WEEKLY GAS MARKET ANALYSIS

AUSTRALIAN ENERGY REGULATOR

16 May – 22 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 aerinquiry@aer.gov.au, and headed 'Comments on weekly gas report'.

Summary

National Gas Market Bulletin Board

There were two instances of missing flow data on the Bulletin Board this week. Queensland Gas Company failed to submit data for Berwyndale South and Kenya gas plants 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 156 TJ (9 per cent) compared to the previous week. All regions recorded increases with the largest increases occurring in Victoria 96 TJ (13 per cent) and South Australia 32 TJ (10 per cent).

Total average daily Gas Powered Generation (GPG) gas usage increased by 30 TJ (6 per cent) compared to the previous week. All regions recorded increases, with the largest increase of 30 TJ (14 per cent) occurring in South Australia.

Average daily production volumes increased by 189 TJ (10 per cent) compared to the previous week. Significant increases occurred at the Otway Basin (171 TJ or 57 per cent) and Roma (38 TJ or 8 per cent) production facilities. The Roma production zone recorded its second highest daily average of 498 TJ, two TJs short of the previous highest. Total average daily flows were higher than the previous week by 157 TJ or 9 per cent. Significant increases occurred on the South West (116 TJ or 77 per cent) and SEA Gas (35 TJ or 20 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 92 TJ (13 per cent) compared to the previous week (See Figure V3). The average imbalance price increased from $2.85/GJ the previous week to $3.19/GJ (see Figure V2). This is the highest average price in the market since the week ending 9 May 2009, when the average price was $3.30/GJ. Notably, prices were above $3/GJ on all days except Sunday.

AEMO issued a demand override on Friday (-23 TJ) (see figure A5).

Demand Point Constraints (SDPCs) were applied to BassGas injections for the Sunday and Tuesday gas days. Also on Tuesday SDPCs were applied to VicHub injections and withdrawals and Longford injections.

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

						QLD		
Average daily flows	**NSW**	**ACT**	**VIC**	**SA**	**TAS**	Brisbane	Mt Isa	Gladstone
16 May – 22 May	440	35	815	355	27	131	99	62
Financial Year-to-date 2009-10*	365	19	549	282	38	168	86	71
Financial Year-to-date 2008-09**	325	19	602	298	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
16 May – 22 May	105	46	241	15	128
Financial Year-to-date 2009-10*	84	39	167	23	162
Financial Year-to-date 2008-09**	42	64	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.)

