May, Snowy Hydro added a 43 TJ controllable demand bid to the ex ante schedule at $70/GJ, leading to a shift in the demand curve. This was the main driver of the $8.71/GJ price increase from the D-2 provisional ($28.51/GJ) to the ex ante schedule ($37.22/GJ).

Figure 20: Sydney provisional and ex ante bid and offer curves (17 May)



In Sydney, on 17 May, Snowy Hydro added a 34 TJ controllable demand bid to the ex ante schedule at $60/GJ, leading to a shift in the demand curve. This was the main driver of the $12/GJ price increase from the D-2 provisional ($30/GJ) to the ex ante schedule ($42/GJ).

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 price[8] which is the schedule at which most gas is traded.

The main drivers[9] 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 forecasts[10], 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)

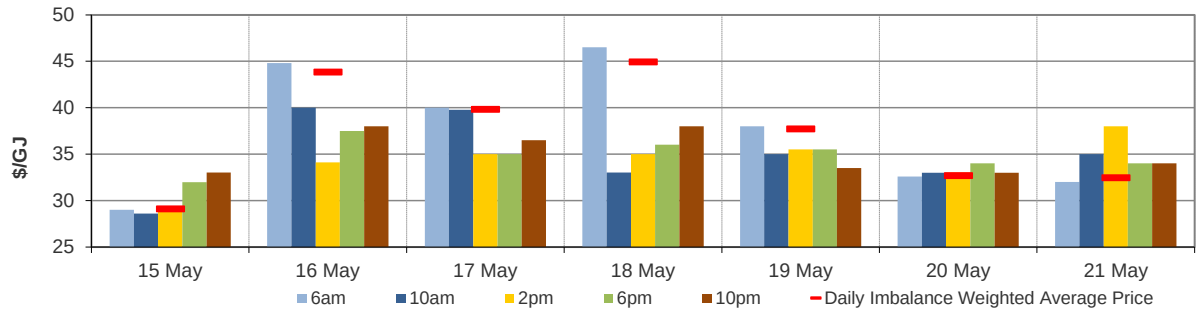
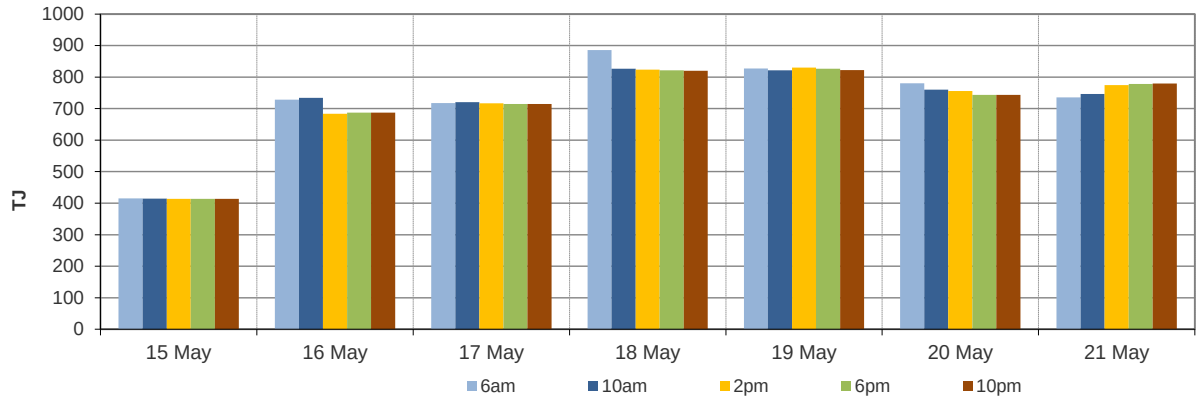


Figure 1.2: Demand forecasts (TJ)



[8] 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.

[9] 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.

