

6 June – 12 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 seven instances of missing flow data on the Bulletin Board this week. SANTOS failed to submit data for all six of its gas production facilities on Sunday and BHP Billiton failed to submit data for the Minerva gas plant on Saturday.

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 203 TJ (10 per cent) compared to the previous week. All regions except Queensland (where there was a minor reduction) recorded increases. The largest increases were in Victoria 155 TJ (20 per cent) and NSW/ACT 44TJ (9 per cent).

Total average daily Gas Powered Generation (GPG) gas usage fell by 9 TJ (2 per cent) compared to the previous week. A significant fall was recorded in New South Wales of 12 TJ (12 per cent). All other regions recorded minor variations.

Average daily production volumes increased by 227 TJ (11 per cent) compared to the previous week. All facilities recorded an increase with significant increases in production at the Otway Basin (70 TJ or 20 per cent) and Eastern (92 TJ or 10 per cent) production facilities. Production at Roma facilities continues to increase reaching its highest ever daily average of 527 TJ this week. Total average daily flows were higher than the previous week by 186 TJ or 10 per cent. Significant increases occurred on the South West (68 TJ or 43 per cent) and Longford to Melbourne (88 TJ or 14 per cent). All other pipelines recorded minor variations.

Victorian Gas Market

In line with the increase in demand in Victoria, average gas injections increased by 155 TJ (19 per cent) compared to the previous week (See Figure V3). The average imbalance price increased from \$2.51/GJ the previous week to \$3.06/GJ (see Figure V2). Prices were above \$3/GJ on all days except Friday when the price was \$0.56/GJ.

Demand Point Constraints (SDPCs) were applied to Culcairn withdrawals for the Tuesday, Wednesday, Thursday and Friday gas days. SDPCs were also applied to BassGas injections for the Wednesday, Thursday and Saturday gas days and to Longford injections for the Thursday gas day.

AEMO issued demand overrides on Sunday (1TJ), Tuesday (-26TJ), Wednesday (-25TJ) and Thursday (40TJ). AEMO advised that the override on Thursday was particularly large because on that day there was low system line pack which lowered the tolerance level applied by AEMO before requiring Market Participant forecasts to match more closely AEMO forecasts.

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
6 June – 12 June	473	47	950	355	48	162	85	78
Financial Year-to-date 2009-10*	371	20	566	285	38	167	86	71
Financial Year-to-date 2008-09**	330	20	618	301	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
6 June – 12 June	92	20	213	33	169
Financial Year-to-date 2009-10*	85	38	169	24	162
Financial Year-to-date 2008-09**	43	65	185	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)
6 June – 12 June	527	1013	416	369
Financial Year-to-date 2009-10*	467	675	285	279
Financial Year-to-date 2008-09**	349	708	317	308

