

10 – 16 January 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

Figure A1 shows that there were no instances of missing flow data on the Bulletin Board this week.

Figure 4 shows that total average daily gas demand increased by 88 TJ compared to the previous week, with all regions recording increases. The largest increase of 34 TJ was recorded in NSW/ACT (accounting for 40 per cent of the increase in demand).

Total average daily demand for gas for Gas Powered Electricity Generation (GPG) increased by 106 TJ (around 23 per cent) compared to the previous week. The largest percentage increases were in Victoria and NSW/ACT where demand for gas for GPG increased by 72 per cent and 31 per cent respectively.

Average daily production volumes increased by 100 TJ compared to the previous week. While large increases were recorded at Otway (59 TJ) and Roma (56 TJ), there was a reduction in production at Moomba of (31 TJ). The increase in demand and production saw average daily flows increase compared to the previous week on all pipelines except the Moomba to Adelaide pipeline and the NSW-VIC interconnect, which experienced small reductions in flow. The largest percentage increase in flows was across the South West pipeline (29 per cent).

Victorian Gas Market

Total average daily flows from injection points on the Victorian Principal Transmission System (VPTS) increased by 23 TJ (7 per cent) compared to the previous week (see Figure V3). Figure V6 shows that total average daily withdrawals were up by 25 TJ or 7 per cent compared to the previous week. High demand on Monday through to Wednesday saw the imbalance price exceed \$2.50/GJ on those days which increased the weekly average imbalance price from \$0.75/GJ in the previous week to \$1.86/GJ.

The Australian Energy Market Operator (AEMO) issued negative demand overrides on 10 and 11 January to a total of 12 TJ (see Figure A5). Three Supply Demand Point Constraints were applied during the week, on Sunday 10 January at the Otway withdrawal point and on Wednesday 13 January at both the VIC Hub and Longford facilities.

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	QLD							
	NSW	ACT	VIC	SA	TAS	Brisbane	Mt Isa	Gladstone
Current week (10 - 16 Jan)	339	6	319	297	35	181	87	72
Financial Year-to-date 2009-10*	377	23	614	284	37	166	86	69
Financial Year-to-date 2008-09**	330	24	667	305	34	171	83	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
Current week (10 - 16 Jan)	98	74	199	23	181
Financial Year-to-date 2009-10*	84	46	163	22	157
Financial Year-to-date 2008-09**	32	66	184	23	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)
Current week (10 - 16 Jan)	412	469	225	239
Financial Year-to-date 2009-10*	442	718	292	291
Financial Year-to-date 2008-09**	314	791	309	330

