WEEKLY GAS MARKET ANALYSIS

AUSTRALIAN ENERGY REGULATOR

5 July - 11 July 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 aerinquiry@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 forecast and actual operational data. Average pipeline flows and gas production were higher than average flows from the previous week. Overall pipeline usage rose from 62 per cent to 69 per cent of total pipeline capacity, while overall usage of production facilities rose from 61 per cent to 70 per cent of total production capacity.

The Eastern Gas Pipeline and Queensland Gas Pipeline did not provide actual flow data on Sunday and Monday. In addition, the Minerva and Longford gas plants failed to provide actual flow data on various days during the week.

The AER monitors and reviews patterns of late submission of data and will continue to engage with facilities to ensure that in the future the information requirements of the bulletin board are satisfied. The analysis in this report accounts for this missing data (refer to Figures A1 and A2 of the Appendix).

Victorian Gas Market

Total gas injections and withdrawals in the Victorian gas market increased by approximately nineteen per cent compared to the previous week. The average price of gas traded in the market for the week ending 11 July was $2.47/GJ, higher than the previous week's average price of $2.22/GJ, but still lower than the 2009 calendar year-to-date average of $2.78/GJ.

There was a marginal increase in the amount of rebids submitted in the market compared to the previous week, with intra-day rebids of gas submitted at Culcairn, Iona, Longford, SEAGas, VicHub, and also at the LNG facility.

Various constraints at the Iona and Bass Gas injections points, and the Culcairn withdrawal point reduced the capacity of gas flows at these facilities.

Part A: National Gas Market Bulletin Board

AUSTRALIAN ENERGY REGULATOR

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Pipeline and production/storage 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 the Appendix).

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

						QLD		
Average daily flows	**NSW**	**ACT**	**VIC**	**SA**	**TAS**	Brisbane	Mt Isa	Gladstone
Current week (5 - 11 July)	473	46	970	311	31	142	90	69
Previous week (28 June - 4 July)	443	42	820	283	27	134	94	72
Calendar Year-to-date 2009*	350	19	574	295	30	166	84	68

*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 is calculated using off-take flows from the Moomba-Sydney and Eastern Gas pipelines
3. Data for VIC is 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 is calculated by adding flows on the Moomba-Adelaide and SEAGas pipelines.
5. Data for TAS is taken from flows on the Tasmanian Gas Pipeline.
6. Data for Brisbane, Mt Isa, and Gladstone is calculated using flows along the Roma-Brisbane Pipeline, Carpentaria Gas Pipeline and Queensland Gas Pipeline respectively.

Figure 2 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 and storage facilities for each production zone is provided in the Appendix).

Figure 2: Daily average production/storage flows (TJ) for each production zone

Average daily flows	**Roma/Ballera (QLD)**	**Eastern (VIC)**	**Otway Basin (VIC)**	**Moomba (SA)**
Current week (5 - 11 July)	395	1046	423	379
Previous week (28 June - 4 July)	397	886	346	365
Calendar Year-to-date 2009*	410	648	331	276

*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 is 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) is 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) is 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 is taken from the actual production flows from the Moomba gas plant in South Australia.

Overview of production and pipeline flows across South East Australia

Temperature is an important driver of gas demand, particularly in Victoria where there is large residential gas heating demand. Average daily maximum temperatures in the New South Wales (NSW), Australian Capital Territory (ACT) and South Australia (SA) demand regions were slightly lower compared to last week, which may have led to the marginally higher pipeline flows into those regions compared to the previous week. For Victoria, although average maximum daily temperatures were largely unchanged, the average minimum temperatures were markedly lower. (See also Figure A3 in the Appendix).

The colder weather along with the large increase in gas-powered electricity generation in Victoria may have contributed to the higher flows into the Victorian demand region. Average pipeline flows into all demand regions except Brisbane were higher than their respective 2009 calendar year-to-date averages. With the exception of the Ballera/Roma zone, average flows from production zones were higher compared to their respective previous week averages and calendar year-to-date averages.

