

WEEKLY GAS MARKET ANALYSIS



AUSTRALIAN ENERGY
REGULATOR

26 July – 1 August 2009

Preface

As part of its new monitoring roles for the National Gas Market Bulletin Board (bulletin board) and Victorian Gas Market, the AER is publishing a weekly gas market report. Part A of the report looks at gas usage and flows of registered facilities in southern and eastern Australia. Part B provides a summary of operational and market data in the Victorian Gas Market, which is currently the only declared wholesale gas market in Australia.

This report will evolve over time and the nature of information presented may change. The AER welcomes feedback on the report from interested parties. Feedback can be sent to aer inquiry@ aer.gov.au, and headed 'Comments on weekly gas report.'

Summary

National Gas Market Bulletin Board

Bulletin board participants include pipeline operators and production/storage facilities in southern and eastern Australia. The participants report daily forecast and actual operational data.

For the first time, consistent flows over a whole week were reported from the newly commissioned Kenya Gas Plant in Queensland, contributing to production there. In NSW increased output from the newly commissioned Colongra Power Station contributed to higher gas demand overall in NSW. Flows through the NSW-VIC Interconnect in to Victoria were reported at 52 TJ for 1 August, the highest reported directional flow rate for the year.

One participant failed to submit actual flow data for the Tasmanian Gas Pipeline on Monday 27 July. Another participant submitted zero flow actual figures for the Roma Brisbane Pipeline on two days and these flows are being checked for accuracy purposes. The analysis in this report highlights this missing / suspect data (refer to Figures A1 and A2 of the Appendix). The AER monitors and reviews data and will continue to engage with facilities to ensure that in future the data requirements of the bulletin board are satisfied.

Victorian Gas Market

Total gas injections and withdrawals in the Victorian gas market both decreased by around 14 percent from the previous week. The average price of gas traded in the market was \$1.42/GJ, higher than the previous week's average price of \$0.97/GJ and the 2009 calendar year-to-date average of \$2.67/GJ.

Fewer market participants submitted rebids into the market compared with the previous week, with intra-day rebids of gas submitted at Iona, Longford, SEAGas and Vic Hub.

A Supply Demand Point Constraint at the Bass Gas injection point reduced the capacity of gas flows at this facility on 26 July. Continuing on from last week, Demand override had to be applied by the operator several times to participant demand forecasts over the current week

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Summary of pipeline and production flows

Figure 1 sets out the average daily pipeline flows for each key demand region across the National Gas Market. It compares the average flows for each region with the previous week, and also the calendar year to date averages. (A list of pipeline facilities for each demand region is provided in Figure A1 of the Appendix).

Figure 1: Average daily pipeline flows (TJ) into each demand region

Average daily flows	NSW	ACT	VIC	SA	TAS	QLD		
						Brisbane	Mt Isa	Gladstone
Current week (25 July - 1 August)	447	46	859	290	22	149	93	72
Previous week (19 - 25 July)	428	46	867	289	25	144	97	70
% change from previous week*	4.5	1.1	-1	0.5	-11.7	3.8%	-3.9	2.8
Calendar Year-to-date 2009**	360	22	580	295	29	161	85	68

*The percentage change in the average daily flow from the previous week to the current week

**Average daily injection flows from 1 January 2009 to the current week (inclusive)

Source: National Gas Market Bulletin Board <http://www.gasbb.com.au>

Notes:

1. Data for NSW is calculated from flows on the Moomba-Sydney and Eastern Gas pipelines adjusted for net flows on the NSW-VIC interconnect and deducting flows into ACT. This figure may include gas taken at EGP off-takes in Victoria such as Bairnsdale.
2. Data for ACT calculated using off-take flows from the Moomba-Sydney and Eastern Gas pipelines
3. Data for VIC calculated by adding flows on Longford-Melbourne and South West pipelines adjusted for net flows on the NSW-VIC interconnect. This excludes Victorian off-takes from the EGP (between Longford and the NSW-VIC border).
4. Data for SA calculated by adding flows on the Moomba-Adelaide and SEAGas pipelines.
5. Data for TAS taken from flows on the Tasmanian Gas Pipeline.
6. Data for Brisbane, Mt Isa, and Gladstone calculated using flows along the Roma-Brisbane Pipeline, Carpentaria Gas Pipeline and Queensland Gas Pipeline respectively.

One important driver of gas demand is the gas usage by gas-powered generators (GPGs). Figure 2 provides the average daily amount of gas used for gas-powered electricity generation for each demand region for the current week, in comparison to the previous week.

Figure 2: Average daily gas (TJ) used by gas-powered generators in each demand region

Average daily gas for GPG usage*	NSW	VIC	SA	TAS	QLD
Current week (25 July - 1 August)	105	70	148	9	90
Previous week (19 - 25 July)	93	69	147	11	87
% change from previous week**	13.40%	1.27%	1.20%	-17.53%	4.35%
Calendar Year-to-date 2009***	64	61	178	19	116

*Estimated values based on application of implied heat rates for generators within the demand region sourced from ACIL Tasman's 2009 Final Report *Fuel resource, new entry and generation costs in the NEM* (Available at: <http://www.aciltasman.com.au/News/news.html>)

**The percentage change in the average daily gas usage from the previous week to the current week

***Average daily estimated gas consumption measured from 1 January 2009 to the current week (inclusive)

Source: <http://www.aemo.com.au>

Notes:

1. Data for NSW calculated using data from the following gas-powered generators (GPGs): Smithfield Energy, Uranquinty, Hunter Valley GT, Colongra and Tallawarra power stations
2. Data for VIC calculated using data from the following GPGs: Laverton North, Valley Power, Jeeralang A, Jeeralang B, Somerton, Bairnsdale, and Newport power stations.
3. Data for SA calculated using data from the following GPGs: Dry Creek GT, Hallet, Mintaro Pelican Point, Torrens Island, Osborne, Ladbroke Grove, and Quarantine power stations.

4. Data for TAS calculated using data from the following GPGs: Bell Bay, and Bell Bay Power (Tamar Valley) power stations.
5. Data for QLD calculated using data from the following GPGs: Braemar 1, Braemar 2, Roma, Oakey, Barcaldine, and Swanbank power stations.