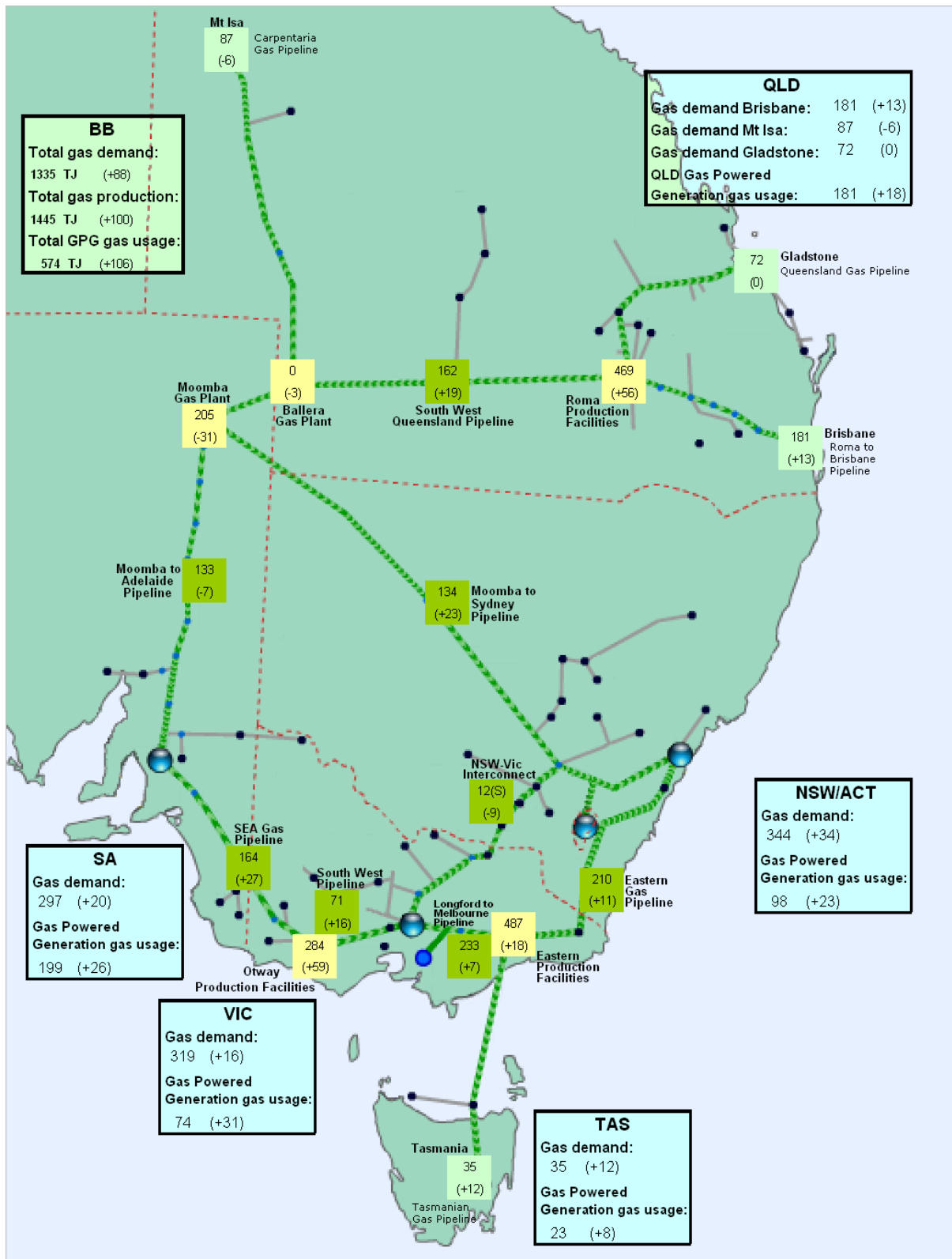
*Average daily estimated gas consumption measured from 1 July 2009 to the current week (inclusive)

**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)



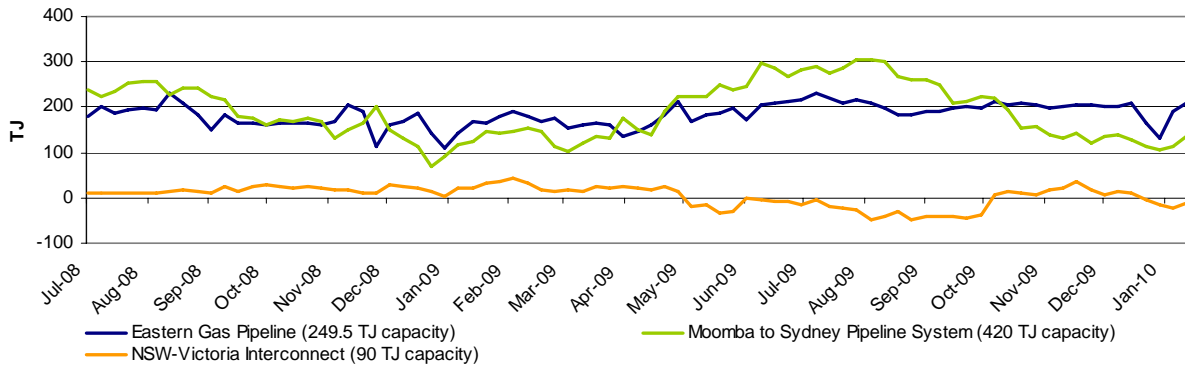
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

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.