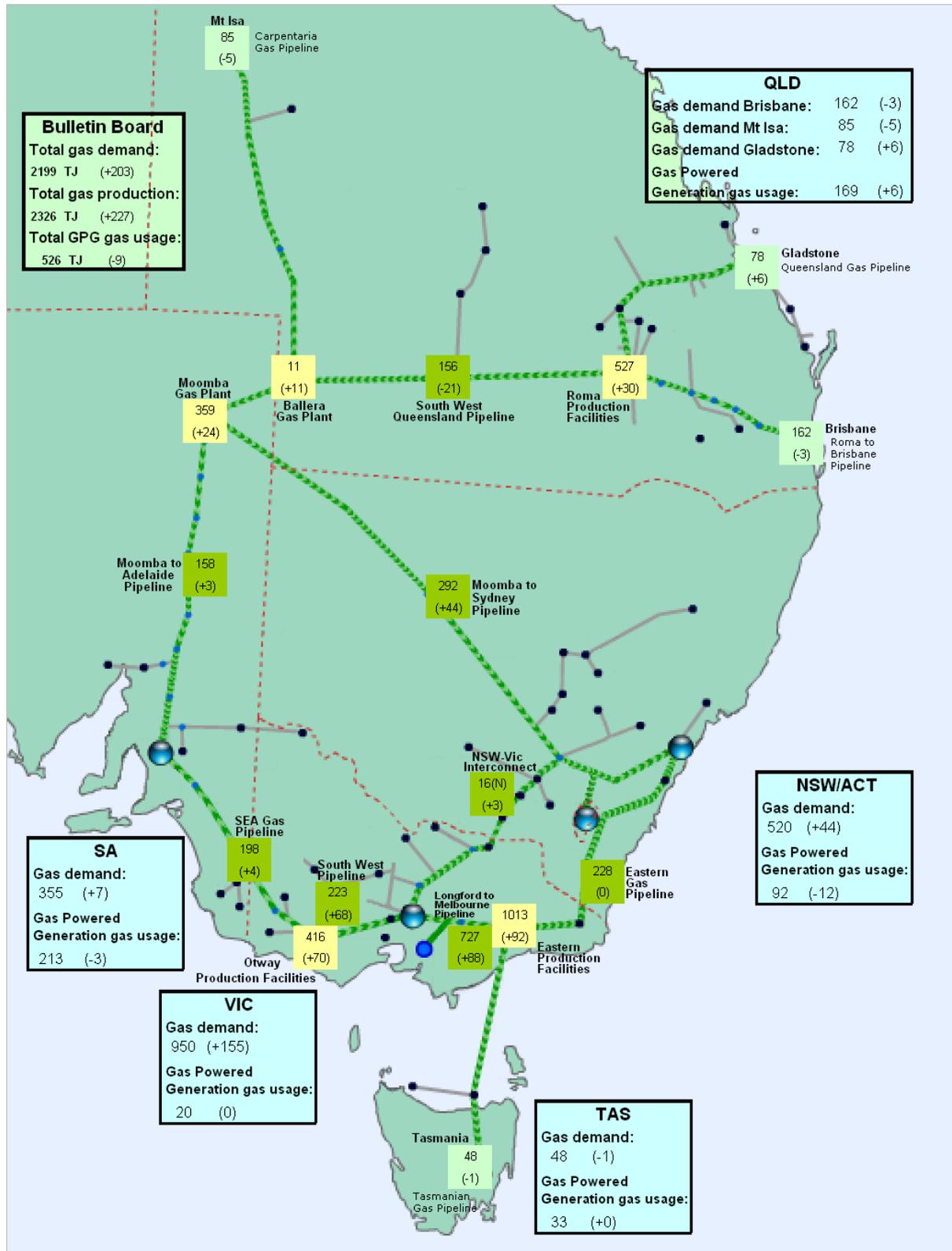
*Average daily estimated gas consumption measured from 1 July 2009 to the current week (inclusive)

**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)



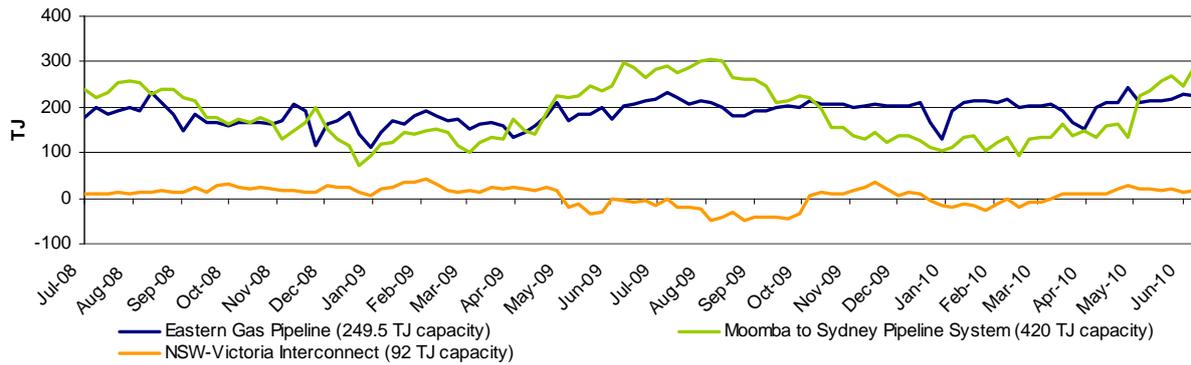
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

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.

