

# Weekly Gas Market Report



AUSTRALIAN ENERGY  
REGULATOR

20 – 26 April 2014

## Weekly summary

Average ex post prices in both Sydney and Brisbane were around 20 per cent lower than the previous week. A number of days saw the price in these hubs fall below \$3/GJ in both the ex ante and ex post schedules. The price in Brisbane was as low as \$2.31/GJ on a number occasions, while Sydney saw the ex post price fall to \$1.37/GJ on Sunday. Adelaide also experienced low prices from Monday.

## 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)<sup>1</sup>**

	Victoria	Sydney	Adelaide	Brisbane
20 Apr - 26 Apr 2014	3.58	3.29	3.71	2.87
% change from previous week	-7	-13	-3	-7
13-14 financial YTD	3.93	4.08	4.40	4.89
% change from previous financial YTD	-12	-21	-13	-16

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)
20 Apr - 26 Apr 2014	3.58	-	502
% change from previous week	-7	-	15
13-14 financial YTD	3.93	-	501
% change from previous financial YTD	-12	-	-5

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

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

<sup>1</sup> The weighted average daily imbalance price applies for Victoria.

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)
20 Apr - 26 Apr 2014	3.29	2.98	7.34	215	212
% change from previous week	-13	-20	88	-6	-6
13-14 financial YTD	4.08	3.93	10.50	232	228
% change from previous financial YTD	-21	-27	-2	-1	-3

**Figure 4: Adelaide STTM**

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
20 Apr - 26 Apr 2014	3.71	3.16	12.50	50	46
% change from previous week	-3	-7	-21	-11	-12
13-14 financial YTD	4.40	4.37	15.21	64	63
% change from previous financial YTD	-13	-13	84	-4	-2

**Figure 5: Brisbane STTM**

	Ex ante price (\$/GJ)	Ex post price (\$/GJ)	MOS payments (\$000)	Ex ante quantity (TJ)	Ex post quantity (TJ)
20 Apr - 26 Apr 2014	2.87	2.68	1.37	161	158
% change from previous week	-7	-18	-42	0	-3
13-14 financial YTD	4.89	4.99	1.56	150	150
% change from previous financial YTD	-16	-13	-35	3	5

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

Scheduled demand in Adelaide on Monday 21 April was only 41.6 TJ, influencing low prices on the day. This reduced to 32.9 TJ in the ex post schedule and saw the price decrease from \$2.75/GJ (ex ante) to \$2.03/GJ. This was the lowest price in the region since late-December 2013<sup>2</sup>. Over forecast demand of around 5 TJ also saw the ex post price fall to \$2.80/GJ for the following two days (see figure 3.1).

<sup>2</sup> The previous record low ex ante price prior to \$0/GJ set on 22 December 2013 was \$2.7981/GJ (set on 9 December 2011). The record low ex post price prior to 22 December 2013 was \$1.9891/GJ (set on 8 October 2011).

In Brisbane, the ex post price fell to \$2.31/GJ on 22 and 24 April with demand over forecast by 4.7 TJ and 7.8 TJ respectively, while Saturday 26 April saw the ex ante price set at the same level.

In Sydney, 21.8 TJ of over forecast demand on 20 April saw a significant requirement for decrease MOS and a reduction of over \$2/GJ in the ex post price to \$1.37/GJ<sup>3</sup> (see figures 2.1 and 2.4).

In Victoria, demand errors on Sunday and Monday saw a fall in prices during a number of schedules, with the imbalance price falling to \$3.27/GJ on Monday.

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<sup>3</sup> This was the lowest ex post price in Sydney since mid-April 2012.

