

6 - 12 September 2009

Preface

As part of its monitoring roles for the National Gas Market Bulletin Board (bulletin board) and Victorian Gas Market, the AER publishes 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.

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 arinquiry@ 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. Participants report daily forecast and actual operational data. For the fourth consecutive week, Tas Gas Networks failed to report flows for Tasmanian Gas Pipeline on the Bulletin Board for various days. Queensland Gas Company also failed to provide daily flow data for the Berwyndale South and Kenya production facilities on five gas days for the week ending 12 September. The AER monitors and reviews patterns of late submission of data and is engaging with facilities to ensure that in future the data requirements of the bulletin board are satisfied.

Victorian Gas Market

Cumulative market participant demand forecasts were significantly lower than AEMO forecasts on the gas days of 7 and 10 September, and the market operator applied positive demand overrides to ensure adequate supply to meet forecast demand. In contrast, on the 11 and 12 September gas days, market participant forecasts exceeded AEMO forecasts, and AEMO scaled back participant forecasts. Supply Demand Point Constraints (SDPCs) were also imposed this week on both Iona injections and withdrawals on 6 and 7 September gas days.

Total gas injections and withdrawals in the Victorian gas market decreased by around three per cent from the previous week. Despite the drop in demand, there was a noticeable increase in the average daily imbalance price this week from \$1.85/GJ to \$2.07/GJ. Notably, a lower percentage of gas was bid in at \$0 compared to the previous week. Average daily injections at Longford increased this week by 31 TJ, and gas on the NSW-Victoria Interconnect continued to flow into Victoria.

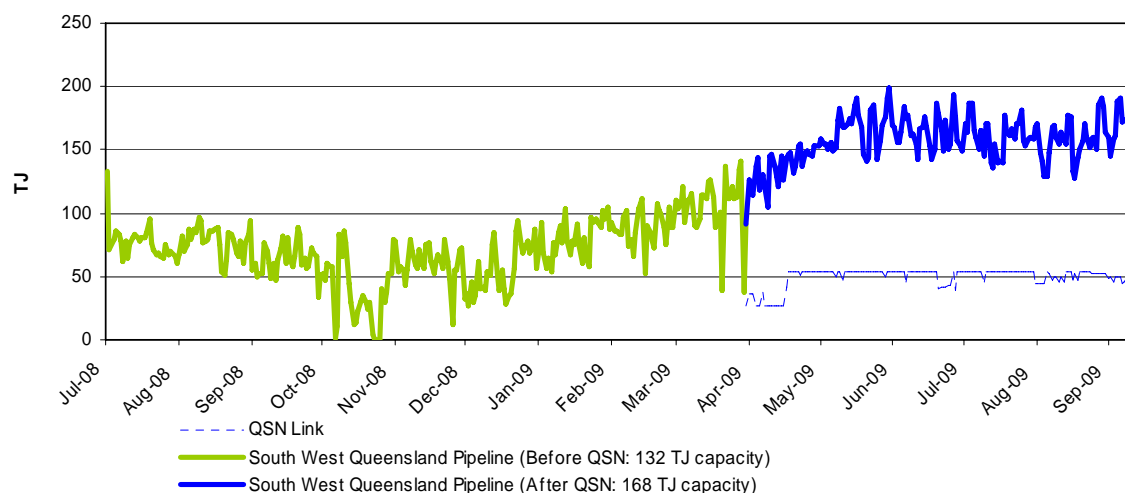
Additional information — Commissioning of the QSN link

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 S1 shows the average daily flows along the SWQP, with the blue line marking the additional flows along the SWQP since the introduction of the QSN link allowed Queensland gas to flow to Moomba. QSN Link flows are represented by a dotted line.

Average daily flows on the SWQP for the week ending 12 September 2009 were about 111 TJ higher than the average flows on the SWQP during the same period in September 2008. This reflects the larger amount of gas able to flow down to the southern states, via the QSN link.

Figure S1: 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.

Part A: National Gas Market Bulletin Board

Overview of pipeline and production flows

Figure 1 sets out the average daily pipeline flows into each key demand region across the National Gas Market. (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 (6 - 12 Sep)	406	34	721	281	15	167	89	70
Financial Year-to-date 2009-10*	441	42	647	281	24	148	90	68
Financial Year-to-date 2008-09**	385	46	787	346	33	199	61	65

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

**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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

Figure 2 provides the average daily amount of gas used for GPG (gas-powered generators) in each state.

