

9 May – 15 May 2010

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 (as reported on the Bulletin Board). 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 aer inquiry@ aer.gov.au, and headed 'Comments on weekly gas report'.

Summary

National Gas Market Bulletin Board

There were four instances of missing flow data on the Bulletin Board this week. BHP Billiton failed to submit data for Minerva on Thursday, Friday and Saturday and Tas Gas failed to submit data for the Tasmania Gas pipeline on Monday. The AER is writing to these participants for more information.

Figure 4 shows changes in gas demand and production and pipeline flows compared to the previous week. Total average daily demand for gas increased by 159 TJ (10 per cent) compared to the previous week. All regions except Queensland, recorded increases with significant increases in Victoria 120 TJ (20 per cent) and South Australia 66 TJ (26 per cent).

Total average daily Gas Powered Generation (GPG) gas usage increased by 77 TJ (18 per cent) compared to the previous week. Significant increases were recorded in South Australia of 58 TJ and Victoria of 39 TJ. All other regions recorded minor variations.

Average daily production volumes increased by 162 TJ (9 per cent) compared to the previous week. All facilities except for Roma recorded increases in production with significant increases occurring at the Otway Basin (89 TJ or 43 per cent) and Eastern (74 TJ or 10 per cent) production facilities. Total average daily flows were higher than the previous week by 182 TJ or 12 per cent. Significant increases occurred on the Longford to Melbourne (66 TJ or 13 per cent), Sea Gas (56 TJ or 48 per cent) and the South West (53 TJ or 55 per cent) pipelines. All other pipelines recorded minor variations.

Victorian Gas Market

In line with the increase in demand in Victoria, the average gas injections increased by 119 TJ (20 per cent) compared to the previous week (See Figure V3). The average imbalance price increased from \$1.94/GJ the previous week to \$2.85/GJ (see Figure V2). Prices were above \$3/GJ on Tuesday, Wednesday and Thursday.

Around 30 per cent of capacity at SEA Gas was bid into the \$4 plus price range, compared to the previous week of 80 per cent (see figure V4).

AEMO issued a demand override on Thursday (1 TJ) (see figure A5).

A Demand Point Constraints (SDPCs) was applied to Culcairn withdrawals for the Monday, Wednesday and Friday gas days and to BassGas injections for the Saturday gas day.

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
9 May – 15 May	418	32	719	323	32	119	99	69
Financial Year-to-date 2009-10*	363	19	543	280	38	169	86	71
Financial Year-to-date 2008-09**	323	19	600	298	32	170	82	68

*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
9 May – 15 May	110	44	211	22	119
Financial Year-to-date 2009-10*	84	39	165	24	163
Financial Year-to-date 2008-09**	41	65	184	22	116

[^]Estimated values based on application of implied heat rates for generators within the demand region sourced from ACIL Tasman's 2009 Final Report 'Fuel resource, new entry and generation costs in the NEM'

*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 - Tamar Valley power stations.
5. QLD - 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. (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 (QLD)	Eastern Victoria	Otway Basin (VIC)	Moomba (SA/QLD)
9 May – 15 May	460	833	295	312
Financial Year-to-date 2009-10*	459	657	274	274
Financial Year-to-date 2008-09**	339	697	314	304

