

30 May –5 June 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 no instances of missing flow data on the Bulletin Board this week.

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 93 TJ (5 per cent) compared to the previous week. Significant increases were recorded in Victoria 51 TJ (7 per cent) and South Australia 32 TJ (10 per cent). All other regions recorded minor variations.

Total average daily Gas Powered Generation (GPG) gas usage increased by 67 TJ (14 per cent) compared to the previous week. All regions recorded increases, the most significant in South Australia of 21 TJ (11 per cent) and Tasmania of 16 TJ (90 per cent).

Average daily production volumes increased by 70 TJ (3 per cent) compared to the previous week. A significant increase was recorded at facilities in the Eastern production zone (133 TJ or 17 per cent). This was mainly due to an increase in production at Longford, with average flows for the week increasing by more than 124 TJ. The Longford facility recorded its highest daily volume of production this winter of 1016 TJ on 4 June. Daily production at Longford exceeded 1 PJ for the first time since 8 July 2009 (1104 TJ). As a result of the increased supply to Melbourne from Eastern production facilities, a significant fall was recorded at the Otway production facilities (42 TJ or 11 per cent). In the north, production at the Roma facilities continues to remain high, however the Ballera Gas plant in the Moomba production zone didn’t produce any gas this week.

Total average daily pipeline flows were higher than the previous week by 127 TJ or 7 per cent. Significant increases occurred on the Longford to Melbourne (108 TJ or 20 per cent), South West Queensland (41 TJ or 30 per cent) and Tas Gas (19 TJ or 64 per cent) pipelines. A significant fall was recorded on the South West pipeline (56 TJ or 27 per cent).

Victorian Gas Market

In line with the increase in demand in Victoria, average gas injections increased by 53 TJ (7 per cent) compared to the previous week (See Figure V3). The average imbalance price fell from \$3.16/GJ the previous week to \$2.51/GJ (see Figure V2). This fall was due to the price on Wednesday being only \$0.03/GJ.

AEMO issued demand overrides on all days except Sunday and Saturday ranging from -14 TJ to 2 TJ (see figure A5).

A Demand Point Constraint (SDPC) was applied to Bass Gas injections for the Tuesday 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	Brisbane	QLD	
							Mt Isa	Gladstone
30 May - 5 Jun	446	32	795	348	50	165	91	71
Financial Year-to-date 2009-10*	368	20	558	284	38	168	86	71
Financial Year-to-date 2008-09**	328	20	610	300	32	171	82	67

*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
30 May - 5 Jun	104	20	216	33	162
Financial Year-to-date 2009-10*	38	23	169	85	162
Financial Year-to-date 2008-09**	43	65	184	21	117

^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, 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.)

