

9 – 15 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.

Driven by lower demand in Victoria, and particularly from Gas Powered Generation, average gas production and pipeline flows were approximately two percent lower than the previous week. Southward flows into Victoria on the NSW-Vic interconnect remained strong, continuing to replace gas which might otherwise be sourced from Victorian fields.

The Queensland Gas Pipeline, Eastern Gas Pipeline (EGP) and Tasmanian Gas Pipeline failed to report flows on the Bulletin Board this week. Further, the AER identified an issue with EGP data and EGP (Sydney) / EGP (ACT) having been inadvertently swapped. The AER understands this issue is currently being fixed.

The AER monitors and reviews patterns of late submission of data and checks for data anomalies and will continue to engage with facilities to ensure that in future the data requirements of the bulletin board are satisfied.

Victorian Gas Market

Continuing from last week, the market operator applied demand override, or adjusted market participant demand forecasts, on several days this week in order to maintain a safe level of linepack.

Total gas injections and withdrawals in the Victorian gas market decreased by around seven percent from the previous week. Despite this decrease, the average price of gas traded in the market was \$1.88/GJ, higher than the previous week's average price of \$1.49/GJ, yet still lower than the 2009 calendar year-to-date average of \$2.61/GJ.

Notably, the average daily price of gas on Saturday 15 August was only 27 cents with a beginning of day price of 10 cents. On this day, significant rebidding occurred, with the three largest retailers (AGL, Origin & TRUenergy) rebidding at both Longford and Iona. In accordance with rebidding, the price of gas increased across the day and reached \$2.48 at 10pm. Supply Demand Point Constraints reduced the capacity of gas flows at the Bass Gas on 11 and 14 August, and Culcairn on 14 and 15 August.

9 – 15 August 2009

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 (9 - 15 August)	455	44	798	265	18	153	84	57
Previous week (2 – 8 August)	470	45	853	279	14	150	86	69
% change from previous week*	-3.1	-2.2	-6.4	-5.1	27.4	2.1%	-2.5	-17.4
Calendar Year-to-date 2009**	361	23	636	293	28	160	85	67

*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 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 gas usage by gas-powered electricity generators (GPG). Figure 2 provides the average daily amount of gas used by GPG 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 (9 - 15 August)	97	9	131	5	99
Previous week (2 – 8 August)	86	54	143	3	96
% change from previous week*	11.8	-84	-8.5	78.4	3.8
Calendar Year-to-date 2009**	66	59	176	18	115

^Estimated values based on National Electricity Market generator output data and the application of implied heat rates sourced from figures in ACIL Tasman's 2009 Final Report 'Fuel resource, new entry and generation costs in the NEM' for the Inter-Regional Planning Committee (Available at: <http://www.aemo.com.au/planning/419-0035.pdf>)

*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, 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, 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 (9 - 15 August)	407	781	341	371
Previous week (2 – 8 August)	395	856	332	388
% change from previous week*	3.2	-8.8	2.6	-4.4
Calendar Year-to-date 2009**	424	689	333	291

*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 GPG, temperature patterns are an important driver of gas demand, 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.

This week decreased GPG explained the significant drop in gas demand in Victoria and a smaller comparative fall in gas demand in SA. Increased GPG supported increased demand in Tas. Lastly, there was also increased GPG in NSW despite lower overall gas demand. Compared to GPG impacts, temperature changes this week appear to have been less of a factor in changes in gas demand.

Production from the Eastern production zone was significantly down this week. In Victoria decreased production in the Eastern zone was consistent with less flows into Victoria along the Longford to Melbourne Pipeline. Conversely, slightly increased production at Otway Basin was consistent with increased flows along the South West Pipeline.

Queensland

There are four bulletin board registered pipelines in Queensland (Figure 4). Most notably, flows along the South West Queensland Pipeline rebounded back to previous levels following a nine percent decline the week before.