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

Average daily gas for GPG usage^	NSW	VIC	SA	TAS	QLD
Current week (6 - 12 Sep)	62	24	158	7	143
Financial Year-to-date 2009-10*	84	42	145	10	108
Financial Year-to-date 2008-09**	23	80	209	36	119

^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'

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

**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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

Notes: Data for each state collected on the following basis

1. NSW - Smithfield Energy, Uranquinty, Hunter Valley GT, Colongra and Tallawarra power stations
2. VIC - Laverton North, Valley Power, Jeeralang A, Jeeralang B, Somerton, Bairnsdale, and Newport power stations.
3. SA - Dry Creek GT, Hallet, Pelican Point, Torrens Island, Mintaro, Osborne, Ladbroke Grove, and Quarantine power stations.
4. TAS - Bell Bay, and Bell Bay Power (Tamar Valley) power stations.
5. QLD - Braemar 1, Braemar 2, Roma, Oakey, Barcardine, 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. (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 (6 - 12 Sep)	451	775	295	333
Financial Year-to-date 2009*	422	849	351	361
Financial Year-to-date 2008**	380	1030	409	356

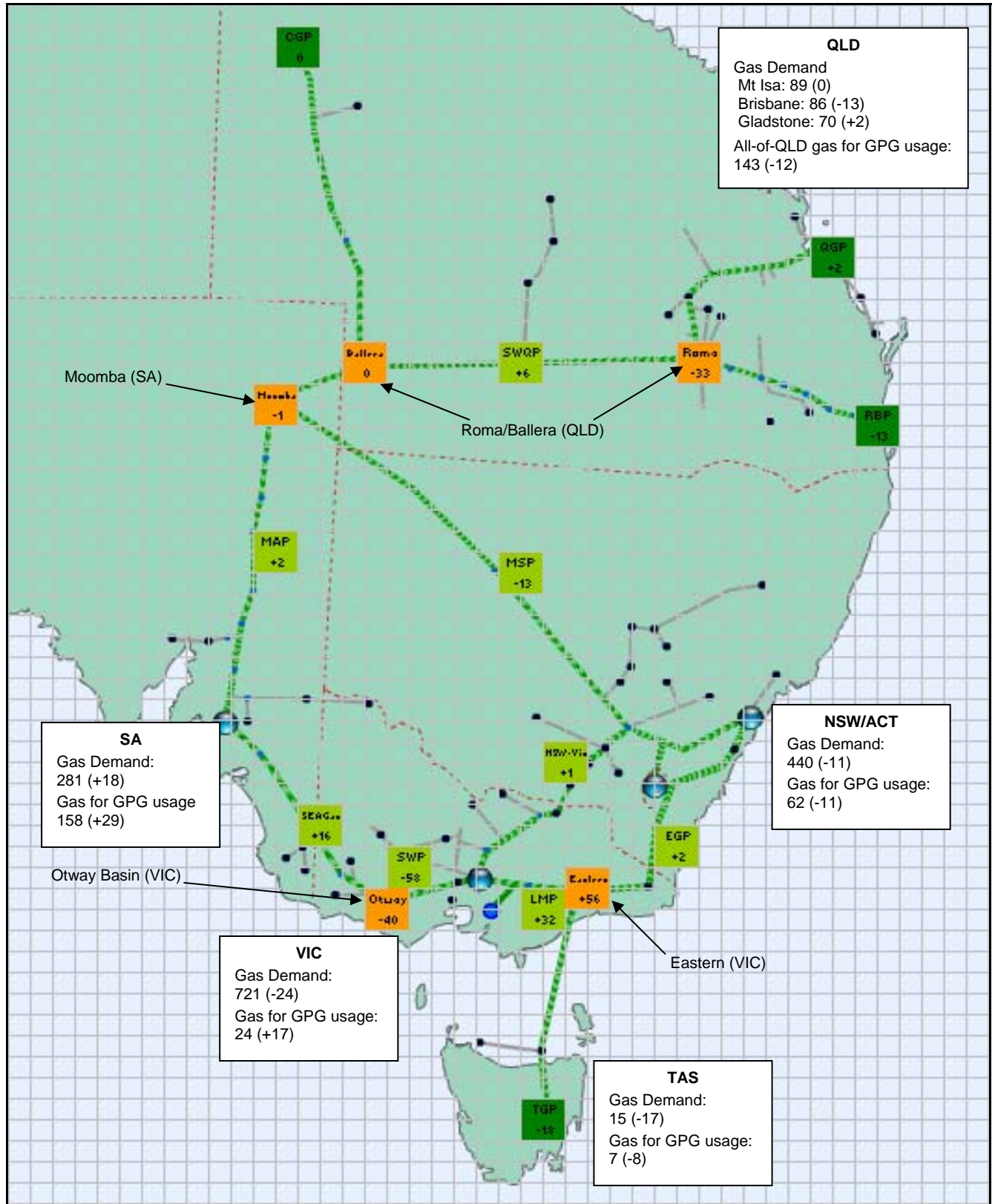
*Average daily estimated gas consumption measured from 1 July 2009 to the current week (inclusive)