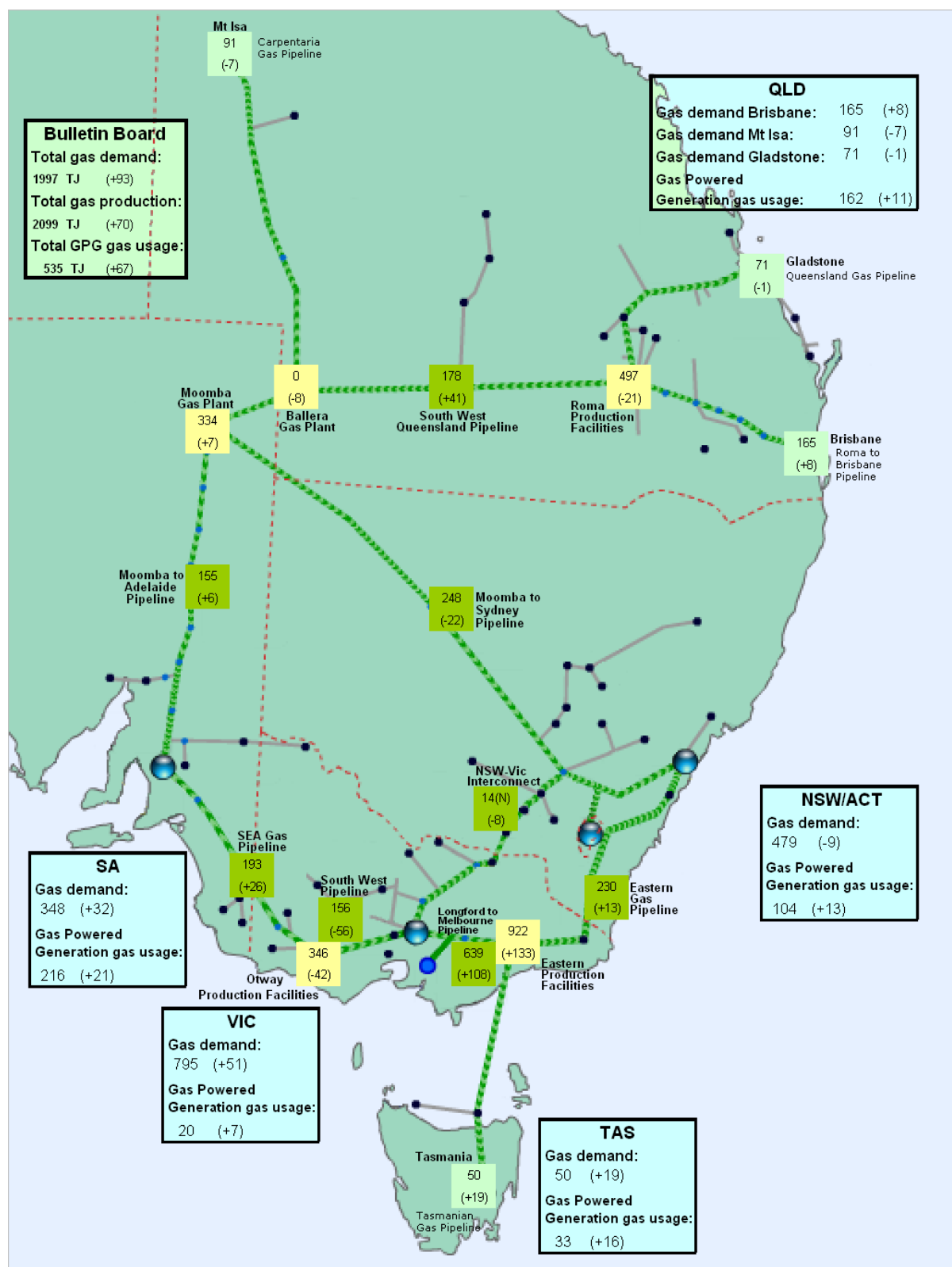
Figure 3: Daily average production flows (TJ) for each production zone

Average daily flows	Roma (QLD)	Eastern Victoria	Otway Basin (VIC)	Moomba (SA/QLD)
30 May - 5 Jun	497	922	346	334
Financial Year-to-date 2009-10*	465	668	282	278
Financial Year-to-date 2008-09**	347	702	315	307

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

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)



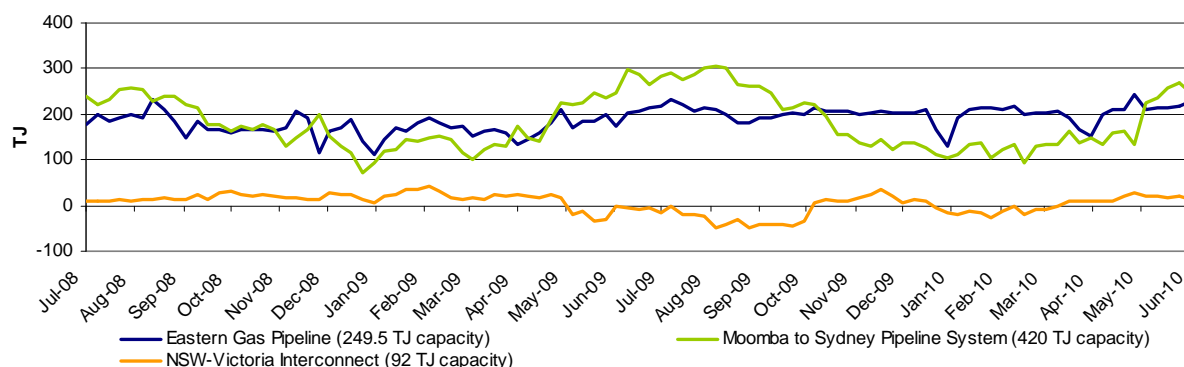
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

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.

