

8 August – 14 August 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](mailto:aer inquiry@ aer.gov.au), with the subject title '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. Epic Energy failed to submit data for two of its pipeline facilities, the South West Queensland Pipeline and the Moomba to Adelaide Pipeline, on Sunday and Monday.

Figure 4 shows changes in gas demand and production and pipeline flows compared to the previous week. Total average daily demand for gas decreased slightly compared to the previous week (11 TJ). Reduced demand was recorded in Victoria (27 TJ or 3 per cent) and South Australia (44 TJ or 12 per cent) was offset by increased gas demand in NSW/ACT (23 TJ or 4 per cent) and Gladstone (31 TJ or 36 per cent).

Total average daily Gas Powered Generation (GPG) gas usage fell by 32 TJ (6 per cent) compared to the previous week. Decreases were recorded in Victoria (8 TJ or 20 per cent) and South Australia (32 TJ or 16 per cent), while NSW/ACT recorded an 8 TJ (10 per cent) increase in GPG gas usage. GPG usage in other regions remained stable.

Average daily production volumes were similar to the previous week. Production decreased by 37 TJ in Victoria, largely influenced by decreased injections at Otway (40 TJ or 7 per cent). This was offset by increased production from the Moomba and Roma production zones (16 TJ and 22 TJ respectively). Significant flow reductions were recorded on pipelines supplying Melbourne and Adelaide from major production regions, while flows on the Moomba to Sydney Pipeline increased by 22 TJ in line with the New South Wales demand increase. Flow decreases were recorded on the Moomba to Adelaide Pipeline (23 TJ or 15 per cent), the SEA Gas Pipeline (21 TJ or 11 per cent), the South West Pipeline (18 TJ or 10 per cent) and the Longford to Melbourne Pipeline (15 TJ or 2 per cent).

### Victorian Gas Market

In line with the decrease in demand in Victoria, average gas injections fell by 30 TJ (3 per cent) compared to the previous week (See Figure V3). The average imbalance price decreased from \$3.30/GJ the previous week to \$2.78/GJ (see Figure V2). In addition to a continued high level of rebidding at Iona, this week there was a high level of rebidding at SEAGas. AEMO issued demand overrides of -2 TJ on Monday, 20 TJ on Tuesday, 12 TJ on Wednesday, 5 TJ on Thursday and -25 TJ on Saturday (see figure A5). There were no system constraint notifications 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 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
8 – 14 August	489	45	946	308	53	188	94	116
Financial Year-to-date 2010-11*	475	50	941	327	50	186	91	90
Financial Year-to-date 2009-10**	463	46	907	290	24	131	91	67

\*Average daily estimated gas consumption measured from 1 July 2010 to the current week (inclusive)

\*\*Average daily estimated gas consumption measured from 1 July 2009 to the equivalent week in 2009 (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
8 – 14 August	97	33	170	37	163
Financial Year-to-date 2010-11*	87	26	187	35	158
Financial Year-to-date 2009-10**	93	58	150	10	87

^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 2010 to the current week (inclusive)

\*\*Average daily estimated gas consumption measured from 1 July 2009 to the equivalent week in 2009 (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)
8 – 14 August	583	1091	334	382
Financial Year-to-date 2010-11*	560	1066	365	372
Financial Year-to-date 2009-10**	403	927	360	379

