

18 – 24 April 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 six instances of missing flow data on the Bulletin Board this week, all relating to Santos production facilities. Santos failed to submit data for the Farview, Scotia, Wallumbilla, Moomba, Ballera and Orbest production facilities for the Monday gas day (see Figure A2).

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 105 TJ (7 per cent) compared to the previous week. Significant falls were recorded in Victoria of 80 TJ (168 per cent) and South Australia of 30 TJ (10 per cent). Queensland recorded a small fall, while Tasmania and NSW/ACT recorded small increases.

Total average daily Gas Powered Generation (GPG) gas usage fell by 13 TJ (3 per cent) compared to the previous week. The largest fall (of 29 TJ or 15 per cent) was recorded in South Australia. Smaller falls were recorded in Queensland and NSW/ACT, while Victoria recorded a large percentage increase of 162 per cent (31 TJ). Tasmania remained steady on the previous week.

Average daily production volumes fell by 120 TJ (7 per cent) compared to the previous week. The Roma production facility was the only production facility to record an increase (of 14 TJ or 3 per cent). Falls were recorded at all other production facilities, with the largest fall in volume of 58 TJ (or 21 per cent) recorded at Otway Basin and the smallest fall in volume of 7 TJ (or 22 per cent) recorded at the Ballera gas plant. Total average daily flows were lower than the previous week by 99 TJ or 7 per cent with falls in flow occurring on the majority of pipelines with the largest falls occurring on the South West pipeline (39 TJ or 30 per cent) and the Longford to Melbourne gas pipeline (39 TJ or 10 per cent).

Victorian Gas Market

The average minimum and maximum temperatures in Victoria this week were somewhat higher than the previous week (see Figure A3).

Coincident with this, total average gas injections in the Victorian gas market fell by 75 TJ (15 per cent) compared to the previous week (See Figure V3). The average imbalance price fell from \$2.01/GJ the previous week to \$1.67/GJ (see Figure V2).

Rebidding occurred at Bass Gas on Thursday for the first time since 2 April 2010 (see Figure V5).

AEMO issued a negative demand override of 1 TJ on Tuesday (see figure A5).

Several supply Demand Point Constraints (SDPCs) were applied during the week, as follows:

- to injections and withdrawals at Vic Hub on Monday and withdrawals at Vic Hub on Saturday;
- to injections at BassGas on Monday, Tuesday and Saturday;
- to injections at Longford on Monday and Tuesday; and
- to injections at Iona on Saturday.

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
18 – 24 Apr	365	9	425	259	44	183	93	76
Financial Year-to-date 2009-10*	361	18	536	281	38	170	85	71
Financial Year-to-date 2008-09**	319	18	588	297	33	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
18 – 24 Apr	101	49	162	28	155
Financial Year-to-date 2009-10*	83	40	165	23	165
Financial Year-to-date 2008-09**	39	65	183	23	114

^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)
18 – 24 Apr	471	595	214	279
Financial Year-to-date 2009-10*	453	649	275	275
Financial Year-to-date 2008-09**	331	689	309	302