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

Average daily flows	Carpentaria Pipeline	Queensland Gas Pipeline	South West Queensland Pipeline ^A	Roma to Brisbane Pipeline
Current week (9 - 15 August)	84	68	162	153
Previous week (2 – 8 August)	86	69	148	150
% change from previous week*	-2.5	-17.4	10.1	2.1

^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)

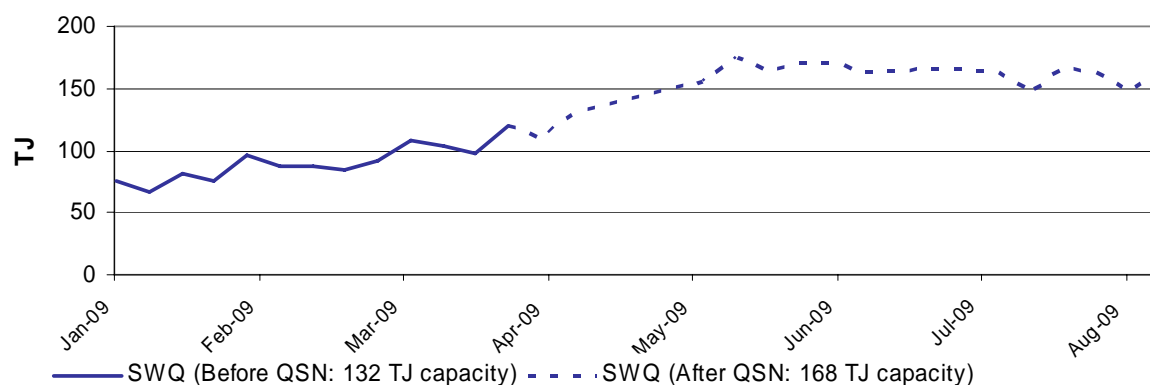
Source: National Gas Market Bulletin Board <http://www.gasbb.com.au>

Commissioning of the QSN link (Ballera to Moomba)

In January 2009, the new QSN Link 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)



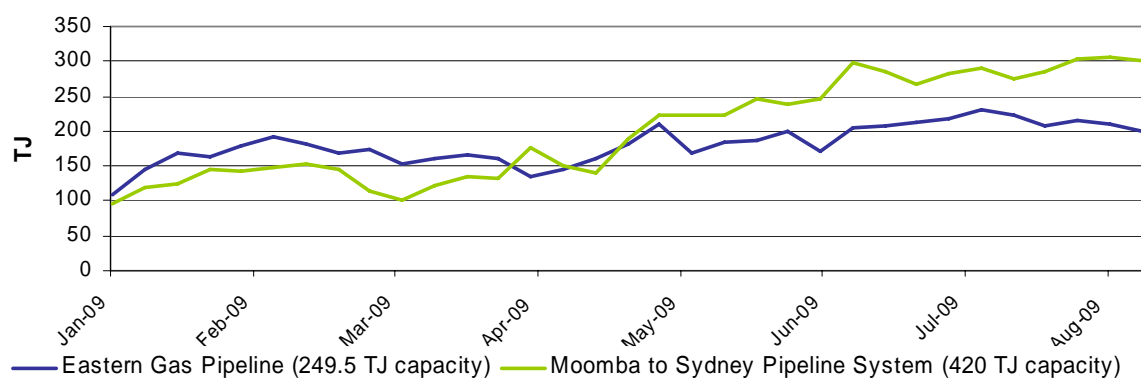
Source: National Gas Market Bulletin Board <http://www.gasbb.com.au>

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, the Moomba to Sydney Pipeline (MSP) has experienced an increase in flows since the end of April in comparison to the Eastern Gas Pipeline (EGP) where flows have remained relatively steady. EGP Flows trended slightly downwards this week whereas flows on the MSP and through the NSW-Victoria Interconnect pipeline (NSW-Vic) increased slightly, as more gas flowed into Victoria. Similar to the previous week, the majority of flows on NSW-Vic were in the 'reverse' direction into Victoria. Gas flowed south through NSW-Vic at an average of 42 TJ/day.

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 (9 - 15 August)	199	300	-42
Previous week (2 - 8 August)	209	306	-48
% change from previous week*	-5	-1.7	-12.6
Calendar Year-to-date 2009**	182	202	3

[^]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)