Figure 3 sets out the daily average flows from production and storage facilities from each production zone across the National Gas Market. It compares these average flows for each zone with flow outcomes from the previous week and the year to date average (a list of production/storage facilities for each zone is provided in Figure A2 of the Appendix).

Figure 3: Daily average production flows (TJ) for each production zone

Average daily flows	Roma/Ballera (QLD)	Eastern (VIC)	Otway Basin (VIC)	Moomba (SA)
Current week (25 July - 1 August)	413	910	341	385
Previous week (19 - 25 July)	407	948	313	367
% change from previous week*	1.5	-3.9	8.7	5
Calendar Year-to-date 2009**	419	680	332	285

*The percentage change in the average daily flow from the previous week to the current week

**Average daily injection flows from 1 January 2009 to the current week (inclusive)

Source: National Gas Market Bulletin Board <http://www.gasbb.com.au>

Notes:

1. Data for Roma/Ballera taken from the combined actual production flows from Ballera gas plant and the various production facilities in Roma (a full list of these facilities is provided in the Glossary)
2. Data for Eastern (VIC) taken from the combined actual production flows from Orbost, Lang Lang, and Longford gas plants, along with LNG flows (if any).
3. Data for Otway Basin (VIC) taken from the combined actual production flows from Minerva and Otway gas plants, along with flows from Iona Underground Storage.
4. The Moomba (SA) figure taken from the actual production flows from the Moomba gas plant in South Australia.

Overview of gas demand across South and Eastern Australia

Along with gas-powered electricity generation (GPG), temperature patterns are another important driver of demand for gas, particularly in Victoria where there is large residential gas heating demand, and to a lesser extent in Tasmania (TAS), South Australia (SA), New South Wales (NSW) and the ACT. GPG was stable in most regions except for TAS where it went down and in NSW where it was boosted by increased output at the newly commissioned Colongra Power Station. Temperatures were notably higher in Tasmania.

Production at Moomba (SA) increased along with flows along the Moomba Sydney Pipeline (MSP) perhaps to meet increased demand in NSW and the increased Colongra GPG demand. On the other hand, a decrease in Tasmanian GPG usage and warmer weather was consistent with a decrease in gas flows through the TGP to Tasmania.

Production at the two Victorian production zones (Eastern(Vic) and Otway Basin) went down and up respectively. Increased Otway production and increased flows along the SEAgas pipeline may have offset reduced flows along the Moomba Adelaide Pipeline (MAP) in meeting South Australian demand. Increased Otway basin gas flows may also have offset reduced Eastern(Vic) gas production in servicing Victorian demand via the South West Pipeline (SWP). Production flows from Roma also increased this week, where the newly commissioned Kenya Gas Plant reported increasingly significant and consistent flows.

Queensland

There are four bulletin board registered pipelines in Queensland (Figure 4). Flows increased slightly this week on the Queensland Gas Pipeline. Reported positive flows on the Roma to Brisbane pipelines also increased, with flows on the remaining Queensland pipelines decreasing compared to the previous week. With the exception of the Roma to Brisbane Pipeline, average flows for the week were all higher than their year-to-date average flows.

Figure 4: Average daily flows (TJ) for Queensland pipelines

Average daily flows	Carpentaria Pipeline	Queensland Gas Pipeline	South West Queensland Pipeline^	Roma to Brisbane Pipeline
Current week (25 July - 1 August)	93	72	162	149
Previous week (19 - 25 July)	97	70	167	144
% change from previous week*	-3.9	2.8	-2.8	-25.9
Calendar Year-to-date 2009**	85	68	130	161

^Includes the Ballera to Moomba section of the pipeline (QSN Link)

*The percentage change in the average daily flow from the previous week to the current week

**Average daily injection flows from 1 January 2009 to the current week (inclusive)

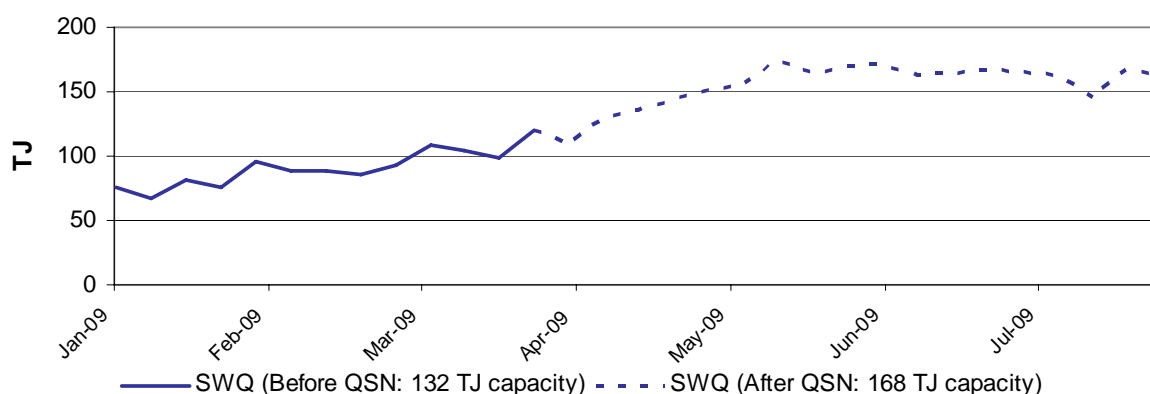
Source: National Gas Market Bulletin Board <http://www.gasbb.com.au>

Commissioning of the QSN link

In January 2009, the new QSN Link (Ballera to Moomba) was commissioned, creating for the first-time the ability to deliver dry-gas between Queensland and the southern states. This link is an important source of new inter-basin competition, as Queensland-sourced coal seam gas can now be delivered to compete with gas from Moomba and the southern basins.

Since the commissioning of the QSN link, there has been a significant increase in westerly flows along the South West Queensland Pipeline (SWQP), which feed into the QSN link (and the Carpentaria Gas Pipeline to Mt Isa). Figure 5 shows the average daily flows along the SWQP, with the dotted line marking the additional flows along the SWQP since the introduction of the QSN link allowed Queensland gas to flow to Moomba.