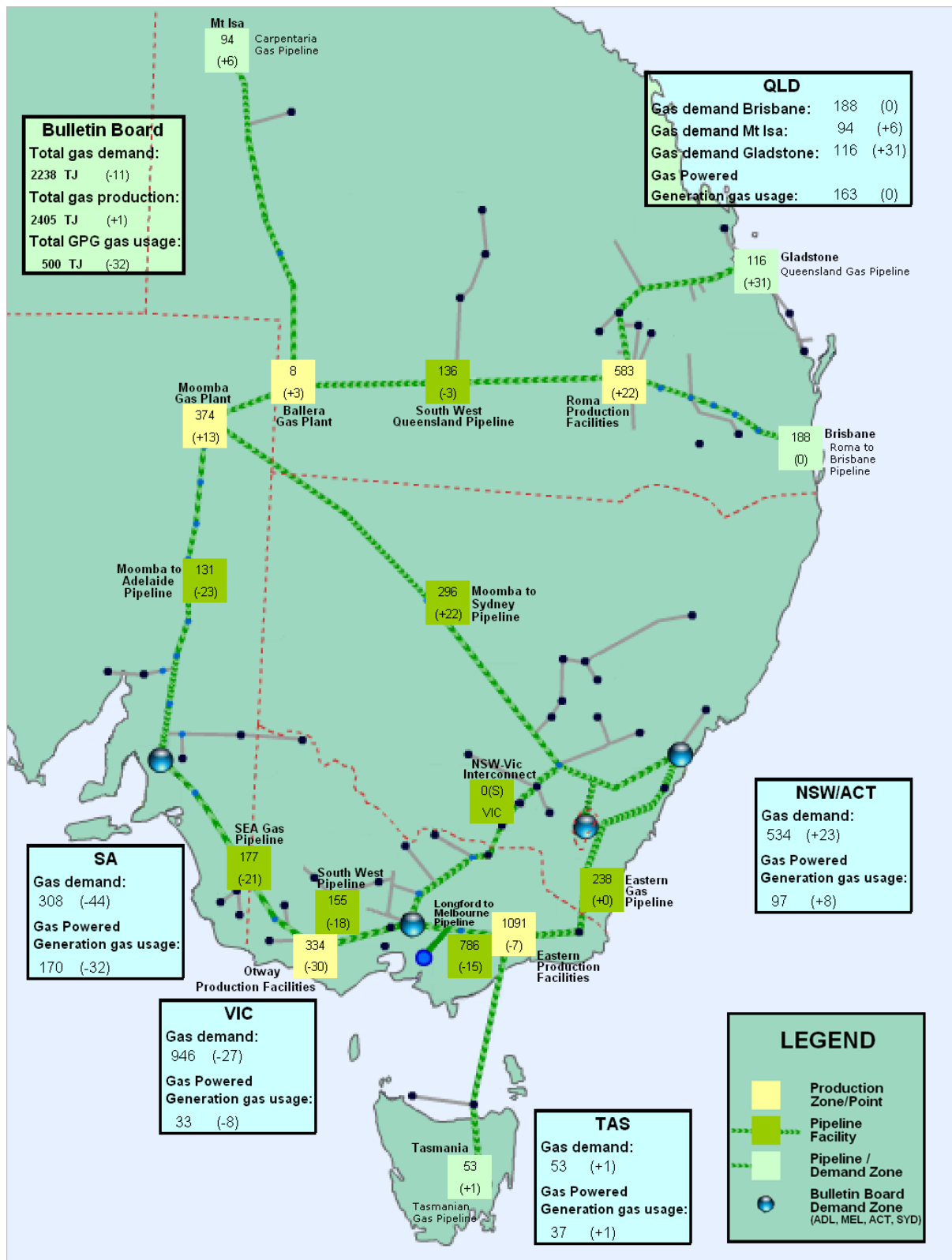
\*Average daily estimated gas consumption measured from 1 July 2010 to the current week (inclusive)

\*\*Average daily estimated gas consumption measured from 1 July 2009 to the equivalent week in 2009 (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)