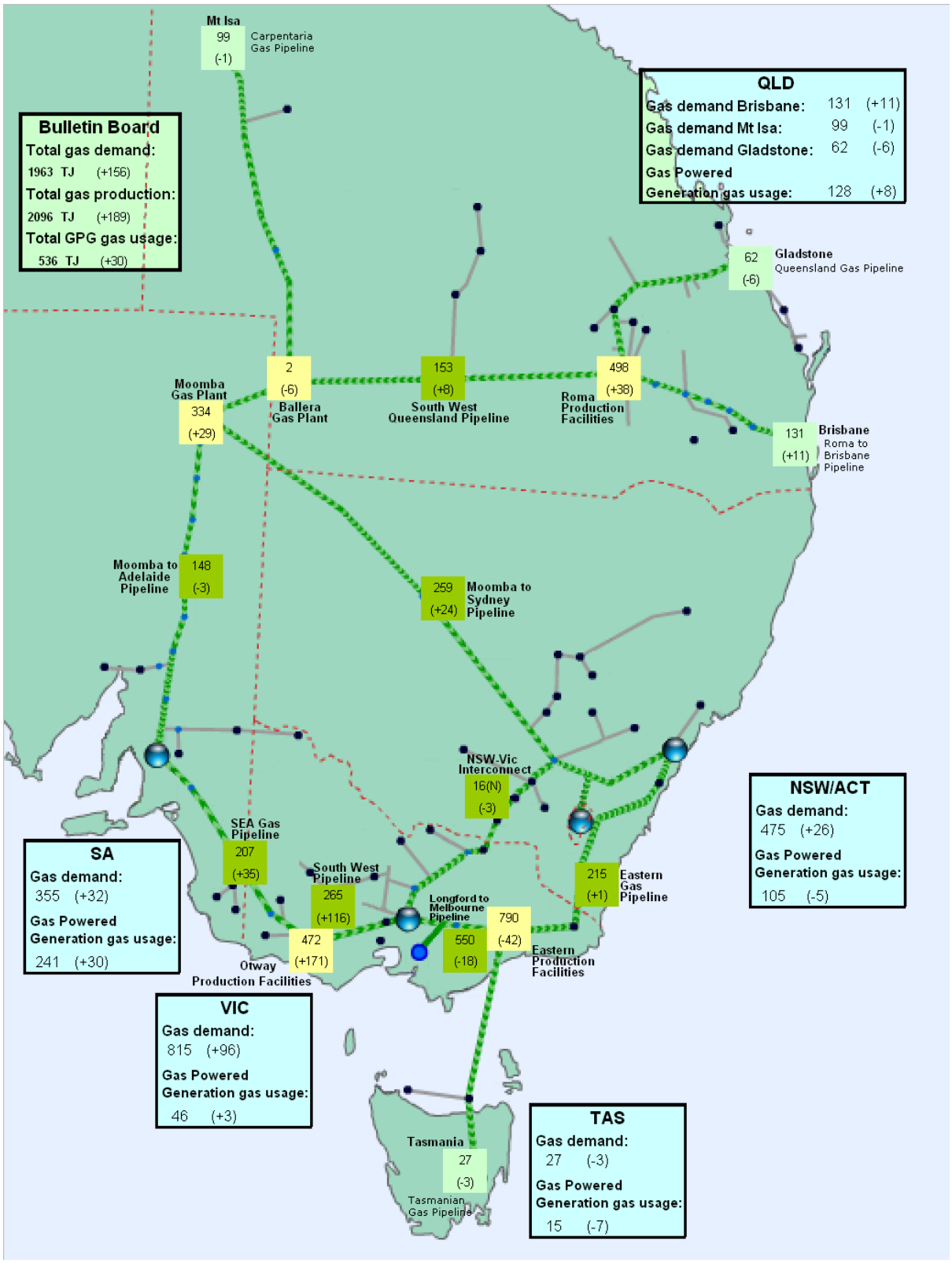
Figure 3: Daily average production flows (TJ) for each production zone

Average daily flows	Roma (QLD)	Eastern Victoria	Otway Basin (VIC)	Moomba (SA/QLD)
16 May – 22 May	498	790	472	335
Financial Year-to-date 2009-10*	461	660	278	275
Financial Year-to-date 2008-09**	342	697	314	305

*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)

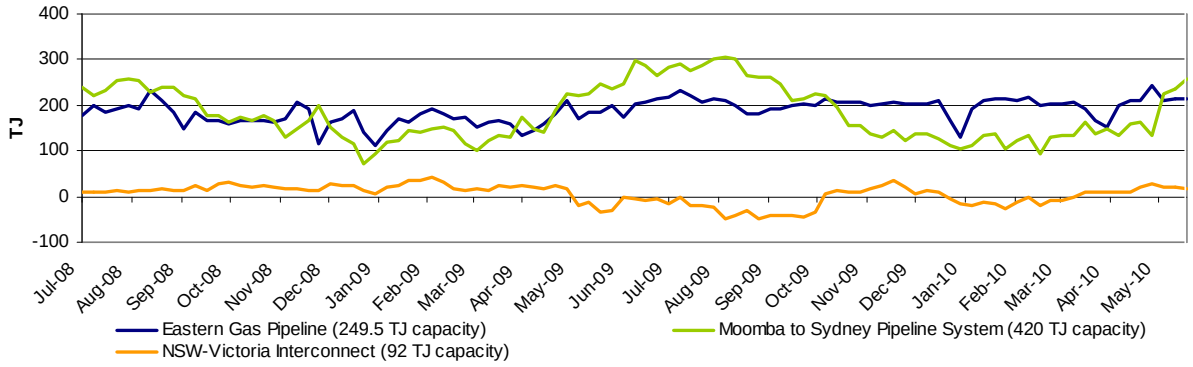


Source: Natural Gas Market Bulletin Board http://www.gasbb.com.au
Notes: Direction of aggregate daily flows along the NSW-Vic Interconnect indicated on map by S (South) or N (North).