Figure 5: South West Queensland Pipeline (includes QSN Link flows to Moomba, SA)



Source: National Gas Market Bulletin Board <http://www.gasbb.com.au>

Notes: Reporting of flow data for the QSN link only began on the 31 March 2009, despite being commissioned in January 2009.

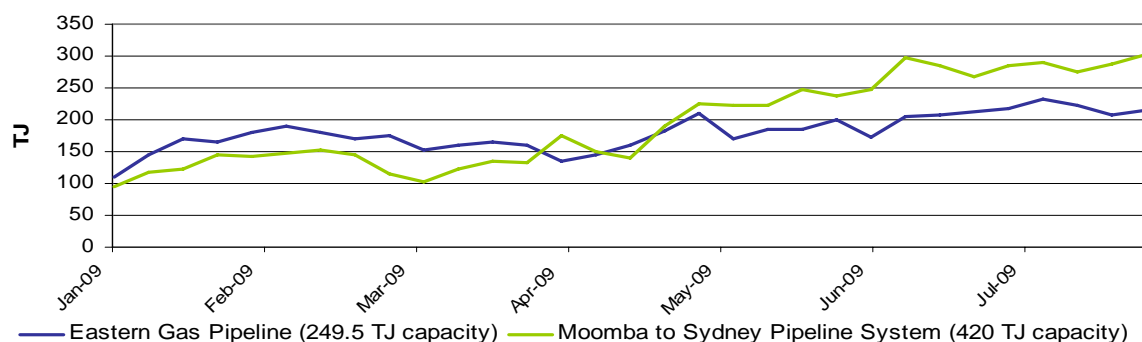
New South Wales / Australian Capital Territory

There are two main pipelines providing gas to the NSW and ACT demand regions. As shown in Figure 6, Flows into NSW increased this week on the Eastern Gas Pipeline (EGP) and Moomba Sydney Pipeline (MSP). Additionally the NSW-Victoria (NSW-Vic) interconnect can supply gas either into Victoria or NSW. Higher demand in the NSW demand region for this week can be explained by increased usage of GPG and also perhaps by a slight decline in average temperatures and influences on demand for heating services.

Similar to the previous week, flows through the NSW-Victoria Interconnect pipeline were in the 'reverse' direction into Victoria. The majority of gas flowed south for each day of the week ending 1 August at an average of 25 TJ/day. However, average flows on the NSW-VIC

interconnect on a calendar year-to-date basis have been north, at only 7 TJ/day. The current week saw flows through the NSW-VIC Interconnect in to Victoria of 52 TJ on 1 August, the highest reported directional flow rate for the year.

Figure 6: Average daily flows (TJ) to NSW/ACT demand region



Average Daily Flows	Eastern Gas Pipeline	Moomba to Sydney Pipeline	NSW-VIC Interconnect [^]
Current week (25 July - 1 August)	215	303	-25
Previous week (19 - 25 July)	208	286	-21
% change from previous week*	3.2	5.9	18.3
Calendar Year-to-date 2009**	180	195	6

[^]Flows on the NSW-VIC Interconnect can flow in reverse direction from NSW into Victoria (represented by negative values)

*The percentage change in the average daily flow from the previous week to the current week

**Average daily injection flows from 1 January 2009 to the current week (inclusive)

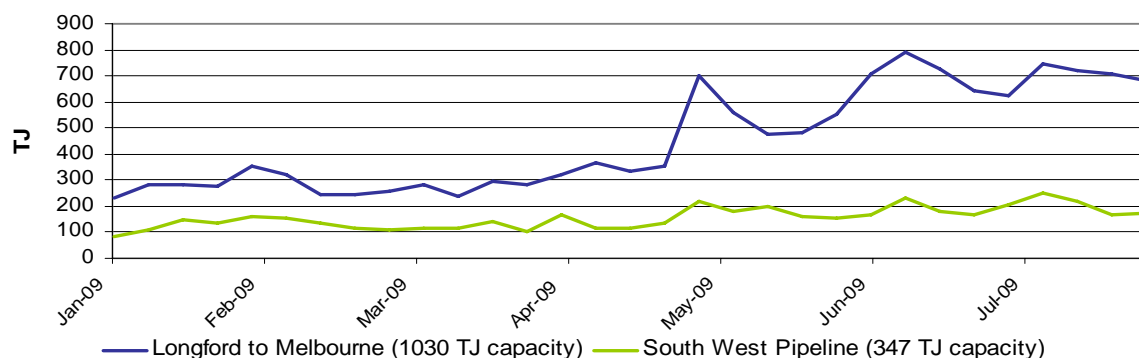
Source: National Gas Market Bulletin Board <http://www.gasbb.com.au>

Notes: The figure for the EGP includes some gas that is consumed in Victoria, from Victorian EGP off-takes.

Victoria / Tasmania

There are two main pipelines providing gas into the Victorian demand region — the Longford to Melbourne Pipeline (LMP) and the South West Pipeline (SWP). The Tasmanian Gas Pipeline (TGP) supplies gas from Victoria to Tasmania. As shown in figure 7, increased flows into Victoria along the SWP occurred during the week despite a decrease in demand for gas in the Victorian region. These increased flows on the SWP as well as flows on the NSW-Vic interconnect occurred in order to still meet demand given significantly reduced flows of gas on the LMP. Marginally lower gas flows along the TGP may have been driven by marginally lower gas-powered electricity generation in Tasmania, along with slightly warmer temperatures leading to a reduction in the amount of gas required for heating in both regions.

Figure 7: Average daily flows (TJ) to Victoria demand region



Average Daily Flows	Longford to Melbourne Pipeline	South West Pipeline	Tasmanian Gas Pipeline [^]
Current week (25 July - 1 August)	684	171	22
Previous week (19 - 25 July)	707	164	25
% change from previous week*	-3.2	4.4	-11.7
Calendar Year-to-date 2009**	459	157	29

[^]Gas on the Tasmanian Gas Pipeline flows from Eastern Victoria into Tasmania, ending in Hobart.