Production from Eastern (VIC) was higher compared to the previous week. This was consistent with an increase in demand in Tasmania, NSW, and also Victoria (see Part B of this report for more analysis of the Victorian gas market). Production in the Otway Basin (VIC) appears also to have risen to meet higher demand in Victoria, but also to meet increased demand in South Australia since the change in production at Moomba, also connected to South Australia, was relatively small. Average production from Ballera/Roma (QLD) was largely unchanged during the current week, which was consistent with higher demand in Brisbane offset by lower demand from Mt Isa and Gladstone.

Queensland

There are four bulletin board registered pipelines in Queensland (Figure 3). Average flows on the Roma to Brisbane pipeline rose by almost 6 per cent compared to the previous week, although flows were still lower than the calendar year to date average. In contrast flows on the other pipelines were down from last week, but higher than the calendar year-to-date average.

Figure 3: 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 (5 - 11 July)	90	69	163	142
Previous week (28 June - 4 July)	94	72	166	134
% change from previous week*	-4.46	-4.1	-1.35	5.93
Calendar Year-to-date 2009**	84	68	126	166

^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

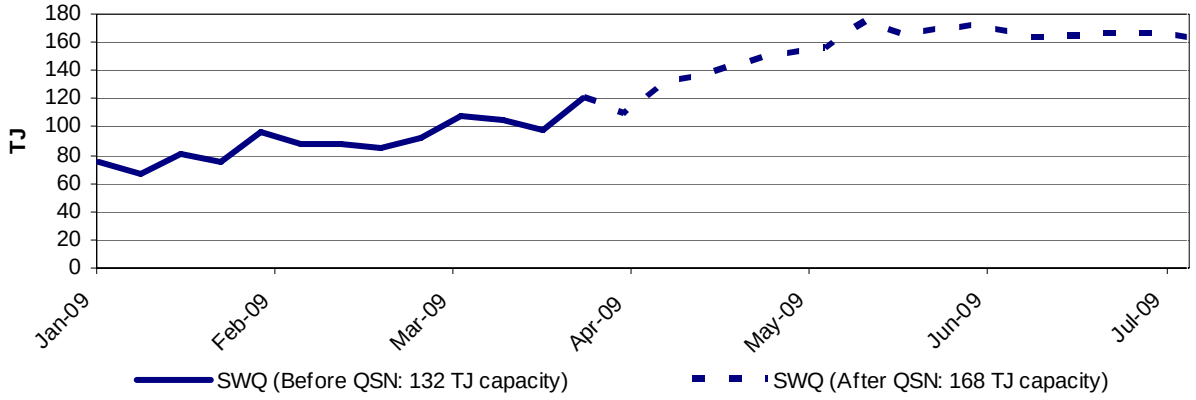
Commissioning of the QSN link

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 4 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. Average daily flows on the SWQP for the week ending 11 July 2009 were about 80 TJ higher or double the average flows during the same period in July 2008 (see figure 4 below).

Figure 4: South West Queensland Pipeline (includes QSN Link flows to Moomba, SA)



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

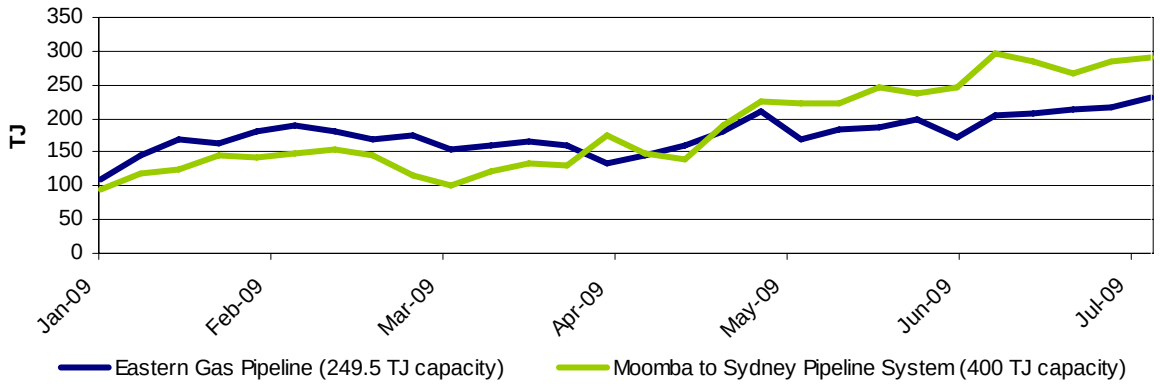
Notes: Reporting of flow data for the QSN link only began on the 31 March 2009, despite being commissioned in January 2009.