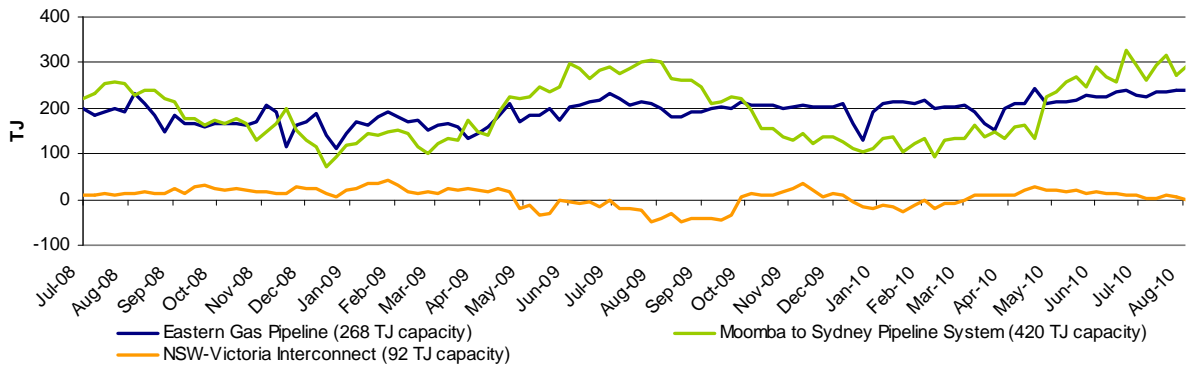


Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>  
 Notes: Direction of aggregate daily flows along the NSW-Vic Interconnect indicated on map by S (South) or N (North).  
 Numbers in brackets indicate a change in average daily flow from the previous week.

## 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.

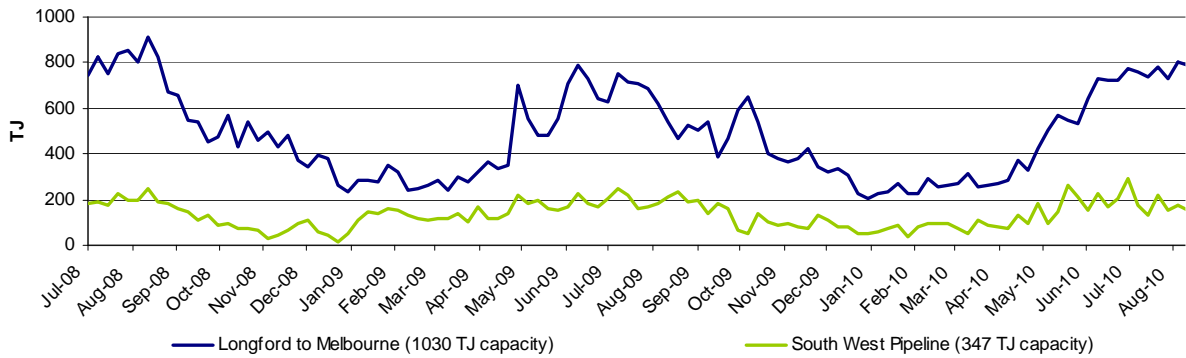
**Figure 5: Average daily flows (TJ) into NSW/ACT demand region**



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

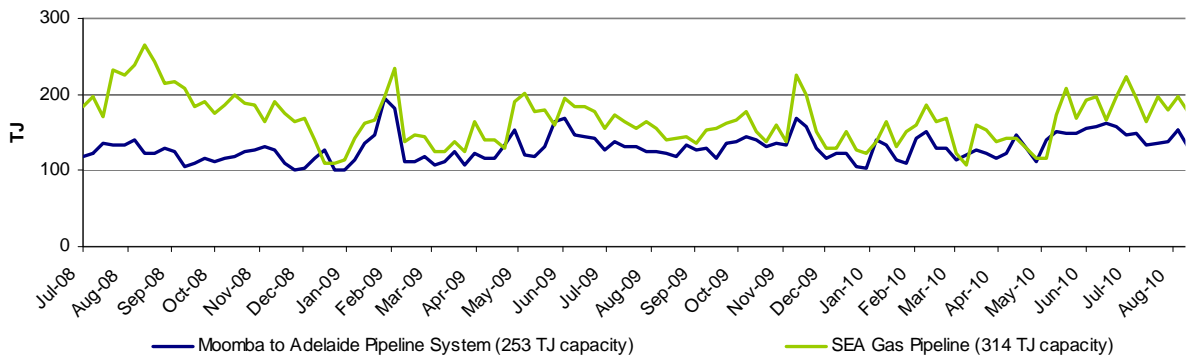
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

