

21 – 27 March 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 three instances of missing flow data on the Bulletin Board this week. Jemena failed to submit data for the Queensland Gas Pipeline for the Sunday and Friday gas days and APA failed to submit data for the Moomba to Sydney pipeline for the Friday gas day (see Figure A1).

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 74 TJ (5 per cent) compared to the previous week. A significant fall was recorded in NSW/ACT of 42 TJ (12 per cent). Tasmania recorded an increase of 3 TJ (8 per cent).

Total Gas Powered Generation (GPG) gas usage fell by 94 TJ (18 per cent) compared to the previous week. Significant falls were recorded in Victoria of 28 TJ (90 per cent) and NSW/ACT of 38 TJ (46 per cent).

Average production volumes fell by 92 TJ (6 per cent) compared to the previous week. Significant falls were recorded at the Eastern production facility 49 TJ (10 per cent) and the Otway Basin production facilities 21 TJ (8 per cent). Average daily flows were lower than the previous week with significant falls in flow occurring on the South West pipeline 21 TJ (19 per cent) and Moomba to Sydney pipeline 27 TJ (16 per cent).

Similar to last week, flows on the NSW-VIC fluctuated from south to north across the week.

Victorian Gas Market

Total average gas injections in the Victorian gas market fell by 16 TJ (4 per cent) compared to the previous week (See Figure V3).

The average imbalance price increased from \$1.74/GJ in the previous week to \$2.06/GJ. The price was above \$2/GJ for all days except Sunday.

Compared to the previous week, slightly more gas was injected at Longford and less at Otway Basin. This is consistent with a slightly higher percentage of gas being offered in at Longford this week in the \$0 price band and \$0-\$4 price bands.

There were no bids from Bass Gas and Otway again this week.

AEMO issued a negative demand override of 2 TJ on Thursday, due to market participant demand forecasts falling outside AEMO demand forecast threshold.

Supply Demand Point Constraints (SDPCs) were applied to injections/withdrawals at VicHub and to Longford for injection on Friday and for Culcairn withdrawals on Sunday.

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
21 - 27 Mar	299	7	359	275	42	183	70	73
Financial Year-to-date 2009-10*	368	19	545	282	39	169	85	71
Financial Year-to-date 2008-09**	321	19	600	300	34	170	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
21 - 27 Mar	45	3	166	27	178
Financial Year-to-date 2009-10*	83	42	165	24	165
Financial Year-to-date 2008-09**	38	67	185	24	113

^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)
21 - 27 Mar	483	464	242	215
Financial Year-to-date 2009-10*	453	659	279	275
Financial Year-to-date 2008-09**	324	707	310	308