[10] 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)

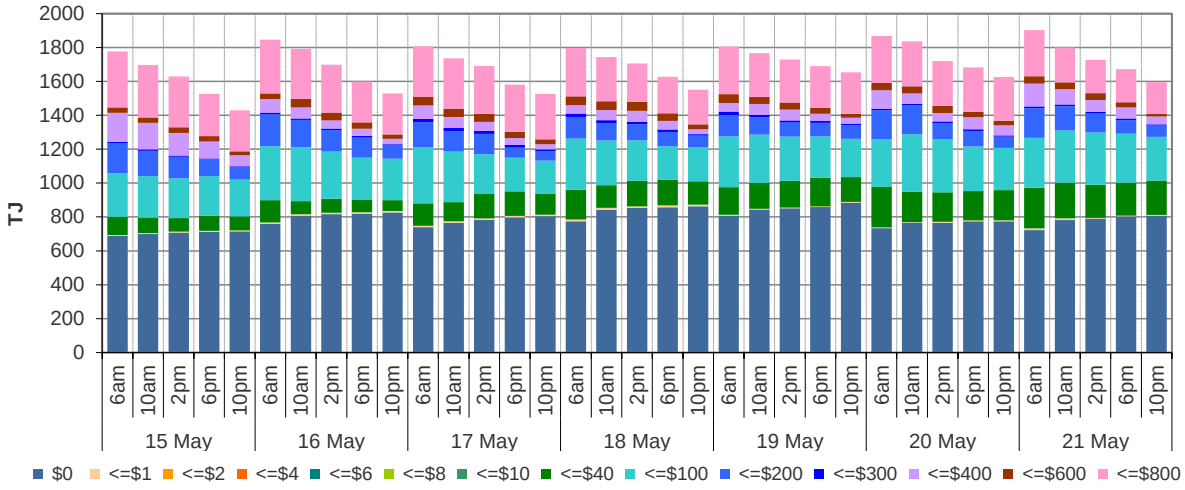


Figure 1.4: Withdrawal bids by price bands (TJ)

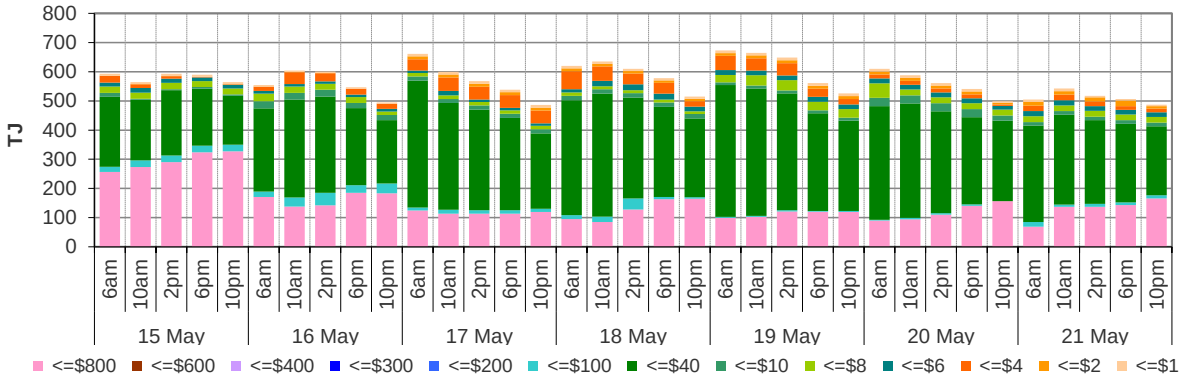
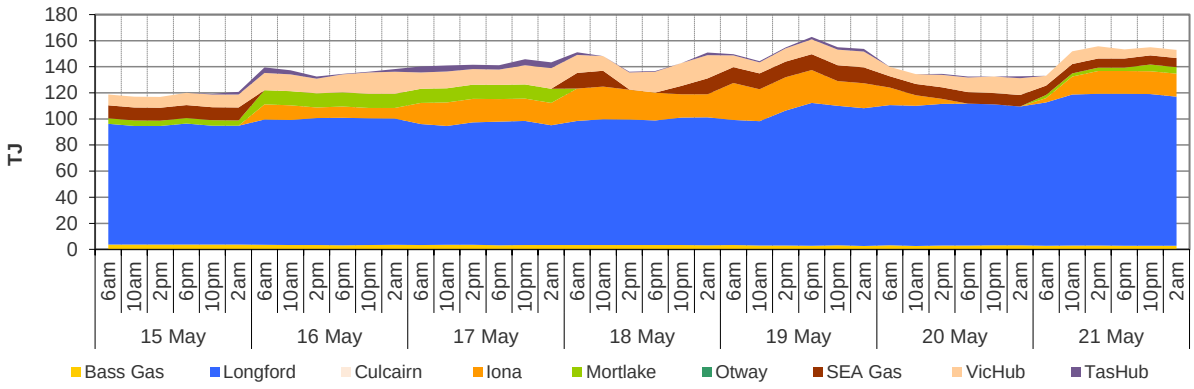