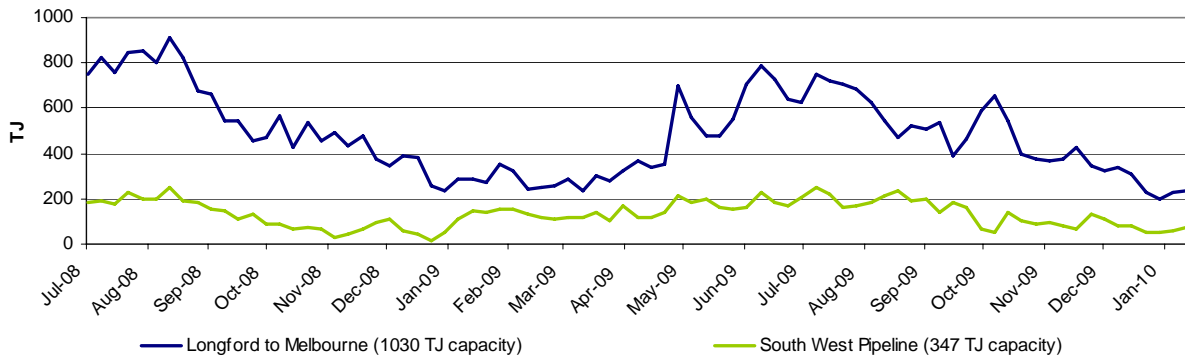
Figure 5: Average daily flows (TJ) into NSW/ACT demand region



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

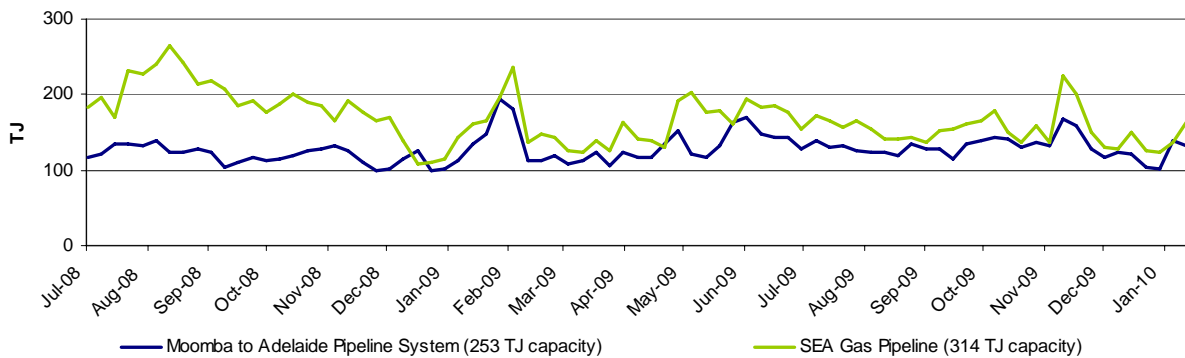
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

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								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	6		S	S	NS	S	S		S	NS	S			
Origin (Uranquinty)	Trader	1					S								
Red Energy	Retailer	1					S								
Santos	Retailer	2						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)

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)

	Current Week (10 -16 January)	Previous Week (3 -9 January)	2009-10 Financial YTD*	2008-09 Financial YTD**
Average daily price	1.86	0.75	1.55	3.11

Current Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	0.59	3.25	2.55	3.19	1.62	1.05	0.81

*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)

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

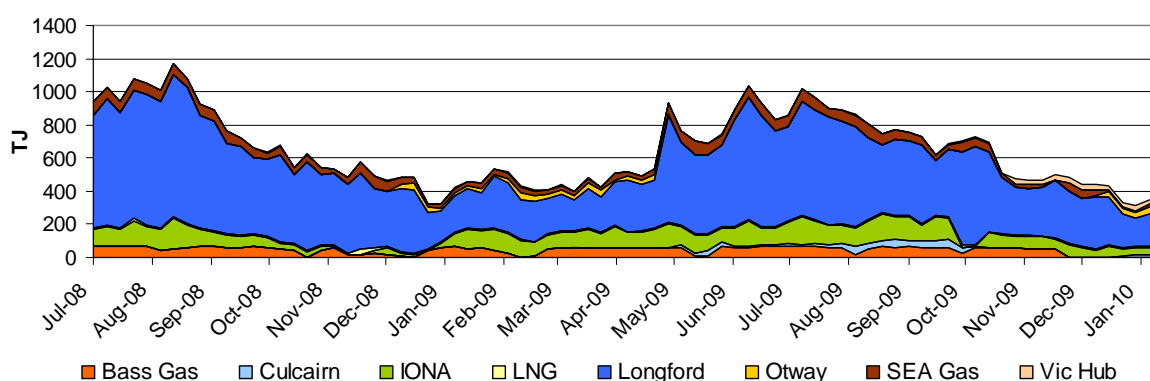
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6am, 10am, 2pm, 6pm and 10pm