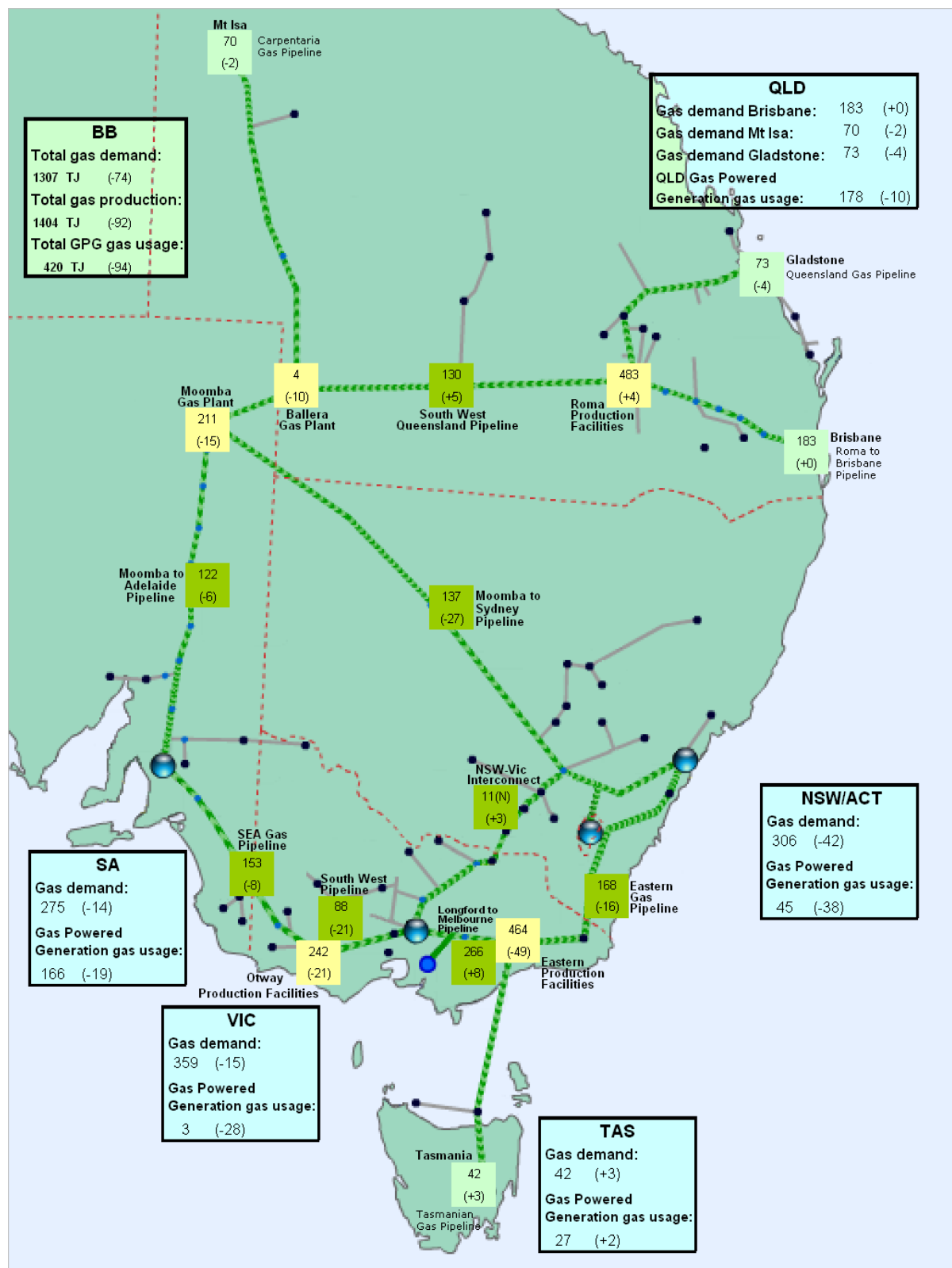
*Average daily estimated gas consumption measured from 1 July 2009 to the current week (inclusive)

**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)



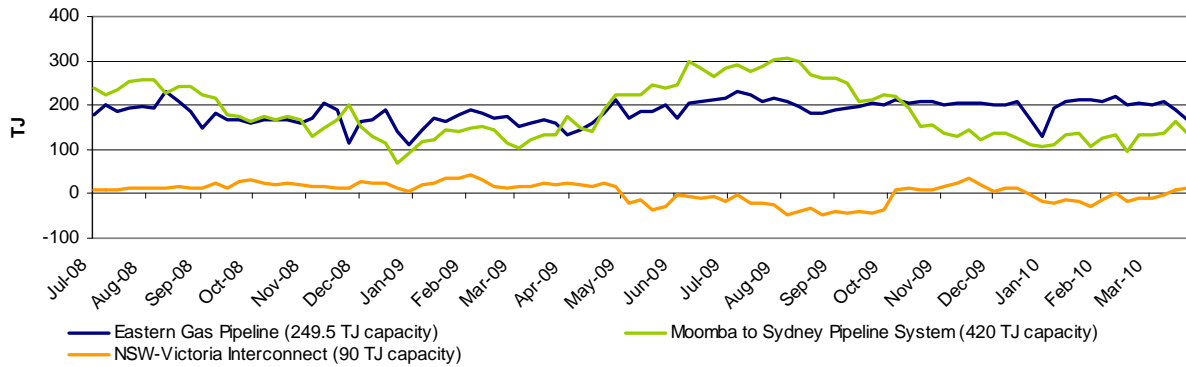
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

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.

