

23 May – 29 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

Queensland gas Company failed to submit data for Berwyndale South and Kenya gas plants on Sunday having also failed to supply data on Saturday 22 May, as reported in the previous gas weekly analysis.

Figure 4 shows changes in gas demand and production and pipeline flows compared to the previous week. Total average daily demand for gas fell by 61 TJ (3 per cent) compared to the previous week. The largest falls were in Victoria, 71 TJ (9 per cent) and South Australia, 39 TJ (11 per cent).

Total average daily Gas Powered Generation (GPG) gas usage fell by 68 TJ (13 per cent) compared to the previous week. Significant fall were recorded in Victoria of 34 TJ (72 per cent) and South Australia of 46 TJ (19 per cent).

Average daily production volumes decreased by 66 TJ (3 per cent) compared to the previous week. Production at the Otway production facility was significantly down on the previous week, with average daily gas production falling by 84 TJ (18 per cent).

Flows on the SEA Gas and South West pipelines decreased significantly due to the decline in production at Otway, as demand for the week decreased in Victoria and South Australia. Flows on the Longford to Melbourne pipeline were also affected.

Victorian Gas Market

The average daily imbalance price dropped only three cents from \$3.19/GJ in the previous week to \$3.16/GJ (see Figure V2). Prices were above \$3/GJ on all days except Thursday when the price was \$2.75/GJ and Saturday when the price was \$2.59/GJ.

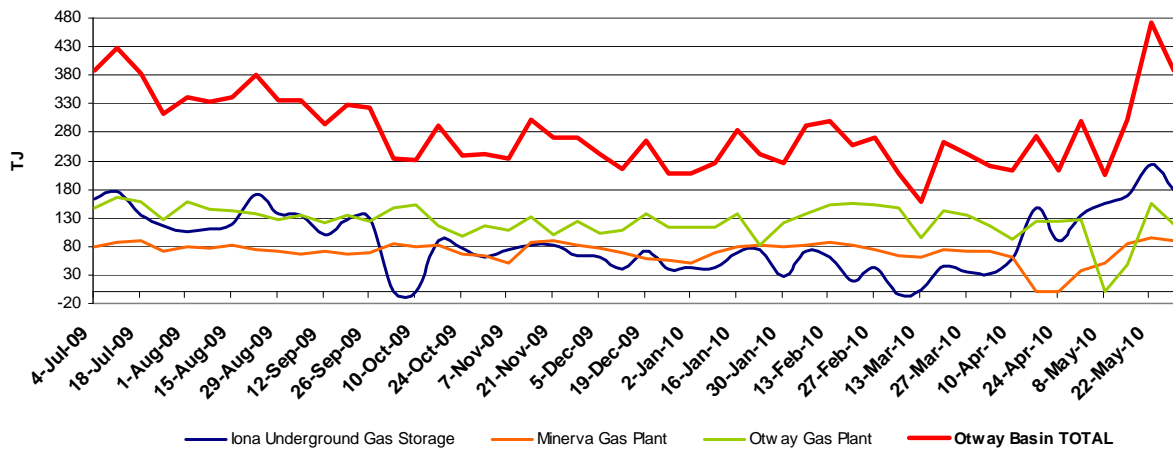
AEMO issued demand overrides on Monday (8 TJ) and Tuesday (-17 TJ).

A Supply Point Constraint (SDPC) was applied at Bass Gas on Sunday and Thursday. SDPCs were also applied on Tuesday to injections at Longford, withdrawals at SEA Gas, and both injections and withdrawals at Vic Hub. A Directional Flow Point Constraint (DFPC) was applied to injections and withdrawals at Iona on Monday. A Demand Point Constraint was applied at Culcairn on the Monday, Tuesday and Wednesday gas days.

Additional Information

Production at the Otway Basin decreased this week, coming off a record financial year high of more than 470 TJ in average daily flows during the previous week. In the previous week, a high amount of gas production occurred at both the Iona and Otway Gas production facilities influenced by high demand in South Australia and Victoria. Figure A1 shows the long-term production trends for facilities in the Otway Basin.