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.

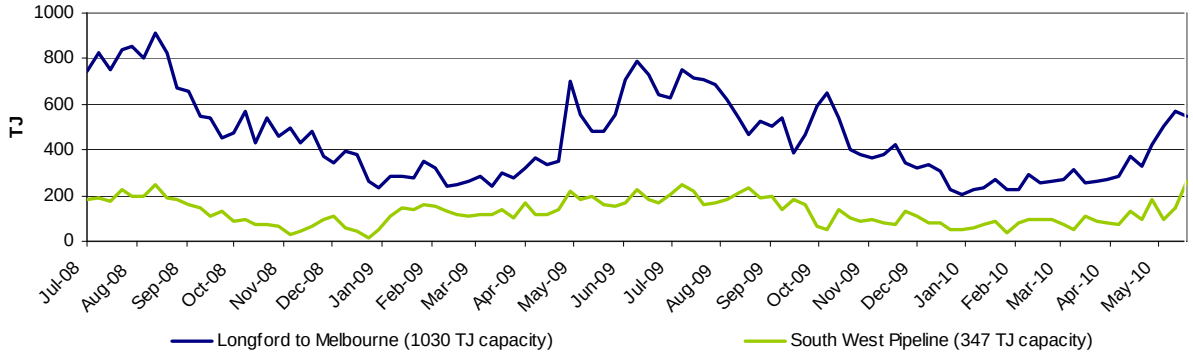
Figure 5: Average daily flows (TJ) into NSW/ACT demand region



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

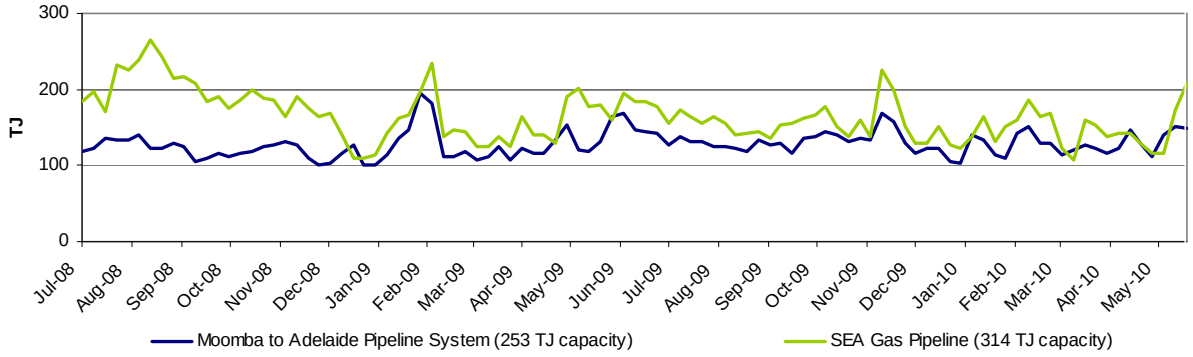
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

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			
			BassGas	Culcairn	IONA	LNG	Longford	SEA Gas	VicHub	Otway	Culcairn	IONA	SEA Gas	VicHub
AETV Power	Trader	2					S		S					NS
AGL (Qld)	Retailer	1				NS								
AGL	Retailer	4		S	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							
Simply Energy	Retailer	4			S	NS	S	NS						
TRU Energy	Retailer	3			S	NS	S					NS		
Victoria Electricity	Trader	2			S				NS			S		NS
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)

	16 May – 22 May	9 May – 15 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Average daily price	3.19	2.85	1.73	*3.07*

16 May – 22 May	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	2.48	3.05	3.06	3.14	3.71	3.17	3.72

*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)