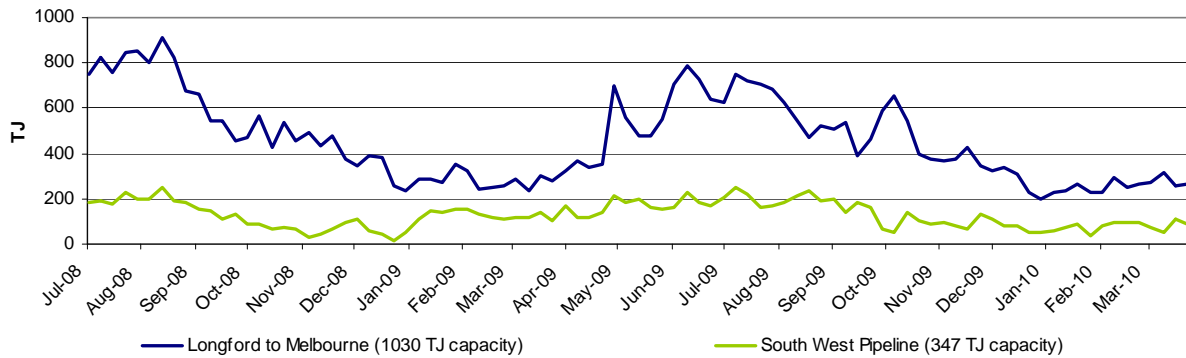
Figure 5: Average daily flows (TJ) into NSW/ACT demand region



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

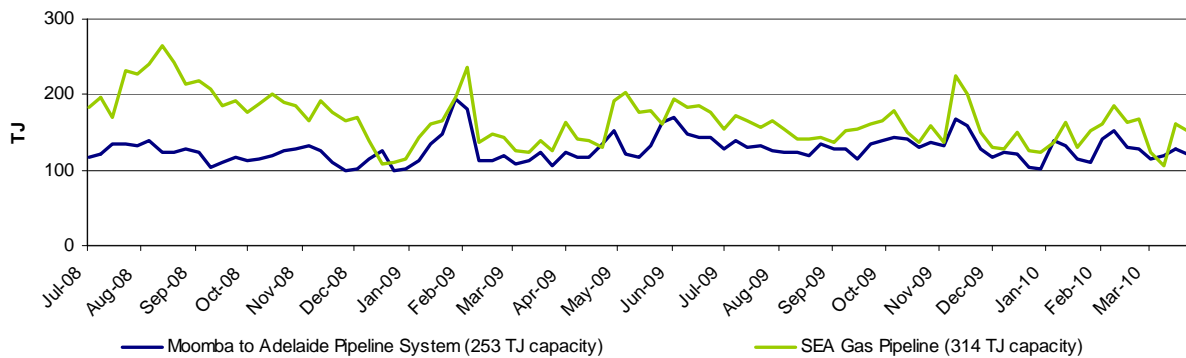
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

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					
			BassGas	Culcairn	IONA	LNG	Longford	SEA Gas	VichHub	Otway	Culcairn	IONA	SEA Gas	VichHub	
AETV Power	Trader	1								NS					S
AGL (Qld)	Retailer	1				NS									
AGL	Retailer	4		NS	NS	NS	S				NS	S			
Aust. Power & Gas	Retailer	3				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	5		S	S	NS	S	S			S	S			
Origin (Uranquinty)	Trader	1					S								
Red Energy	Retailer	1					S								
Santos	Retailer	2						S	S						
Simply Energy	Retailer	3				NS	S	NS							
TRU Energy	Retailer	4			S	NS	S		NS			NS			
Victoria Electricity	Trader	1										S			
Victoria Electricity	Retailer	3			S	NS			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)

	21 – 27 Mar	14 – 20 Mar	2009-10 Financial YTD*	2008-09 Financial YTD**
Average daily price	2.06	1.74	1.65	3.07

21 – 27 Mar	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	1.24	2.74	2.10	2.05	2.10	2.10	2.07

*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)