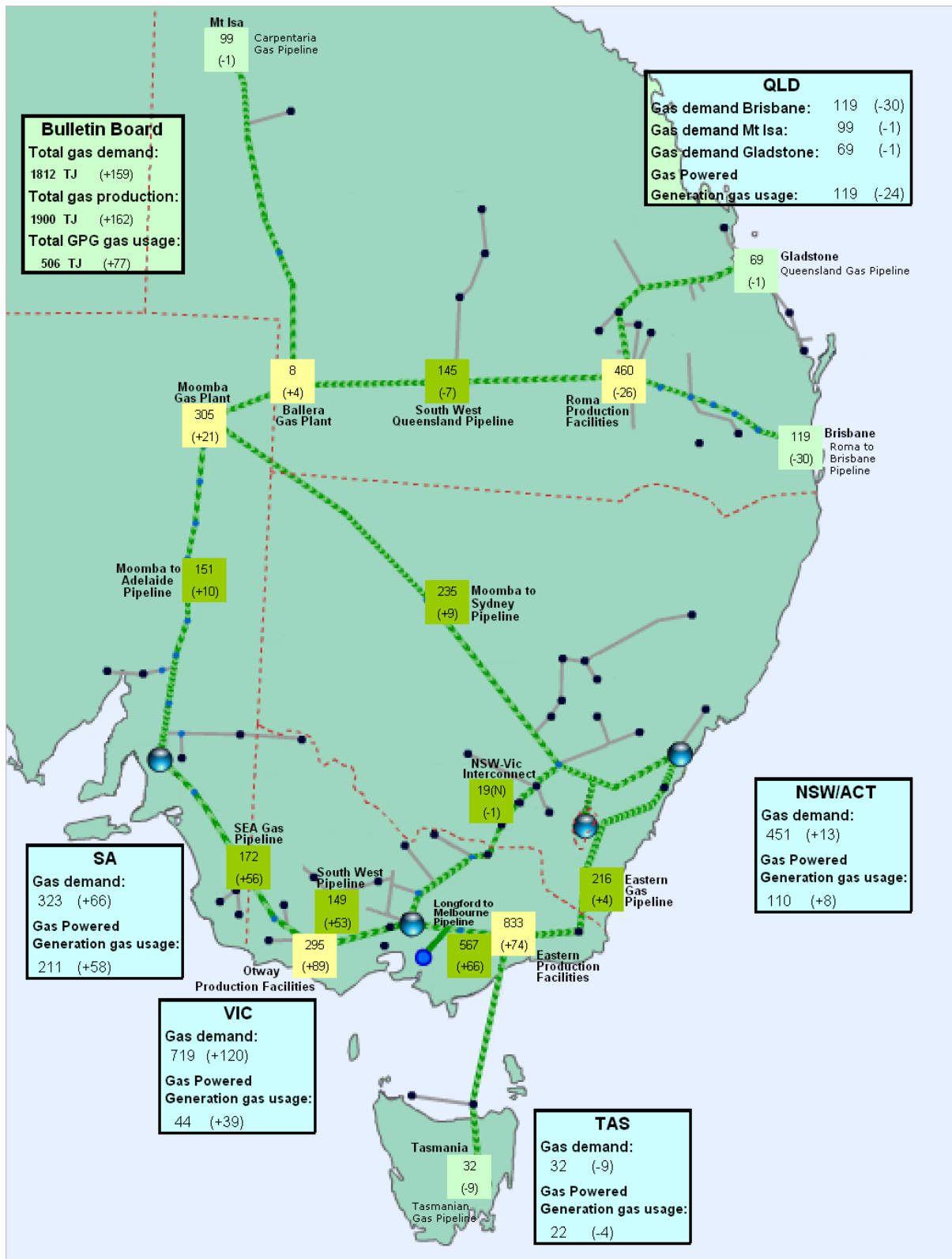
*Average daily estimated gas consumption measured from 1 July 2009 to the current week (inclusive)

**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 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)



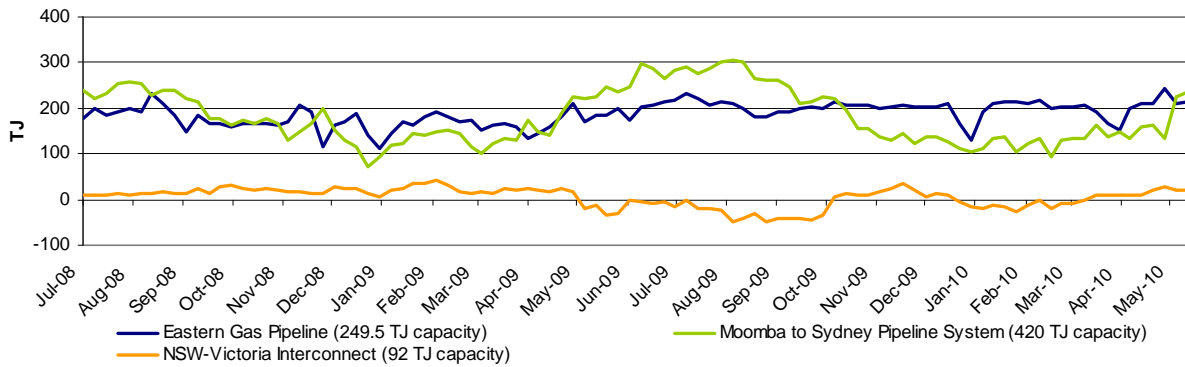
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

Notes: Direction of aggregate daily flows along the NSW-Vic Interconnect indicated on map by S (South) or N (North).

