

21 – 27 February 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 four instances of missing flow data on the Bulletin Board this week. Jemena failed to submit data for the Queensland Gas Pipeline on the Sunday (21 February) and Saturday (27 February) gas days. APA group failed to submit data for the Roma to Brisbane pipeline and the Kogan North production facility for the Thursday gas day (see Figures A1 and A2).

Figure 4 shows changes in average daily gas demand and production and pipeline flows compared to the previous week. Total average daily demand for gas increased by 66 TJ (5 per cent) compared to the previous week. All regions recorded increases with a significant increase of 44 TJ (15 per cent) recorded in NSW/ACT.

Total average daily Gas Powered Generation (GPG) gas usage increased by 24 TJ (5 per cent) compared to the previous week. NSW/ACT recorded the largest increase of 13 TJ (18 per cent) while Victoria recorded a minor fall and Tasmania remained steady.

Average daily production volumes increased by 53 TJ (4 per cent) compared to the previous week. South Australia and Victoria production volumes increased by 24 TJ (11 per cent) and 32 TJ (4 per cent) respectively. A 3 TJ (10 per cent) fall was recorded at the Queensland production facilities. Average daily flows were higher than the previous week with increases in flow occurring on all pipelines except the NSW Vic Interconnect and the Moomba to Adelaide pipeline and the Queensland Gas Pipeline. Significant increases were recorded across the Moomba to Sydney pipeline (39 per cent) and the South West Queensland Pipeline (23 per cent).

Victorian Gas Market

Total average daily gas injections into the Victorian gas market increased by 8 TJ this week to 382 TJ. Average daily injections at IONA increased by 18 TJ (75 per cent) and by 19.5 TJ at VicHub (199 per cent). Injections through Culcairn fell by 8 TJ and injections through SEAGas fell by 14 TJ. (See Figure V3).

The average imbalance price increased from \$1.88/GJ in the previous week to \$2.09/GJ, in line with the slight increase in demand.

An SDPC was applied at Longford and VicHub on Wednesday because of maintenance being carried out by Jemena at VicHub.

There were no demand forecast overrides this week.

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.)

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 Feb	333	6	373	297	46	182	102	75
Financial Year-to-date 2009-10*	368	20	568	285	38	168	86	70
Financial Year-to-date 2008-09**	326	21	624	307	35	170	81	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 Feb	86	28	189	31	206
Financial Year-to-date 2009-10*	84	45	167	23	162
Financial Year-to-date 2008-09**	38	71	191	25	111

^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)
21 - 27 Feb	463	521	270	272
Financial Year-to-date 2009-10*	454	676	286	282
Financial Year-to-date 2008-09**	318	734	314	318