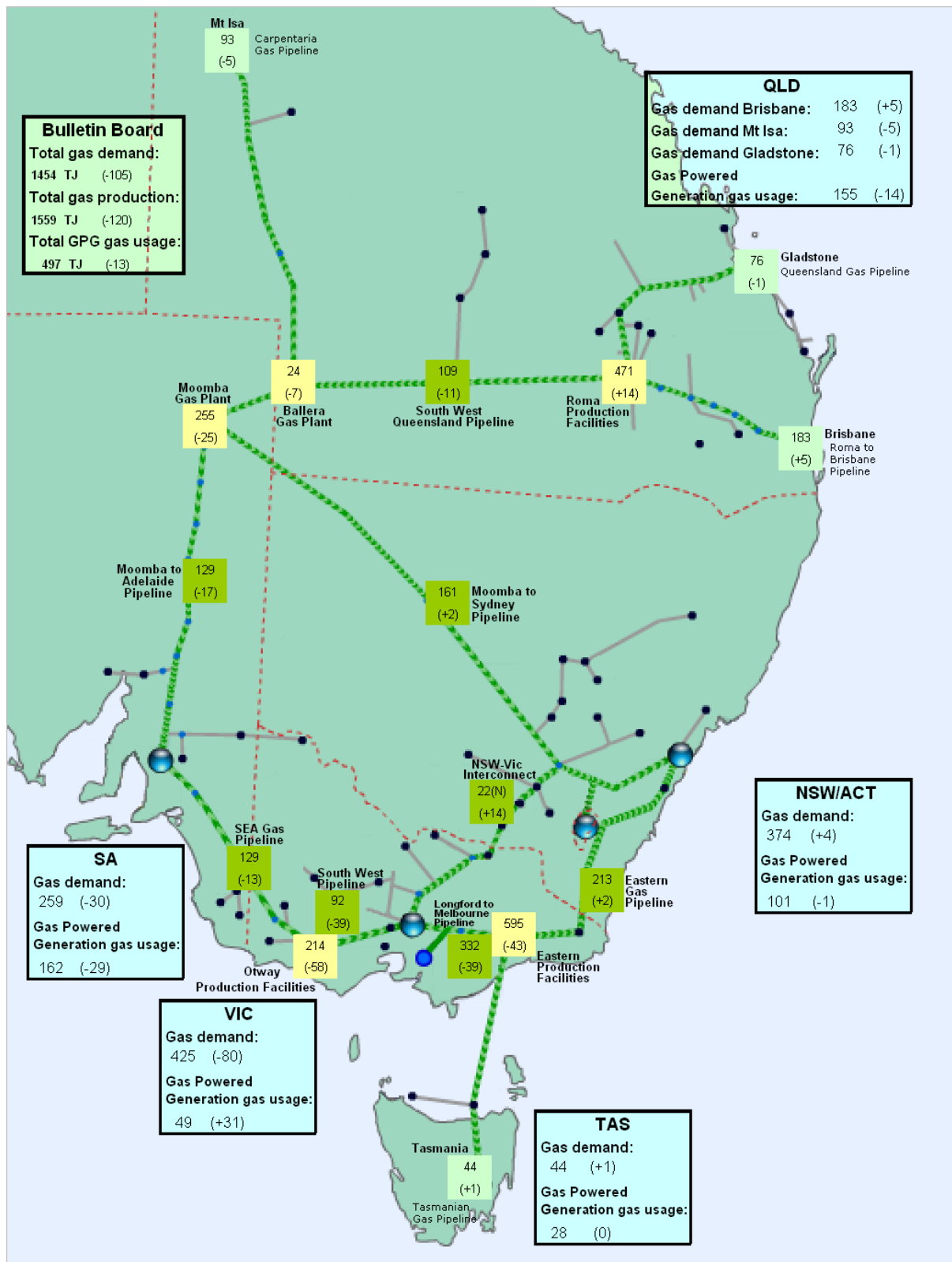
*Average daily estimated gas consumption measured from 1 July 2009 to the current week (inclusive)

**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)



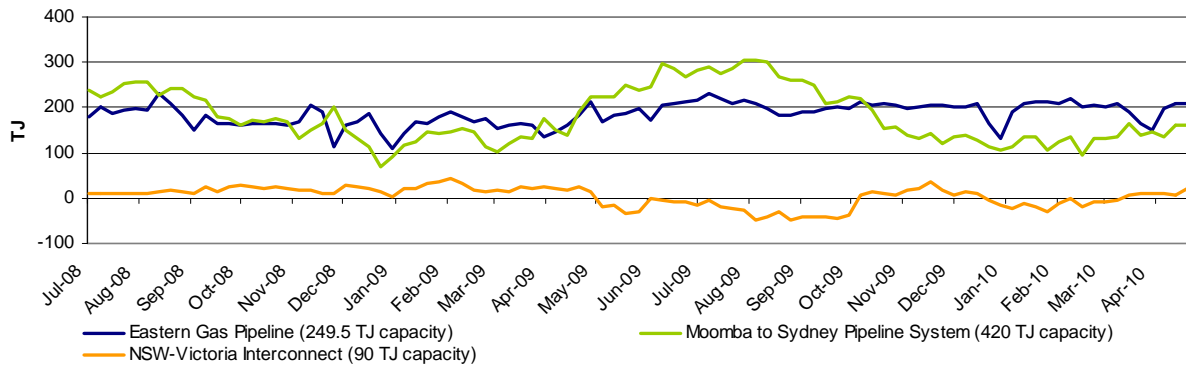
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

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.