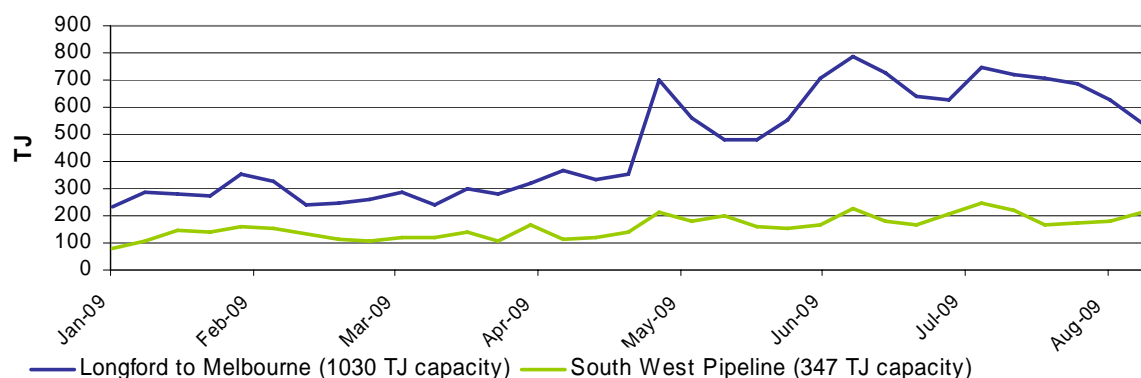
Source: National Gas Market Bulletin Board <http://www.gasbb.com.au>

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. As shown in Figure 7, the South West Pipeline (SWP) has followed relatively similar flow trends since January 2009, while the Longford to Melbourne Pipeline (LMP) has experienced an increase in flows since the end of April but with flows dropping off of recent. The decrease in flows along the LMP was larger than the decrease in Victorian demand. Victorian demand was met by higher flows along the SWP and continued strong flows south through the NSW-Vic interconnect. Higher Tasmanian Gas Pipeline flows were consistent with a small increase in GPG in Tasmania.

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 (9 - 15 August)	542	215	18
Previous week (2 – 8 August)	623	182	14
% change from previous week*	-13.1	17.9	27.4
Calendar Year-to-date 2009**	466	159	28

^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

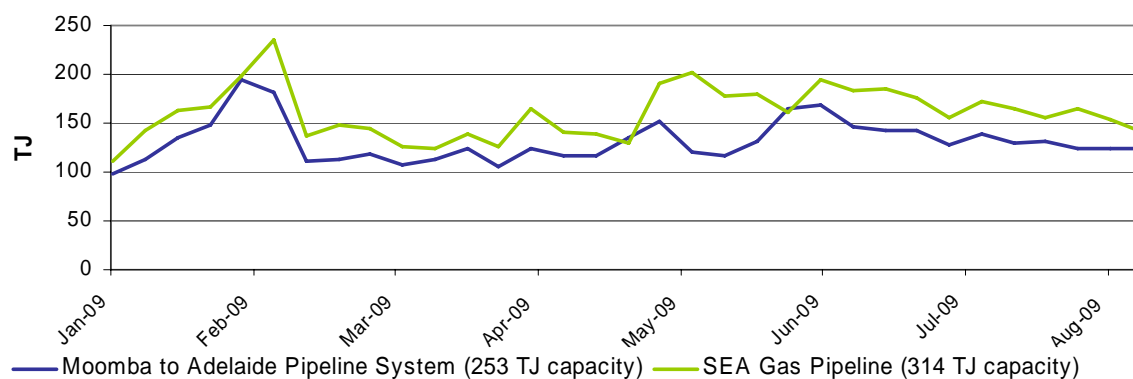
**Average daily injection flows from 1 January 2009 to the current week (inclusive)

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 the table in Figure 8, the SEAGas pipeline experienced marginally lower flows compared to the previous week, while flows along the Moomba Adelaide Pipeline (MAP) remained relatively stable. Decreased flows on the SEAGas pipeline, were consistent with a 8.5 percent fall in gas-powered electricity generation in SA. Both SEAGas and MAP continue to not operate 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 (9 - 15 August)	124	141
Previous week (2 – 8 August)	125	154
% change from previous week*	-0.7	-8.6
Calendar Year-to-date 2009**	132	161

*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

9 – 15 August 2009

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 “NS” 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				S	S		
Aust. Power & Gas	Retailer	2				NS	S							
Country Energy	Retailer	1									S			
Energy Australia	Retailer	1					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			NS	NS		
Origin (Uranquinty)	Retailer	1					S							
Red Energy	Producer	2				NS	S							
Santos	Retailer	1						S						
TRU Energy	Retailer	3			S	NS	S					S		
Victoria Electricity	Retailer	1										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. Injection bids and withdrawal bids continued to be scheduled at Iona, Culcairn and SEAGas. At Culcairn the amount of gas scheduled for injection continued to remain high this week supporting continued large physical flows southward (see figure V4 below).