# Detailed Market Analysis

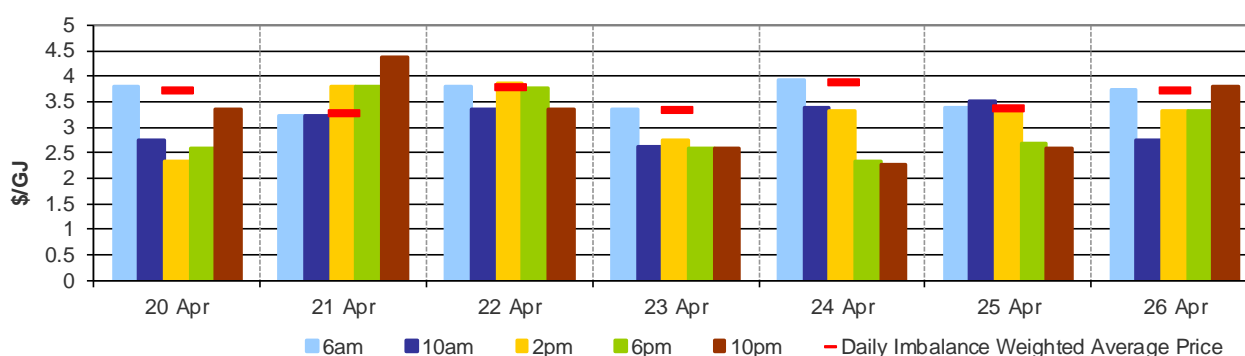
20 – 26 April 2014

## 1 Victorian Declared Wholesale Market

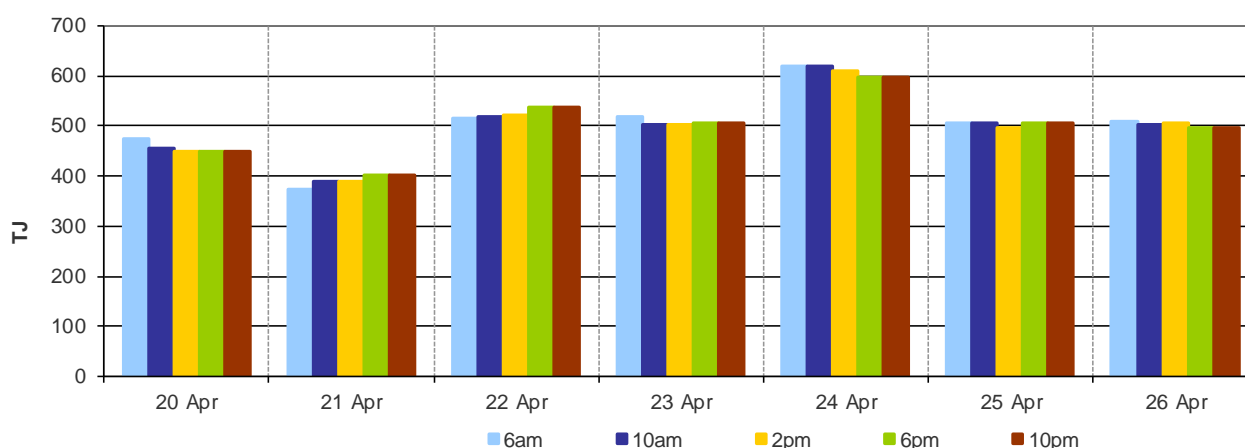
In the Victorian gas market, gas is priced five times daily at 6 am, 10 am, 2 pm, 6 pm and 10 pm. However, the volume weighted gas price on a gas day tends towards the 6 am price which is the schedule at which most gas is traded.

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 forecasts<sup>4</sup>, and injection/withdrawal bids.<sup>5</sup> 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.<sup>6</sup>

**Figure 1.1: Prices by schedule**



**Figure 1.2: Demand forecasts**



<sup>4</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> 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