Figure 1.5: Metered Injections by System Injection Point (TJ)



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.[11] 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.

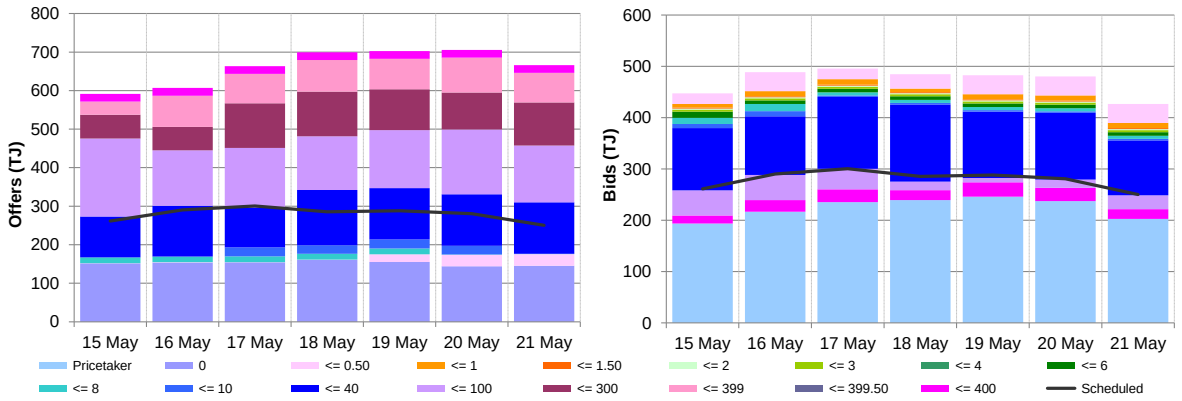
MOS payments arise because the amount of gas nominated on pipelines for delivery on a gas day will either exceed or fall short, by some amount, of the amount of gas consumed in the hub. In such circumstances, MOS payments are made to participants for providing a service to park gas on a pipeline or to loan gas from a pipeline to the hub.[12]

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 ($/GJ)	37.88	37.22	42.00	34.50	34.10	34.50	31.85
Ex ante quantity (TJ)	261	290	300	286	288	281	250
Ex post price ($/GJ)	35.00	36.69	40.00	34.15	34.20	38.80	35.20
Ex post quantity (TJ)	249	282	292	280	296	313	278

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



[11] 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.

[12] 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.