Figure A1 – Production at the Otway Basin (1 July 2009 – 29 May 2010)



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
23 May – 29 May	460	29	744	316	28	157	98	72
Financial Year-to-date 2009-10*	367	19	553	282	38	168	86	71
Financial Year-to-date 2008-09**	327	20	604	299	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
23 May – 29 May	91	13	195	17	152
Financial Year-to-date 2009-10*	84	38	168	23	162
Financial Year-to-date 2008-09**	42	64	183	21	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)
23 May – 29 May	518	789	388	335
Financial Year-to-date 2009-10*	463	663	281	276
Financial Year-to-date 2008-09**	344	697	314	305

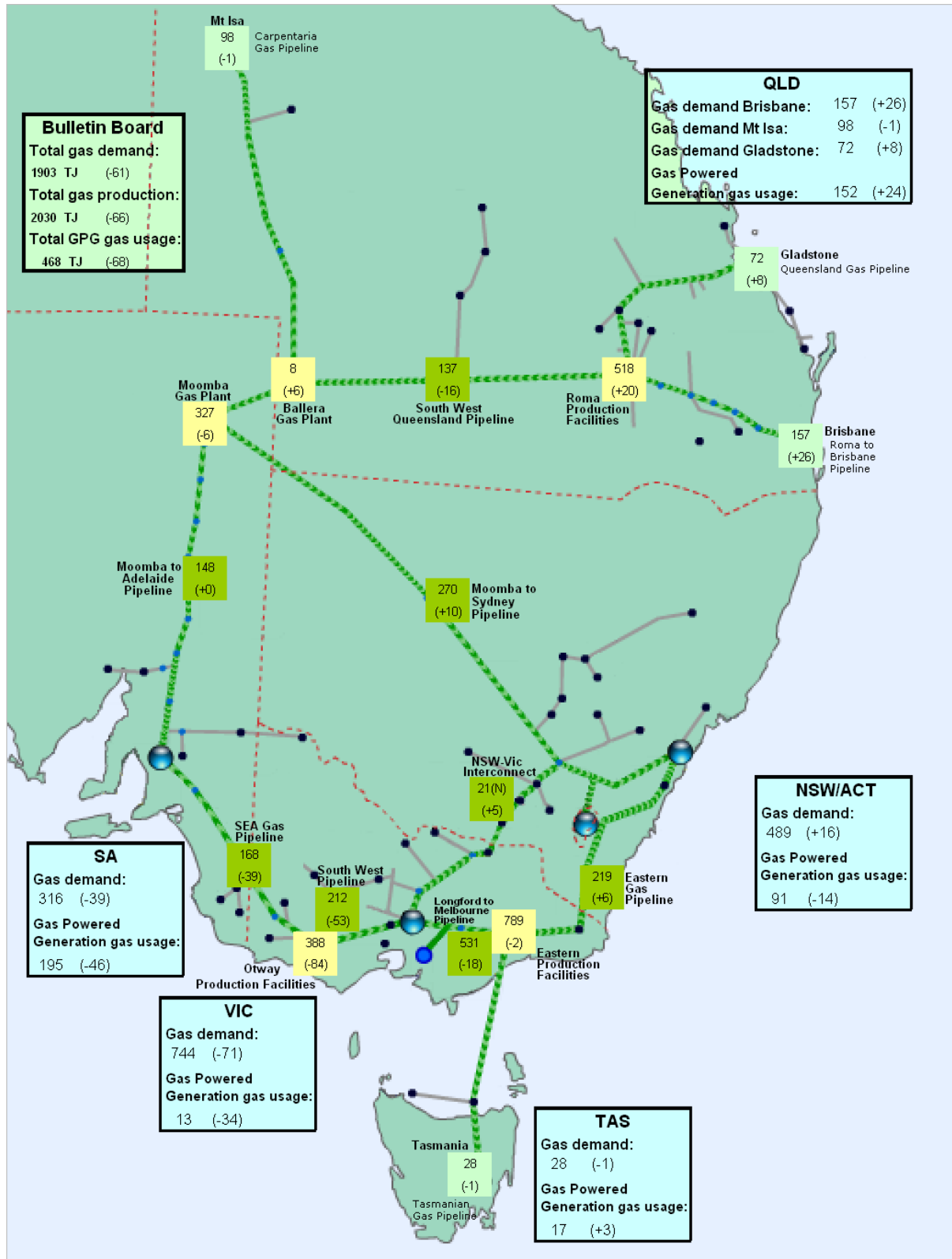
*Average daily estimated gas consumption measured from 1 July 2009 to the current week (inclusive)