**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<sup>^</sup>**

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	2							S					S
AGL (Qld)	Retailer	1				NS								
AGL	Retailer	4		NS	S	NS	S				NS	NS		
Aurora Energy	Retailer	1					S							
Aust. Power & Gas	Retailer	3			S	NS	S					NS		
Coogee Energy	Transmission Customer	1					S							
Country Energy	Transmission Customer	1									S			
Energy Australia	Retailer	3			S		S		NS					S
International Power	Transmission Customer	1										S		
Lumo Energy	Retailer	5		NS	S	NS		S	S					
Lumo Energy	Trader	2			S				NS			S		
Origin (Vic)	Retailer	6	S	S	S	NS	S	S			NS	S		
Origin (Uranquinty)	Trader	1					S							
Red Energy	Retailer	1					S							
Santos	Retailer	2						S	S					
Simply Energy	Retailer	4			S	NS	S	NS						
TRU Energy	Retailer	4			S	NS	S					NS		NS
Visy Paper	Distribution Customer	2					S				S			

<sup>^</sup>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 2010-11 financial year-to-date average and the 2009-10 financial year-to-date equivalent. Daily imbalance prices for each day during the current week are also noted.

**Figure V2: Imbalance Weighted Prices (\$/GJ)**

	8 – 14 August	1 – 7 August	2010-11 Financial YTD*	2009-10 Financial YTD**
<b>Average daily price</b>	2.78	3.30	2.82	1.88

8 August – 14 August	Sun	Mon	Tue	Wed	Thu	Fri	Sat
<b>Daily price</b>	3.27	3.17	3.51	3.39	3.61	1.28	1.24

\*Average daily estimated gas consumption measured from 1 July 2010 to the current week (inclusive)

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

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

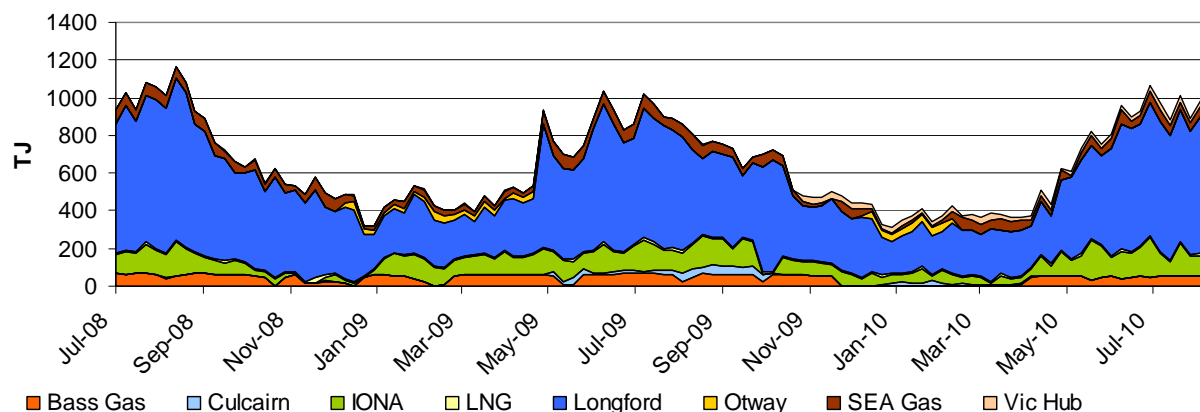
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6am, 10am, 2pm, 6pm and 10pm.