*The percentage change in the average daily flow from the previous week to the current week

**Average daily injection flows from 1 January 2009 to the current week (inclusive)

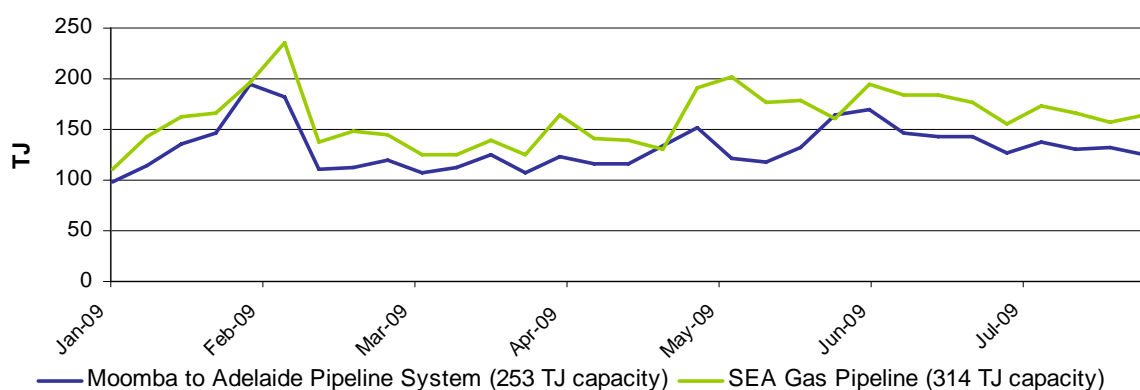
Source: National Gas Market Bulletin Board <http://www.gasbb.com.au>

South Australia

There are two main gas pipelines flowing into the South Australia (SA) demand region. As shown in Figure 8, the Moomba to Adelaide Pipeline (MAP) and SEAGas Pipeline have followed broadly similar flow trends from January 2009 to the current week. The SEAGas pipeline experienced marginally higher flows compared to the previous week, while flows along the MAP decreased marginally despite an increase in production at the Moomba Production Facility. The increase in flows along the SEA Gas Pipeline correlated with a slight rise in gas-powered electricity generation in SA,.

As with the previous week's and calendar year-to-date average flows, both pipelines are not currently operating near pipeline nominated Maximum Daily Quantity (MDQ), which is a measure of total pipeline capacity. (Refer also to the Appendix for average usage of pipeline facilities)

Figure 8: Average daily flows (TJ) to South Australia demand region



Average Daily Flows	Moomba to Adelaide Pipeline	SEAGas Pipeline
Current week (25 July - 1 August)	125	165
Previous week (19 - 25 July)	132	156
% change from previous week*	-5.5	5.5
Calendar Year-to-date 2009**	133	162

*The percentage change in the average daily flow from the previous week to the current week

**Average daily injection flows from 1 January 2009 to the current week (inclusive)

Source: National Gas Market Bulletin Board <http://www.gasbb.com.au>

Part B: Victorian Gas Market



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Participation in the market

Figure V1 below shows participant bids submitted at the start of the gas day (6am) at injection and withdrawal points on the Victorian Principal Transmission System (VPTS). The shaded boxes indicate that the participant submitted bids at that location on at least one occasion during the week. An “S” indicates that some of this nominated gas was scheduled into the gas market, while “N.S” indicates that none of the gas was scheduled. Withdrawal bids are typically used for export out of Victoria.

Figure V1: Injection and withdrawal point bids in the VIC Gas Market[^]

Market Participant	Participant type	No. of injection / withdrawal bid points	Injection bids in the VPTS							Withdrawal bids in the VPTS				
			BassGas	Culcairn	IONA	LNG	Longford	SEA Gas	VicHub	Otway	Culcairn	IONA	SEA Gas	VicHub
AETV Power	Market Customer	1								NS				NS
AGL (Qld)	Retailer	1				NS								
AGL	Retailer	4		NS	NS	NS	S				NS	NS		
Aust. Power & Gas	Retailer	2				NS	S							
Country Energy	Retailer	1									S			
Energy Australia	Retailer	2		S			S							
International Power	Producer, Retailer	1											S	
Simply Energy	Retailer	4			S	NS	S	NS						
Origin (Vic)	Trader	6	S	S	NS	NS	S	S			S	NS		
Origin (Uranquinty)	Retailer	1					S							
Red Energy	Producer	2				NS	S							
Santos	Retailer	1						S						
TRU Energy	Retailer	3			S	NS	S					NS		
Victoria Electricity	Retailer	1			NS							S		
Victoria Electricity	Market Customer	5		S	S	NS	S	S						
Visy Paper	Market Customer	2					S				S			

[^]Bids taken from 6am data for each gas day during the current week.

Source: <http://www.aemo.com.au> (INT131)

Notes: Comparison is approximate since data represents whether bids were under or over the scheduled market clearing price at 6am. Bids are scheduled in price merit order — this means injection bids which are less than the market clearing price will be scheduled, while withdrawal bids which are greater than the market clearing price will be scheduled into the market.

Similar to last week, no injection bids were scheduled from LNG, reflecting the higher-priced LNG bids when compared with bids at other injection points. A large number of participants submitted withdrawal bids this week. This week only AETV power submitted bids at VicHub, whereas in the previous week three market participants submitted bids at VicHub.

Market Prices and Ancillary Payments

In the Victorian gas market, gas volumes (imbalances) are traded five times a day with most volume being traded at the beginning of day (6am) pricing schedule. Smaller amounts of gas are traded at later 10am, 2pm, 6pm and 10pm pricing schedules. Figure V2 displays volume-weighted average daily imbalance prices, compared to the previous week and longer-term financial year-to-date averages. Daily imbalance prices for each day during the current week are also noted.