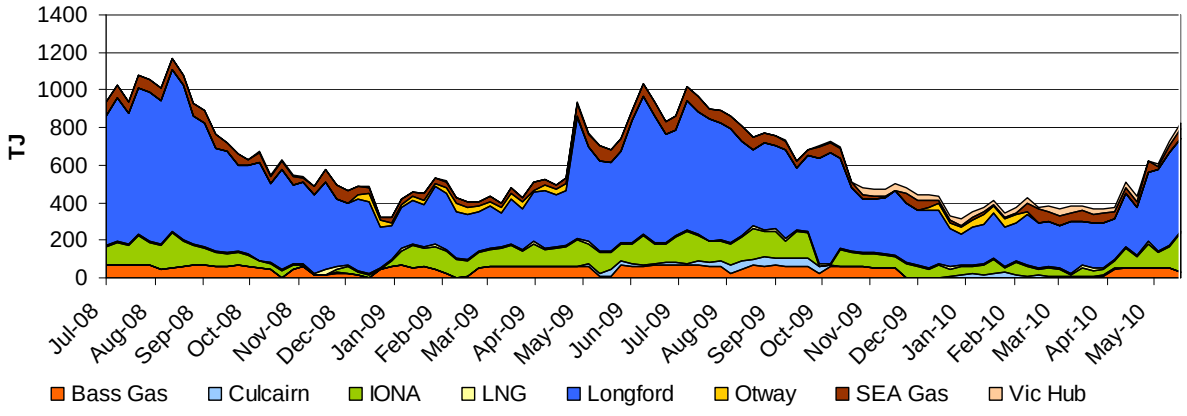
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6am, 10am, 2pm, 6pm and 10pm.

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:	16 May – 22 May	9 May – 15 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Culcairn	0	2	14	1.7
Longford	495	493	363	438
LNG	5	9	8	9
IONA	210	110	80	81
VicHub	23.4	24.2	18.0	1.5
SEAGas	54	38	41	46
Bass Gas	32	52	32	46
Otway	0	0	7	12
TOTAL	**820**	**728**	**565**	**635**

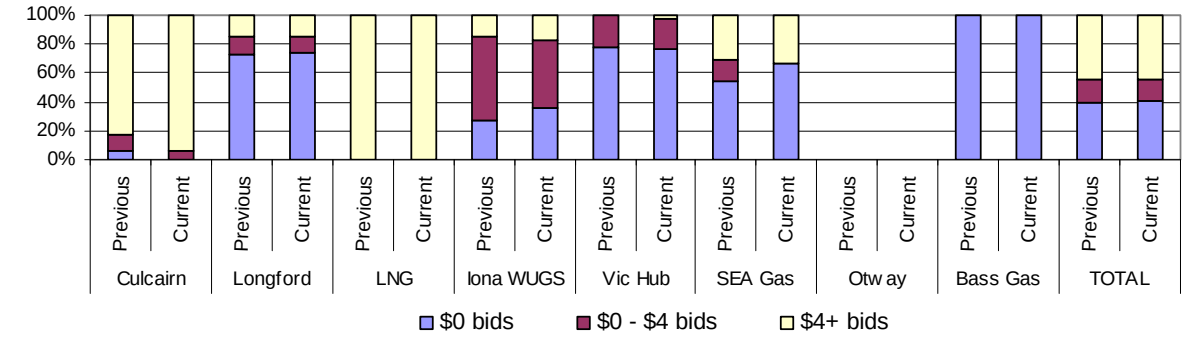


*Average daily estimated gas consumption measured from 1 July 2009 to the current week (inclusive)
**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)
Source: http://www.aemo.com.au (INT 150)

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	AGL		
Longford	AGL TRU	Origin TRU	AGL TRU	AGL TRU	TRU	AGL TRU	AGL TRU
LNG							
Iona	TRU APG	AGL TRU APG Vic Elec	Origin TRU APG	AGL TRU APG Origin	TRU APG Vic Elec	Origin TRU	TRU APG
VicHub	AETV	AETV	AETV	AETV		AETV	AETV
SEAGas	Simply			Origin	Simply	Origin	
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 I 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:	16 May – 22 May	9 May – 15 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Ballarat	34	30	21	23
Geelong^	100	86	79	84
Gippsland	48	49	44	58
Melbourne	567	484	368	406
Northern	80	81	54	66
TOTAL	**829**	**730**	**566**	**637**