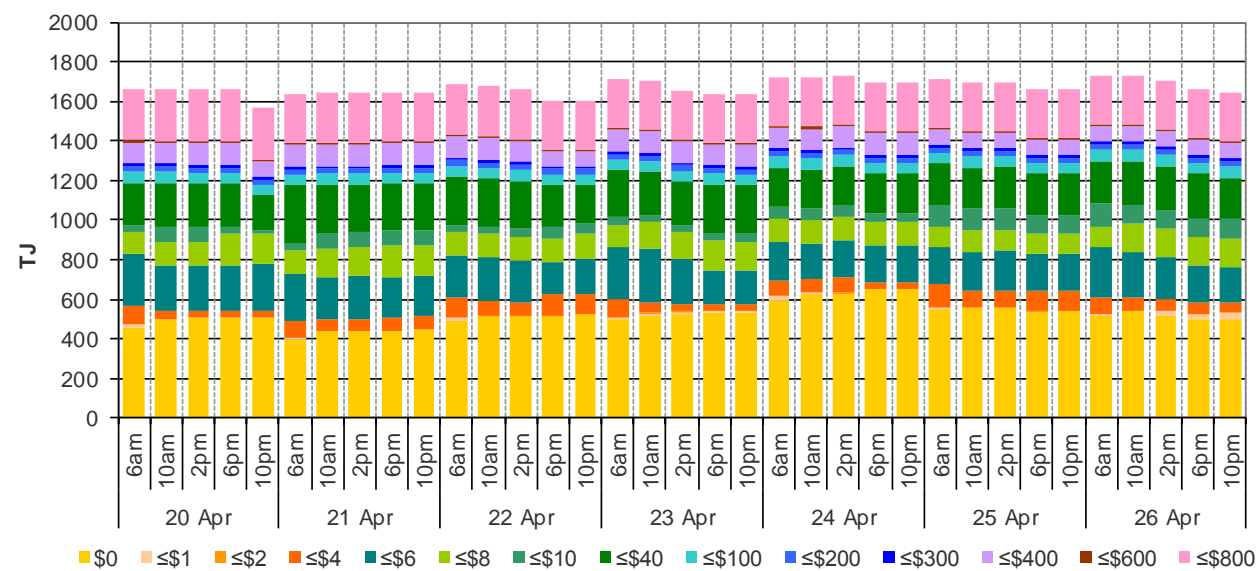


Figure 1.4: Withdrawal bids by price bands

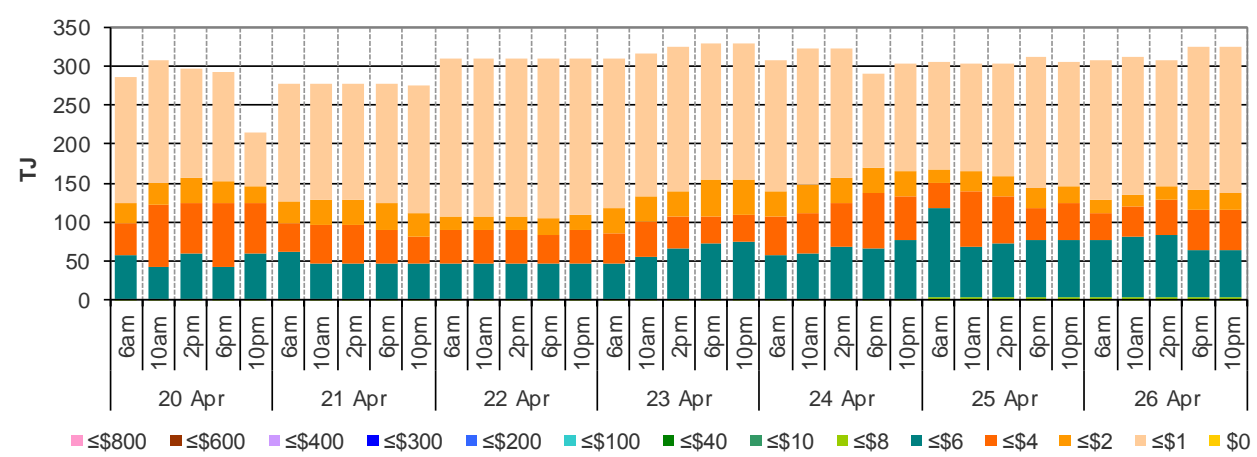
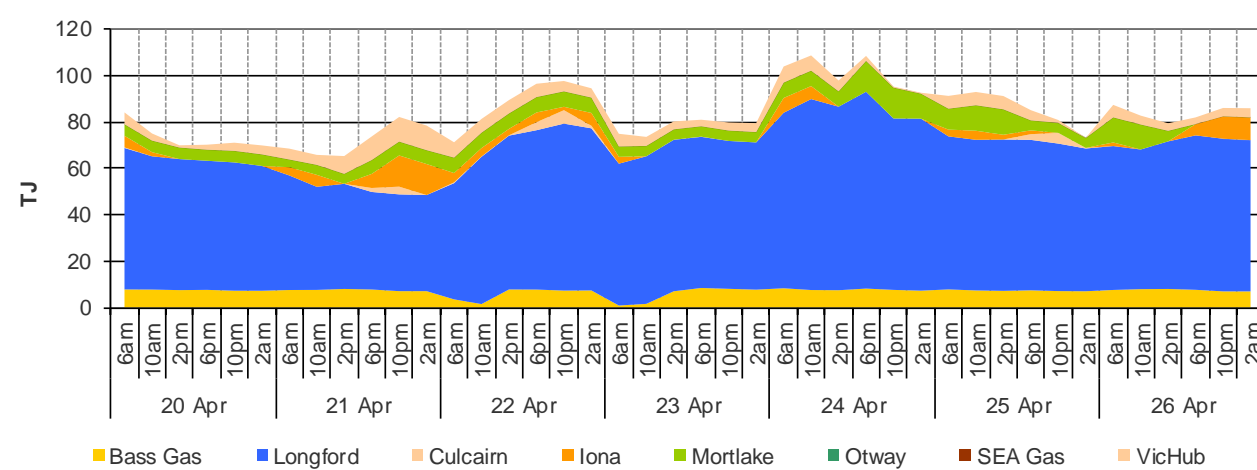


Figure 1.5: Metered Injections by System Injection Point



## 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.<sup>7</sup> 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).

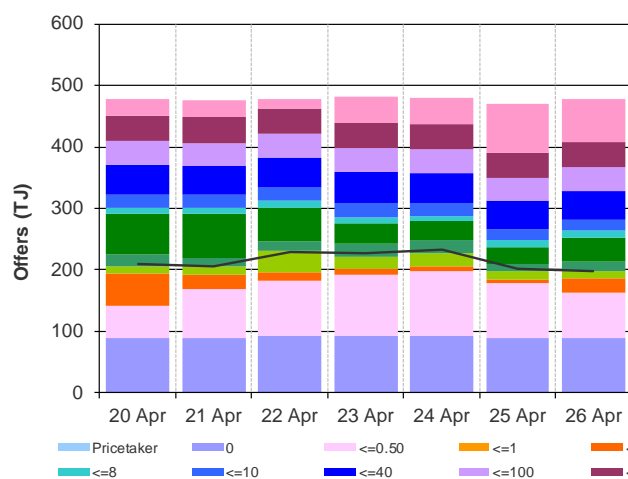
Market Operator Service balancing gas (MOS) payments arise because the amount of gas nominated on pipelines for delivery on a gas day will either exceed or fall short, by some amount, of the amount of gas consumed in the hub. In such circumstances, MOS payments are made to participants for providing a service to park gas on a pipeline or to loan gas from a pipeline to the hub.<sup>8</sup>

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.