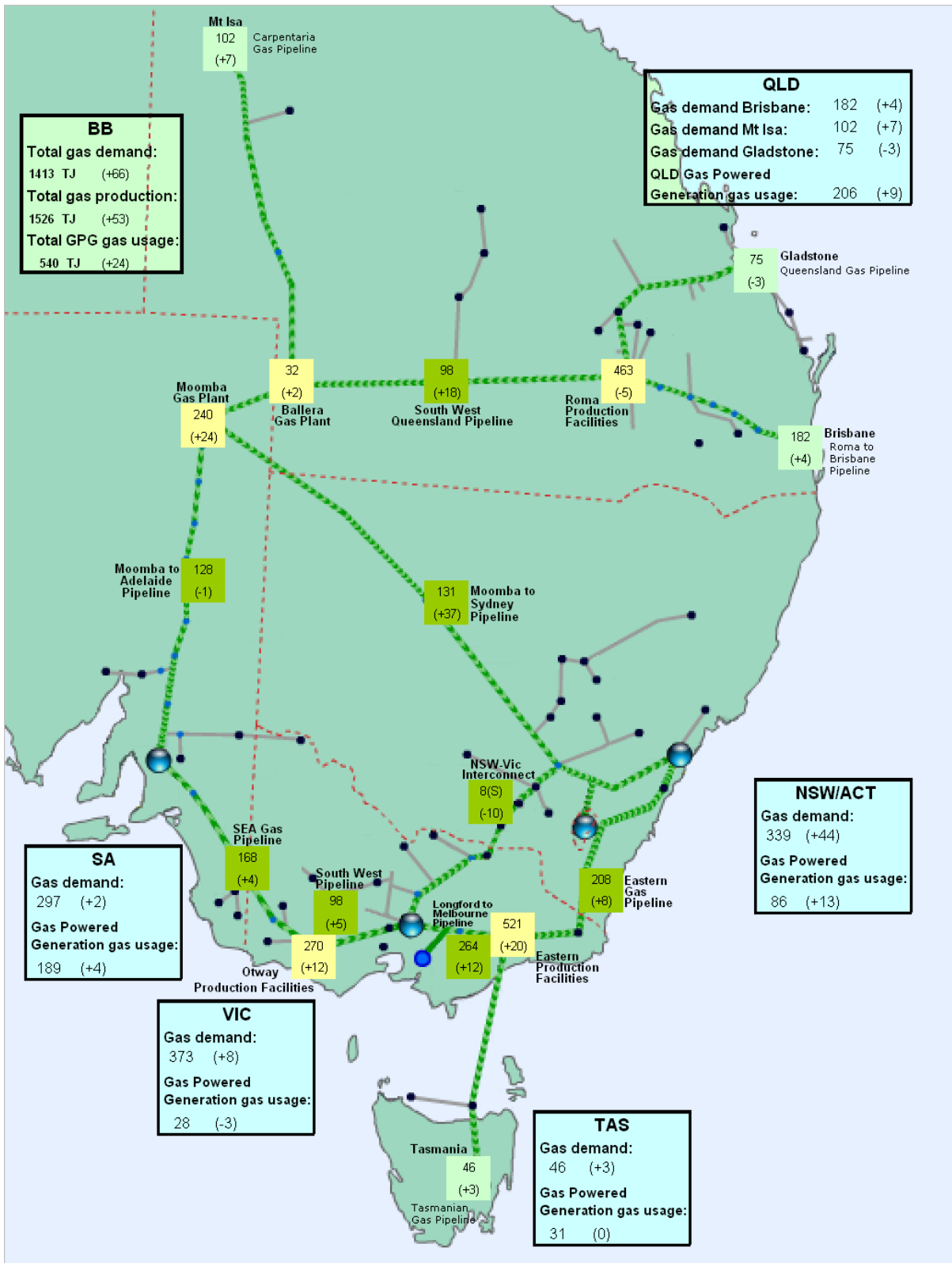
*Average daily estimated gas consumption measured from 1 July 2009 to the current week (inclusive)

**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 gas demand and GPG usage of gas in each region.

Figure 4: Changes in gas demand and production and pipeline flows (TJ)



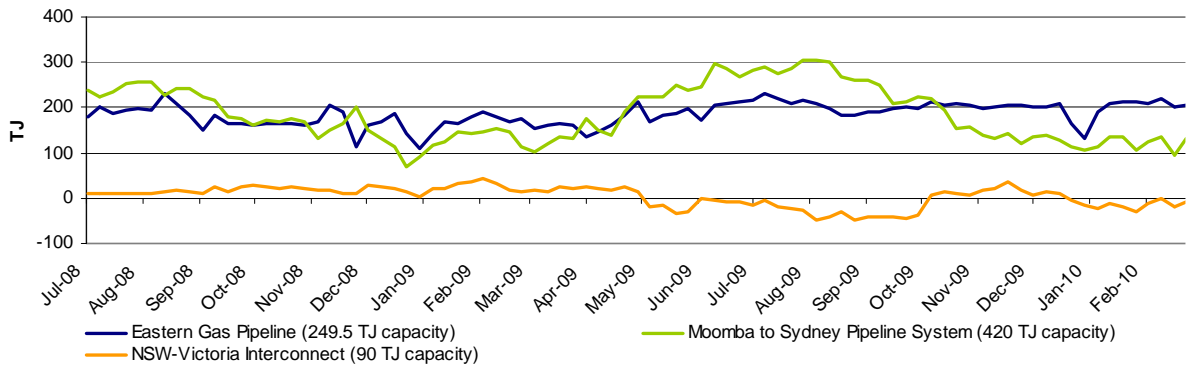
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

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.