**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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

Figure 4 below shows the changes in average daily pipeline and production flows compared to the previous week, as well as the gas demand and GPG usage of gas in each region.

Figure 4: Changes in gas demand and production and pipeline flows (TJ)



Notes:

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

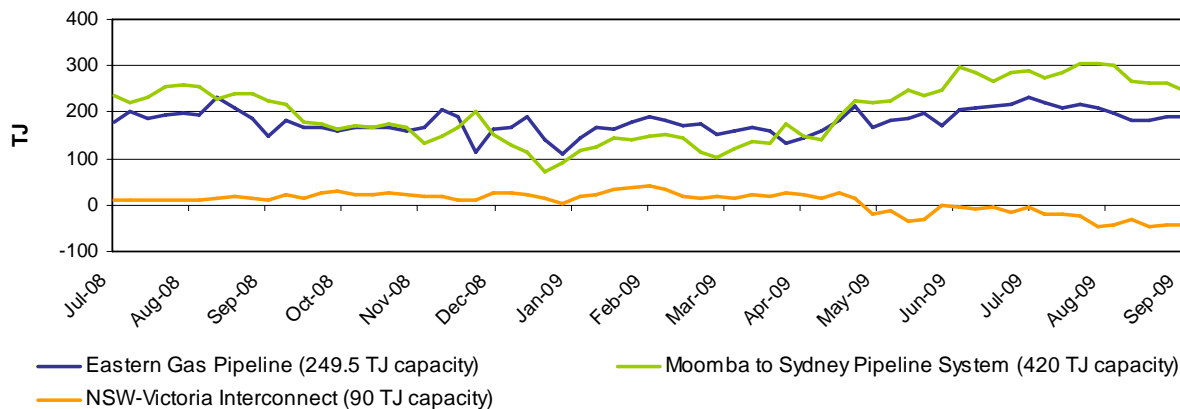
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

Average daily production at Eastern (VIC) was 54 TJ higher compared to the previous week, whereas production in the Otway Basin (VIC) was 40 TJ lower and 33 TJ lower at Roma (QLD). Gas-powered generators used more gas on average in Victoria (17 TJ) and South Australia (29 TJ).

Gas flows into demand regions

The figures below provide the average daily flows into each of the demand region served by multiple pipelines and supply sources.

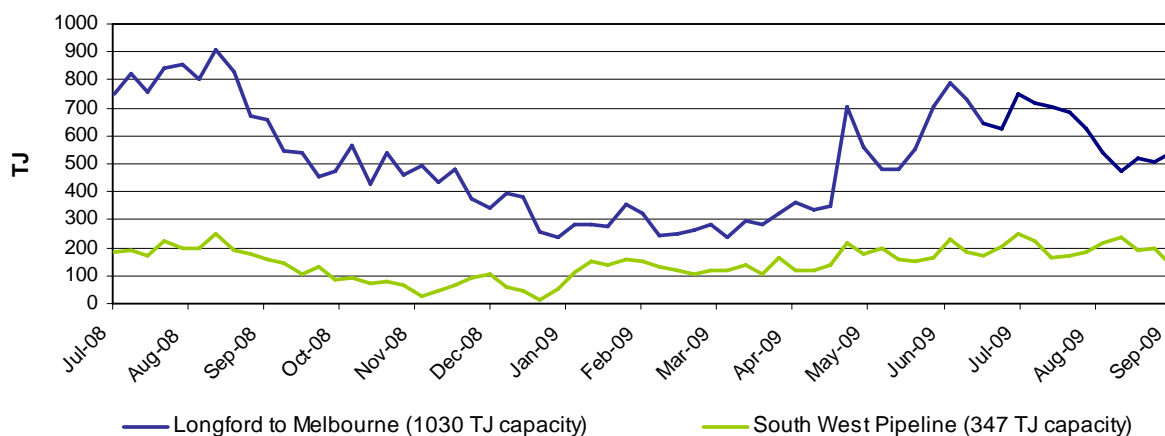
Figure 5: Average daily flows (TJ) into NSW/ACT demand region