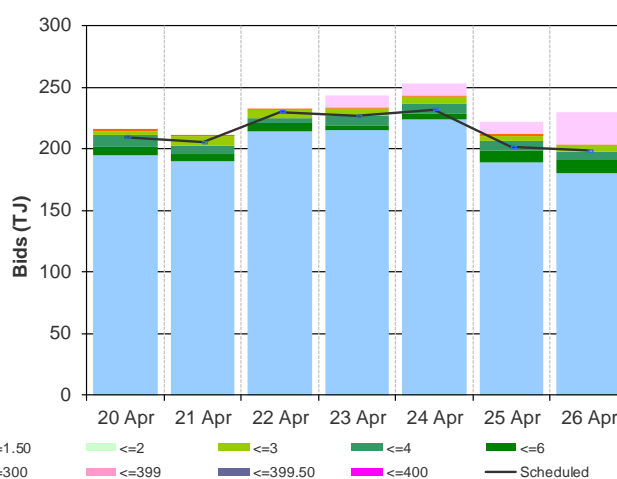
**Figure 2.1: SYD STTM daily ex ante and ex post prices and quantities**

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Ex ante price (\$/GJ)	3.43	2.92	2.90	3.39	3.69	3.76	2.92
Ex ante quantity (TJ)	210	205	230	227	232	201	198
Ex post price (\$/GJ)	1.37	2.90	3.00	3.47	2.92	3.76	3.47
Ex post quantity (TJ)	188	199	235	231	221	203	206

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



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



<sup>7</sup> 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.

<sup>8</sup> 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

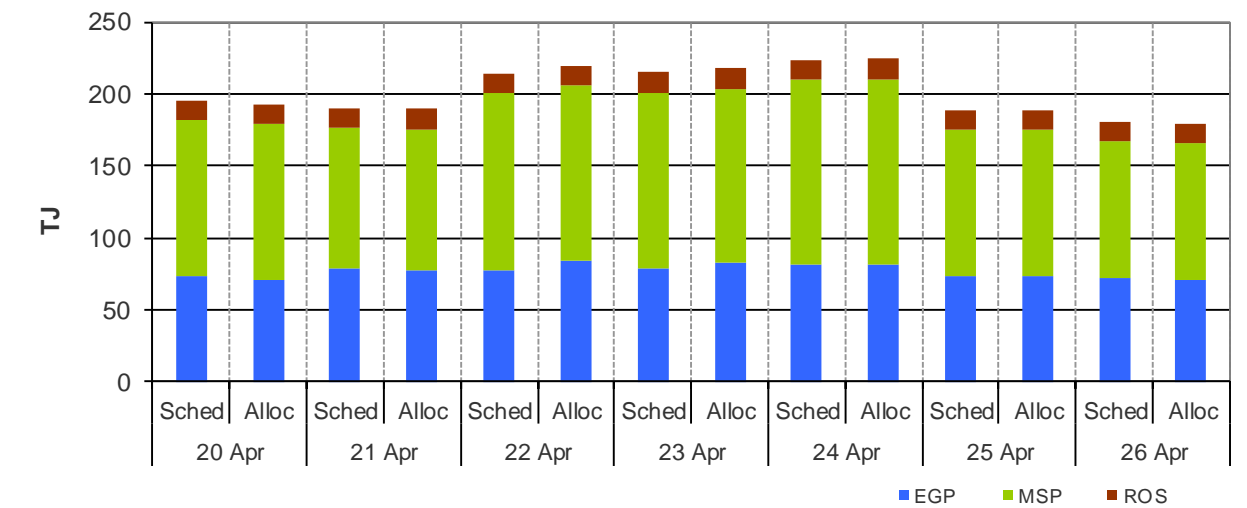


Figure 2.4 (a): SYD STTM MOS allocations (TJ)

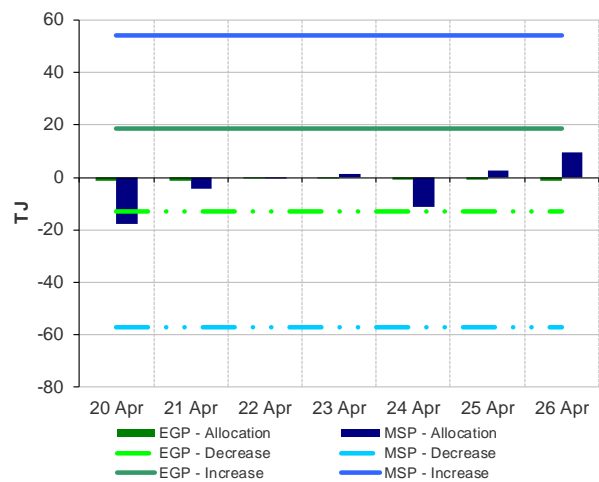
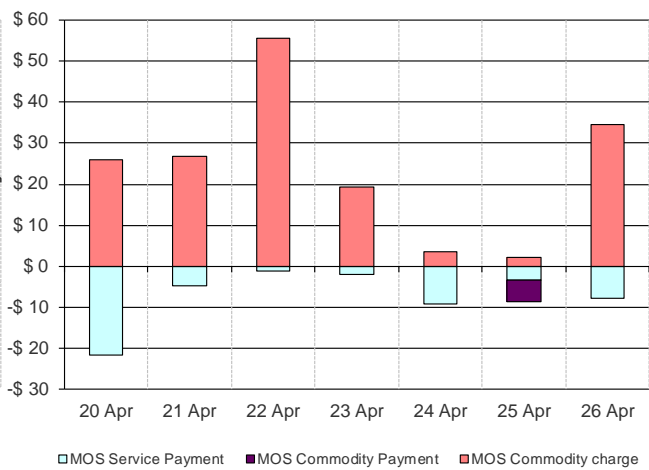