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 (9 - 15 August)	Previous Week (2 - 8 August)	2009 Calendar Year*	2008 Calendar Year**
Average daily price	1.88	1.49	2.61	3.37

Current Week (9 - 15 August)	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	1.49	2.53	1.59	2.98	2.82	1.50	0.27

*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.

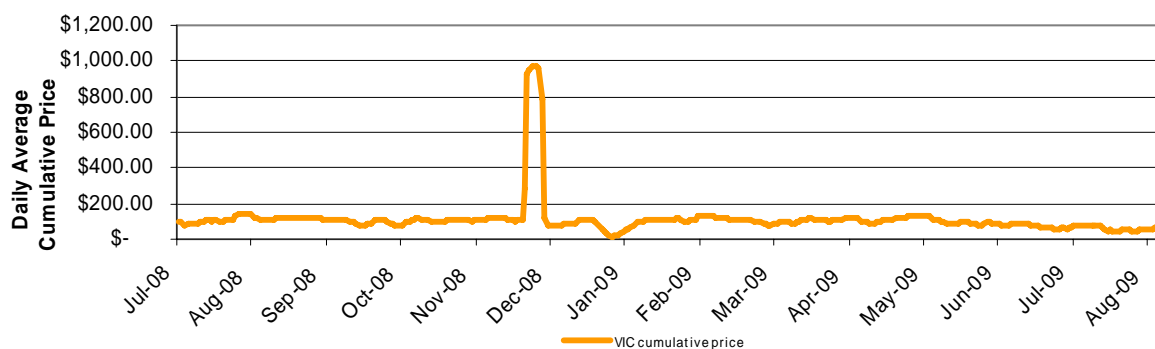
Source: <http://www.aemo.com.au> (INT 041)

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.

The imbalance weighted average price of \$1.88 was higher than the previous week. The weekly figure would have been higher except for low prices on Saturday where the average daily price was 27 cents and the 6 am price 10 cents.

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

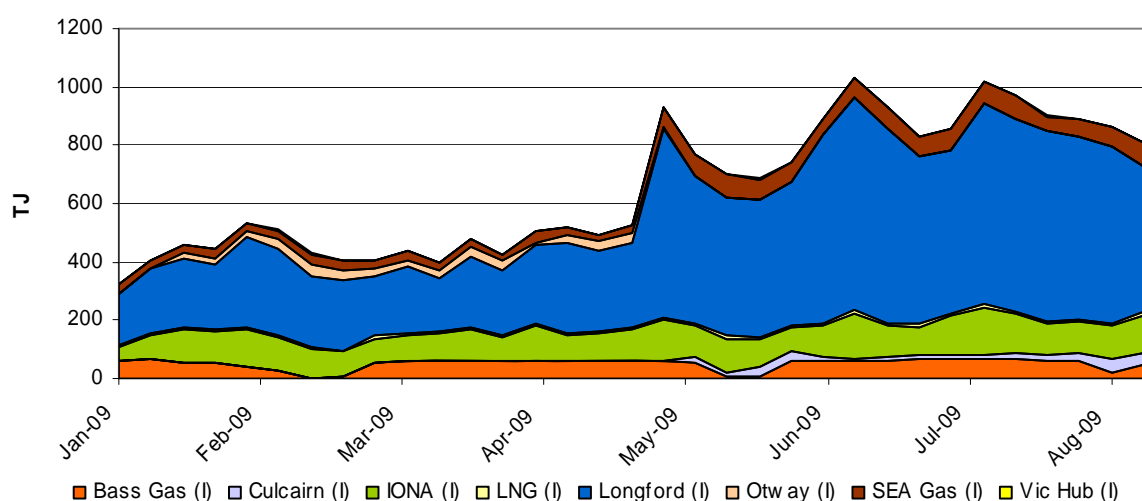
gas is required to be scheduled out of price merit order. Ancillary payments can be made to participants who are called upon to provide gas to alleviate system constraints. As with last week, there were no significant ancillary payments made during the week ending 15 August.