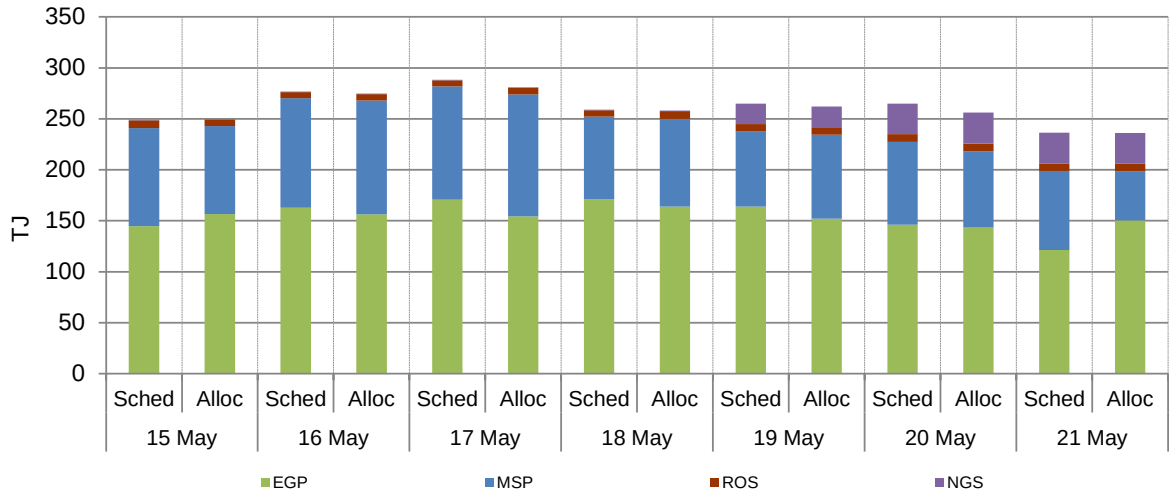
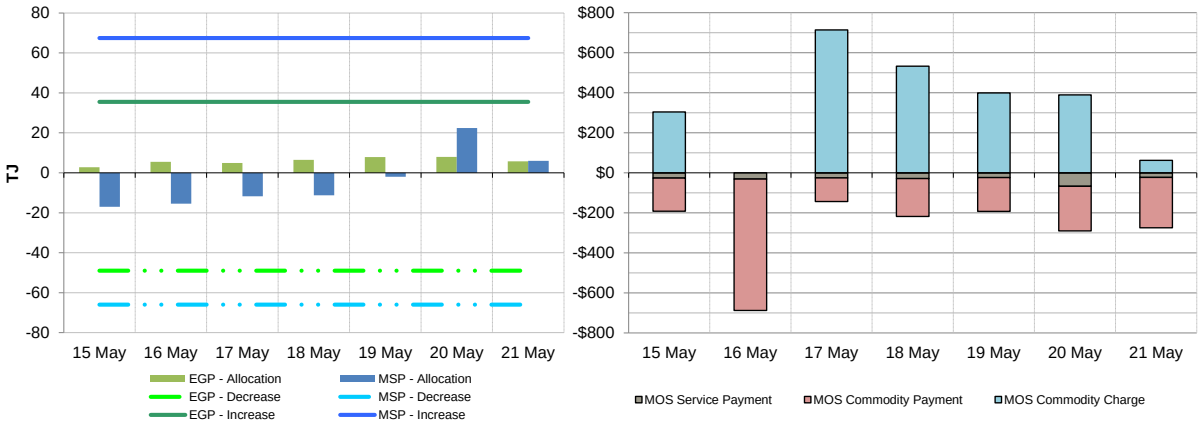


Figure 2.4: SYD MOS allocations (TJ), service payments and commodity payments/charges ($000)[13]



[13] 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.