New South Wales / Australian Capital Territory

There are two main pipelines providing gas to the NSW and ACT demand regions. As shown in Figure 5, Moomba to Sydney Pipeline (MSP) and Eastern Gas Pipeline (EGP) have followed similar flow trends since January 2009 and are currently supplying similar quantities of gas into NSW and ACT. The direction of gas flow on the bi-directional NSW-VIC interconnect changes depending on whether the demand for Victorian gas, from users in NSW, such as the Uranquinty Power Station, is higher than the demand for gas to be shipped into Victoria from NSW.

Flows trended slightly upwards this week on both the MSP and EGP; a continuing trend from the previous week. This may have been due to the increased demand from the ACT and NSW, along with higher demand from Victoria met by injections of gas through the NSW-Victoria interconnect via the connected MSP. Similar to the previous week, the majority of flows through the NSW-Victoria Interconnect pipeline were in the 'reverse' direction into Victoria. Gas flowed north from Sunday to Wednesday at an average of 13 TJ/Day, but flowed south for the rest of the week at an average of 25 TJ/day; leading to the average 'net' flow of -3 TJ. Average flows on the NSW-Victoria interconnect on a calendar year-to-date basis have been positive, at 9 TJ/day.

Figure 5: Average daily flows (TJ) to NSW/ACT demand region



Average Daily Flows	Eastern Gas Pipeline	Moomba to Sydney Pipeline	NSW-VIC Interconnect^
Current week (5 - 11 July)	232	290	-3
Previous week (28 June - 4 July)	217	284	-16
% change from previous week*	7.08	2.35	-79.28
Calendar Year-to-date 2009**	176	185	9

^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

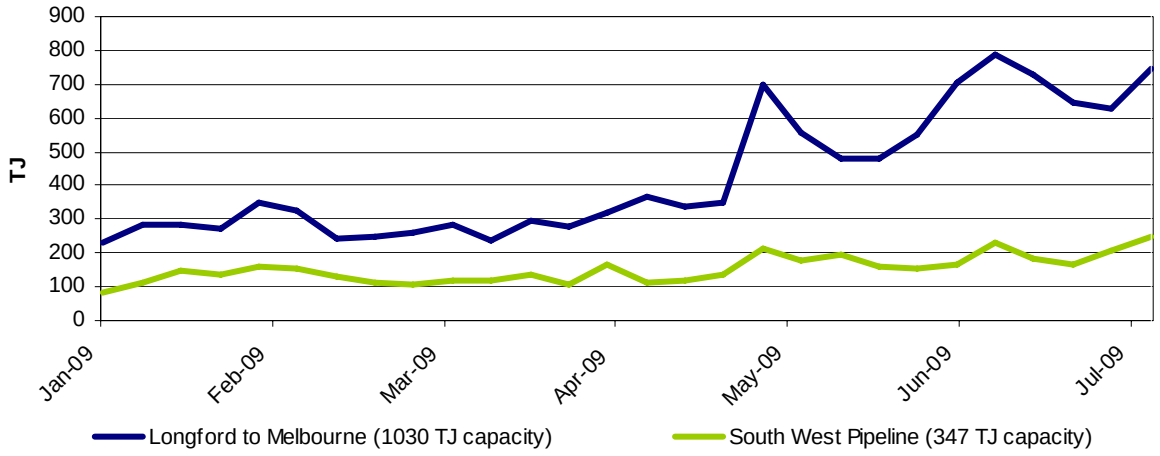
Notes: The figure for the EGP includes some gas that is consumed in Victoria, from Victorian EGP off-takes.

Victoria / Tasmania

There are two main pipelines providing gas into the Victorian demand region. As shown in Figure 6, the Longford to Melbourne Pipeline (LMP) and the South West Pipeline (SWP) have experienced broadly similar flow trends since January 2009. The increase in demand in the Victorian gas market led to higher flows along both the LMP and SWP. The increased demand in Victoria may have been driven by greater gas-powered electricity generation, which increased by almost 260 per cent from the previous week.