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 (9 - 15 August)	Previous Week (2 - 8 August)	2009 Calendar Year to date*
Culcairn^	41.7	46.8	10.0
Longford	498	606	418
LNG	10	8	8
IONA^	129	112	108
VicHub^	0.28	0.31	1.15
SEAGas^	84	69	49
Bass Gas	47	20	51
Otway	0	0	14
TOTAL	809	861	659



^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)

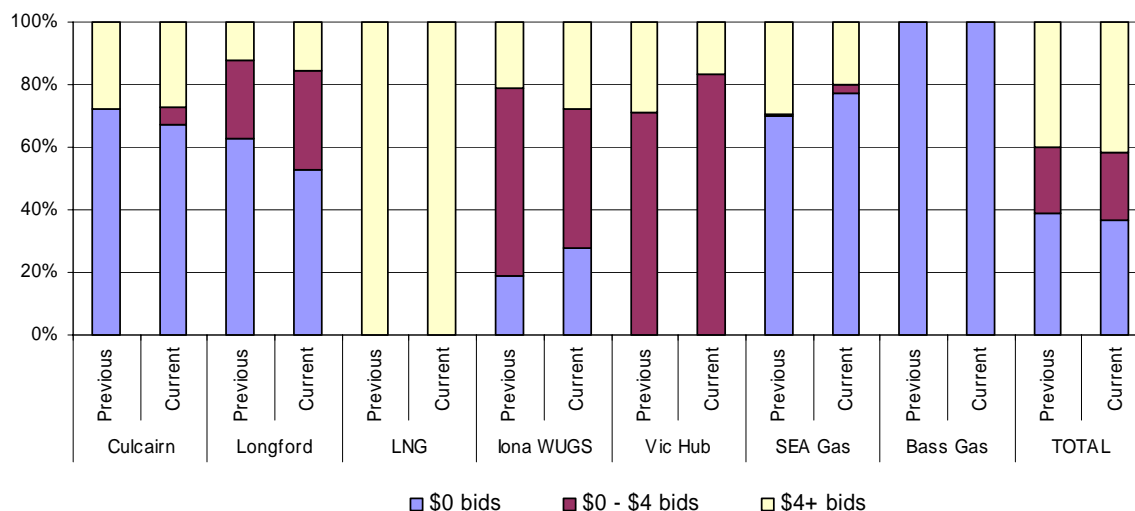
Notes: LNG injections were not scheduled by the market operator, but the reported flows from the LNG injection point indicate the amount of LNG that flowed into the system due to activities to manage the LNG facility's tank level. LNG is also regularly used by the connected BOC plant.

Overall, average daily injections into the VPTS fell by about 6 percent for the week ending 15 August. Flows from Longford decreased by more than this average. Longford flows were replaced by a resumption of more consistent injections at Bass Gas and by increased flows from the Iona and SeaGas injection points. Flows through Culcairn continued to be at high levels compared to year to date averages.

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.

There was an increase of around five percent in gas bid in at \$0/GJ for the week ending 15 August, with particular increases at Culcairn and at Longford.

Despite an increase in the proportion of bids at Longford priced at \$0/GJ, less gas overall was injected at Longford (see figure V4). This indicates that less gas in total was bid in at Longford at any price.

Figure V6 provides a table of injection points 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							Origin
Longford	TRU		Origin TRU	AGL TRU	AGL TRU	TRU	AGL Origin TRU
LNG				APG			
Iona	TRU	TRU	TRU	TRU	TRU	TRU	AGL Origin TRU
VicHub							
SEAGas	Simply	IP Simply	IP Simply			IP Simply	IP Simply
Bass Gas	Origin	Origin				Origin	

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

Notes: Origin = Origin Energy | AGL = AGL Sales | TRU = TRUenergy | Simply = Simply Energy | IP = International Power | APG = Australian Power and Gas