Figure 3.1: ADL STTM daily ex ante and ex post prices and quantities

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Ex ante price ($/GJ)	34.05	34.44	37.44	37.97	38.15	37.96	34.00
Ex ante quantity (TJ)	58	68	68	67	70	70	55
Ex post price ($/GJ)	33.25	33.44	37.99	38.00	34.44	36.00	34.60
Ex post quantity (TJ)	54	61	72	68	65	68	57

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

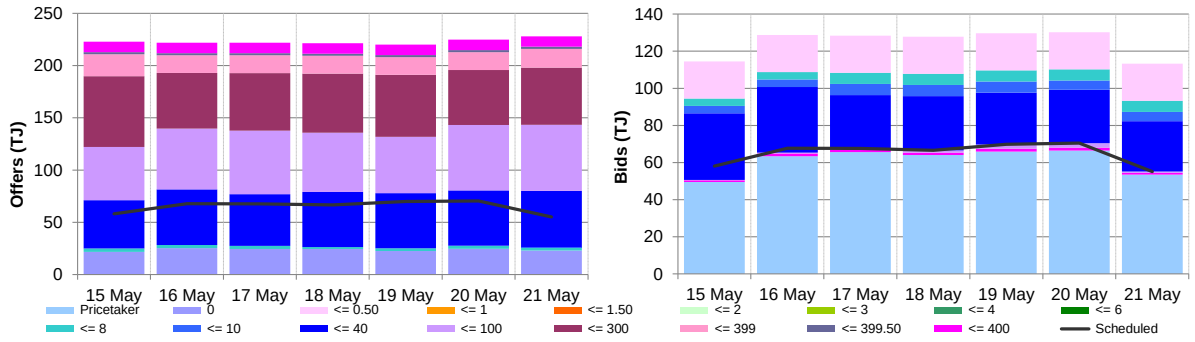


Figure 3.3: ADL net scheduled and allocated gas hub supply (excluding MOS)

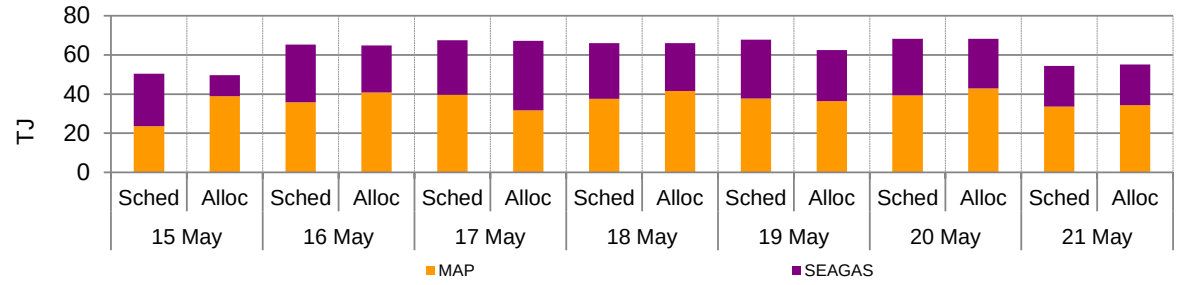
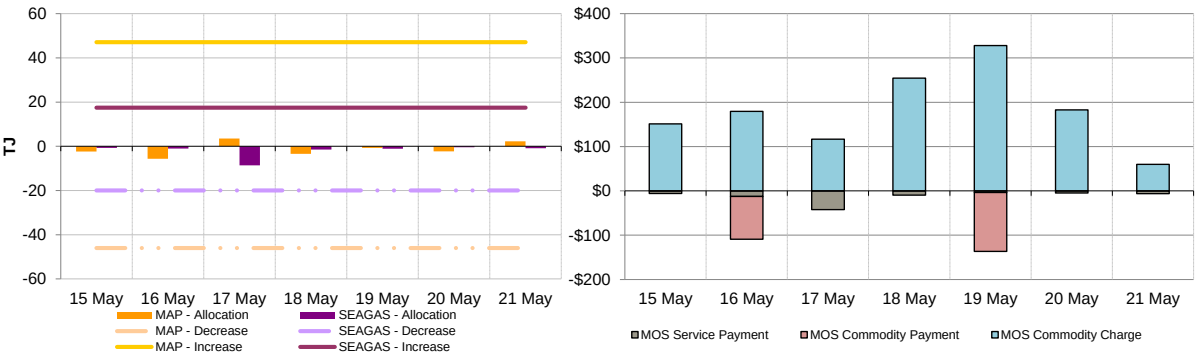


Figure 3.4: ADL MOS allocations (TJ), service payments and commodity payments/charges ($000)



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.