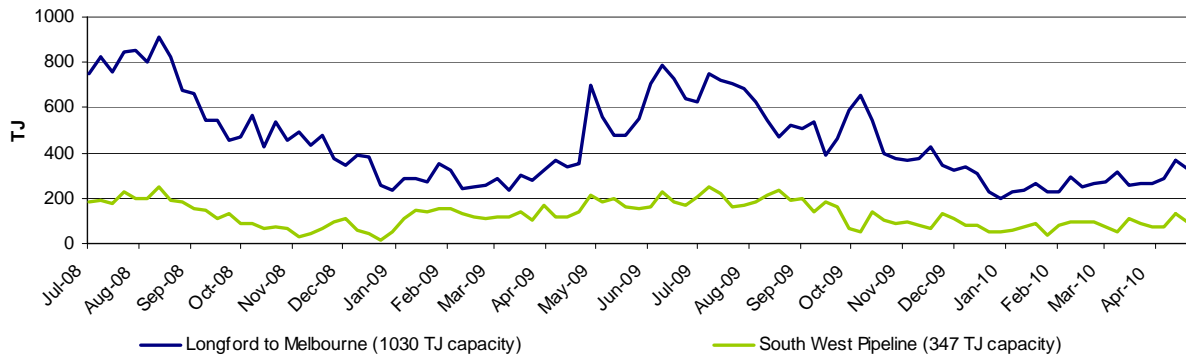
Figure 5: Average daily flows (TJ) into NSW/ACT demand region



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

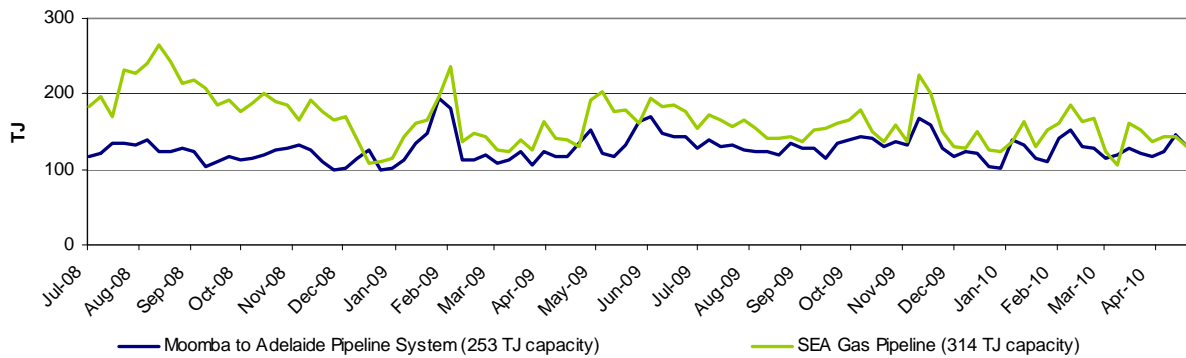
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

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	1								S				S
AGL (Qld)	Retailer	1				NS								
AGL	Retailer	4		NS	NS	NS	S				NS	S		
Aust. Power & Gas	Retailer	3			NS	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	S	S	NS	S	S			S	S		
Origin (Uranquinty)	Trader	1					S							
Red Energy	Retailer	1					S							
Santos	Retailer	1							S					
Simply Energy	Retailer	3				NS	S	S						
TRU Energy	Retailer	3			S	NS	S					NS		
Victoria Electricity	Trader	1			NS							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)

	18 - 24 Apr	11 - 17 Apr	2009-10 Financial YTD*	2008-09 Financial YTD**
Average daily price	1.67	2.01	1.64	3.06

18 - 24 Apr	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	1.07	1.88	2.10	2.17	2.80	0.61	1.04

*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)