Figure V2: Imbalance Weighted Prices (\$/GJ)

	Current Week (26 July - 1 August)	Previous Week (19 - 25 July)	2009 Calendar Year*	2008 Calendar Year**
Average daily price	1.42	0.97	2.67	3.37

Current Week (26 July - 1 August)	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	1.53	1.11	1.53	1.11	1.51	1.60	1.55

*Average daily imbalance weighted average price from 1 Jan 2009 to the current week (inclusive)

**Average daily imbalance weighted average price from 1 Jan 2008 over equivalent period.

Source: <http://www.aemo.com.au> (INT 041)

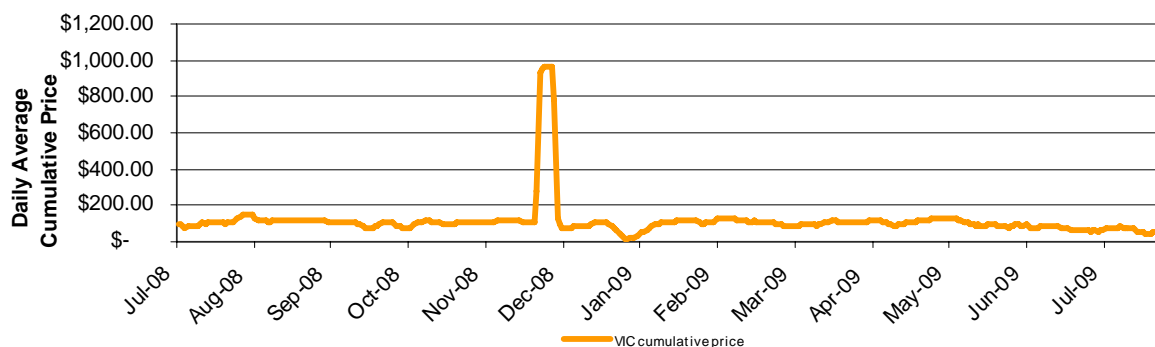
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6am, 10am, 2pm, 6pm and 10pm.

Average prices have been consistently lower in 2009 than in 2008. However, the imbalance weighted average price of \$1.42/GJ was significantly higher compared to \$0.97/GJ for the previous week.

Prices ranged from \$0.50/GJ on Sunday and Saturday during the 10 pm schedule, to \$2.64/GJ on Monday at the 10pm schedule (see Appendix Figure A4 for all market prices across the week).

Figure V3 shows the daily average cumulative price from 1 July 2008 to the current week (inclusive). If the cumulative price exceeds \$3700, the administered price cap of \$40/GJ applies (compared to the usual \$800/GJ).

Figure V3: Daily average cumulative price



Notes: The Cumulative Price is the weekly rolling cumulative price paid for gas injected into the transmission system. The Cumulative Price is calculated over 35 scheduling intervals.

Source: <http://www.aemo.com.au> (INT 199)

Ancillary Payments

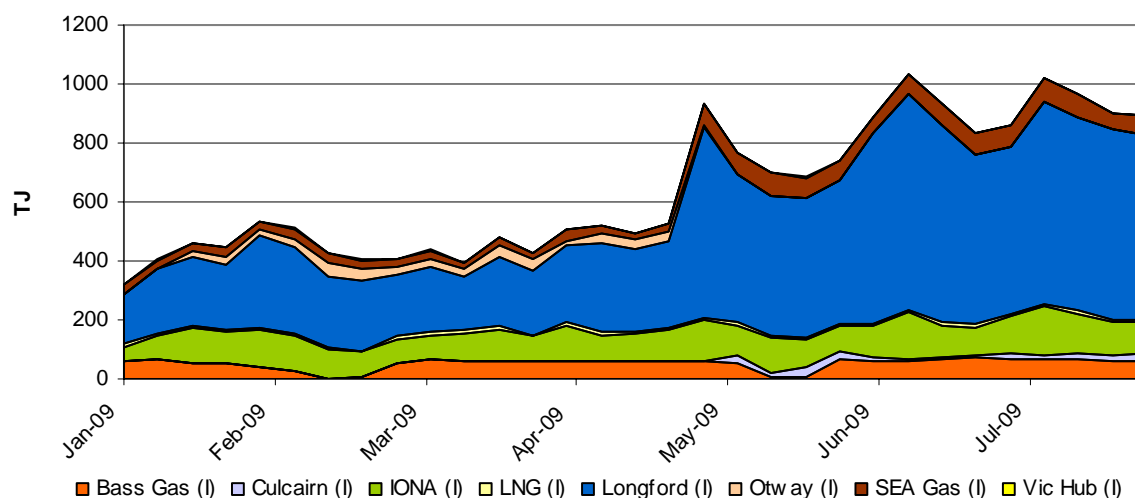
Significant ancillary payments can occur in the market on occasion, particularly if the capacity to deliver gas is limited because of high demand or plant outages, and higher-priced gas is required to be scheduled out of price merit order. Ancillary payments can be made to participants who are called upon to provide gas to alleviate system constraints. As with last week, there were no significant ancillary payments made during the week ending 1 August.

System Injections

Figure V4 provides the average daily amount of gas injected into the Victorian Principal Transmission System (VPTS) for the current week, the previous week, along with the financial year-to-date average injections from each injection point on the system.

Figure V4: Average daily flows (TJ) from Injection Points on the VPTS

Injection Point:	Current Week (26 July - 1 August)	Previous Week (19 - 25 July)	2009 Calendar Year to date*
Culcairn^	24.7	21.7	7.8
Longford	625	651	409
LNG	10	7	8
IONA^	105	111	107
VicHub^	0.13	0.98	1.21
SEAGas^	64	51	47
Bass Gas	62	59	52
Otway	0	0	15
TOTAL	891	900	647



^The reported flows from these bi-directional system points reflect actual daily injection flows. Reverse flows are not accounted for in this data unlike the Bulletin Board data presented in Part A of the report.

*Average daily injection flows across weeks from 1 January 2009 to the current week (inclusive)

**Figures have been rounded off to 2 decimal places to reflect the relatively small amount of gas flows (i.e. under 1 TJ)

Source: <http://www.aemo.com.au> (INT 150)

Notes: LNG injections were not scheduled by the market operator, but the reported flows from the LNG injection point indicate the amount of LNG that flowed into the system due to activities to manage the LNG facility's tank level. LNG is also regularly used by the connected BOC plant.