The Tasmanian Gas Pipeline (TGP), which is connected to Victorian production facilities, provides gas into the Tasmania demand region. The higher average daily flows along the TGP into Tasmania, were consistent with the marginally colder temperatures in Tasmania, compared to the previous week.

Figure 6: Average daily flows (TJ) to Victoria demand region



Average Daily Flows	Longford to Melbourne Pipeline	South West Pipeline	Tasmanian Gas Pipeline^
Current week (5 - 11 July)	749	250	31
Previous week (28 June - 4 July)	626	205	27
% change from previous week*	19.6	21.69	15.23
Calendar Year-to-date 2009**	432	154	30

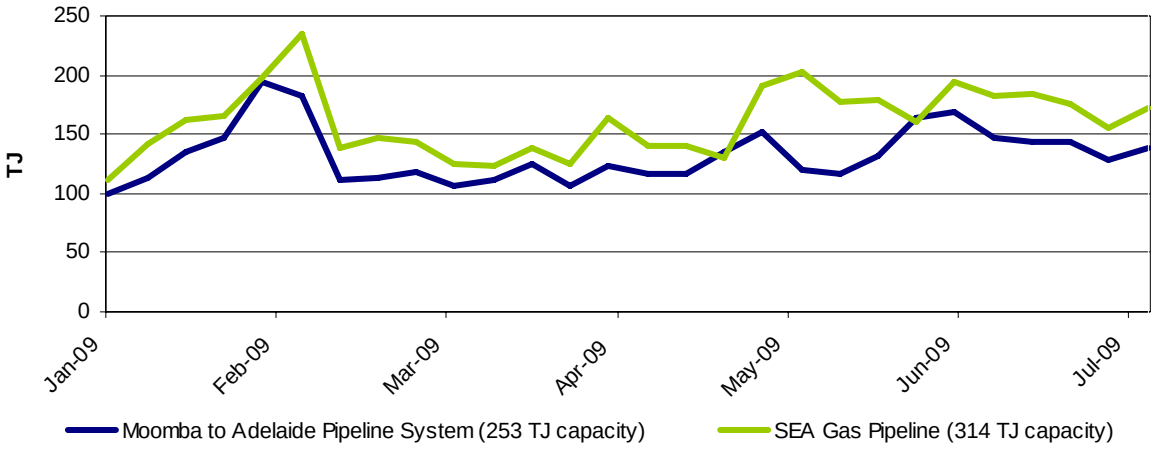
^Gas on the Tasmanian Gas Pipeline flows from Eastern Victoria into Tasmania, ending in Hobart.
*The percentage change in the average daily flow from the previous week to the current week
**Average daily injection flows from 1 January 2009 to the current week (inclusive)
Source: National Gas Market Bulletin Board http://www.gasbb.com.au

South Australia

There are two main gas pipelines flowing into the South Australian demand region. As shown in Figure 7, the Moomba to Adelaide Pipeline and SEAGas Pipeline have followed broadly similar flow trends from January 2009 to the current week. Both SEAGas and Moomba-Adelaide pipelines experienced marginally higher flows compared to last week. These increased flows were associated with slightly colder average temperatures, and subsequently higher gas usage for heating. (See also Figures A4 of the Appendix).

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



Average Daily Flows	Moomba to Adelaide Pipeline	SEAGas Pipeline
Current week (5 - 11 July)	138	173
Previous week (28 June - 4 July)	128	155
% change from previous week*	8.07	11.27
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

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	Trader	1							S					
AG L Sales (QLD)	Retailer	1				NS								
AGL Sales	Retailer	6		NS	S	NS	S				S	NS		
Aus. Power & Gas	Retailer	2				NS	S							
Country Energy	Transmission Customer	1									S			
International Power	Transmission Customer	1											S	
Origin (Vic)	Retailer	8	S	S	S	NS	S	S			S	NS		
Origin (Uranquinty)	Trader	1					S							
Red Energy	Retailer	2				NS	S							
Santos	Retailer	1						S						
TRU Energy	Retailer	4			S	NS	S					NS		
Victoria Electricity 2	Trader	2			NS							S		
Victoria Electricity	Retailer	5		S	S	NS	S	S						
Visy Paper	Distribution Customer	2					S				S			
Simply Energy	Retailer	4			S	NS	S	S						
Energy Australia	Retailer	2		S			S							