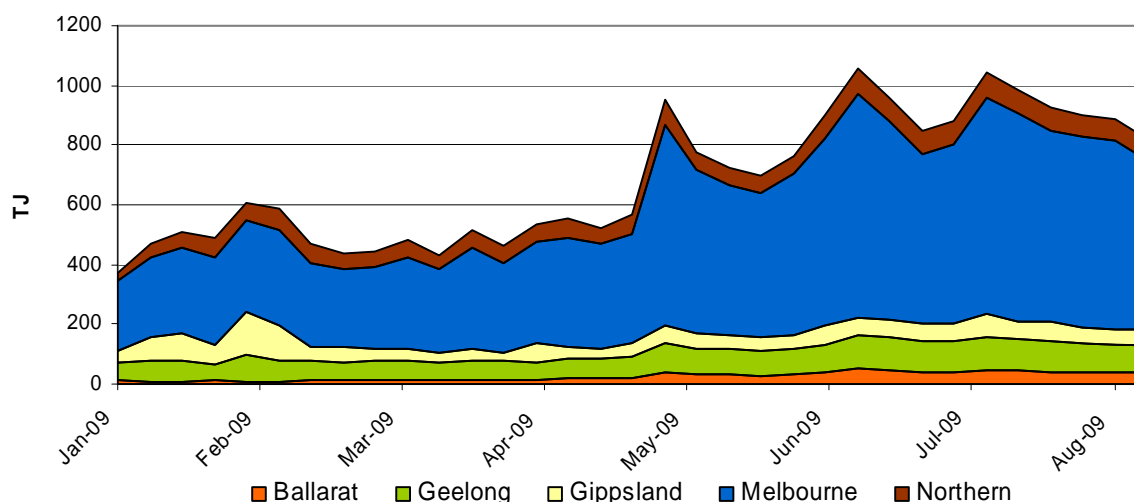
Rebidding patterns were similar to last week with the exception of Saturday. On Saturday AGL, Origin and TRUenergy all submitted rebids. It is noted that on Saturday the price at 6 am was a very low 10 cents and then the price increased through the day to reach \$2.48 at 10 pm.

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 (9 - 15 August)	Previous Week (2 - 8 August)	2009 Calendar Year to date**
Ballarat	39	41	26
Geelong*	92	92	82
Gippsland	51	53	58
Melbourne	567	633	459
Northern	70	70	65
TOTAL	820	889	690



*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).

The decrease in overall withdrawals compared to the previous week was almost entirely attributable to decreased demand in Melbourne and in particular less output from the Newport Power Station. The decrease in withdrawals in the Melbourne zone therefore reflects the reduction from 54 TJ to 9 TJ in Gas Powered Generation in Victoria.

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 forecast, then an amount may be added (or subtracted) to the Market Participant forecast, so as to ensure that an appropriate amount of gas is scheduled to maintain linepack reserves and system security.

Compared to the previous week, the amount of demand override applied for the week ending 15 August was higher with negative demand override, or a reduction, applied to market participant forecasts on three days. This continues a pattern of the market operator applying demand override to market participant forecasts which are considered to be unacceptably high. In opposition however to this trend, on Wednesday, market participant forecasts were considered by the market operator to be too low and an adjustment up was applied to demand forecasts.

System Outages and Constraints

A Directional Flow Point Constraint (DFPC) of 1.5 TJ/hr was issued at the Culcairn withdrawal point from 6 pm to 10 pm on Friday 14 August. Supply Demand Point Constraints (SDPCs) were also imposed on Culcairn injections and withdrawals, as well as Bass Gas injections. On 14 August Culcairn injections were limited to a daily maximum quantity of 42.3 TJ/hr. On 15 August Culcairn withdrawals were limited to hourly maximum quantities of 13.3 TJ/hr, then 2.5 TJ/hr from 10 pm. Hourly ramp up and ramp down constraints were also imposed at the Culcairn injection point on 15 August. Bass Gas injections were affected by hourly constraints from 6 pm on both 11 and 14 August, with a daily maximum injection constraint of 20 TJ also imposed on 11 August.

Australian Energy Regulator August 2009

APPENDIX



AUSTRALIAN ENERGY
REGULATOR

9 – 15 August 2009

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	86	90	88	79	76	85	85	117	72	74	73
QLD Gas Pipeline	71	70	0 CHECK	68	65	66	N/A	79	72	87	85
Roma to Brisbane Pipeline	123	144	142	140	193	177	155	208	74	58	77
South West QLD Pipeline	170	159	155	165	157	154	177	168	97	88	78
QSN link**	50	50	46	49	46	54	54	-	-	-	-
NSW/ACT											
Eastern Gas Pipeline	202	216	202	191	193	187	N/A	250	80	84	73
Moomba to Sydney Pipeline	284	328	358	322	314	277	220	420	72	73	48
NSW-VIC Interconnect [^]	-50	-50	-42	-48	-46	-36	-19	90	-46	-53	4
VIC											
Longford to Melbourne	624	666	603	626	535	409	331	1030	53	61	45
South West Pipeline	179	243	209	227	148	235	263	347	62	52	46
SA											
Moomba to Adelaide Pipeline	124	132	137	135	132	116	91	253	49	49	52
SEA Gas Pipeline	106	164	171	169	153	136	89	314	45	49	51
TAS											
Tasmanian Gas Pipeline	11	14	17	N/A	30	N/A	N/A	129	14	11	22