**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)



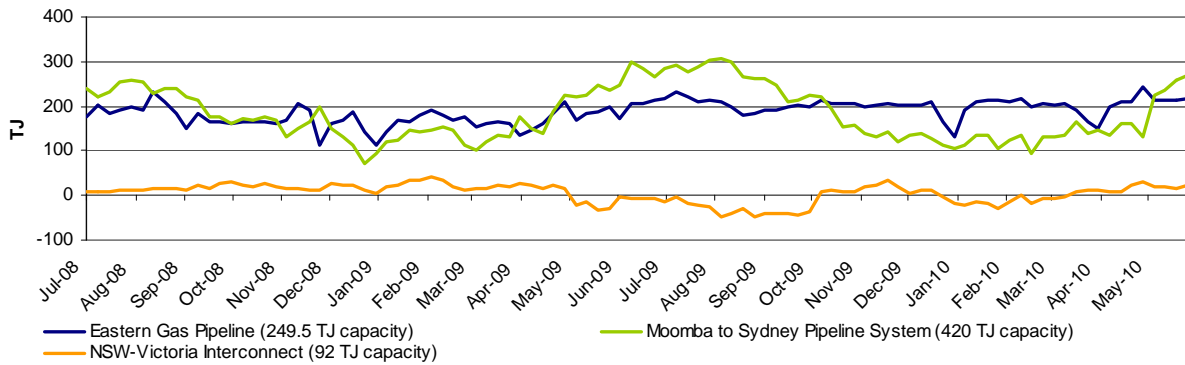
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

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.

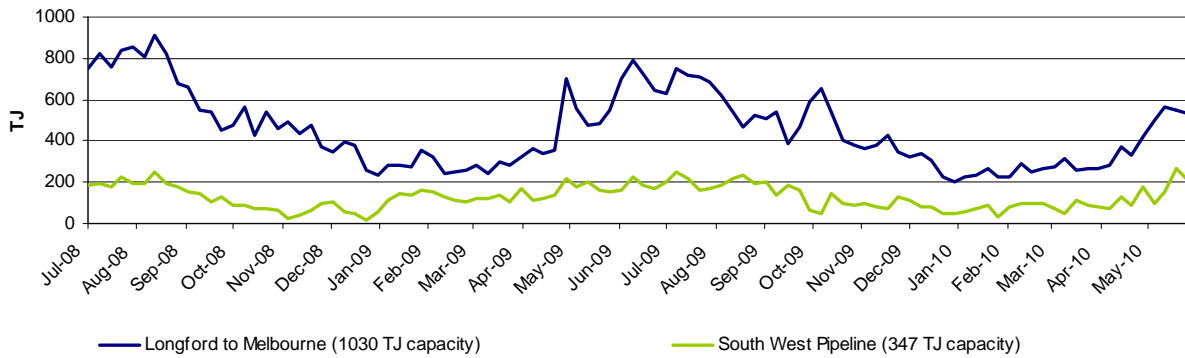
Figure 5: Average daily flows (TJ) into NSW/ACT demand region



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

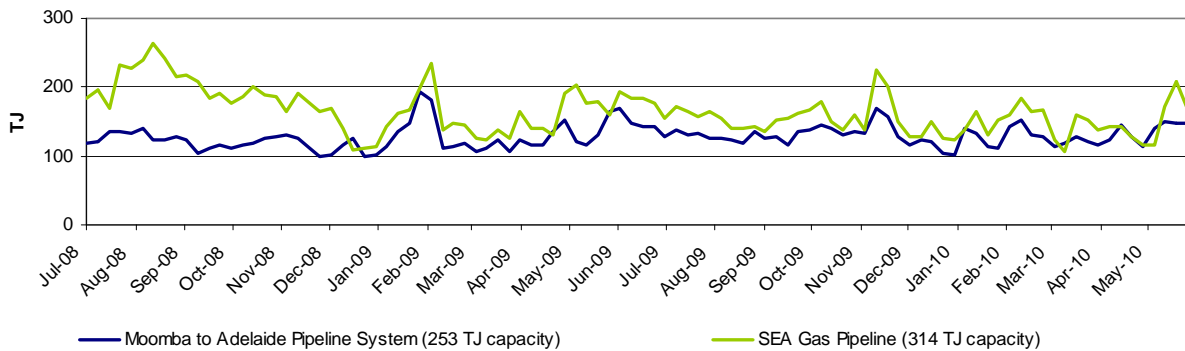
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

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					
			Bass Gas	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		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	NS							
TRU Energy	Retailer	3			S	NS	S						NS		
Victoria Electricity	Trader	2			S					NS			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)