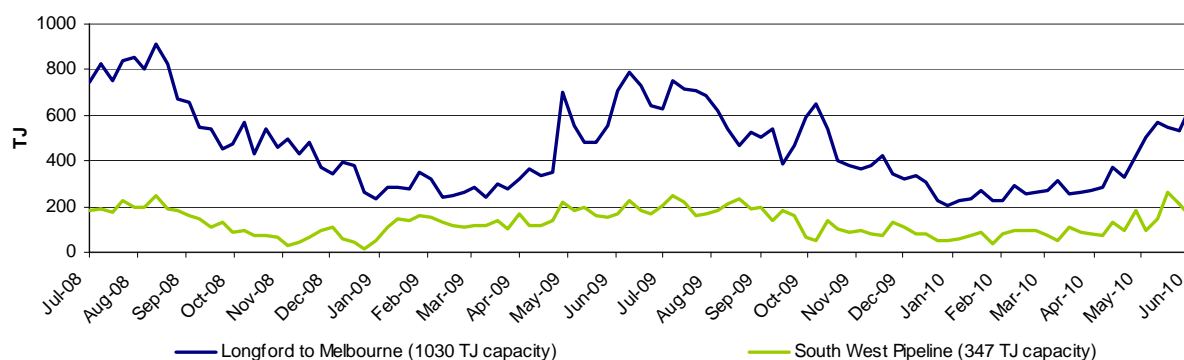
Figure 5: Average daily flows (TJ) into NSW/ACT demand region



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

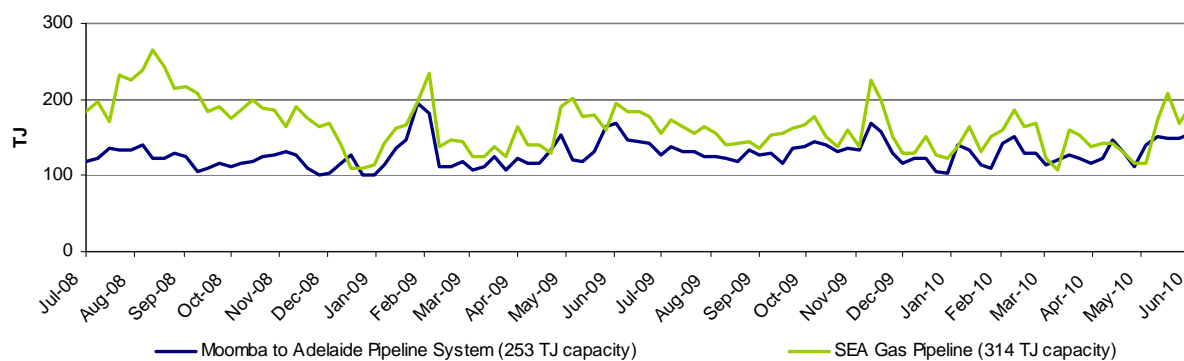
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

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	2							S					NS
AGL (Qld)	Retailer	1				NS								
AGL	Retailer	4		NS	S	NS	S				NS	S		
Aust. Power & Gas	Retailer	3			S	NS	S					S		
Coogee Energy	Transmission Customer	1					S							
Country Energy	Transmission Customer	1									S			
Energy Australia	Retailer	2			S		S							
International Power	Transmission Customer	1											S	
Origin (Vic)	Retailer	6	S	NS	S	NS	S	S			S	S		
Origin (Uranquinty)	Trader	1					S							
Red Energy	Retailer	1					S							
Santos	Retailer	1												S
Simply Energy	Retailer	4			S	NS	S	NS						
TRU Energy	Retailer	3			S	NS	S					S		
Victoria Electricity	Trader	2			NS				NS			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)

	30 May – 5 June	23 May –29 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Average daily price	2.51	3.16	1.77	3.03

30 May – 5 June	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	2.59	2.57	1.88	0.03	3.48	3.52	3.47

*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)