Gas flows into demand regions

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

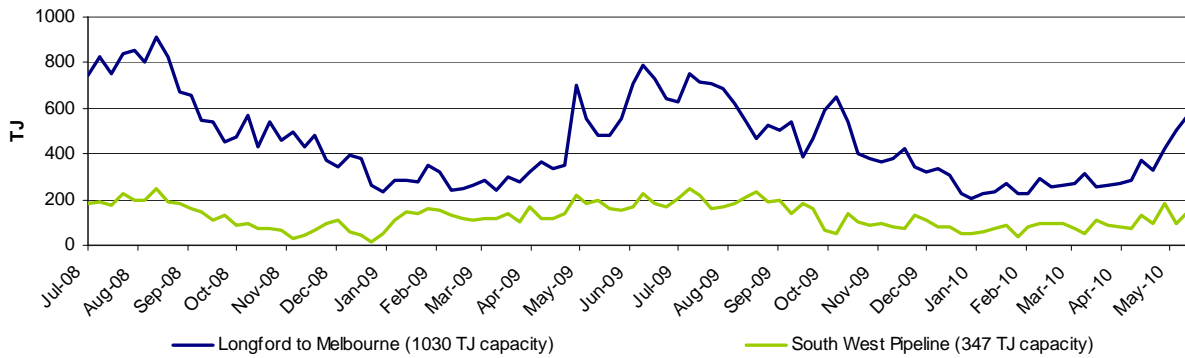
Figure 5: Average daily flows (TJ) into NSW/ACT demand region



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

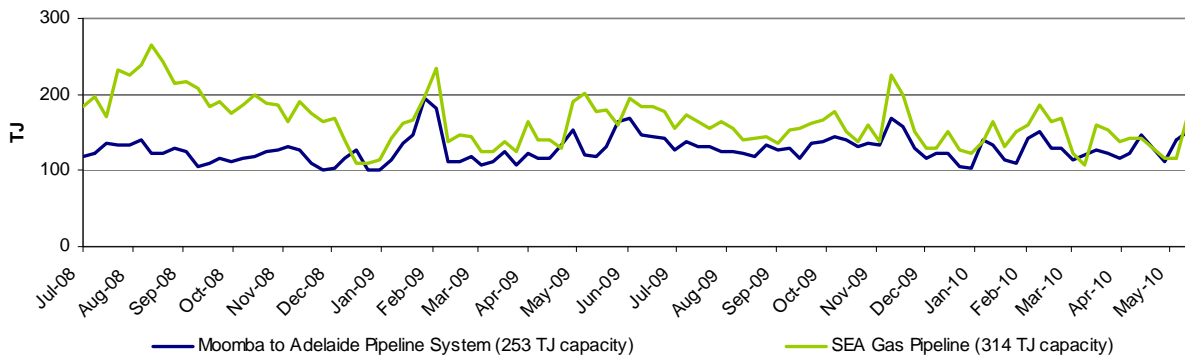
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

Figure 6: 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 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 orange 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				
			Bass Gas	Culcairn	IONA	LNG	Longford	SEA Gas	VicHub	Otway	Culcairn	IONA	SEA Gas	VicHub
AETV Power	Trader	1								S				
AGL (Qld)	Retailer	1				NS								
AGL	Retailer	4		S	NS	NS	S				NS	NS		
Aust. Power & Gas	Retailer	3			S	NS	S					NS		
Coogee Energy	Transmission Customer	1					S							
Country Energy	Transmission Customer	1									S			
Energy Australia	Retailer	2			S		S							
International Power	Transmission Customer	1											NS	
Origin (Vic)	Retailer	6	S	S	S	NS	S	S			S	S		
Origin (Uranquinty)	Trader	1					S							
Red Energy	Retailer	1					S							
Simply Energy	Retailer	4			S	NS	S	S						
TRU Energy	Retailer	4			S	NS	S						NS	
Victoria Electricity	Trader	1			S							S		
Victoria Electricity	Retailer	4			S	NS		S	S					
Visy Paper	Distribution 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

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

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

	9 May – 15 May	2 May – 8 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Average daily price	2.85	1.94	1.70	3.08

9 May – 15 May	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	2.15	2.19	3.41	3.43	3.26	2.56	2.97

*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)