Figure 2.4 (b): Service payments and commodity payments/charges (\$000)



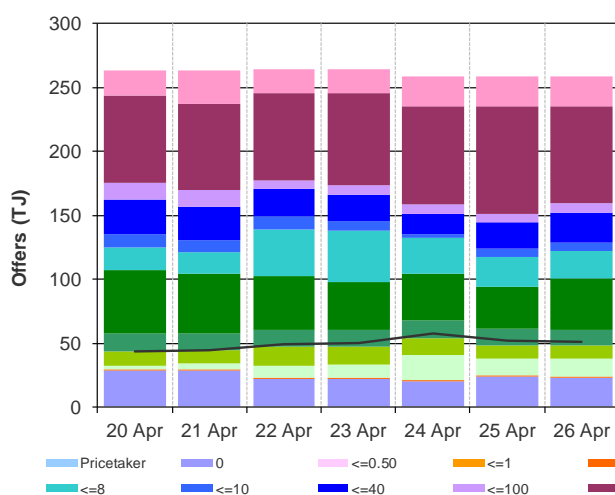
### 3 Adelaide STTM

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.

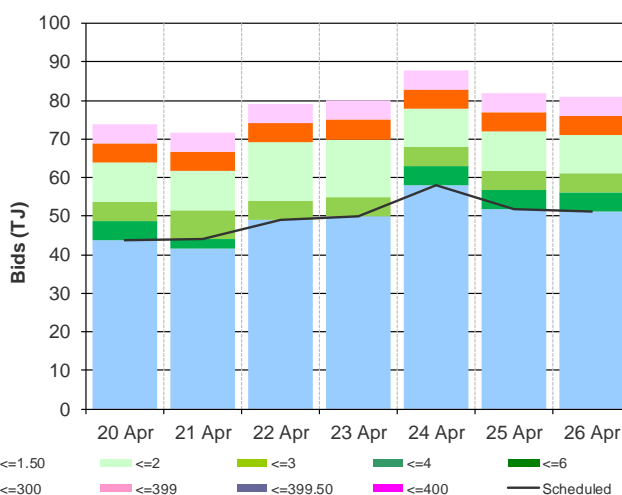
**Figure 3.1: ADL STTM daily ex ante and ex post prices and quantities**

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Ex ante price (\$/GJ)	3.87	2.75	3.86	3.86	3.86	3.90	3.90
Ex ante quantity (TJ)	44	44	49	50	58	52	51
Ex post price (\$/GJ)	3.06	2.03	2.80	2.80	3.63	3.90	3.90
Ex post quantity (TJ)	39	35	44	46	52	51	52

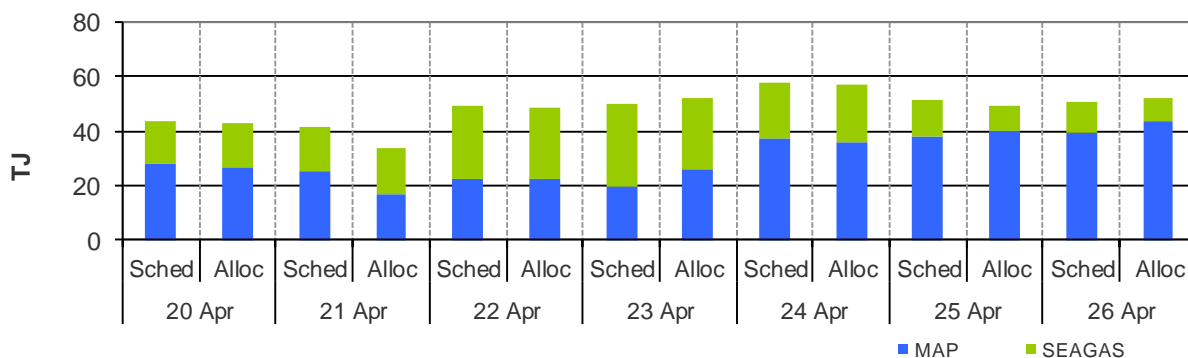
**Figure 3.2 (a): Daily hub offers in price bands (\$/GJ)**