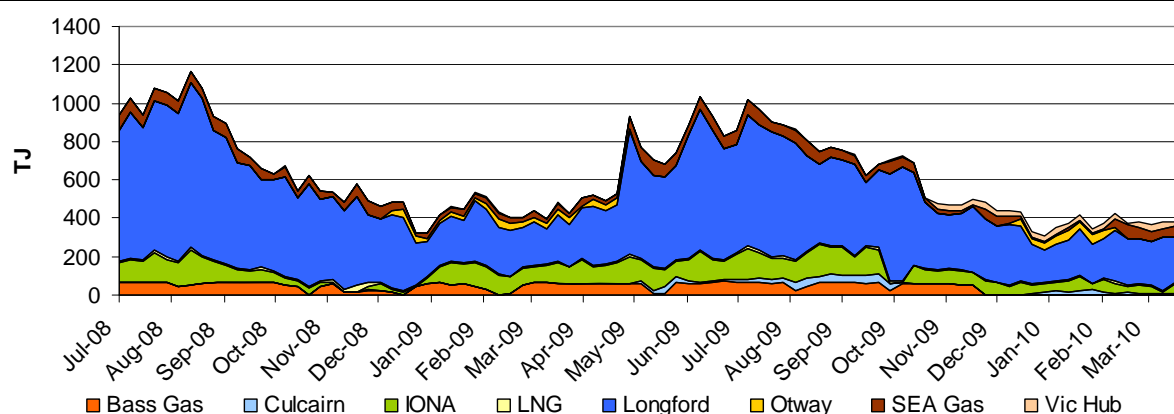
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6am, 10am, 2pm, 6pm and 10pm.

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:	21 – 27 Mar	14 – 20 Mar	2009-10 Financial YTD*	2008-09 Financial YTD**
Culcairn	5	7	17	0.3
Longford	239	232	366	446
LNG	9	10	8	9
IONA	35	49	76	75
VicHub	27.9	26.6	17.2	1.8
SEAGas	52	60	42	45
Bass Gas	0	0	30	46
Otway	0	0	9	12
TOTAL	368	384	566	635



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

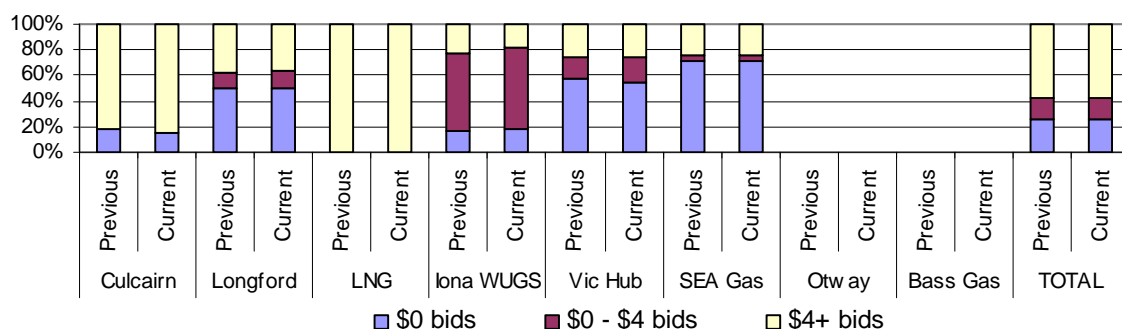
**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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		Origin					
Longford		AGL			TRU Origin	TRU Origin	AGL
LNG							
Iona	TRU	TRU Origin	TRU	TRU	TRU	TRU Origin	TRU
VicHub	AETV	TRU	AETV	AETV	AETV	AETV	AETV
SEAGas				Simply	Simply		

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

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:	21 – 27 Mar	14 – 20 Mar	2009-10 Financial YTD*	2008-09 Financial YTD**
Ballarat	11	10	21	23
Geelong^	53	56	79	85
Gippsland	31	30	45	60
Melbourne	222	235	370	402
Northern	53	50	51	66
TOTAL	369	382	566	636

^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	71	70	72	70	62	74	74	117	72	70	85	82
QLD Gas Pipeline	N/A	81	80	73	74	N/A	56	79	94	73	75	67
Roma to Brisbane Pipeline	173	195	184	185	193	186	163	214	79	183	169	170
South West QLD Pipeline	139	130	121	141	130	119	134	181	77	130	139	71
NSW/ACT												
Eastern Gas Pipeline	146	199	193	161	159	156	143	250	80	168	200	172
Moomba to Sydney Pipeline	102	146	154	164	157	N/A	99	420	45	137	187	168
NSW-VIC Interconnect [^]	-16	17	16	29	21	29	-19	90	-12	11	-11	19
VIC												
Longford to Melbourne	214	321	295	291	283	263	194	1030	40	266	412	478
South West Pipeline	68	90	90	100	98	98	71	347	34	88	119	122
SA												
Moomba to Adelaide Pipeline	100	136	134	133	134	131	86	253	51	122	129	123
SEA Gas Pipeline	115	153	161	158	168	164	149	314	49	153	153	177
TAS												
Tasmanian Gas Pipeline	37	40	39	43	45	43	44	129	30	42	39	34