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:	Current Week (10 -16 January)	Previous Week (3 -9 January)	2009-10 Financial YTD*	2008-09 Financial YTD**
Culcairn	14	21	18	0.4
Longford	209	196	411	518
LNG	7	7	8	9
IONA	56	41	89	67
VicHub	25.4	32.1	13.6	1.5
SEAGas	15	14	42	51
Bass Gas	0	0	41	47
Otway	47	39	7	6
TOTAL	374	351	630	700



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

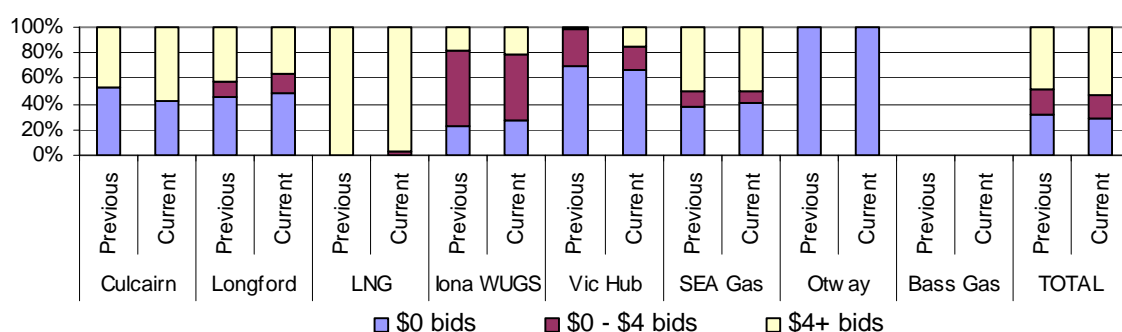
**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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		Origin	
LNG		APG	APG				
Iona	TRU	TRU	Origin TRU	Origin TRU	TRU	TRU	TRU
VicHub	AETV	AETV		AETV	AETV	AETV	AETV
SEAGas	Simply	Simply	Simply Origin			Simply	
Bass Gas							

Source: <http://www.aemo.com.au> (INT 131)

Notes: Origin = Origin Energy | AGL = AGL Sales | TRU = TRUenergy | Simply = Simply Energy | AETV = AETV Power | CE = Country Energy | APG = Australian Power and 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:	Current Week (10 -16 January)	Previous Week (3 -9 January)	2009-10 Financial YTD*	2008-09 Financial YTD**
Ballarat	8	8	25	26
Geelong^	79	72	84	91
Gippsland	44	39	48	64
Melbourne	217	206	418	452
Northern	28	25	56	69
TOTAL	375	350	631	702

^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	89	90	85	82	84	89	91	117	73	87	86	83
QLD Gas Pipeline	76	71	69	73	74	71	72	79	88	72	69	67
Roma to Brisbane Pipeline	169	190	197	182	183	179	164	214	77	181	166	171
South West QLD Pipeline	147	181	172	174	154	139	164	181	81	162	146	63
NSW/ACT												
Eastern Gas Pipeline	199	221	229	197	207	210	197	250	80	210	199	173
Moomba to Sydney Pipeline	89	150	164	148	144	149	96	420	48	134	201	181
NSW-VIC Interconnect [^]	-18	0	10	7	-28	-33	-25	90	-13	-12	-12	17
VIC												
Longford to Melbourne	191	319	269	241	220	198	192	1030	45	233	463	547
South West Pipeline	22	113	147	71	60	52	34	347	38	71	132	120
SA												
Moomba to Adelaide Pipeline	186	198	133	112	116	108	78	253	52	133	130	120
SEA Gas Pipeline	197	200	169	160	152	155	117	314	49	164	154	185
TAS												
Tasmanian Gas Pipeline	34	34	31	30	44	39	35	129	28	35	37	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