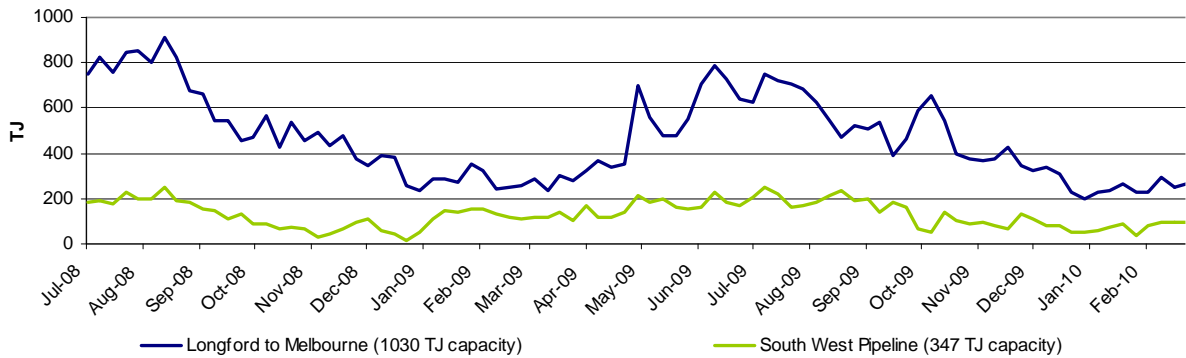
Figure 5: Average daily flows (TJ) into NSW/ACT demand region



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

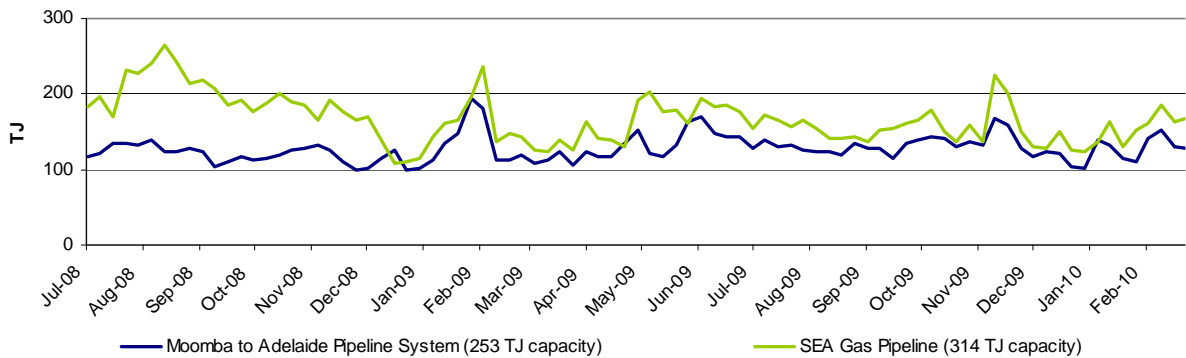
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

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	1								S				S
AGL (Qld)	Retailer	1				NS								
AGL	Retailer	4		NS	NS	NS	S				NS	S		
Aust. Power & Gas	Retailer	3				NS	S					S		
Country Energy	Transmission Customer	1									S			
Energy Australia	Retailer	2			S		S							
International Power	Transmission Customer	1											S	
Simply Energy	Retailer	3				NS	S	NS						
Origin (Vic)	Retailer	5		S	S	NS	S	S			S	S		
Origin (Uranquinty)	Trader	1					S							
Red Energy	Retailer	1					S							
Santos	Retailer	3		S				S	S					
TRU Energy	Retailer	4			S	NS	S		NS			NS		
Victoria Electricity	Trader	1										S		
Victoria Electricity	Retailer	5		S	S	NS		S	S					
Visy Paper	Distribution Customer	2					S				S			
Coogee Energy	Transmission Customer	1					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 Feb	14 - 20 Feb	2009-10 Financial YTD*	2008-09 Financial YTD**
Average daily price	2.09	1.88	1.64	3.13

Current week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	1.86	3.19	1.95	1.26	2.56	1.93	1.88

*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)

Source: <http://www.aemo.com.au> (INT 041)