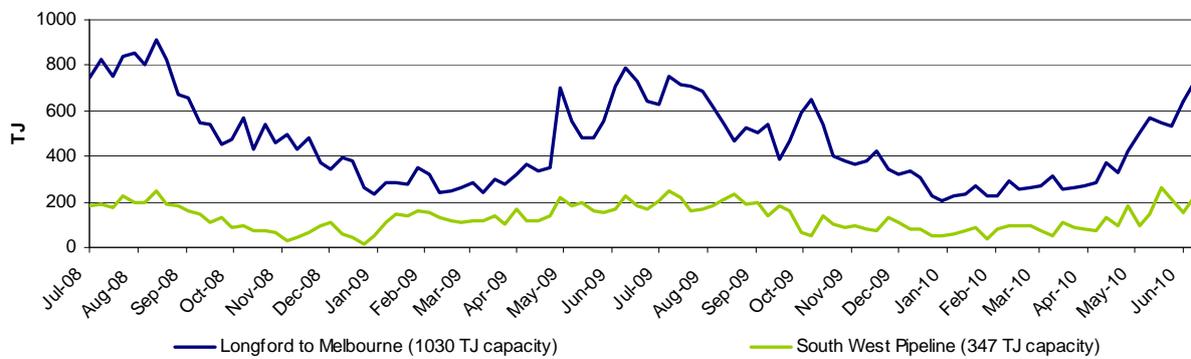
Figure 5: Average daily flows (TJ) into NSW/ACT demand region



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

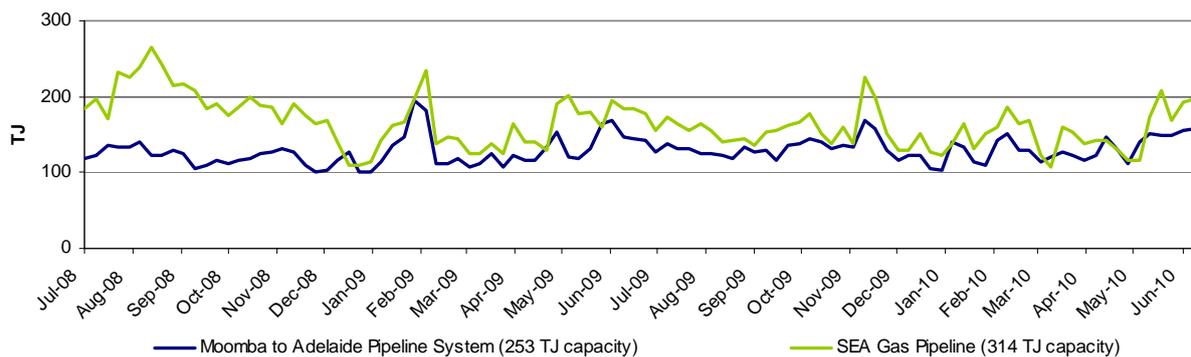
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

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	2					S		S					S
AGL (Qld)	Retailer	1				NS								
AGL	Retailer	4		NS	S	NS	S				NS	NS		
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	S						
TRU Energy	Retailer	4			S	NS	S					NS		NS
Victoria Electricity	Trader	2			NS					NS		S		
Victoria Electricity	Retailer	5		NS	S	NS		S	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)

	6 June – 12 June	30 May – 5 June	2009-10 Financial YTD*	2008-09 Financial YTD**
Average daily price	3.06	2.51	1.80	3.02

6 June – 12 June	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	3.63	3.56	3.10	3.52	3.51	0.56	3.50

*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)

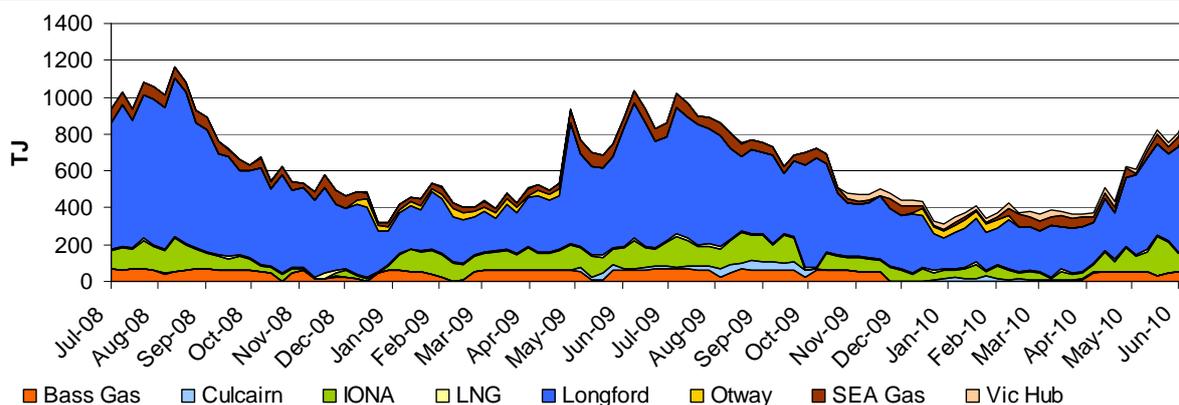
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6am, 10am, 2pm, 6pm and 10pm.