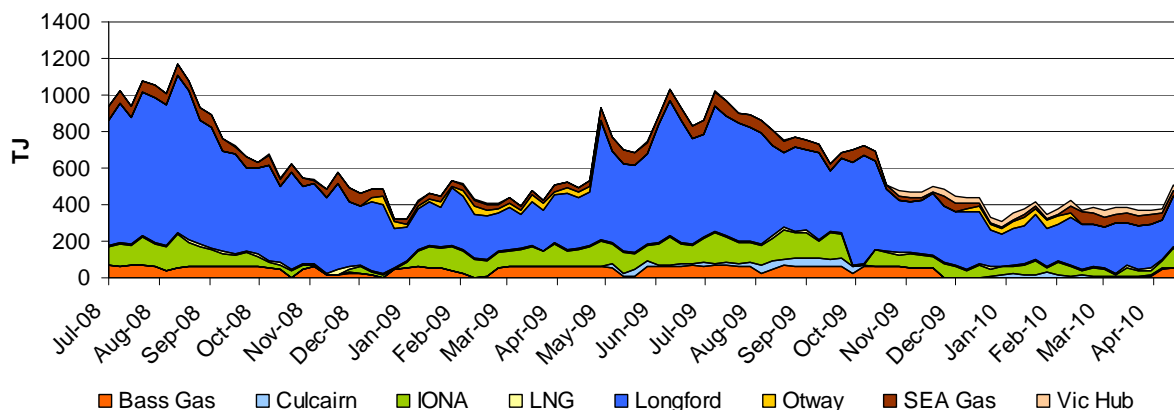
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6am, 10am, 2pm, 6pm and 10pm.

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:	18 - 24 Apr	11 - 17 Apr	2009-10 Financial YTD*	2008-09 Financial YTD**
Culcairn	2	5	16	0.3
Longford	253	284	355	430
LNG	10	6	8	9
IONA	56	104	75	78
VicHub	29.0	35.3	18.1	1.6
SEAGas	35	26	41	44
Bass Gas	51	51	31	48
Otway	0	0	8	13
TOTAL	436	511	552	623



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

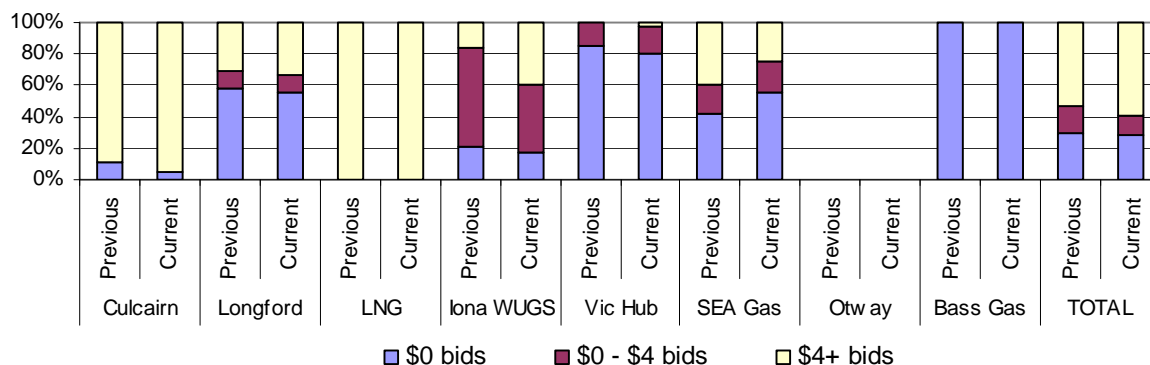
**Average daily estimated gas consumption measured from 1 July 2008 to the equivalent week in 2008 (inclusive)

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	TRU	AGL TRU Origin	TRU Origin	AGL	AGL TRU	TRU	AGL TRU
LNG							
Iona	TRU	Origin Vic Elec	TRU Origin Vic Elec	TRU Origin Vic Elec	TRU Origin Vic Elec	TRU Vic Elec	
VicHub	AETV	AETV	AETV	AETV	AETV	AETV	AETV
SEAGas		Simply		Origin Simply	Origin 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:	18 - 24 Apr	11 - 17 Apr	2009-10 Financial YTD*	2008-09 Financial YTD**
Ballarat	12	20	21	22
Geelong^	82	76	78	83
Gippsland	36	39	44	59
Melbourne	249	320	359	394
Northern	59	58	52	66
TOTAL	438	513	553	624

^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	95	92	88	92	102	80	103	117	72	93	85	82
QLD Gas Pipeline	75	74	75	74	77	77	76	79	90	76	71	67
Roma to Brisbane Pipeline	170	198	191	192	192	184	157	214	80	183	170	170
South West QLD Pipeline	117	79	98	103	104	133	130	181	75	109	136	77
NSW/ACT												
Eastern Gas Pipeline	199	218	216	220	223	217	182	250	80	213	199	171
Moomba to Sydney Pipeline	119	183	182	183	184	170	110	420	43	161	180	167
NSW-VIC Interconnect [^]	-13	34	45	26	28	26	10	90	-10	22	-9	20
VIC												
Longford to Melbourne	263	337	337	367	363	347	306	1030	39	332	403	465
South West Pipeline	27	114	113	134	140	83	34	347	34	92	117	123
SA												
Moomba to Adelaide Pipeline	112	145	141	155	144	117	94	253	51	129	129	123
SEA Gas Pipeline	103	139	162	140	144	129	89	314	48	129	152	174
TAS												
Tasmanian Gas Pipeline	37	46	46	45	46	45	37	129	30	44	38	33