^Bids taken from 6am data for each gas day during the current week.
Source: http://www.aemogas.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 at the LNG facility during the week, reflecting the higher-priced LNG bids when compared with bids at other injection points. Country Energy and International Power only nominated withdrawal bids, consistent with their interests in interconnected pipelines and interstate customer bases. There were no injection bids submitted at Otway, and no withdrawal bids submitted 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

	Current Week (5 - 11 July)	Previous Week (28 June - 4 July)	2009 Calendar Year (to 11 July)*	2008 Calendar Year (to 11 July)**
Average daily price ($/GJ)	2.47	2.22	2.78	*3.38*

Current Week (5 – 11 July)	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price ($/GJ)	2.58	3.23	2.61	3.31	2.39	2.01	1.14

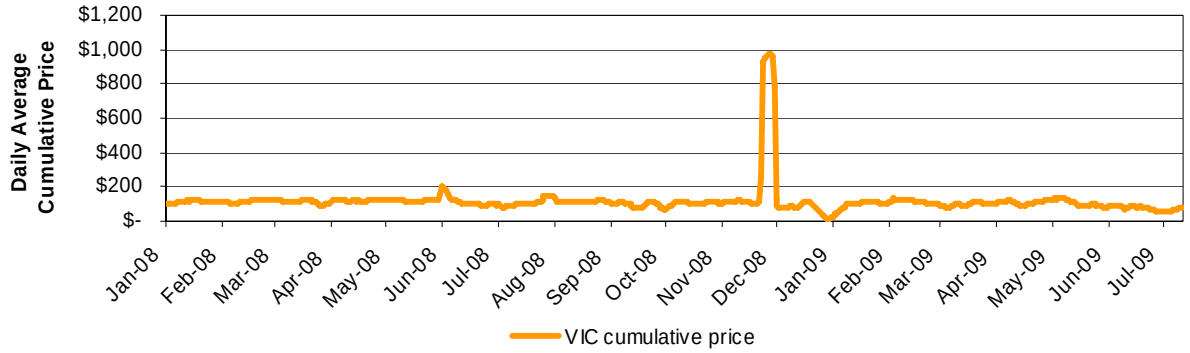
*Average daily imbalance weighted average price from 1 Jan 2009 to 11 July 2009 (inclusive)
**Average daily imbalance weighted average price from 1 Jan 2008 to the 11 July 2008 (inclusive)
Source: http://www.aemogas.com.au (INT 041)

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 $2.47/GJ was marginally higher than the $2.22/GJ for the previous week, although still lower than the 2009 calendar year-to-date average, and the 2008 equivalent. Average prices have also been consistently lower in 2009 than in 2008. There was a wider range of prices this week compared to the previous week, with prices ranging from $0.50/GJ on Wednesday at the 10 pm schedule, to $3.31/GJ on Thursday at the 6 pm schedule (see Appendix Figure A4 for all market clearing prices across the week).

Figure V3 shows the daily average cumulative price (taken over the last 35 scheduling intervals). 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.aemogas.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

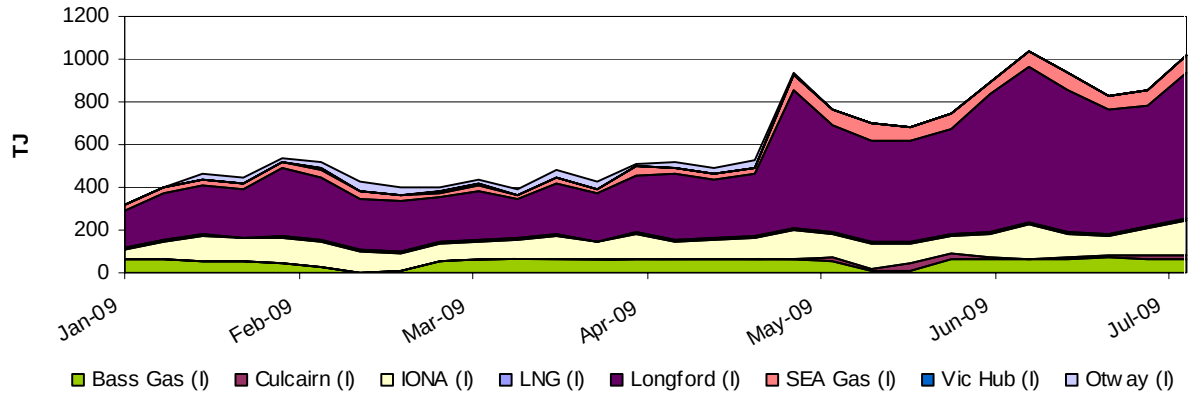
participants who are called upon to provide gas to alleviate system constraints. As with last week, there were no significant ancillary payments made during the week ending 11 July.