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:	6 June – 12 June	30 May – 5 June	2009-10 Financial YTD*	2008-09 Financial YTD**
Culcairn	0	0	14	2.7
Longford	664	566	375	448
LNG	9	9	8	9
IONA	145	100	83	83
VicHub	26.0	22.4	18.3	1.5
SEAGas	75	54	42	47
Bass Gas	41	52	33	47
Otway	0	0	7	12
TOTAL	959	804	581	649



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

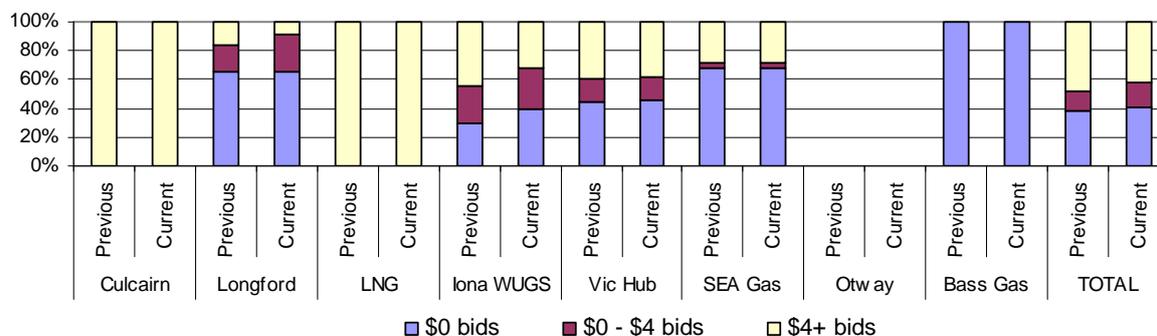
**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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		AGL	Vic Elec		
Longford	AGL Origin TRU	TRU	TRU	AGL Origin TRU	AGL Origin TRU	TRU	AGL TRU
LNG				Origin	Origin		
Iona	TRU APG	AGL Origin TRU APG	TRU APG	AGL Origin TRU APG	Origin TRU APG Vic Elec	TRU APG Vic Elec	TRU APG
VicHub	AETV	AETV	AETV	AETV	AETV	AETV	AETV TRU
SEAGas	Simply			Simply	Simply	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:	6 June – 12 June	30 May – 5 June	2009-10 Financial YTD*	2008-09 Financial YTD**
Ballarat	45	37	22	24
Geelong^	113	98	80	84
Gippsland	60	56	45	58
Melbourne	644	543	379	418
Northern	94	79	56	66
TOTAL	956	812	582	651