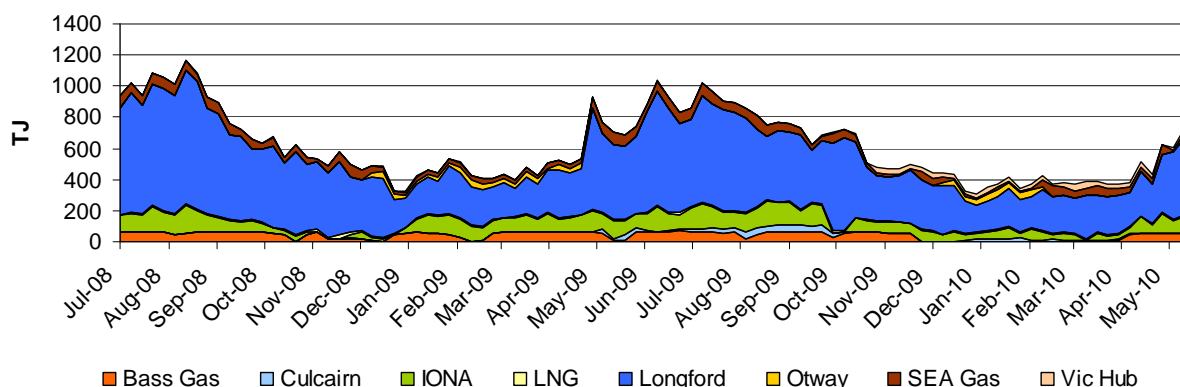
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6am, 10am, 2pm, 6pm and 10pm.

System Injections

Figure V3 notes the average daily injections into the VPTS for the current week, compared with the 2009-10 and 2008-09 equivalent financial year-to-date daily averages.

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

Injection Point:	9 May – 15 May	2 May – 8 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Culcairn	2	1	15	1.0
Longford	493	430	360	437
LNG	9	9	9	9
IONA	110	83	77	81
VicHub	24.2	20.2	17.9	1.6
SEAGas	38	14	41	45
Bass Gas	52	52	32	47
Otway	0	0	8	13
TOTAL	728	609	559	634



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

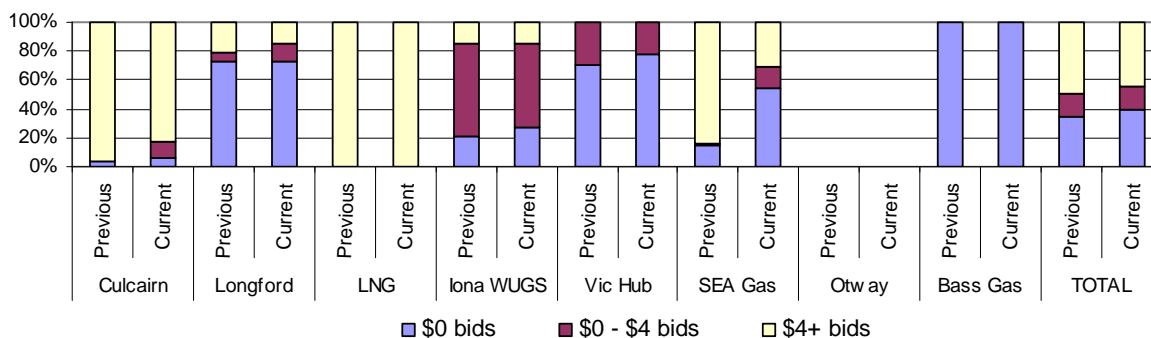
**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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

Bidding Activity

Figure V4 compares 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, for the current week and for the previous week.

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			AGL				
Longford		AGL Origin TRU	Origin TRU	Origin TRU	TRU	AGL Origin TRU	TRU
LNG				Origin			
Iona	TRU	TRU	TRU APG	Origin TRU Vic Elec	TRU Vic Elec	TRU Vic Elec	TRU APG
VicHub	AETV	AETV	AETV	AETV		AETV	AETV
SEAGas		Simply	Simply	Origin Vic Elec Simply	Simply	Origin Vic Elec 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 | APG = Australian Power & Gas | Vic Elec = Victoria Electricity

System withdrawals

Figure V6 notes the average daily gas usage on the VPTS for this week, 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:	9 May – 15 May	2 May – 8 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Ballarat	30	25	21	23
Geelong^	86	79	79	84
Gippsland	49	42	44	58
Melbourne	484	393	363	404
Northern	81	73	53	66
TOTAL	730	612	560	635

^Data presented also includes withdrawals for the Western system withdrawal zone or Western Transmission System (WTS).