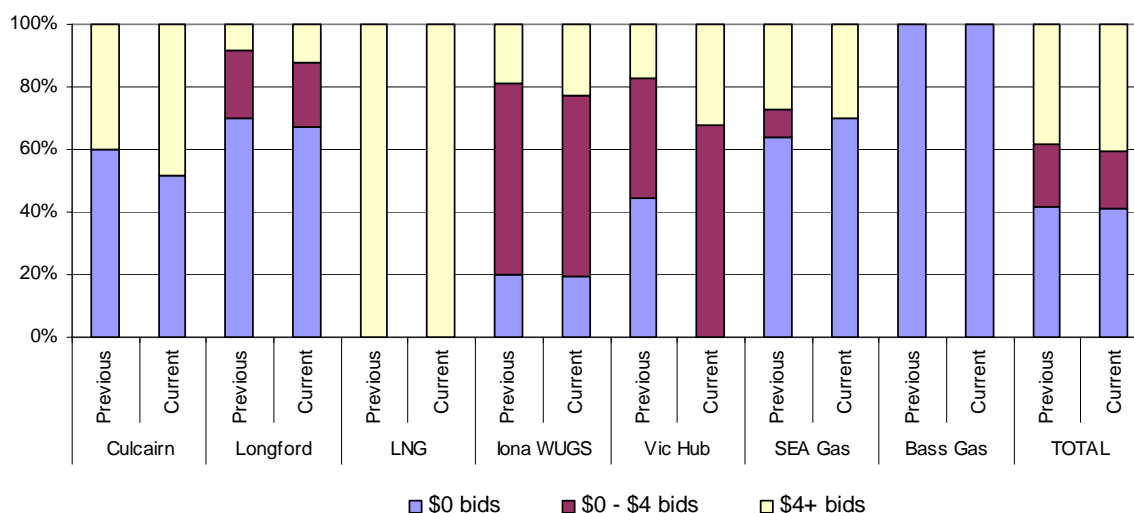
Overall, average daily injections into the VPTS fell by about 1 percent for the week ending 1 August. Flows from Iona dropped by a daily average of 6TJ while Longford injections also fell by a daily average of 26 TJ. There were again no gas injections from the Otway injection point, a continuing trend from June this year. This is due to pressure restrictions at the Otway

injection point, causing gas delivered from the Otway basin to be injected through the SEAGas and IONA injection points as an alternative means of distributing that gas into the VPTS.

Bidding Activity

Figure V5 shows the price structure of gas bid at each of the injection points on the VPTS, within three price bands of \$0/GJ, \$0/GJ to \$4/GJ, and \$4/GJ and above.

Figure V5: Price structure of bids by injection points



Source: <http://www.aemo.com.au> (INT 131) - bids submitted for the 6am schedule on each day of the week.

Notes: Figures in the table are rounded off the nearest round number (TJ); the maximum allowable bid is \$800/GJ.

Overall, there was a marginally lower proportion of gas bid in at \$0/GJ for the week ending 1 August, where 41 percent of gas was offered at \$0/GJ compared to 42 percent the previous week. There were similar trends at Longford, Iona, and Bass Gas. In contrast, a lower proportion of gas at Culcairn was bid in at \$0/GJ and this is reflected above in figure V4 which shows higher average daily injections through Culcairn.

Figure V6 provides a table of injections point on the VPTS where market participants submitted intra-day renominations, for each day of the week.

Figure V6: Intra-day rebidding of gas injections

Injection Point:	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Culcairn							
Longford		Origin	Origin	Origin	Origin	TRU	TRU
LNG							
Iona	TRU	TRU	TRU	TRU	TRU	TRU	TRU
VicHub			AETV				
SEAGas	Simply	Simply	Simply	Simply	Simply		
Bass Gas							

Source: <http://www.aemo.com.au> (INT 131)

Notes: Origin = Origin Energy | AGL = AGL Sales | TRU = TRUenergy | Simply = Simply Energy | VE = Victoria Electricity

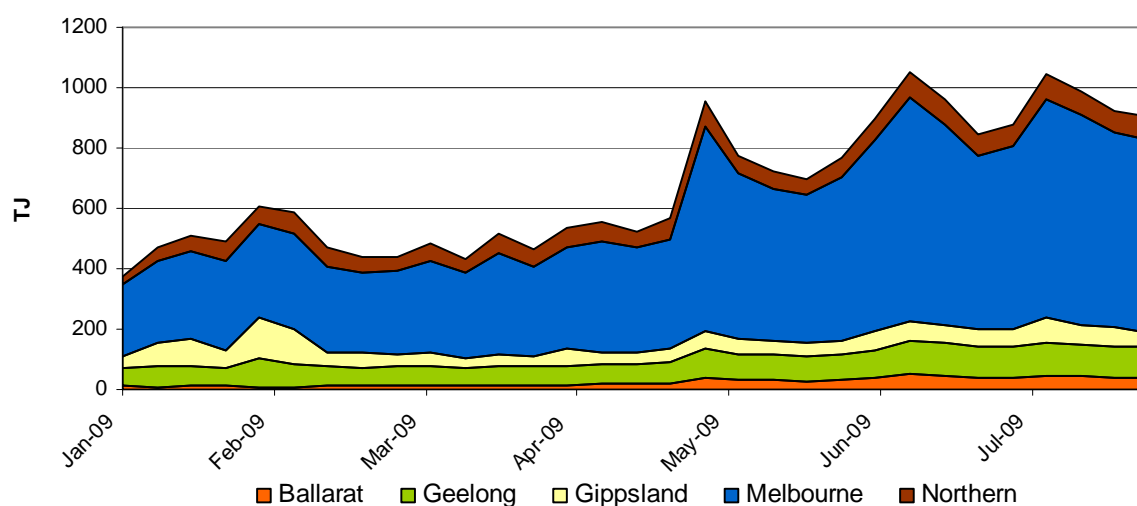
Compared to the previous week, there weren't as many participants submitting intra-day rebids at injection points for the week ending 1 August. Six participants submitted gas rebids last week, whereas 4 retailers rebid gas in the market this week. TRUenergy continued to submit the majority of their rebids at Iona, while Origin Energy only submitted rebids at Longford during the week. Simply Energy continued to submit rebids at SEAGas during the week.