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

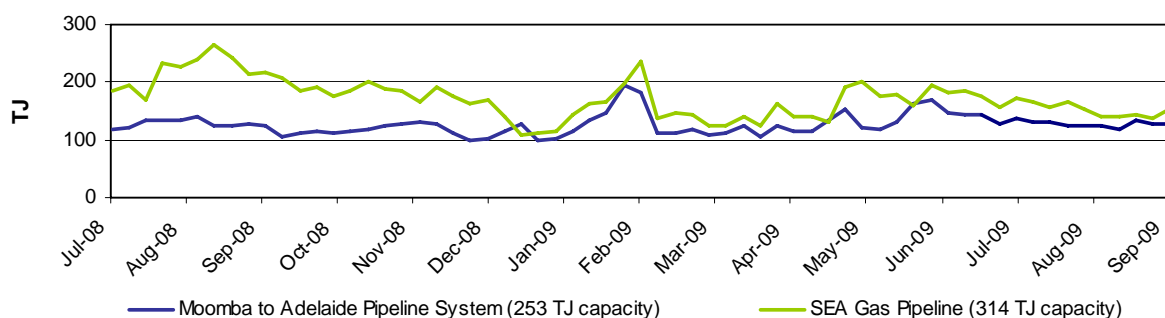
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

Figure 5: Average daily flows (TJ) into VIC demand region



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

Figure 7: Average daily flows (TJ) into SA demand region



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

Part B: Victorian Gas Market

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. Green shading below indicates where a change has occurred from the previous week.

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								S						NS
AGL (Qld)	Retailer	1				NS										
AGL	Retailer	4		NS	NS	NS	S					NS	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 2	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.

Market Prices and Ancillary Payments

Figure V2 displays volume-weighted average daily imbalance prices, compared to the 2009-10 financial year-to-date average and the 2008-09 equivalent. Daily imbalance prices for each day during the current week are also noted.

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

	Current Week (6 - 12 Sep)	Previous Week (30 Aug – 5 Sep)	2009-10 Financial YTD*	2008-09 Financial YTD**
Average daily price	2.07	1.85	1.73	3.13

Current Week (6 - 12 September)	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	3.72	2.93	1.73	1.74	1.82	2.43	0.14

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

**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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.

System Injections

Figure V3 provides the average daily amount of gas injected into the VPTS for the current week, along with the financial year-to-date averages from each injection point on the VPTS.

Figure V3: Average daily flows (TJ) from Injection Points on the VPTS

Injection Point:	Current Week (6 - 12 Sep)	Previous Week (30 Aug - 5 Sep)	2009-10 Financial YTD*	2008-09 Financial YTD**
Culcairn	42	41	32	0.1
Longford	475	444	554	739
LNG	10	9	9	9
IONA	92	145	132	122
VicHub	2	1	1	0.2
SEAGas	47	52	65	67
Bass Gas	63	64	58	62
Otway	0	0	0	0
TOTAL	731	756	851	998