Figure 4.1: BRI STTM daily ex ante and ex post prices and quantities

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Ex ante price ($/GJ)	27.64	35.00	41.97	37.34	35.34	34.34	29.50
Ex ante quantity (TJ)	78	85	89	83	84	86	72
Ex post price ($/GJ)	27.64	34.34	39.78	37.34	37.92	34.10	29.50
Ex post quantity (TJ)	78	84	84	83	86	84	72

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

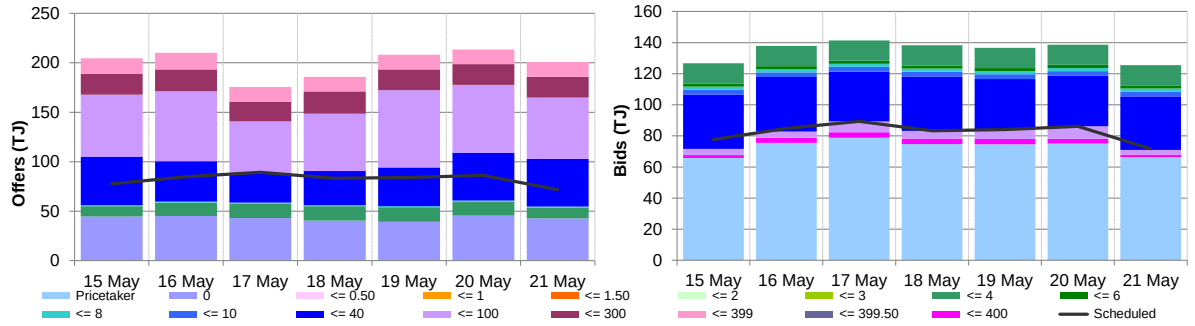


Figure 4.3: BRI net scheduled and allocated gas hub supply (excluding MOS)

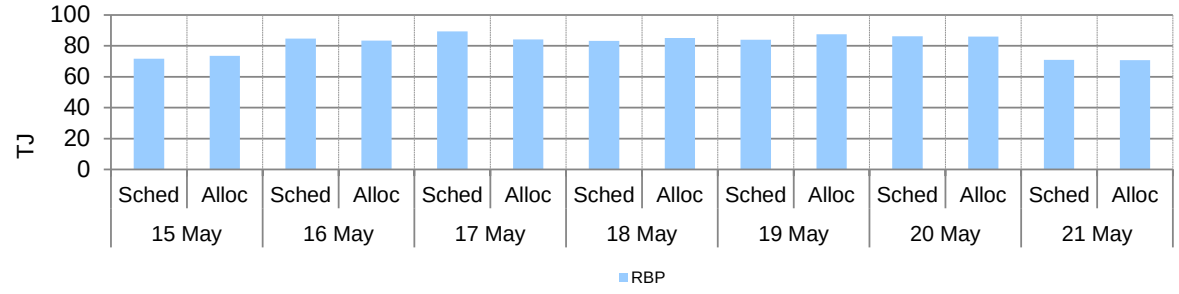
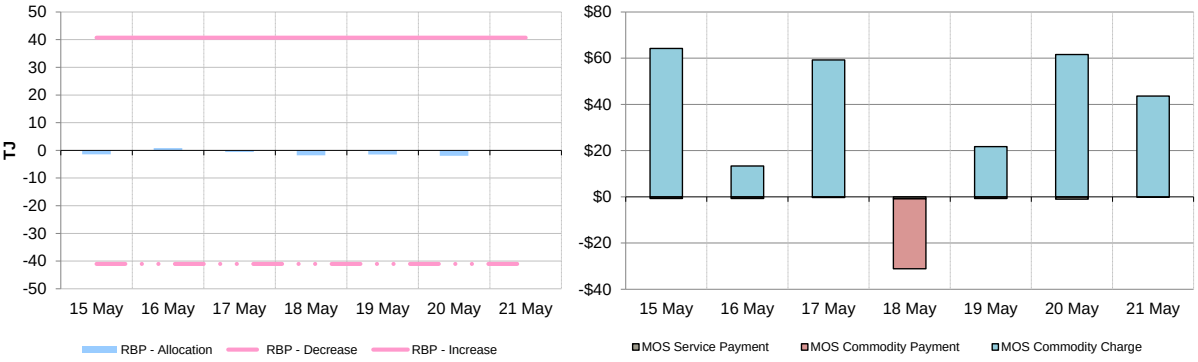