System Injections

Figure V4 provides the total amount of gas injected into the Victorian Principal Transmission System for the week ending 11 July, 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 (5 - 11 July)	Previous Week (28 June - 4 July)	2009 Calendar Year to date*
Culcairn^	10	18	6
Longford	685	564	383
LNG	10	8	8
IONA^	168	130	106
VicHub^	0.86**	0.39**	1.27**
SEAGas^	78	73	45
Bass Gas	67	65	51
Otway	0	0	16.7
TOTAL	**1019**	**859**	**617**



^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.aemogas.com.au (INT 150)

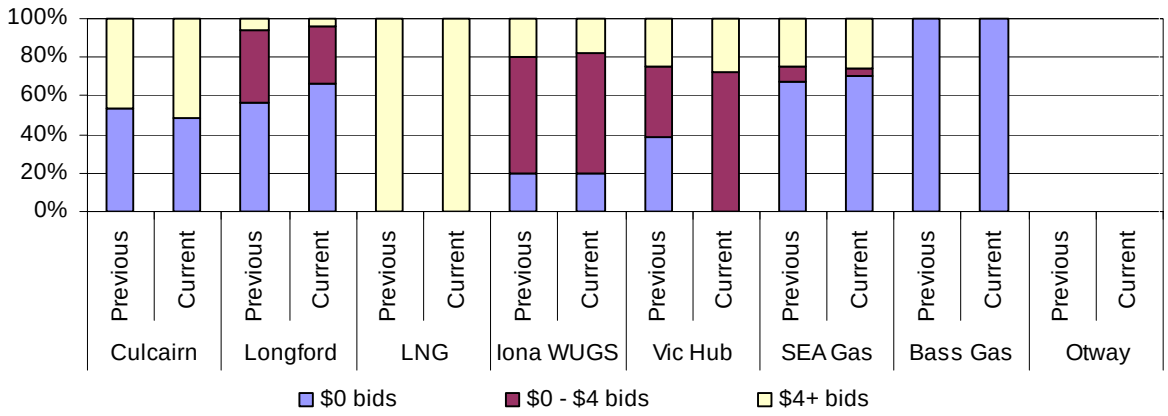
Notes: LNG injections were not scheduled by the market operator, but the reported flows from the LNG injection point indicate the amount of LNG that flowed into the system due to activities to manage the LNG facility's tank level. LNG is also regularly used by the connected BOC plant.

Average daily injections decreased by about 19 per cent for the week ending 11 July, consistent with slightly colder weather than in the previous week. With the exception of Culcairn, average daily injections increased at each of the other injections points, with Longford and Iona injections rising by around 21 per cent and 29 per cent respectively. The lower injections from Culcairn correlated with a larger amount of gas being 'exported' into NSW via the NSW-Victoria interconnect. There were again no gas injections from the Otway injection point, a continuing trend from June this year.

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.aemogas.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.

For the week ending 11 July, there was an increase in the proportion of $0/GJ bids at Longford. In contrast, a lower proportion of gas at Culcairn was bid in at $0/GJ, while at VicHub all gas was bid in at the $0-$4/GJ and greater than $4/GJ price bands. Overall, there was still a large amount of gas bid in at the $0/GJ price band. This may reflect market participant bidding strategies to bid in their gas at lower prices to ensure that adequate contracted gas is dispatched to meet customer demand.

All gas at Bass Gas continued to be bid in at $0/GJ and was consequently scheduled into the market; while all gas at LNG bids were in the greater than $4/GJ range and not scheduled. As with last week, no bids were submitted at Otway.