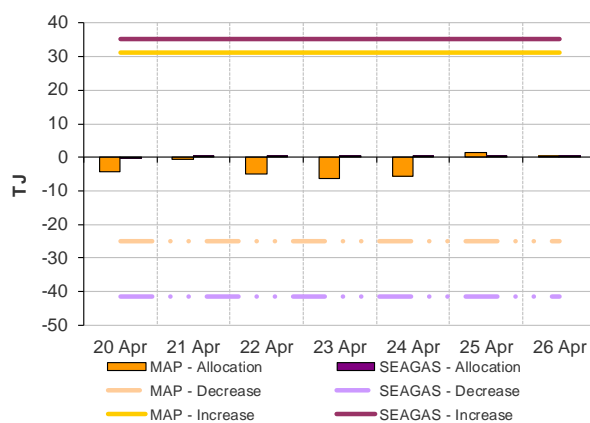
**Figure 3.2 (b): Daily hub bids in price bands (\$/GJ)**



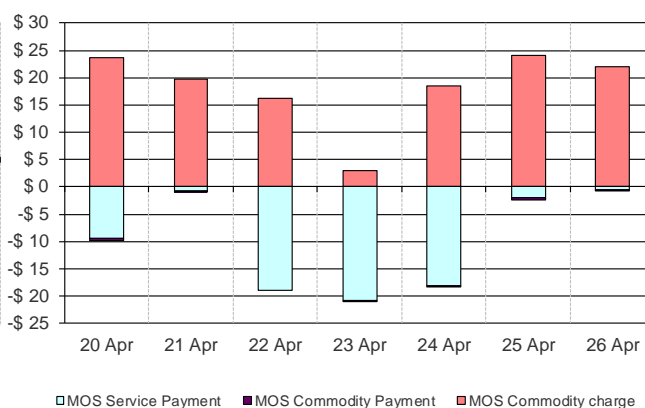
**Figure 3.3: ADL net scheduled and allocated gas volumes (excluding MOS) by STTM facility**



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



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





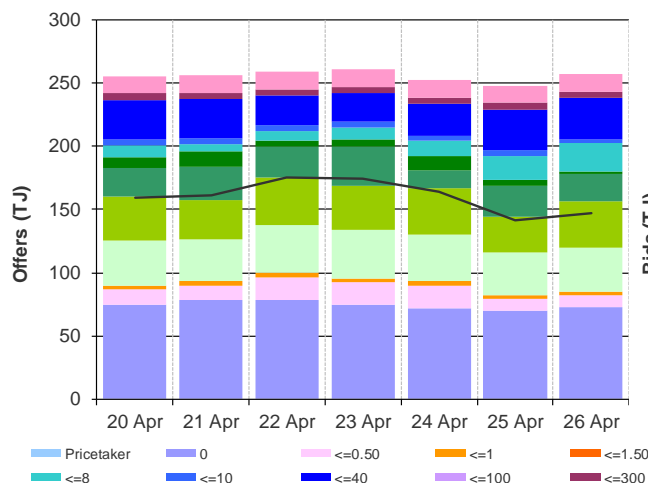
## 4 Brisbane STTM

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.

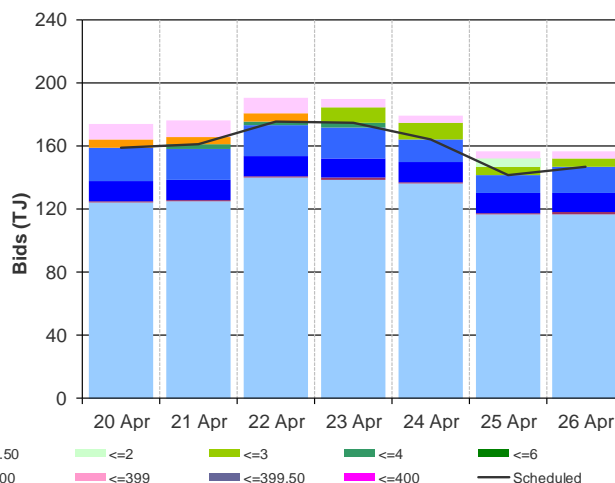
**Figure 4.1: BRI STTM daily ex ante and ex post prices and quantities**

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Ex ante price (\$/GJ)	2.55	3.00	3.00	3.45	2.80	3.00	2.31
Ex ante quantity (TJ)	159	161	176	175	165	142	147
Ex post price (\$/GJ)	2.55	3.00	2.31	3.29	2.31	3.00	2.31
Ex post quantity (TJ)	157	161	171	173	157	142	144

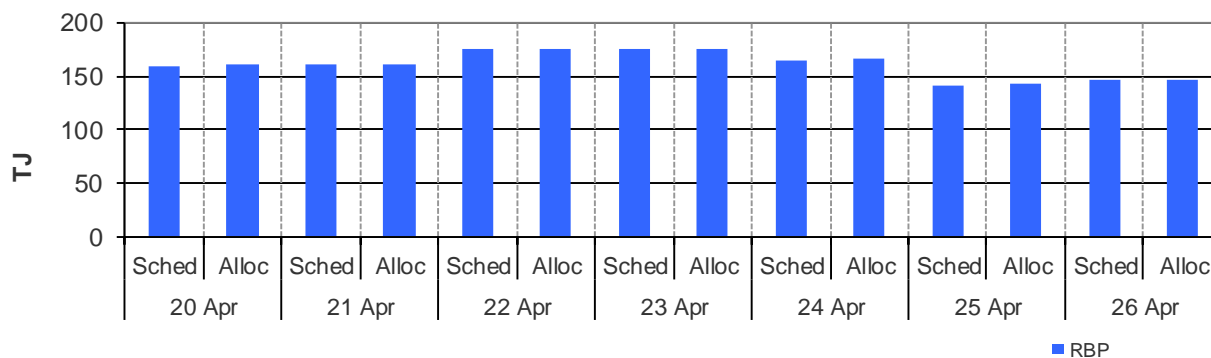
**Figure 4.2 (a): Daily hub offers in price bands (\$/GJ)**