	23 May – 29 May	16 May – 22 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Average daily price	3.16	3.19	1.76	3.05

23 May – 29 May	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	3.72	3.25	3.48	3.07	2.75	3.26	2.59

*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)

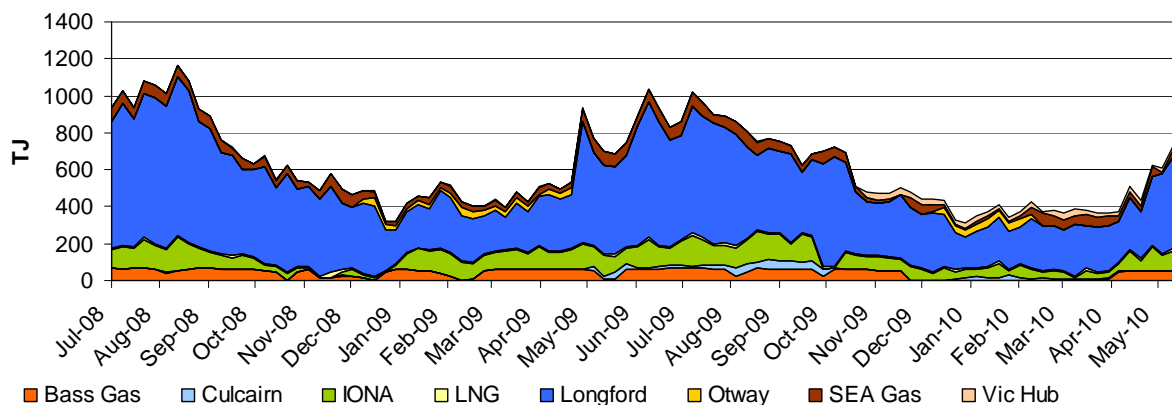
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6am, 10am, 2pm, 6pm and 10pm.

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:	23 May – 29 May	16 May – 22 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Culcairn	0	0	14	2.3
Longford	470	495	365	438
LNG	7	5	8	9
IONA	169	210	81	81
VicHub	20.1	23.4	18.1	1.5
SEAGas	42	54	41	46
Bass Gas	43	32	33	47
Otway	0	0	7	12
TOTAL	751	820	568	637



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

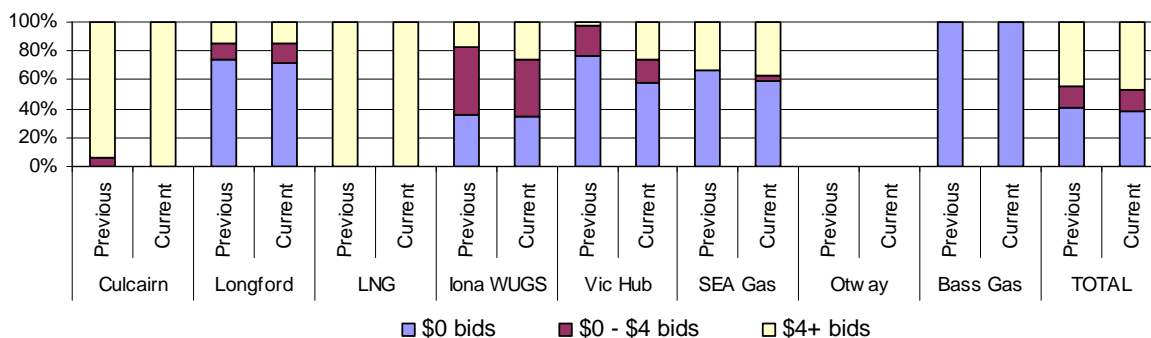
**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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



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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	AGL TRU	AGL TRU	AGL Origin TRU	AGL Origin TRU	Origin TRU	AGL Origin TRU	TRU
LNG		Origin Simply					
Iona	Origin TRU APG	TRU APG	Origin TRU APG Vic Elec	TRU	TRU APG	TRU	TRU
VicHub		AETV Vic Elec	AETV	AETV Vic Elec		AETV	AETV
SEAGas		Simply	Origin Vic Elec Simply		Origin Vic Elec 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:	23 May – 29 May	16 May – 22 May	2009-10 Financial YTD*	2008-09 Financial YTD**
Ballarat	33	34	22	23
Geelong^	92	100	79	84
Gippsland	54	48	44	58
Melbourne	481	567	370	408
Northern	85	80	54	66
TOTAL	745	829	569	638