*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	82	91	92	96	95	88	82	140	66	89	92	69
Fairview	103	N/A	102	97	99	119	122	115	96	107	111	70
Kenya Gas Plant	71	73	72	71	72	65	72	160	35	71	55	
Kincora	0	10	10	7	0	0	0	25	7	4	2	5
Kogan North	11	8	8	10	10	10	10	12	72	10	9	11
Peat	7	0	0	0	0	0	4	15	57	2	9	11
Rolleston	12	12	12	12	12	12	12	30	38	12	11	11
Scotia	25	N/A	26	27	27	27	27	27	87	26	24	22
Spring Gully	46	46	44	40	40	40	40	60	72	42	43	58
Strathblane	46	46	44	40	40	40	40	60	72	42	43	48
Talooka	28	28	27	24	24	24	24	36	73	26	26	0
Wallumbilla	11	N/A	11	10	10	10	10	20	53	10	11	13
Yellowbank	13	14	13	12	13	14	13	30	42	13	13	14
Talinga	0	0	17	25	26	26	26	50	10	17	5	
Moomba (SA/QLD)												
Moomba Gas Plant	261	N/A	274	288	275	252	177	430	61	255	263	265
Ballera	22	N/A	27	26	33	12	25	150	8	24	12	37
Eastern (VIC)												
Orbost Gas Plant	47	N/A	47	48	49	25	0	92	23	36	21	0
Lang Lang Gas Plant	56	41	45	53	55	55	54	70	44	51	31	47
Longford Gas Plant	388	408	503	609	558	609	480	1145	52	508	598	641
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0	1
Otway Basin (VIC)												
Minerva Gas Plant	0	0	0	0	0	0	0	94	74	0	70	88
Otway Gas Plant	88	131	172	70	155	162	96	206	62	125	128	137
Iona Underground Gas Storage	63	117	107	107	140	91	0	440	17	89	77	84

*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)
18 – 24 Apr	Average min.	18.1	17.5	9.1	17.6	16.7	12.1
	Average max.	26.0	26.3	23.6	27.2	26.5	20.6
11 – 17 Apr	Average min.	18.6	15.2	5.4	12.9	10.7	10.4
	Average max.	26.9	24.6	21.1	20.6	22.5	19.3

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

18 – 24 Apr	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	1.07	0.31	0.57	2.10	1.14	1.07
Mon	1.84	2.10	2.50	1.84	1.84	1.88
Tue	2.10	2.10	2.12	2.10	2.10	2.10
Wed	2.10	2.77	2.78	2.80	2.80	2.17
Thu	2.81	2.76	2.76	2.74	1.84	2.80
Fri	0.62	0.58	0.58	0.08	0.08	0.61
Sat	1.07	0.04	0.04	0.30	0.30	1.04

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	
18-Apr	MP:	330	329	329	329	328	0
	AEMO:	296	297	312	315	325	
	MP as % of AEMO	111	111	105	104	101	
19-Apr	MP:	390	446	445	443	443	0
	AEMO:	365	424	425	418	412	
	MP as % of AEMO	107	105	105	106	108	
20-Apr	MP:	403	409	411	410	410	-1
	AEMO:	381	376	382	384	394	
	MP as % of AEMO	106	109	108	107	104	
21-Apr	MP:	459	470	481	480	479	0
	AEMO:	440	447	470	473	475	
	MP as % of AEMO	104	105	102	101	101	
22-Apr	MP:	483	481	481	480	480	0
	AEMO:	466	456	464	459	452	
	MP as % of AEMO	104	105	104	105	106	
23-Apr	MP:	462	471	470	468	468	0
	AEMO:	422	447	436	430	414	
	MP as % of AEMO	109	105	108	109	113	
24-Apr	MP:	339	342	341	341	341	0
	AEMO:	330	336	336	339	340	
	MP as % of AEMO	103	102	101	101	100	

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