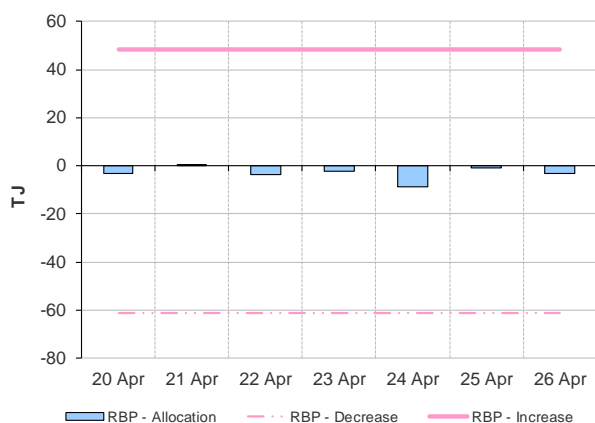
**Figure 4.2 (b): Daily hub bids in price bands (\$/GJ)**



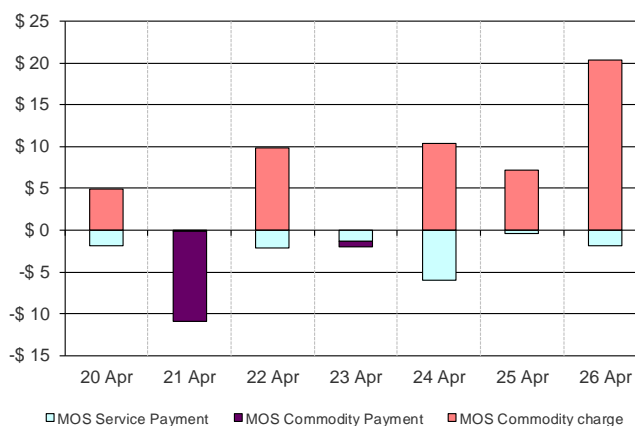
**Figure 4.3: BRI net scheduled and allocated gas volumes (excluding MOS) by STTM facility**



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



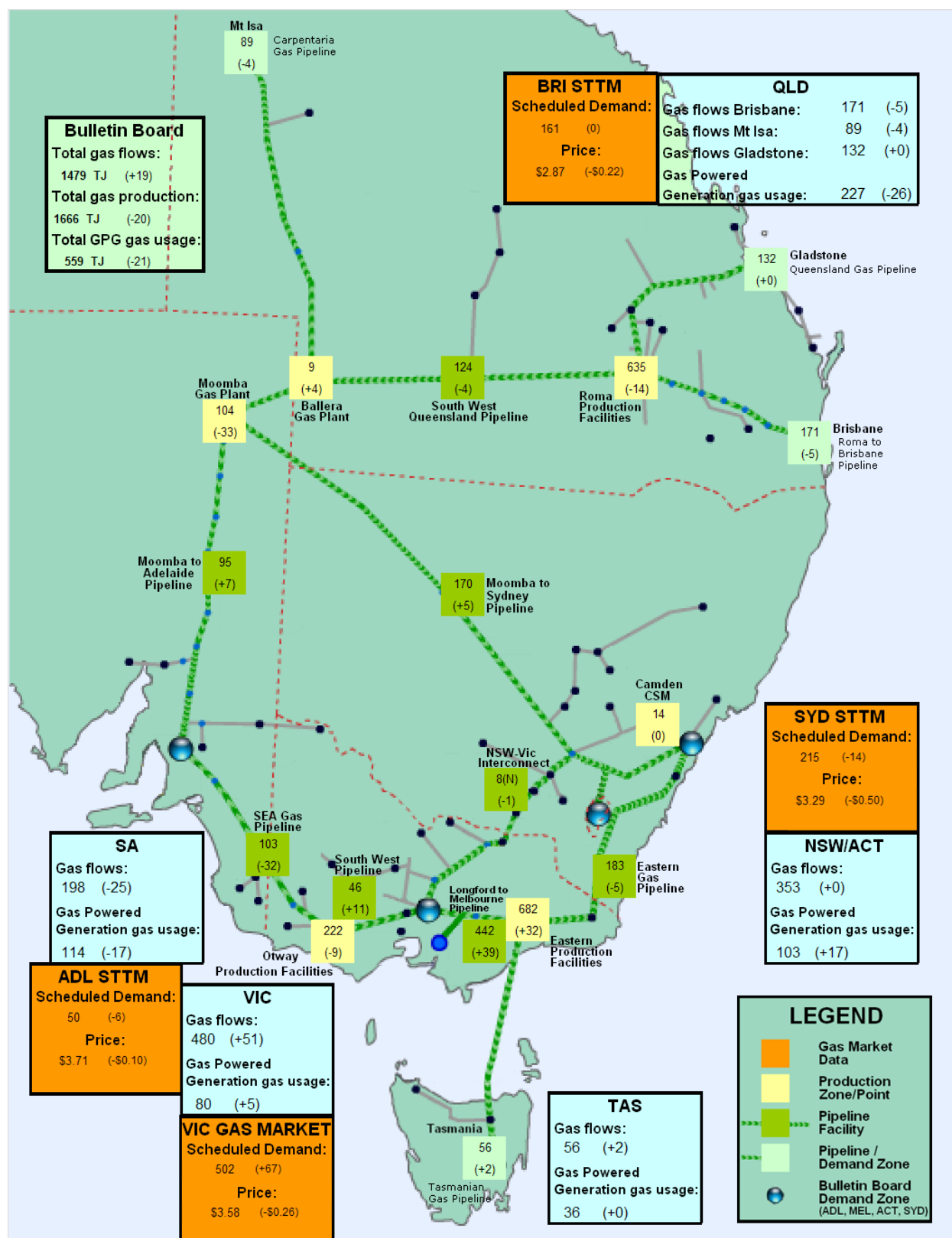
**Figure 4.4 (b): Service payments and commodity payments/charges (\$000)**