^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	97	101	99	97	96	97	97	117	74	98	86	82
QLD Gas Pipeline	70	68	73	72	72	75	73	79	90	72	71	67
Roma to Brisbane Pipeline	111	172	169	172	172	159	144	219	77	157	168	171
South West QLD Pipeline	136	147	136	133	136	131	141	181	76	137	137	86
NSW/ACT												
Eastern Gas Pipeline	203	223	226	227	212	220	207	250	81	219	201	173
Moomba to Sydney Pipeline	199	511	260	264	247	225	183	420	44	270	185	174
NSW-VIC Interconnect [^]	6	22	25	35	25	30	7	92	-6	21	-5	16
VIC												
Longford to Melbourne	523	559	609	516	505	547	462	1030	40	531	415	473
South West Pipeline	265	283	231	179	195	196	136	347	36	212	124	129
SA												
Moomba to Adelaide Pipeline	134	163	175	148	152	143	123	253	52	148	130	124
SEA Gas Pipeline	171	170	154	196	186	170	127	314	48	168	152	174
TAS												
Tasmanian Gas Pipeline	41	33	24	30	30	23	30	129	29	28	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	N/A	100	101	100	100	101	98	140	66	100	92	75
Fairview	128	126	119	119	120	120	120	130	86	121	112	73
Kenya Gas Plant	N/A	54	53	53	53	52	52	160	35	53	56	
Kincora	0	10	10	0	0	0	0	25	7	3	2	5
Kogan North	8	9	9	9	9	9	9	12	72	9	9	11
Peat	11	12	11	11	7	11	11	15	58	11	9	11
Rolleston	12	12	11	11	11	11	11	30	38	11	11	11
Scotia	11	19	21	27	27	27	21	29	79	22	23	23
Spring Gully	36	48	52	52	51	50	36	60	72	46	43	58
Strathblane	36	48	52	52	51	50	36	60	72	46	43	49
Talooka	22	29	31	31	31	30	22	36	73	28	26	3
Wallumbilla	9	11	11	12	11	10	11	20	52	10	10	12
Yellowbank	13	12	13	13	13	13	13	30	42	13	12	14
Talinga	43	45	44	44	44	44	43	63	24	44	15	
Moomba (SA/QLD)												
Moomba Gas Plant	290	337	348	348	347	338	284	430	62	327	265	272
Ballera	3	0	14	7	10	8	12	150	8	8	12	33
Eastern (VIC)												
Orbost Gas Plant	0	0	0	0	0	0	0	100	19	0	19	0
Lang Lang Gas Plant	38	15	55	55	31	52	54	70	46	43	32	46
Longford Gas Plant	733	793	700	781	675	895	643	1145	53	746	612	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	83	68	94	75	89	70	88
Otway Gas Plant	119	74	126	177	121	116	105	206	60	120	124	140
Iona Underground Gas Storage	241	235	250	132	153	152	95	440	20	180	87	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)
23 May – 29 May	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
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

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

23 May – 29 May	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	3.72	3.78	3.78	3.94	3.94	3.72
Mon	3.14	3.50	3.78	4.50	3.78	3.25
Tue	3.48	3.23	3.48	3.93	3.77	3.48
Wed	3.13	3.48	1.84	1.83	3.71	3.07
Thu	2.81	3.26	1.07	1.89	3.46	2.75
Fri	3.24	3.49	3.49	3.49	3.64	3.26
Sat	2.56	3.24	2.56	3.49	2.58	2.59

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	
23-May	MP:	706	720	720	719	718	0
	AEMO:	725	755	768	760	748	
	MP as % of AEMO	97	95	94	95	96	
24-May	MP:	713	722	749	768	742	6
	AEMO:	775	741	805	873	795	
	MP as % of AEMO	92	98	93	88	93	
25-May	MP:	736	736	754	761	743	-17
	AEMO:	761	776	811	786	760	
	MP as % of AEMO	97	95	93	97	98	
26-May	MP:	685	683	666	656	656	0
	AEMO:	685	725	688	673	675	
	MP as % of AEMO	100	94	97	97	97	
27-May	MP:	702	685	676	675	675	0
	AEMO:	727	719	712	674	671	
	MP as % of AEMO	97	95	95	100	101	
28-May	MP:	645	670	673	683	683	0
	AEMO:	700	704	707	717	704	
	MP as % of AEMO	92	95	95	95	97	
29-May	MP:	631	617	612	609	609	0
	AEMO:	662	628	627	634	595	
	MP as % of AEMO	95	98	98	96	102	

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