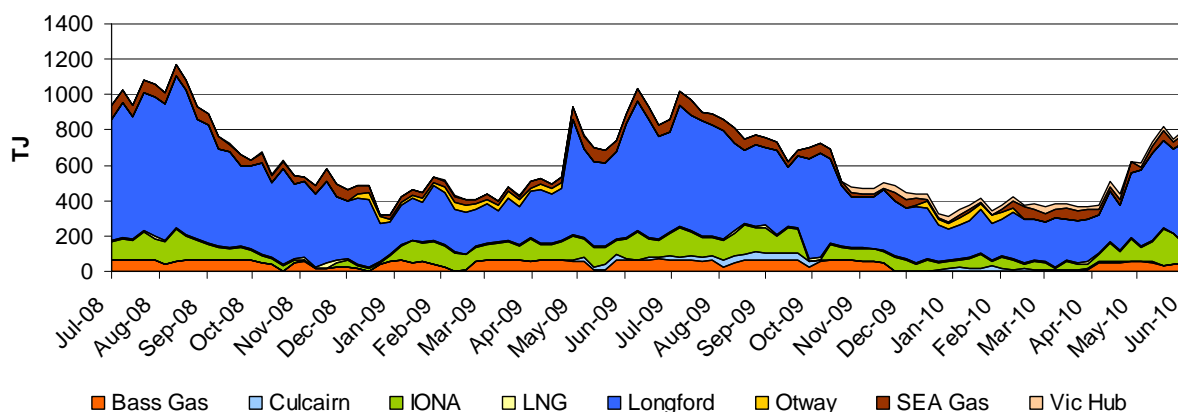
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6am, 10am, 2pm, 6pm and 10pm.

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:	30 May – 5 June	23 May –29 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Culcairn	0	0	14	2.5
Longford	566	470	369	442
LNG	9	7	8	9
IONA	100	169	82	81
VicHub	22.4	20.1	18.2	1.5
SEAGas	54	42	42	47
Bass Gas	52	43	33	47
Otway	0	0	7	12
TOTAL	804	751	573	642



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

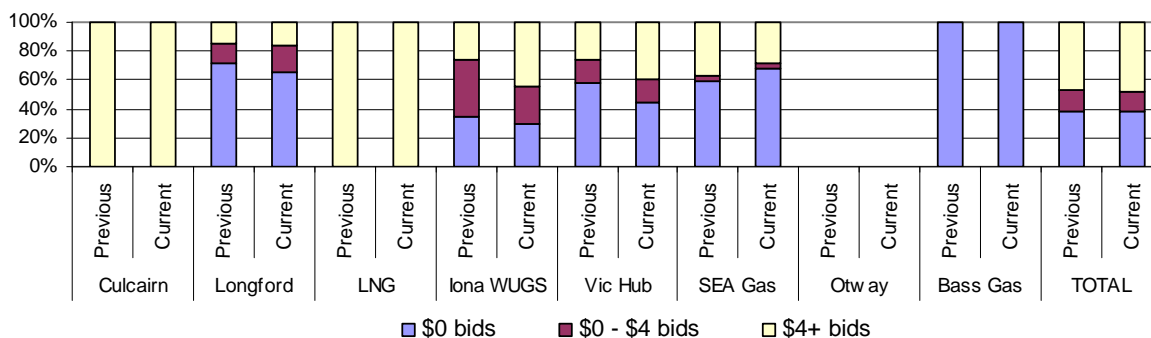
**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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							
Longford	TRU	AGL	AGL Origin TRU	Origin TRU	AGL Origin TRU	AGL Origin TRU	AGL TRU
LNG							
Iona	TRU APG	AGL TRU APG	TRU APG Vic Elec	TRU	TRU APG	AGL TRU APG Origin	TRU APG
VicHub		AETV	AETV	AETV	AETV	AETV	AETV
SEAGas	Simply	Simply	Simply	Simply	Simply	Origin Simply	Simply
Bass Gas					Origin		

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:	30 May – 5 June	23 May – 29 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Ballarat	37	33	22	23
Geelong[^]	98	92	80	84
Gippsland	56	54	44	58
Melbourne	543	482	374	412
Northern	79	85	55	66
TOTAL	812	746	574	643