#Stated MDQ used as an estimate for actual data for the week

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	69	113	112	93	76	74	80	140	65	88	90	63
Fairview	122	123	122	122	121	122	118	115	99	121	114	61
Kenya^	73	75	75	72	71	72	73	160	30	73	47	
Kincora	10	10	0	0	0	0	0	25	5	3	1	7
Kogan North	10	10	10	10	10	10	10	12	68	10	8	12
Peat	4	6	6	6	6	5	6	15	55	6	8	11
Rolleston	12	12	12	13	12	12	12	30	38	12	11	11
Scotia	27	27	27	27	27	27	27	27	81	27	22	22
Spring Gully	34	42	42	42	42	42	38	60	74	40	45	55
Strathblane	34	42	42	42	42	42	38	60	74	40	45	46
Talooka	21	25	25	25	25	25	23	36	75	24	27	0
Wallumbilla	11	11	11	11	11	11	11	20	53	11	11	13
Yellowbank	15	11	9	13	14	15	13	30	46	13	14	14
Eastern (VIC)												
Orbost Gas Plant	40	42	42	34	34	34	34	92	15	37	13	0
Lang Lang Gas Plant	0	0	0	0	0	0	0	70	58	0	40	47
Longford Gas Plant	381	565	482	430	461	433	396	1140	58	450	656	732
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0	1
Otway Basin (VIC)												
Minerva Gas Plant	75	87	87	87	76	71	76	94	78	80	73	89
Otway Gas Plant	113	190	167	161	135	104	87	206	62	137	129	146
Iona Underground Gas Storage	77	109	119	51	49	39	31	320	28	68	89	74
Moomba (SA/QLD)												
Moomba Gas Plant	278	270	276	235	218	0	161	430	65	205	280	285
Ballera	0	0	0	0	0	0	0	150	5	0	8	42

*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)
Current week (10 - 16 Jan)	Average min.	21.4	21.9	18.3	18.0	19.4	14.7
	Average max.	30.5	26.8	33.9	30.7	31.1	26.4
Previous week (3 - 9 Jan)	Average min.	22.5	20.0	15.4	15.7	17.9	12.3
	Average max.	29.4	26.0	30.8	28.2	34.2	23.4

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

Current Week (3 - 9 January)	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	0.58	0.58	0.88	0.99	0.18	0.59
Mon	3.26	3.50	3.50	3.25	1.59	3.25
Tue	2.53	2.54	3.26	3.20	1.60	2.55
Wed	3.26	2.74	2.49	3.29	3.30	3.19
Thu	1.60	1.60	1.61	3.22	3.22	1.62
Fri	1.04	1.05	1.50	1.05	1.05	1.05
Sat	0.80	0.99	1.05	1.05	1.04	0.81

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	
10-Jan	MP:	308	307	307	306	303	-3
	AEMO:	283	279	283	283	276	
	MP as % of AEMO	109%	110%	108%	108%	110%	
11-Jan	MP:	486	507	509	509	502	-9
	AEMO:	446	452	457	459	468	
	MP as % of AEMO	109%	112%	111%	111%	107%	
12-Jan	MP:	466	490	500	500	500	0
	AEMO:	462	451	473	484	479	
	MP as % of AEMO	101%	109%	106%	103%	104%	
13-Jan	MP:	426	407	394	394	394	0
	AEMO:	417	381	367	363	365	
	MP as % of AEMO	102%	107%	107%	109%	108%	
14-Jan	MP:	380	378	378	378	377	0
	AEMO:	357	360	360	360	360	
	MP as % of AEMO	106%	105%	105%	105%	105%	
15-Jan	MP:	352	350	349	349	348	0
	AEMO:	366	349	344	339	339	
	MP as % of AEMO	96%	100%	101%	103%	103%	
16-Jan	MP:	303	303	303	302	302	0
	AEMO:	296	303	305	298	288	
	MP as % of AEMO	102%	100%	99%	101%	105%	

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