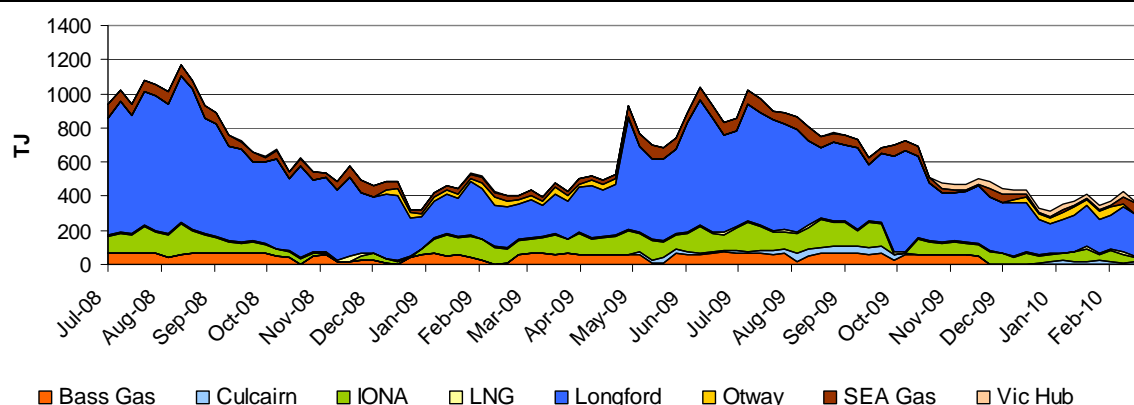
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6am, 10am, 2pm, 6pm and 10pm.

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 Feb	14 - 20 Feb	2009-10 Financial YTD*	2008-09 Financial YTD**
Culcairn	10	18	18	0.3
Longford	235	243	380	472
LNG	8	8	8	9
IONA	42	24	82	73
VicHub	29.3	9.8	15.4	1.8
SEAGas	56	70	41	47
Bass Gas	0	0	34	44
Otway	0	0	10	10
TOTAL	382	373	588	658



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

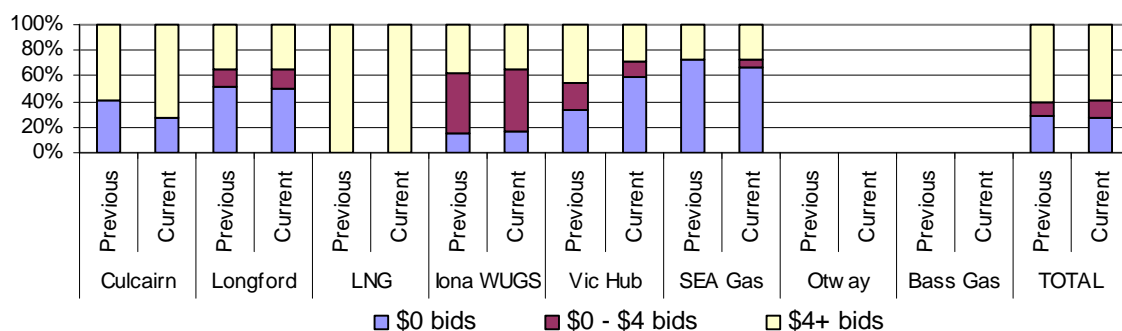
**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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		AGL Origin	AGL TRU		TRU Origin	TRU	AGL TRU
LNG							
Iona	TRU	TRU Origin		TRU	TRU	TRU	TRU
VicHub	AETV Santos Vic Elec.	Santos Vic Elec.	AETV		AETV	AETV	AETV
SEAGas	Simply	Simply	Simply	Simply		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 Feb	14 - 20 Feb	2009-10 Financial YTD*	2008-09 Financial YTD**
Ballarat	10	10	23	24
Geelong^	68	83	82	87
Gippsland	34	32	46	63
Melbourne	233	220	386	417
Northern	36	33	52	68
TOTAL	382	377	588	659