System withdrawals

Figure V7 notes the average daily gas withdrawals from the VPTS compared with the previous week and 2009 calendar year to date daily averages.

Figure V7: Average daily withdrawals (TJ) from system demand zones on the VPTS

System withdrawal zone:	Current Week (26 July - 1 August)	Previous Week (19 - 25 July)	2009 Calendar Year to date**
Ballarat	40	41	25
Geelong*	99	100	82
Gippsland	49	66	58
Melbourne	639	641	450
Northern	74	74	65
TOTAL	901	923	679



*Data presented for the Geelong also includes withdrawals for the Western system withdrawal zone or Western Transmission System (WTS). Typical WTS demand is understood to be around 10 TJ based on AEMO planning documents.

** Average daily withdrawal flows across weeks from 1 January 2009 to the current week (inclusive)

Source: <http://www.aemo.com.au> (INT 150).

Consistent with the decrease in injections, average daily withdrawals from the system also decreased by more than 1 percent. The decreased consumption was more significant in the Gippsland region where almost 17 TJ less gas was withdrawn on average each day, compared to the previous week. This was perhaps due to lower residential demand for heating despite and increased demand for gas-powered generation.

Demand Forecasts and Demand Overrides

In the Victorian Gas Market, the market operator, AEMO (formerly VENCORP), determines its own hourly demand forecasts for uncontrollable demand, known as the VENCORP Demand Forecast. Market Participants also submit their own forecast demand, which is aggregated and used by AEMO for scheduling subject to any Demand Override it applies.

If the Market Participant Total Demand Forecast is too high or too low relative to the AEMO Total Demand Forecast, then an amount may be added (or subtracted) to the Market Participant Forecast Demand to create the Total Demand, so as to ensure that an appropriate amount of gas is scheduled to maintain system security.

Compared to the previous week, the amount of demand override applied for the week ending 1 August was lower but still occurred over four days of the week. Demand override is shown in figure A5 in the appendix along with comparisons between market participant demand forecasts and AEMO demand forecasts.

System Outages and Constraints

No Directional Flow Point Constraints (DFPCs) were issued for the current week. A Supply Demand Point Constraint (SDPC) was imposed on Bass Gas injections, which were limited by a daily maximum injection capacity of 35 TJ on 26 July.

**Australian Energy Regulator
July 2009**

APPENDIX

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Figures A1 and A2 display the daily gas flows from each pipeline and production/storage facility and pipeline facility (in TJ) in the National Gas Market over the current week. The nameplate capacity or MDQ (Maximum Daily Quantity) for each facility are also provided, along with the proportion of MDQ used on average over the current week, previous week and the year to date at each facility. Flow data not provided by bulletin board polling time is indicated by N/A.

Figure A1: Daily flows (TJ) for pipeline facilities capacity

Demand zone and pipeline facility	Sun	Mon	Tue	Wed	Thu	Fri	Sat	MDQ (TJ)	Current week average capacity usage (%)	Previous week average capacity usage (%)	Year to date average capacity usage* (%)
QLD											
Carpentaria Pipeline	95	95	95	96	95	90	87	117	80	83	73
QLD Gas Pipeline	72	72	74	71	72	73	72	79	92	89	86
Roma to Brisbane Pipeline			0	0							
	145	210	check	check	144	134	115	208	51	69	78
South West QLD Pipeline	182	157	154	158	160	158	168	168	97	99	77
QSN link**	54	54	54	54	54	54	44	-	-	-	-
NSW/ACT											
Eastern Gas Pipeline	192	233	234	220	221	211	194	250	86	83	72
Moomba to Sydney Pipeline	283	311	295	315	335	299	284	420	72	68	47
NSW-VIC Interconnect^	-12	-24	-19	-5	-32	-31	-52	90	-28	-24	7
VIC											
Longford to Melbourne	728	692	702	692	670	694	612	1030	66	69	45
South West Pipeline	140	237	197	157	178	156	135	347	49	47	45
SA											
Moomba to Adelaide Pipeline	117	143	126	126	128	117	118	253	49	52	52
SEA Gas Pipeline	156	185	179	175	179	162	119	314	53	50	52
TAS											
Tasmanian Gas Pipeline	13	N/A	32	32	20	18	16	129	17	19	23

NB. Actual flow data not reported by Bulletin Board polling time is indicated by N/A

*Average daily injection flows from 1 January 2009 to the current week (inclusive)

**Flows on the QSN-link are included in the flow figures for the South West Qld Pipeline

^Negative figure represents a reverse flow of gas along the pipeline

Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

Notes: Operational ranges for each pipeline facility range from a minimum of 20% to a maximum of 120% of the respective MDQs. The exceptions are the South West Queensland Pipeline and the NSW-VIC Interconnect which have minimum operational ranges of 40% and 0% of MDQ respectively.

Figure A2: Daily flows (TJ) for BB production / storage facilities compared to operational ranges and use of production/storage capacity

Production zone and production / storage facility	Sun	Mon	Tue	Wed	Thu	Fri	Sat	MDQ (TJ)	Current week average capacity usage (%)	Previous week average capacity usage (%)	Year to date average capacity usage* (%)
Roma / Ballera (QLD)											
Berwyndale South	83	93	67	68	69	60	59	140	51	70	66
Fairview	108	108	108	108	107	107	107	115	93	91	82
Kenya [^]	17	20	43	34	33	30	32	160	19	1	8
Kincora	0	0	0	0	0	0	0	25	0	0	6
Kogan North	6	8	0	0	6	6	0	12	30	50	73
Peat	11	10	9	10	11	7	11	15	66	73	71
Rolleston	15	15	11	11	12	11	11	30	41	45	35
Scotia	15	27	27	20	15	15	10	27	69	26	76
Spring Gully	56	55	51	50	51	51	51	60	87	90	99
Strathblane	56	55	51	50	51	51	51	60	87	90	88
Talooka	34	33	31	30	31	31	31	36	88	91	39
Wallumbilla	10	10	10	10	8	8	9	20	45	44	55
Yellowbank	15	15	15	15	15	15	15	30	50	49	50
Ballera	0	0	0	0	0	0	0	150	0	0	10
Eastern (VIC)											
Orbost Gas Plant	0	0	0	0	0	0	0	10	0	0	0
Lang Lang Gas Plant	38	66	68	66	67	0	0	70	62	84	73
Longford Gas Plant	924	877	880	876	853	878	780	1140	76	78	55
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0
Otway Basin (VIC)											
Minerva Gas Plant	78	94	78	83	78	68	68	94	83	76	90
Otway Gas Plant	179	185	156	151	154	146	130	206	76	61	66
Iona Underground Gas Storage	69	159	130	94	116	95	74	320	33	36	35
Moomba (SA)											
Moomba Gas Plant	354	411	382	399	396	385	370	430	90	85	66