^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	84	82	84	83	85	88	89	117	74	85	86	82
QLD Gas Pipeline	75	76	81	85	72	75	80	79	90	78	71	67
Roma to Brisbane Pipeline	156	182	181	153	169	154	138	219	76	162	167	171
South West QLD Pipeline	175	149	135	130	161	182	161	181	76	156	138	89
NSW/ACT												
Eastern Gas Pipeline	217	223	239	241	263	235	168	250	81	228	203	173
Moomba to Sydney Pipeline	248	336	309	317	293	301	243	420	45	292	188	177
NSW-VIC Interconnect [^]	18	18	19	12	13	24	10	92	-5	16	-5	15
VIC												
Longford to Melbourne	708	784	756	718	730	738	653	1030	41	727	426	484
South West Pipeline	165	217	172	336	271	170	232	347	36	223	126	132
SA												
Moomba to Adelaide Pipeline	168	172	167	147	148	160	144	253	52	158	131	126
SEA Gas Pipeline	177	237	189	192	207	191	191	314	49	198	154	175
TAS												
Tasmanian Gas Pipeline	48	58	50	47	40	48	46	129	30	48	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	96	93	99	95	99	99	96	140	66	97	92	77
Fairview	N/A	121	116	110	122	128	129	130	86	121	112	74
Kenya Gas Plant	56	59	69	54	57	57	55	160	35	58	56	
Kincora	0	0	0	0	0	0	0	25	7	0	2	5
Kogan North	10	11	10	11	10	10	11	12	73	10	9	11
Peat	10	11	11	11	11	10	11	15	58	11	9	11
Rolleston	11	11	11	11	11	12	11	30	38	11	11	11
Scotia	N/A	26	26	26	26	26	26	29	79	26	23	23
Spring Gully	35	45	47	48	46	53	49	60	72	46	43	58
Strathblane	35	45	47	48	46	53	49	60	72	46	43	49
Talooka	21	27	28	29	28	32	30	36	73	28	26	4
Wallumbilla	N/A	10	10	10	10	5	0	20	51	7	10	12
Yellowbank	13	13	13	13	13	14	13	30	42	13	12	14
Talinga	37	47	46	53	57	66	65	75	25	53	18	
Moomba (SA/QLD)												
Moomba Gas Plant	N/A	371	384	298	334	384	380	430	62	359	268	276
Ballera	N/A	3	18	6	37	0	0	150	8	11	12	32
Eastern (VIC)												
Orbost Gas Plant	N/A	0	0	0	0	0	0	100	18	0	18	0
Lang Lang Gas Plant	51	51	51	7	25	53	47	70	47	41	33	47
Longford Gas Plant	917	1000	1003	997	1010	1030	851	1145	55	973	624	661
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0	1
Otway Basin (VIC)												
Minerva Gas Plant	94	94	94	94	94	94	N/A	94	75	94	71	88
Otway Gas Plant	165	204	172	160	201	205	196	206	61	186	126	141
Iona Underground Gas Storage	80	152	115	275	175	86	68	440	20	136	88	88

*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)
6 June – 12 June	Average min.	11.1	9.0	-0.5	8.5	7.3	4.7
	Average max.	21.7	17.2	12.0	14.4	15.6	11.8
30 May – 5 June	Average min.	13.5	12.5	4.6	9.0	8.7	7.5
	Average max.	22.1	19.4	15.0	16.3	17.1	15.0

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

6 June – 12 June	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	3.64	3.49	3.64	3.63	3.63	3.63
Mon	3.64	3.64	0.45	3.72	3.89	3.56
Tue	3.20	0.05	0.13	3.20	2.80	3.10
Wed	3.50	3.89	3.64	3.70	3.39	3.52
Thu	3.50	3.78	3.55	3.78	3.63	3.51
Fri	0.47	0.47	1.00	3.50	3.51	0.56
Sat	3.50	3.50	3.50	3.50	3.63	3.50

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	
6-June	MP:	830	819	838	834	834	1
	AEMO:	790	840	853	846	834	
	MP as % of AEMO	105	98	98	99	100	
7-June	MP:	943	940	945	951	954	0
	AEMO:	904	943	942	965	976	
	MP as % of AEMO	104	100	100	99	98	
8-June	MP:	954	934	941	943	916	-26
	AEMO:	936	911	914	916	915	
	MP as % of AEMO	102	103	103	103	100	
9-June	MP:	1000	1023	1015	1017	990	-25
	AEMO:	979	976	969	1015	980	
	MP as % of AEMO	102	105	105	100	101	
10-June	MP:	915	963	939	963	944	40
	AEMO:	944	969	958	976	950	
	MP as % of AEMO	97	99	98	99	99	
11-June	MP:	879	872	872	875	873	0
	AEMO:	900	886	903	915	907	
	MP as % of AEMO	98	98	97	96	96	
12-June	MP:	854	851	855	859	860	0
	AEMO:	862	855	865	875	860	
	MP as % of AEMO	99	100	99	98	100	

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

There have been some erroneous demand override figures published in the Gas Weekly reports due to the misinterpretation of AEMO's input files. Figure A6 shows the demand override that was published in the Gas weekly report and the corrected override value. All affected Gas weekly reports have been updated with the correct value.

Figure A6: Demand Overrides

Date	Published Override TJ	Correct Override TJ
25/08/2009	-11	-10
25/09/2009	4	6
27/03/2010	0	-2
3/04/2010	0	-13
5/04/2010	-20	-24
28/04/2010	16	20
22/05/2010	0	-12
24/05/2010	8	6
5/06/2010	0	-20