Figure 4.4: BRI MOS allocations (TJ), service payments and commodity payments/charges ($000)



5. National Gas Bulletin Board

Figure 5.1 shows average daily actual flows for the current week[14] from the Bulletin Board (changes from the previous week's average are shown in brackets). Average daily prices[15] 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)[16]

Totals	Current Week	Change (TJ)
Domestic gas flows	1728	(-118)
Export gas flows	3811	(+58)
Gas production	5477	(+25)
GPG gas usage	354	(-201)
Pipelines		
Queensland		
Gladstone		
APLNG	1557	(0)
GLNG	992	(+37)
QGP	144	(+6)
WGP	1262	(+22)
Mt Isa		
CGP	56	(-5)
Brisbane		
RBP	85	(-3)
South West		
SWQP	42	(+6)
Wallumbilla		
BWP	114	(+1)
CRWP	14	(+30)
DDP	35	(+3)
QGP (WAL)	47	(+6)
RBP (WAL)	-8	(-16)
SWQP (WAL)	-49	(-20)
New South Wales		
MSP	137	(-3)
EGP	277	(-40)
Victoria		
LMP	699	(+38)
SWP	121	(-63)
South Australia		
MAP	130	(-27)
SEAGas	51	(-17)
Tasmania		
TGP	28	(-2)

Storage (held volume)		
Moomba LDB	12480	(-30)
Iona UGS	20313	(-425)
LNG Storage Dandenong	324	(-3)
Silver Springs	16325	(-23)
Roma UGS	27958	(-210)

14 **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.

15 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.

16 Net flows are shown for Bulletin Board facilities, as outlined in the user guide.

6. Gas Supply Hub

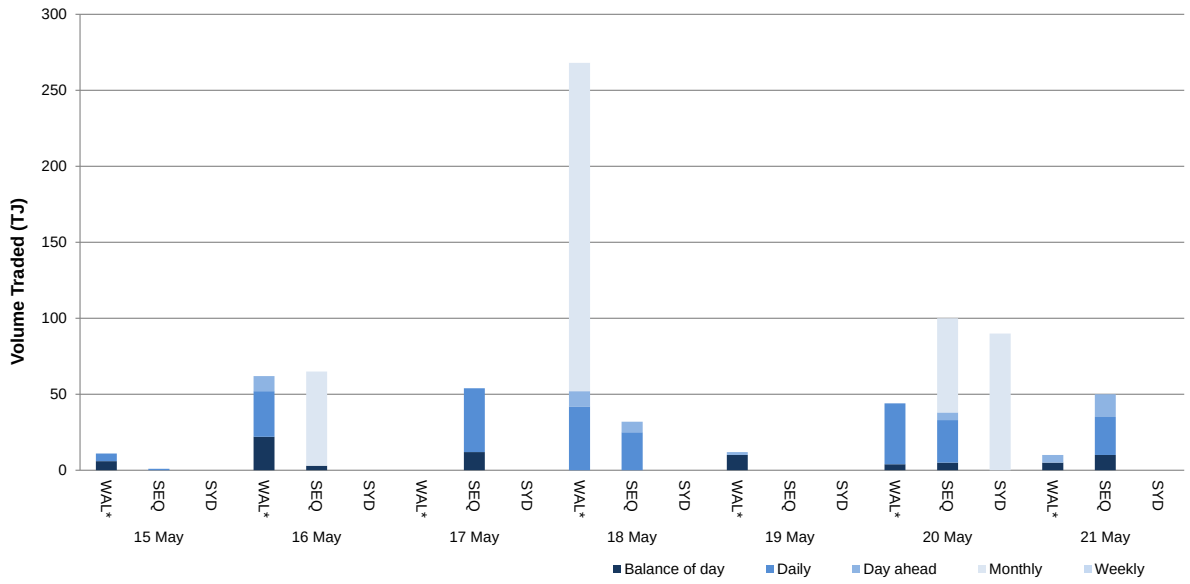
The gas supply hub was established at Wallumbilla in March 2014 to facilitate the voluntary trading of gas between participants, with products listed for sale and purchase at delivery points on three major connecting pipelines. There are separate products for each trading location and delivery period (daily, day-ahead, balance-of-day, weekly and monthly products).[17]