^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	104	104	102	99	103	100	117	73	96	86	81
QLD Gas Pipeline	N/A	72	75	78	74	77	N/A	79	89	78	70	67
Roma to Brisbane Pipeline	167	196	189	189	N/A	182	168	214	78	178	168	171
South West QLD Pipeline	100	91	76	78	106	105	132	181	78	80	141	66
NSW/ACT												
Eastern Gas Pipeline	182	194	213	220	216	214	192	250	81	204	201	174
Moomba to Sydney Pipeline	116	169	149	139	142	120	85	420	45	95	189	175
NSW-VIC Interconnect [^]	-34	-2	12	-6	-8	-14	-6	90	-14	-18	-12	19
VIC												
Longford to Melbourne	186	273	327	276	268	277	242	1030	42	252	432	508
South West Pipeline	57	170	91	107	132	84	48	347	36	93	124	123
SA												
Moomba to Adelaide Pipeline	115	136	128	133	137	144	107	253	51	130	130	124
SEA Gas Pipeline	146	167	196	194	189	185	99	314	49	164	155	184
TAS												
Tasmanian Gas Pipeline	44	45	45	48	47	46	43	129	29	42	38	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	98	108	111	104	101	101	85	140	65	105	91	64
Fairview	96	94	96	113	111	116	119	115	98	84	112	64
Kenya Gas Plant	64	55	55	55	64	62	75	160	32	62	51	
Kincora	0	0	5	10	0	0	0	25	6	6	1	6
Kogan North	11	11	11	11	N/A	11	10	12	69	11	8	11
Peat	11	11	11	11	10	9	10	15	56	10	8	11
Rolleston	11	11	12	12	12	12	12	30	38	11	11	11
Scotia	27	29	29	29	27	29	25	27	84	28	23	22
Spring Gully	38	44	40	38	34	34	34	60	73	43	44	55
Strathblane	38	44	40	38	34	34	34	60	73	43	44	46
Talooka	23	26	24	23	21	21	21	36	74	26	27	0
Wallumbilla	11	11	11	11	11	11	11	20	54	11	11	13
Yellowbank	14	14	9	1	0	0	0	30	47	14	14	14
Talinga	0	0	13	14	20	23	24	50	10	13	N/A	N/A
Moomba (SA/QLD)												
Moomba Gas Plant	236	260	230	268	245	240	198	430	63	215	273	280
Ballera	22	33	55	55	34	25	0	150	6	30	9	42
Eastern (VIC)												
Orbost Gas Plant	0	37	42	48	48	48	48	92	17	11	16	0
Lang Lang Gas Plant	0	0	0	0	0	0	0	70	49	0	34	44
Longford Gas Plant	401	523	523	388	566	518	459	1140	55	491	631	696
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0	1
Otway Basin (VIC)												
Minerva Gas Plant	76	85	85	79	74	69	59	94	79	83	75	90
Otway Gas Plant	106	151	191	148	173	175	118	206	63	155	129	144
Iona Underground Gas Storage	47	100	16	50	72	14	5	320	26	20	84	81

*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 Feb	Average min.	21.7	21.1	13.0	17.1	17.8	13.6
	Average max.	30.0	27.8	28.0	26.6	29.6	23.1
14 - 20 Feb	Average min.	22.5	19.9	13.4	18.0	19.5	13.1
	Average max.	30.5	26.7	25.3	28.6	32.2	24.6

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 Feb	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	1.83	1.84	2.38	2.75	3.17	1.86
Mon	3.20	3.20	3.16	2.56	2.56	3.19
Tue	1.93	2.56	2.55	2.79	2.79	1.95
Wed	1.21	1.91	2.57	2.56	2.56	1.26
Thu	2.56	2.01	2.78	2.75	2.82	2.56
Fri	1.92	2.25	2.28	2.25	1.98	1.93
Sat	1.84	1.92	1.93	2.98	2.95	1.88

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-Feb	MP:	279	277	277	276	276	0
	AEMO:	256	269	281	283	278	
	MP as % of AEMO	109	103	99	98	99	
22-Feb	MP:	442	440	449	447	447	0
	AEMO:	442	446	439	438	435	
	MP as % of AEMO	100	99	102	102	103	
23-Feb	MP:	397	402	402	397	397	0
	AEMO:	393	395	397	394	400	
	MP as % of AEMO	101	102	101	101	99	
24-Feb	MP:	398	398	397	397	397	0
	AEMO:	383	383	383	387	388	
	MP as % of AEMO	104	104	104	103	102	
25-Feb	MP:	408	404	407	406	406	0
	AEMO:	390	387	397	405	412	
	MP as % of AEMO	105	104	103	100	99	
26-Feb	MP:	374	381	385	384	384	0
	AEMO:	391	373	355	361	363	
	MP as % of AEMO	96	102	108	106	106	
27-Feb	MP:	293	293	293	299	299	0
	AEMO:	300	299	304	307	306	
	MP as % of AEMO	98	98	96	97	98	

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