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					Origin	Origin	
Longford	Origin	Origin AGL	Origin AGL	Origin AGL		Origin	
LNG				APG			
IONA	TRU	TRU Origin	TRU	TRU Origin AGL	TRU Origin	TRU Origin	TRU
VicHub							AETV
SEAGas		Simply Int. Power	Simply	Simply	Simply	Simply	Simply
Bass Gas							

Source: http://www.aemogas.com.au (INT 131)

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

Compared to the previous week, there was a slightly larger amount of intra-day rebidding by a larger variety of participants. There were seven participants that submitted gas rebids this week, compared to three for the previous week. While Origin Energy, TRUenergy and Simply Energy continued to submit rebids, rebids were submitted at VicHub by AETV Power

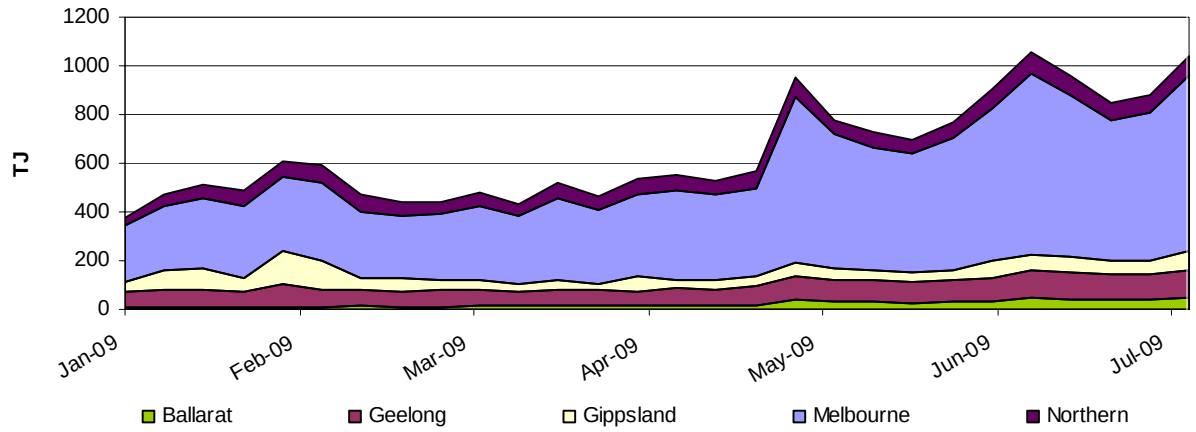
and at LNG by Australian Power & Gas. International Power also submitted rebids for the first time this month at SEAGas.

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 (5 - 11 July)	Previous Week (28 June - 4 July)	2009 Calendar Year to date**
Ballarat	47	41	23
Geelong*	110	99	79
Gippsland	79	62	58
Melbourne	722	603	427
Northern	85	75	64
TOTAL	**1044**	**879**	**651**



*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 injection flows from 1 January 2009 across weeks to the current week (inclusive)
Source: http://www.aemogas.com.au (INT 150).

Consistent with the increase in injections, average daily withdrawals from the system also increased by around 19 per cent. While withdrawals rose from each zone, the increases were particularly marked in Melbourne (20 per cent) and Gippsland (27 per cent), perhaps reflecting the higher level of gas-powered generation compared the previous week.

System Outages and Constraints

A Supply Demand Point Constraint (SDPC) was issued at the Culcairn withdrawal point on Tuesday 7 July and Wednesday 8 July, which reduced the daily maximum withdrawal capacity to 31 TJ. An SDPC was also issued at the Iona injection point on Saturday 11 July, which reduced the ramp-up rate from 6 TJ/hour to 3.3 TJ/hour. Bass Gas also issued a daily maximum injection capacity of 65 TJ from 11 July to 13 July.