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 43 trades for 799 TJ of gas at a volume weighted price of $19.71/GJ. These consisted of 19 trades at WAL (407 TJ at $21.48/GJ), 21 trades at SEQ (302 TJ at $19.26/GJ) and 3 trades at SYD (90 TJ at $13.25/GJ). There were no spread products traded this week. While some daily products were traded in the week some were for tailored strips of days in July, whilst months traded were August, September, October, as well as 2023 months.

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.[18]

Figure 6.1: GSH traded quantities



17 Additional information on trading locations and available products is detailed in the user guide.

18 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.

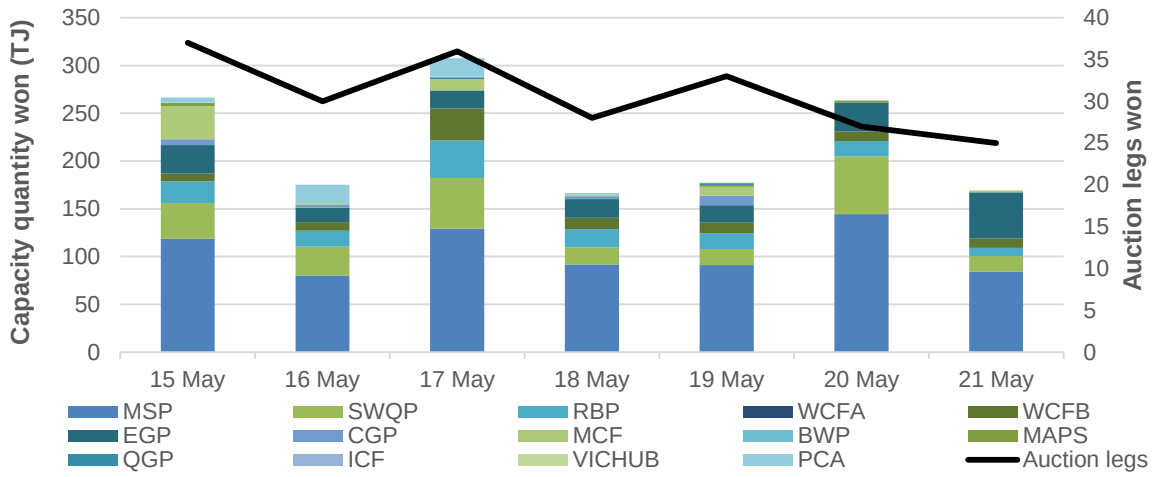
Participants may bid in to the DAA in order to procure the following services:

- 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 1526 TJ of capacity across 11 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.[19]

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



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[19] Additional information is available in the user guide to the AER gas weekly report.