NB. Actual flow data not reported by Bulletin Board polling timelines is indicated by N/A

*Average daily injection flows from 1 January 2009 to the current week (inclusive)

[^]Commissioned as a Bulletin Board facility from 6 July 2009 (Facility began reporting flows from 7 July 2009)

Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

Notes: Operational ranges for each production and storage facility range from minimum of 0% to a maximum of 120 per cent of the respective MDQs. The exception is the Longford Gas Plant which has a minimum operational range of 20% of its MDQ.

Figure A3 provides the average minimum and maximum temperatures for each of the demand regions for the week ending 1 August. The average temperatures for the previous week are also provided. (Note: only the demand regions where temperature is a driver of gas demand are included).

Figure A3: Average daily temperatures (°C) at each demand region

Average daily temperatures (°C)		NSW (Sydney)	ACT (Canberra)	VIC (Melbourne)	SA (Adelaide)	TAS (Hobart)
Current Week (26 July - 1 August)	Average min.	8.8	0.6	9.1	10.1	7.9
	Average max.	18.6	12.9	16.1	15.5	14.6
Previous Week (19 - 25 July)	Average min.	9.1	0.6	8.7	9.2	5.0
	Average max.	20.5	13.4	16.0	17.6	13.8

Source: <http://www.bom.gov.au/climate/dwo>

Figure A4 shows the market prices at each of the scheduling intervals on each day during the week ending 1 August. The imbalance weighted average prices for each gas day are also provided.

Figure A4: Daily Victorian gas market prices (\$/GJ) at each scheduling interval

Current Week (26 July – 1 August)	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	1.55	1.53	1.52	1.11	0.50	1.53
Mon	1.11	1.10	0.52	0.52	2.64	1.11
Tue	1.52	1.52	0.57	2.47	1.61	1.53
Wed	1.11	1.50	1.10	1.10	0.50	1.11
Thu	1.52	1.11	1.11	1.50	1.57	1.51
Fri	1.60	1.60	1.60	1.52	1.60	1.60
Sat	1.55	1.52	1.55	2.50	0.50	1.55

Source: <http://www.aemo.com.au> (INT 041).

Figure A5: Daily demand forecasts (TJ) and daily demand overrides (TJ)

Gas Day	Forecasts (TJ)	Schedule					Average	Demand Override Applied (TJ)
		1	2	3	4	5		
26-Jul	MP Demand:	939	936	935	942	943	939	0
	AEMO Demand:	886	883	881	860	847	871	
	MP demand forecast as % of AEMO	106%	106%	106%	110%	111%		
27-Jul	MP:	1016	1002	1000	1008	1008	1007	0
	AEMO:	992	996	976	986	994	989	
	MP demand forecast as % of AEMO	102%	101%	102%	102%	101%		
28-Jul	MP:	966	957	955	972	970	964	0
	AEMO:	972	970	946	980	951	964	
	MP demand forecast as % of AEMO	99%	99%	101%	99%	102%		
29-Jul	MP:	959	967	957	962	957	960	-6
	AEMO:	954	974	928	904	880	928	
	MP demand forecast as % of AEMO	100%	99%	103%	106%	109%		
30-Jul	MP:	927	921	936	935	929	930	-7
	AEMO:	911	878	897	908	897	898	
	MP demand forecast as % of AEMO	102%	105%	104%	103%	104%		
31-Jul	MP:	931	923	928	927	935	929	-1
	AEMO:	916	882	913	889	889	898	
	MP demand forecast as % of AEMO	102%	105%	102%	104%	105%		
1-Aug	MP:	828	824	828	831	824	827	-7
	AEMO:	777	785	819	813	797	798	
	MP demand forecast as % of AEMO	107%	105%	101%	102%	103%		

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Figures G1 to G4 below provide geographical information for the various pipeline, production and storage facilities covered by the bulletin board. Figure G1 lists the production facilities that fall under the Roma zone. The majority of these facilities are Coal Seam Gas (CSG) plants.

Figure G1: Production facilities in the Roma Zone

Roma zone production facilities	
Berwyndale South	Scotia
Dawson Valley	Silver Springs
Fairview	Spring Gully
Kenya	Strathblane
Kincora	Taloona
Kogan North	Wallumbilla
Peat	Yellowbank
Rolleston	

Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

Figure G2: Pipeline facilities

Map ID	Pipeline facility	Map ID	Pipeline facility
CGP	Carpentaria Gas Pipeline	RBP	Roma to Brisbane Pipeline
EGP	Eastern Gas Pipeline	QGP	Queensland Gas Pipeline
MAP	Moomba to Adelaide pipeline	SEAGas	South East Australian Gas pipeline
MSP	Moomba to Sydney pipeline	SWQP	South West QLD Pipeline
LMP	Longford to Melbourne pipeline	TGP	Tasmanian Gas Pipeline

Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

Figure G3: Location of production and storage facilities

Facility	Location
Camden CSM	Located near Sydney
Minerva, Otway, Iona UGS	Located near Port Campbell
LNG Storage Dandenong	Located near Melbourne

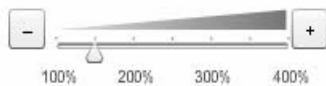
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

Figure G4: Map of Bulletin Board Pipeline and Production Facility Locations



Legend

-  Demand Zone
-  Production Zone / Point
-  Location
-  Compressor Station



Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>