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

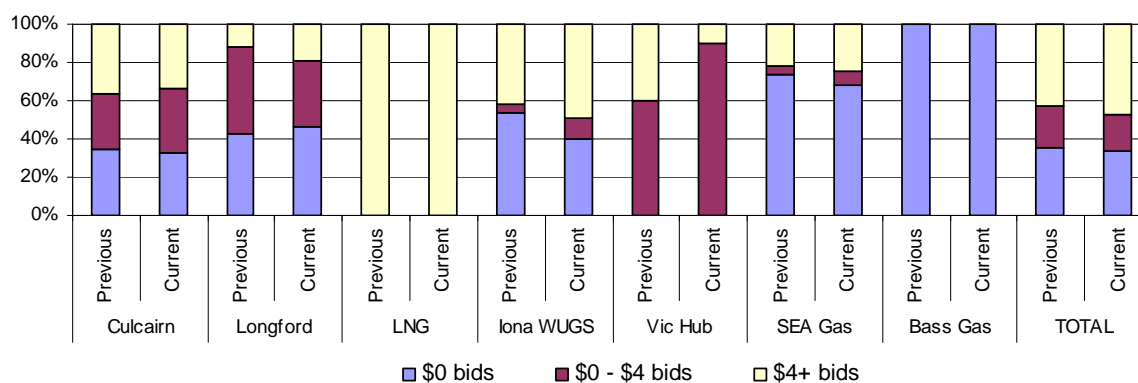
**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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

Bidding Activity

Figure V4 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 V4: 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.

Figure V5 provides a table of injection points on the VPTS where market participants submitted intra-day renominations, for each day of the week.

Figure V5: Intra-day rebidding of gas injections

Injection Point:	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Culcairn		Origin					
Longford	AGL Origin TRU	AGL Origin TRU	TRU	TRU	AGL TRU	AGL Origin TRU	AGL TRU
LNG							
Iona		Origin TRU	TRU	Origin TRU	Origin TRU	Origin TRU	Origin TRU
VicHub		AETV	AETV	AETV	AETV	AETV	
SEAGas	Simply	Simply	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 | AETV = AETV Power

System withdrawals

Figure V6 notes the average daily gas usage on the VPTS compared with the 2009-10 financial year to date daily average, as well as the 2008-09 equivalent.

Figure V6: Average daily withdrawals (TJ) from system demand zones on the VPTS

System withdrawal zone:	Current Week (6 - 12 Sep)	Previous Week (30 Aug - 5 Sep)	2009 Financial YTD*	2008 Financial YTD**
Ballarat	34	36	40	43
Geelong[^]	92	90	96	114
Gippsland	53	50	58	59
Melbourne	508	525	604	697
Northern	61	67	72	88
TOTAL	748	768	870	1000

[^]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 estimated gas consumption measured from 1 July 2009 to the current week (inclusive)

**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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

APPENDIX

Figures A1 and A2 display the daily gas flows from each pipeline and production/storage facility 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 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)	YTD average capacity usage (%)	Current week average daily flows	Current YTD average daily flows*	Previous YTD average daily flows**
QLD												
Carpentaria Pipeline	91	89	87	88	87	90	88	117	77	89	76	77
QLD Gas Pipeline	71	71	71	68	71	67	71	79	86	70	86	86
Roma to Brisbane Pipeline	110	161	190	189	184	180	154	208	71	167	86	71
South West QLD Pipeline	191	171	173	173	169	169	158	168	96	172	99	96
NSW/ACT										440	483	431
Eastern Gas Pipeline	157	194	205	223	218	201	146	250	81	192	202	192
Moomba to Sydney Pipeline	221	287	270	281	265	250	164	420	67	248	281	239
NSW-VIC Interconnect [^]	-51	-36	-40	-51	-50	-49	-18	90	-34	-42	-31	13
VIC										721	579	787
Longford to Melbourne	590	627	623	613	575	402	334	1030	59	538	609	775
South West Pipeline	59	60	214	223	180	193	59	347	57	141	200	191
SA										281	346	281
Moomba to Adelaide Pipeline	103	156	163	149	136	104	91	253	51	128	127	128
SEA Gas Pipeline	105	176	197	198	164	141	88	314	49	153	220	153
TAS												
Tasmanian Gas Pipeline	N/A	27	15	12	N/A	11	9	129	19	15	25	19