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

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	64	59	60	66	76	71	70	140	47	43	65
Fairview	107	107	110	110	110	110	110	115	95	91	82
Kenya [^]	25	28	28	32	32	29	24	160	18	20	12
Kincora	0	0	0	0	0	0	0	25	0	6	6
Kogan North	6	6	6	6	6	10	10	12	59	33	72
Peat	11	11	11	11	11	11	11	15	73	73	71
Rolleston	11	11	11	11	10	11	11	30	36	37	35
Scotia	10	10	10	10	27	27	27	27	64	44	75+
Spring Gully	51	51	51	51	49	51	51	60	85	84	98
Strathblane	51	51	51	51	49	51	51	60	85	84	88
Talooka	31	31	31	31	30	31	31	36	86	85	42
Wallumbilla	9	9	9	9	9	10	11	20	46	45	54
Yellowbank	16	15	16	15	15	16	16	30	52	51	50
Ballera	0	0	0	0	0	0	0	150	0	2	10
Eastern (VIC)											
Orbost Gas Plant	0	0	0	0	0	0	0	10	0	0	0
Lang Lang Gas Plant	27	52	19	55	56	57	63	70	67	29	72
Longford Gas Plant	812	841	833	819	732	601	498	1140	64	73	56
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0
Otway Basin (VIC)											
Minerva Gas Plant	68	88	88	88	94	78	68	94	87	81	90
Otway Gas Plant	120	165	154	160	136	138	118	206	69	70	67
Iona Underground Gas Storage	94	162	126	140	75	75	152	320	37	35	35
Moomba (SA)											
Moomba Gas Plant	360	396	413	417	407	404	200	430	86	90	68

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 (9 - 15 August)	Average min.	8.5	0.4	8.5	9.8	7.7
	Average max.	19.1	14.8	16.6	19.5	13.3
Previous Week (2 - 8 August)	Average min.	8.7	0.7	8.8	7.9	7.0
	Average max.	19.8	14.1	16.3	18.1	14.1

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 (9 - 15 August)	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	1.53	1.53	0.52	0.53	2.40	1.49
Mon	2.52	2.50	2.50	2.99	2.50	2.53
Tue	1.53	2.50	2.50	2.99	1.61	1.59
Wed	2.98	2.99	2.99	2.99	3.20	2.98
Thu	2.96	2.96	0.52	0.50	0.50	2.82
Fri	1.50	2.50	1.50	0.50	2.50	1.50
Sat	0.10	0.46	1.48	1.10	2.48	0.27

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

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

Gas Day	Forecasts (TJ)	Schedule					Demand Override Applied (TJ)
		1	2	3	4	5	
9-Aug	MP Demand:	849	837	838	839	836	
	AEMO Demand:	780	777	790	815	819	
	MP demand forecast as % of AEMO	109%	108%	106%	103%	102%	
10-Aug	MP:	948	949	958	959	958	
	AEMO:	938	943	964	986	945	
	MP demand forecast as % of AEMO	101%	101%	99%	97%	101%	
11-Aug	MP:	864	884	884	891	891	
	AEMO:	884	886	886	897	874	
	MP demand forecast as % of AEMO	98%	100%	100%	99%	102%	
12-Aug	MP:	824	839	878	857	857	
	AEMO:	902	890	934	906	911	
	MP demand forecast as % of AEMO	91%	94%	94%	95%	94%	
13-Aug	MP:	823	830	810	813	815	
	AEMO:	847	849	749	749	750	
	MP demand forecast as % of AEMO	97%	98%	108%	109%	109%	
14-Aug	MP:	752	751	748	728	737	
	AEMO:	742	739	731	665	680	
	MP demand forecast as % of AEMO	101%	102%	102%	109%	108%	
15-Aug	MP:	543	551	556	568	566	
	AEMO:	535	548	613	610	606	
	MP demand forecast as % of AEMO	101%	101%	91%	93%	93%	

GLOSSARY



AUSTRALIAN ENERGY
REGULATOR

9 – 15 August 2009

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	Talooka
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

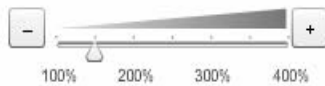
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

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>