^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	102	100	100	100	100	94	95	117	73	99	86	82
QLD Gas Pipeline	66	63	62	58	59	62	70	79	90	62	71	67
Roma to Brisbane Pipeline	104	164	137	137	146	114	115	219	77	131	168	171
South West QLD Pipeline	131	164	160	154	151	162	149	181	76	153	137	84
NSW/ACT												
Eastern Gas Pipeline	203	228	206	228	212	212	205	250	81	215	201	172
Moomba to Sydney Pipeline	203	293	303	278	315	289	135	420	44	259	183	172
NSW-VIC Interconnect^	9	8	28	21	13	29	6	92	-7	16	-6	17
VIC												
Longford to Melbourne	438	548	553	576	611	576	547	1030	40	550	412	472
South West Pipeline	252	282	269	307	267	199	278	347	35	265	122	129
SA												
Moomba to Adelaide Pipeline	131	170	161	167	155	134	120	253	51	148	130	124
SEA Gas Pipeline	202	223	243	212	193	190	187	314	48	207	152	175
TAS												
Tasmanian Gas Pipeline	20	20	24	28	33	17	41	129	30	27	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	84	93	102	95	100	101	N/A	140	66	96	92	74
Fairview	121	126	127	127	127	127	127	130	86	126	112	72
Kenya Gas Plant	57	57	53	51	51	50	N/A	160	35	53	56	
Kincora	0	5	8	10	0	0	0	25	7	3	2	5
Kogan North	7	8	8	8	8	8	8	12	72	8	9	11
Peat	11	11	11	11	11	11	11	15	58	11	9	11
Rolleston	11	12	12	12	12	11	12	30	38	12	11	11
Scotia	9	15	11	11	11	11	11	29	79	11	23	23
Spring Gully	32	45	50	49	49	49	39	60	72	45	43	59
Strathblane	32	45	50	49	49	49	39	60	72	45	43	49
Taloona	20	27	30	30	30	30	23	36	73	27	26	2
Wallumbilla	4	7	8	8	9	9	9	20	52	7	10	13
Yellowbank	12	12	12	12	12	12	12	30	42	12	12	14
Talinga	26	35	46	50	49	44	43	50	26	42	13	
Moomba (SA/QLD)												
Moomba Gas Plant	301	319	349	349	349	359	309	430	61	334	263	271
Ballera	12	0	0	0	0	0	0	150	8	2	12	34
Eastern (VIC)												
Orbost Gas Plant	0	0	1	2	0	0	0	100	19	0	19	0
Lang Lang Gas Plant	0	0	10	51	55	56	54	70	46	32	32	46
Longford Gas Plant	637	763	686	831	846	789	750	1145	53	757	609	650
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	94	94	74	94	70	88
Otway Gas Plant	102	163	204	175	145	181	110	206	60	154	124	140
Iona Underground Gas Storage	260	237	196	254	229	147	248	440	19	224	85	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)
16 May – 22 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
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

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

16 May – 22 May	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	2.39	3.25	3.50	3.41	3.65	2.48
Mon	3.00	3.50	3.78	3.51	3.78	3.05
Tue	3.02	3.64	3.49	3.49	3.76	3.06
Wed	3.06	3.64	3.78	3.78	3.78	3.14
Thu	3.71	3.74	3.74	3.49	3.74	3.71
Fri	3.23	2.77	2.20	1.17	3.02	3.17
Sat	3.72	3.72	3.74	3.78	3.78	3.72

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	
16-May	**MP:**	621	627	639	642	642	
	AEMO:	646	649	667	659	691	
	MP as % of AEMO	96	97	96	97	93	**0**
17-May	**MP:**	764	767	774	771	770	
	AEMO:	809	814	813	813	811	
	MP as % of AEMO	94	94	95	95	95	**0**
18-May	**MP:**	754	760	761	772	771	
	AEMO:	774	778	778	792	809	
	MP as % of AEMO	97	98	98	97	95	**0**
19-May	**MP:**	718	744	780	798	797	
	AEMO:	758	771	799	844	828	
	MP as % of AEMO	95	97	98	95	96	**0**
20-May	**MP:**	833	834	833	840	840	
	AEMO:	854	842	823	824	831	
	MP as % of AEMO	98	99	101	102	101	**0**
21-May	**MP:**	816	799	802	779	779	
	AEMO:	768	769	753	736	746	
	MP as % of AEMO	106	104	106	106	104	**-23**
22-May	**MP:**	734	729	743	763	763	
	AEMO:	694	732	746	803	781	
	MP as % of AEMO	106	100	100	95	98	**-12**

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