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

**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

[^]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)	YTD average capacity usage* (%)	Current week average daily flows	Current YTD average daily flows*	Previous YTD average daily flows**
Roma / Ballera (QLD)										451	422	380
Berwyndale South	82	98	N/A	N/A	N/A	N/A	N/A	140	58	90	82	73
Fairview	114	116	116	116	116	117	117	115	95	116	109	67
Kenya [^]	34	33	N/A	N/A	N/A	N/A	N/A	160	16	34	25	0
Kincora	7	7	7	7	7	7	0	25	5	6	1	10
Kogan North	9	9	9	9	9	9	9	12	55	9	7	13
Peat	11	11	10	10	10	9	8	15	70	10	10	10
Rolleston	11	10	10	10	9	10	9	30	37	10	11	12
Scotia	0	15	26	25	25	25	25	27	54	20	15	23
Spring Gully	53	53	53	46	52	52	42	60	88	50	53	57
Strathblane	53	53	53	46	52	52	42	60	88	50	53	49
Talooka	32	32	32	28	31	31	26	36	89	30	32	0
Wallumbilla	8	8	12	12	12	12	12	20	44	11	9	12
Yellowbank	14	15	15	16	15	15	15	30	50	15	15	15
Ballera	0	0	0	0	0	0	0	150	1	0	1	39
Eastern (VIC)										775	849	1030
Orbost Gas Plant	0	0	0	0	0	0	0	10	0	0	0	0
Lang Lang Gas Plant	64	64	63	63	63	63	64	70	82	63	57	62
Longford Gas Plant	807	789	797	795	753	571	471	1140	69	712	792	968
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0	0
Otway Basin (VIC)										295	351	409
Minerva Gas Plant	61	87	81	87	66	61	N/A	94	82	74	77	99
Otway Gas Plant	112	121	151	130	142	141	53	206	69	121	142	176
Iona Underground Gas Storage	0	0	161	194	150	158	38	320	41	100	132	135
Moomba (SA)												
Moomba Gas Plant	291	343	384	363	356	314	277	95	333	361	356	95

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

**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (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 current week. 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 (6 - 12 September)	Average min.	10.9	2.1	9.8	10.7	7.4
	Average max.	21.9	15.7	18.5	21.4	15.6
Previous Week (30 Aug - 5 Sep)	Average min.	12.2	3.5	8.6	10.3	5.2
	Average max.	21.3	15.1	17.8	17.4	14.9

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 current week. 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 (6 - 12 September)	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	3.74	3.67	3.67	3.67	1.71	3.72
Mon	2.99	2.99	2.45	1.68	1.68	2.93
Tue	1.70	1.70	1.70	2.45	3.65	1.73
Wed	1.70	2.45	2.45	2.99	2.45	1.74
Thu	1.70	1.70	3.30	2.99	3.70	1.82
Fri	2.45	3.19	2.95	2.95	0.03	2.43
Sat	0.03	1.49	1.69	0.58	0.01	0.14

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

Figure A5 compares the market participants and market operator demand forecasts and each of the scheduling intervals on each gas day during the current week. Total actual demand for each gas day is also provided, along with the total demand override (if any) from AEMO.

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

Gas Day	Forecasts (TJ)	Schedule					Total Demand Override Applied (TJ)
		1	2	3	4	5	
6-Sep	MP Demand:	692	693	690	695	695	0
	AEMO Demand:	672	656	706	700	675	
	MP demand forecast as % of AEMO	103%	106%	98%	99%	103%	
7-Sep	MP:	770	776	804	796	796	4
	AEMO:	791	819	837	763	739	
	MP demand forecast as % of AEMO	97%	95%	96%	104%	108%	
8-Sep	MP:	876	876	886	888	888	0
	AEMO:	847	856	861	863	878	
	MP demand forecast as % of AEMO	103%	102%	103%	103%	101%	

9-Sep	MP:	857	858	858	868	868	0
	AEMO:	850	848	890	918	883	
	MP demand forecast as % of AEMO	101%	101%	96%	95%	98%	
10-Sep	MP:	764	748	777	784	785	1
	AEMO:	777	791	828	836	827	
	MP demand forecast as % of AEMO	98%	95%	94%	94%	95%	
11-Sep	MP:	610	607	607	608	591	-20
	AEMO:	664	646	646	616	594	
	MP demand forecast as % of AEMO	92%	94%	94%	99%	99%	
12-Sep	MP:	392	429	428	423	413	-14
	AEMO:	352	400	441	423	392	
	MP demand forecast as % of AEMO	111%	107%	97%	100%	105%	

Source: <http://www.aemo.com.au> (INT 108, INT 126, INT 153)