Australian Energy Regulator
July 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	95	91	84	86	91	92	89	117	77%	80%	72%
QLD Gas Pipeline	N/A	N/A	75	71	66	68	68	79	88%	92%	86%
Roma to Brisbane Pipeline	120	149	153	153	154	147	117	208	68%	64%	80%
South West QLD Pipeline	187	165	161	151	165	145	171	168	97%	99%	75%
NSW/ACT											
Eastern Gas Pipeline	N/A	N/A	234	243	240	247	195	250	93%	87%	71%
Moomba to Sydney Pipeline	233	335	322	317	300	280	246	420	69%	68%	44%
NSW-VIC Interconnect	15	14	17	5	-8	-31	-35	90	-4%	-18%	11%
VIC											
Longford to Melbourne	663	786	813	825	769	729	657	1030	73%	61%	42%
South West Pipeline	216	291	233	340	250	255	163	347	72%	59%	44%
SA											
Moomba to Adelaide Pipeline	131	156	153	144	133	130	119	253	55%	50%	53%
SEA Gas Pipeline	143	196	204	208	177	163	117	314	55%	49%	52%
TAS											
Tasmanian Gas Pipeline	22	30	27	39	38	31	33	129	24%	21%	23%

NB. Actual flow data not reported by Bulletin Board polling time is indicated by N/A
^Negative figure represents a reverse flow of gas along the pipeline
*Average daily injection flows from 1 January 2009 to the current week (inclusive)

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	99	100	100	93	101	101	101	140	71%	69%	67%
Fairview	105	106	105	105	105	106	105	115	92%	90%	81%
Kenya^	-	-	-	10	-	-	-	160	6%	-	6%
Kincora	0	5	6	0	0	5	0	25	9%	0%	6%
Kogan North	6	6	6	6	6	6	6	12	50%	50%	77%
Peat	11	11	11	11	11	11	11	15	73%	73%	71%
Rolleston	11	11	11	11	11	11	11	30	37%	36%	34%
Scotia	0	0	0	0	0	0	0	27	0%	0%	81%
Spring Gully	55	53	53	52	53	51	51	60	88%	91%	101%
Strathblane	55	53	53	52	53	51	51	60	88%	91%	88%
Taloona	33	32	32	32	32	31	31	36	88%	92%	33%
Wallumbilla	9	9	9	9	9	7	4	20	40%	45%	57%
Yellowbank	16	15	15	16	13	16	15	30	50%	52%	50%
Ballera	0	0	0	0	0	0	0	150	0%	0%	11%
Eastern (VIC)											
Orbost Gas Plant	0	0	0	0	0	0	0	10	0%	0%	0%
Lang Lang Gas Plant	67	69	69	67	68	67	65	70	96%	94%	72%
Longford Gas Plant	876	969	980	1104	976	964	N/A	1140	86%	72%	53%
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0%	0%	0%
Otway Basin (VIC)											
Minerva Gas Plant	73	94	N/A	94	94	68	68	94	87%	81%	90%
Otway Gas Plant	150	178	179	174	182	161	132	206	80%	75%	66%
Iona Underground Gas Storage	136	213	213	243	176	163	90	320	55%	36%	34%
Moomba (SA)											
Moomba Gas Plant	324	387	389	410	416	379	350	430	88%	85%	64%

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)
^Commissioned as a Bulletin Board facility from 6 July 2009 (Facility began report 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 11 July. The average temperatures for the previous week are also provided. (Note: only the demand regions where temperature is a main driver of gas demand are included).

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

Average daily temperatures (°C)		NSW (Sydney)	ACT (Canberra)	VIC (Melbourne)	SA (Adelaide)	TAS (Hobart)
Current Week (5 - 11 July)	Average min.	8.6	0.0	6.6	7.4	3.3
	Average max.	16.9	11.7	14.6	15.6	10.6
Previous Week (28 June - 4 July)	Average min.	11.2	6.5	9.9	10.9	6.6
	Average max.	19.0	12.8	14.4	16.8	13.0

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 11 July. 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 (5 - 11 July)	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	2.66	1.50	1.50	1.50	0.50	2.55
Mon	1.50	1.50	1.50	1.01	0.50	1.49
Tue	1.50	1.50	1.01	0.87	1.49	1.48
Wed	2.66	1.54	1.50	1.50	0.50	2.58
Thu	2.65	1.13	3.31	3.31	0.52	2.64
Fri	3.31	3.00	2.65	2.65	1.53	3.27
Sat	1.50	1.50	1.50	1.50	1.01	1.50

Source: http://www.aemogas.com.au (INT 041).

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

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