## 5 National Gas Bulletin Board

Figure 5.1 shows average daily actual flows for the current week in the aqua boxes<sup>9</sup> 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)**



<sup>9</sup> 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.

## 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 market<sup>10</sup> 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).

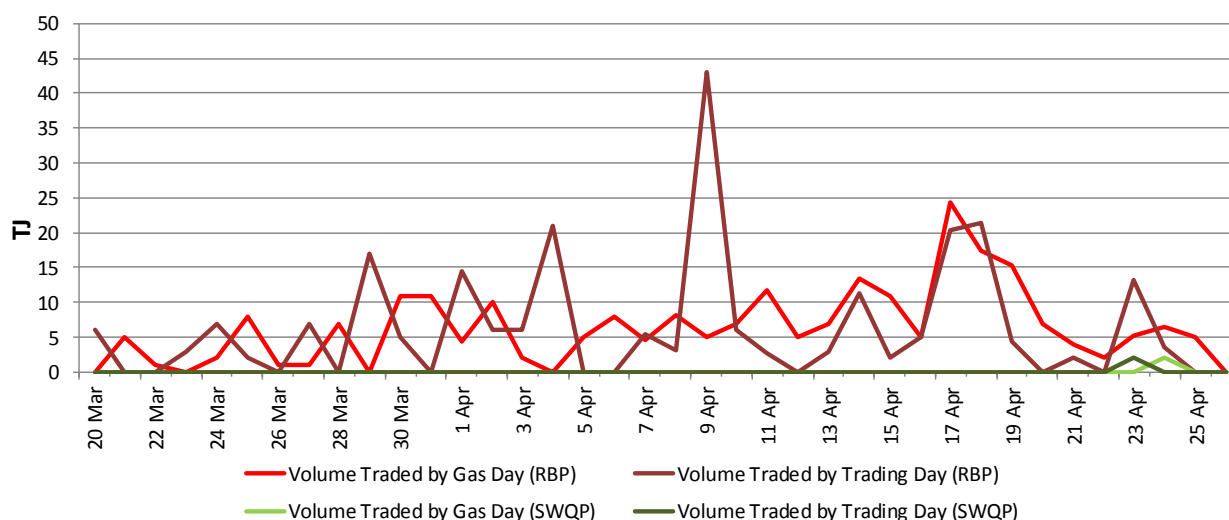
From 20 to 26 April there were 11 trades:

- *Trading Location:* The majority of trades in the GSH have been on the RBP, while there were also trades on the SWQP for the first time this week.
- *Products Traded:* Traded products were mostly day-ahead and intra-day. There were no weekly products traded this week and only one daily product.
- *Prices and Volumes:* 20.8 TJ was traded with a total value of around \$57 000 this week. The volume weighted price for these trades was around \$2.74/GJ for both pipelines, whereby the price per pipeline was:
  - \$2.71/GJ on RBP
  - \$3/GJ on SWQP.
- *Transaction types:* There were two off-market trades submitted this week.

Over the first month of operation, the GSH has seen in excess of 241 TJ of gas traded on the RBP (up to 26 April), at a total value of close to \$820 000. The volume weighted price of the trades over the period was around \$3.40/GJ (up to 26 April).

Figure 6.1 shows volumes traded<sup>11</sup> on each gas day and trading day from 20 March to 26 April.

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



<sup>10</sup> 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.

<sup>11</sup> Volumes shown for weekly products include the 'daily' volume for each relevant 'gas day', and the 'weekly' volume for each relevant 'trading day'.