[^]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	94	92	94	90	87	87	91	117	74	91	86	82
QLD Gas Pipeline	74	69	71	71	69	72	74	79	90	71	71	67
Roma to Brisbane Pipeline	148	174	176	173	172	166	147	219	76	165	168	171
South West QLD Pipeline	170	176	179	190	161	178	189	181	76	178	138	87
NSW/ACT												
Eastern Gas Pipeline	207	231	231	228	229	229	234	250	81	230	202	173
Moomba to Sydney Pipeline	185	254	271	254	277	265	231	420	44	248	186	175
NSW-VIC Interconnect^	5	16	15	24	15	18	2	92	-6	14	-5	15
VIC												
Longford to Melbourne	440	524	659	636	716	755	745	1030	41	639	420	478
South West Pipeline	170	207	115	125	131	180	162	347	36	156	124	130
SA												
Moomba to Adelaide Pipeline	121	156	158	154	159	177	158	253	52	155	131	125
SEA Gas Pipeline	133	192	224	204	218	218	166	314	49	193	153	175
TAS												
Tasmanian Gas Pipeline	41	49	50	49	51	49	50	129	30	50	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	102	100	100	100	101	101	100	140	66	100	92	76
Fairview	131	126	128	128	127	127	123	130	86	127	112	74
Kenya Gas Plant	33	51	72	73	58	55	55	160	35	57	56	
Kincora	0	0	0	0	0	0	0	25	7	0	2	5
Kogan North	9	9	9	10	10	10	10	12	72	10	9	11
Peat	11	11	11	11	11	11	9	15	58	11	9	11
Rolleston	12	11	11	11	11	11	11	30	38	11	11	11
Scotia	17	19	21	21	25	26	26	29	79	22	23	23
Spring Gully	42	40	34	34	35	35	35	60	72	36	43	58
Strathblane	42	40	34	34	35	35	35	60	72	36	43	49
Taloona	25	24	21	21	21	21	21	36	72	22	26	3
Wallumbilla	10	10	11	11	10	10	10	20	52	10	10	12
Yellowbank	13	13	13	13	13	13	13	30	42	13	12	14
Talinga	62	37	41	40	39	34	35	75	22	41	16	
Moomba (SA/QLD)												
Moomba Gas Plant	312	329	338	395	315	318	334	430	62	334	266	274
Ballera	0	0	0	0	0	0	0	150	8	0	12	33
Eastern (VIC)												
Orbost Gas Plant	0	0	0	0	0	0	0	100	18	0	18	0
Lang Lang Gas Plant	53	55	40	53	54	53	53	70	47	52	33	46
Longford Gas Plant	644	749	881	882	971	1016	947	1145	54	870	617	655
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0	1
Otway Basin (VIC)												
Minerva Gas Plant	68	88	94	88	68	94	94	94	75	85	70	88
Otway Gas Plant	95	148	159	159	152	168	154	206	60	148	125	140
Iona Underground Gas Storage	133	168	88	81	92	123	108	440	20	113	87	87

*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)
30 May – 5 June	Average min.	14.7	11.9	6.2	9.7	12.2	3.8
	Average max.	22.5	17.5	15.0	17.4	18.0	13.6
23 May –29 May	Average min.	12.6	11.6	0.5	6.9	7.7	5.5
	Average max.	22.3	19.0	15.9	17.6	20.7	13.9

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

30 May – 5 June	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	2.56	1.84	3.49	3.49	3.65	2.59
Mon	2.56	2.56	2.56	2.56	3.65	2.57
Tue	1.90	0.01	3.24	0.10	3.20	1.88
Wed	0.00	0.00	0.01	0.01	3.17	0.03
Thu	3.49	3.50	3.49	2.80	3.44	3.48
Fri	3.50	3.49	3.88	3.64	3.60	3.52
Sat	3.45	3.45	3.64	3.87	3.64	3.47

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	
30-May	MP:	594	598	589	588	588	0
	AEMO:	612	588	615	627	617	
	MP as % of AEMO	97	102	96	94	95	
31-May	MP:	663	663	662	662	657	2
	AEMO:	707	719	718	717	712	
	MP as % of AEMO	94	92	92	92	92	
1-Jun	MP:	776	760	764	767	770	-10
	AEMO:	737	732	742	736	747	
	MP as % of AEMO	105	104	103	104	103	
2-Jun	MP:	770	742	749	759	763	-14
	AEMO:	730	732	736	742	744	
	MP as % of AEMO	105	101	102	102	103	
3-Jun	MP:	775	784	801	816	808	-8
	AEMO:	753	783	806	798	814	
	MP as % of AEMO	103	100	99	102	99	
4-Jun	MP:	814	818	872	876	875	8
	AEMO:	838	842	921	916	890	
	MP as % of AEMO	97	97	95	96	98	
5-Jun	MP:	802	835	857	869	854	-20
	AEMO:	797	837	900	915	886	
	MP as % of AEMO	101	100	95	95	96	

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