*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	99	96	100	101	100	102	97	117	73	99	86	82
QLD Gas Pipeline	71	73	72	69	67	65	66	79	90	69	71	68
Roma to Brisbane Pipeline	97	130	131	130	134	116	99	219	77	119	169	170
South West QLD Pipeline	163	161	129	155	136	146	128	181	75	145	136	82
NSW/ACT												
Eastern Gas Pipeline	195	220	208	198	236	231	201	250	80	216	201	172
Moomba to Sydney Pipeline	163	231	246	299	253	266	188	420	43	235	181	171
NSW-VIC Interconnect^	-14	30	24	26	24	32	14	92	-7	19	-7	18
VIC												
Longford to Melbourne	375	507	688	705	614	603	480	1030	40	567	409	472
South West Pipeline	56	46	154	182	238	211	160	347	34	149	119	128
SA												
Moomba to Adelaide Pipeline	144	138	153	176	161	161	125	253	51	151	130	123
SEA Gas Pipeline	79	149	178	189	201	200	208	314	48	172	150	175
TAS												
Tasmanian Gas Pipeline	39	N/A	38	31	39	29	23	129	30	32	38	32

*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 (QLD)												
Berwyndale South	58	98	98	101	99	100	106	140	65	94	92	72
Fairview	106	121	129	101	120	124	128	130	86	118	111	72
Kenya Gas Plant	43	54	53	50	57	58	57	160	35	53	56	
Kincora	0	0	0	0	0	0	0	25	7	0	2	5
Kogan North	6	6	6	6	6	6	6	12	72	6	9	11
Peat	11	11	10	10	11	11	11	15	57	11	9	11
Rolleston	11	11	11	11	11	11	12	30	38	11	11	11
Scotia	0	0	0	0	0	0	0	29	80	0	23	23
Spring Gully	43	44	44	46	48	49	32	60	72	44	43	59
Strathblane	43	44	44	46	48	49	32	60	72	44	43	49
Talooka	26	27	27	28	29	30	19	36	73	27	26	1
Wallumbilla	0	0	0	0	0	0	0	20	52	0	10	13
Yellowbank	7	11	14	14	13	14	14	30	42	12	12	14
Talinga	35	44	42	47	41	42	30	50	22	40	11	
Moomba (SA/QLD)												
Moomba Gas Plant	286	279	303	328	328	335	273	430	61	305	262	269
Ballera	8	0	9	5	16	4	13	150	8	8	12	35
Eastern (VIC)												
Orbost Gas Plant	0	0	0	0	0	0	0	100	19	0	19	0
Lang Lang Gas Plant	53	55	55	52	55	57	34	70	46	52	32	47
Longford Gas Plant	570	670	889	853	874	887	724	1145	53	781	606	649
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0	1
Otway Basin (VIC)												
Minerva Gas Plant	51	71	94	94	N/A	N/A	N/A	94	73	78	69	88
Otway Gas Plant	0	0	0	74	0	147	117	206	60	48	124	139
Iona Underground Gas Storage	96	138	211	201	198	178	161	440	19	169	82	86

*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)

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)		QLD (Brisbane)	NSW (Sydney)	ACT (Canberra)	VIC (Melbourne)	SA (Adelaide)	TAS (Hobart)
9 May – 15 May	Average min.	13.1	11.2	-0.2	11.0	8.5	7.5
	Average max.	25.4	22.5	17.2	17.5	19.7	16.3
2 May – 8 May	Average min.	15.4	13.3	4.1	11.2	13.2	9.4
	Average max.	25.7	23.6	18.5	19.9	20.4	18.0

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 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

9 May – 15 May	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	2.09	3.08	3.09	3.09	3.09	2.15
Mon	2.11	3.10	3.00	3.00	3.23	2.19
Tue	3.41	3.42	3.40	3.39	3.76	3.41
Wed	3.42	3.50	3.76	3.75	3.40	3.43
Thu	3.26	3.26	3.26	3.26	3.40	3.26
Fri	2.53	2.79	2.39	3.25	3.25	2.56
Sat	3.00	2.39	3.16	3.25	1.07	2.97

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	Demand Forecasts (TJ)	Schedule					Total Demand Override (TJ)
		1	2	3	4	5	
9-May	MP:	426	439	431	425	424	0
	AEMO:	430	431	421	421	441	
	MP as % of AEMO	99	102	102	101	96	
10-May	MP:	463	466	466	472	472	0
	AEMO:	469	473	473	502	501	
	MP as % of AEMO	99	99	99	94	94	
11-May	MP:	783	806	804	801	801	0
	AEMO:	719	746	745	790	806	
	MP as % of AEMO	109	108	108	101	99	
12-May	MP:	871	865	853	852	852	0
	AEMO:	891	898	889	868	853	
	MP as % of AEMO	98	96	96	98	100	
13-May	MP:	820	821	834	837	837	1
	AEMO:	886	891	891	869	858	
	MP as % of AEMO	93	92	94	96	98	
14-May	MP:	745	735	757	771	769	0
	AEMO:	767	772	812	801	804	
	MP as % of AEMO	97	95	93	96	96	
15-May	MP:	700	683	685	681	681	0
	AEMO:	659	674	656	647	626	
	MP as % of AEMO	106	101	104	105	109	

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