*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	74	107	108	109	106	106	94	140	66	101	93	66
Fairview	129	129	130	127	113	112	110	115	98	121	113	67
Kenya Gas Plant	70	72	71	74	74	74	66	160	34	72	54	
Kincora	0	10	6	5	0	0	0	25	6	3	2	5
Kogan North	11	11	10	11	11	11	11	12	71	11	9	11
Peat	11	10	11	11	11	11	11	15	57	11	9	11
Rolleston	11	11	11	11	11	11	12	30	38	11	11	11
Scotia	29	29	29	29	28	29	29	27	86	29	23	22
Spring Gully	46	51	48	42	34	34	35	60	72	41	43	57
Strathblane	46	51	48	42	34	34	35	60	72	41	43	47
Talona	28	31	29	25	21	21	21	36	73	25	26	0
Wallumbilla	11	10	10	11	11	11	11	20	53	11	11	13
Yellowbank	5	5	5	5	5	5	10	30	42	6	13	14
Talinga	0	0	0	0	0	0	0	50	8	0	4	N/A
Moomba (SA/QLD)												
Moomba Gas Plant	198	234	223	223	229	201	169	430	62	211	266	268
Ballera	0	0	5	0	9	7	7	150	6	4	10	40
Eastern (VIC)												
Orbost Gas Plant	30	32	32	30	30	30	29	92	21	30	19	0
Lang Lang Gas Plant	0	0	0	0	0	0	0	70	612	0	429	46
Longford Gas Plant	367	480	467	480	464	391	389	1140	54	434	610	660
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0	1
Otway Basin (VIC)												
Minerva Gas Plant	71	71	71	76	61	71	76	94	79	71	74	90
Otway Gas Plant	75	135	163	172	148	164	95	206	63	136	130	138
Iona Underground Gas Storage	52	41	21	27	33	33	42	320	24	35	76	82

*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)
21 – 27 Mar	Average min.	20.0	20.2	9.5	14.9	14.4	13.4
	Average max.	28.9	27.3	26.9	25.6	29.1	21.8
14 – 20 Mar	Average min.	18.3	17.5	10.1	18.8	19.2	14.5
	Average max.	28.2	26.3	26.3	30.2	31.8	25.2

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

21 – 27 Mar	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	1.18	1.88	1.18	2.55	2.50	1.24
Mon	2.74	3.24	2.75	2.09	1.91	2.74
Tue	2.10	2.10	2.10	2.10	2.09	2.10
Wed	2.06	1.84	1.84	2.06	1.96	2.05
Thu	2.10	2.07	2.07	2.13	2.07	2.10
Fri	2.10	2.08	2.10	2.69	2.08	2.10
Sat	2.10	1.98	1.19	1.98	1.19	2.07

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	
21-Mar	MP:	313	312	312	311	313	0
	AEMO:	313	313	313	308	307	
	MP as % of AEMO	100	100	100	101	102	
22-Mar	MP:	397	407	405	402	402	0
	AEMO:	403	390	390	390	385	
	MP as % of AEMO	99	104	104	103	104	
23-Mar	MP:	407	402	403	400	400	0
	AEMO:	397	373	386	375	380	
	MP as % of AEMO	103	108	104	107	105	
24-Mar	MP:	384	383	384	385	385	0
	AEMO:	385	370	377	372	386	
	MP as % of AEMO	100	104	102	104	100	
25-Mar	MP:	372	372	372	372	369	-2
	AEMO:	357	356	352	341	339	
	MP as % of AEMO	104	104	106	109	109	
26-Mar	MP:	375	372	371	368	368	0
	AEMO:	361	355	353	355	367	
	MP as % of AEMO	104	105	105	104	100	
27-Mar	MP:	302	308	308	320	316	-2
	AEMO:	301	301	301	296	290	
	MP as % of AEMO	100	102	102	108	109	

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