## System Injections

Figure V3 notes the average daily injections into the VPTS for the current week, compared with the 2010-11 and 2009-10 equivalent financial year-to-date daily averages.

**Figure V3: Average daily flows (TJ) from Injection Points on the VPTS**

Injection Point:	8 – 14 August	1 – 7 August	2010-11 Financial YTD*	2009-10 Financial YTD**
<b>Culcairn</b>	6	0	2	26
<b>Longford</b>	708	721	689	627
<b>LNG</b>	8	10	8	9
<b>IONA</b>	118	112	121	129
<b>VicHub</b>	30	31	30	1
<b>SEAGas</b>	35	59	51	71
<b>Bass Gas</b>	50	51	51	54
<b>Otway</b>	0	0	0	0
<b>TOTAL</b>	<b>954</b>	<b>984</b>	<b>953</b>	<b>917</b>



\*Average daily estimated gas consumption measured from 1 July 2010 to the current week (inclusive)

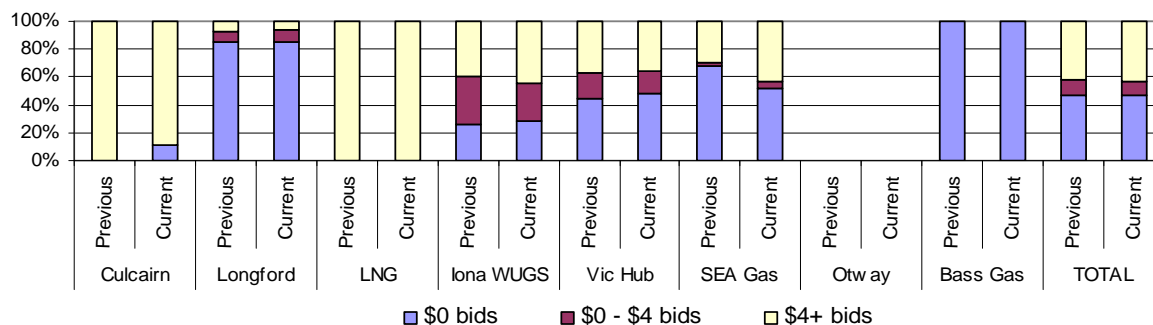
\*\*Average daily estimated gas consumption measured from 1 July 2009 to the equivalent week in 2009 (inclusive)

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
<b>Culcairn</b>							
<b>Longford</b>		AGL Origin TRU	AGL Origin TRU	AGL	AGL	AGL TRU	AGL TRU
<b>LNG</b>							
<b>Iona</b>	Origin TRU APG Lumo	TRU APG Lumo	AGL Origin TRU APG Lumo	AGL TRU APG Lumo	TRU APG Lumo	TRU Lumo	TRU APG
<b>VicHub</b>		AETV	AETV Lumo	AETV Lumo	AETV Lumo	AETV	AETV
<b>SEAGas</b>	Origin Santos Simply Lumo	Simply	Origin Santos Simply Lumo		Origin Santos Simply Lumo	Simply	Simply
<b>Bass Gas</b>							

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 | CE = Country Energy | Lumo = Lumo Energy (formerly 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:	8 – 14 August	1 – 7 August	2010-11 Financial YTD*	2009-10 Financial YTD**
<b>Ballarat</b>	47	47	45	43
<b>Geelong^</b>	107	110	108	101
<b>Gippsland</b>	58	64	58	59
<b>Melbourne</b>	670	683	659	641
<b>Northern</b>	80	83	86	76
<b>TOTAL</b>	<b>962</b>	<b>987</b>	<b>957</b>	<b>919</b>

^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 2010 to the current week (inclusive)

\*\*Average daily estimated gas consumption measured from 1 July 2009 to the equivalent week in 2009 (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**
<b>QLD</b>												
Carpentaria Pipeline	94	96	85	94	95	97	95	117	78	94	91	91
QLD Gas Pipeline	119	110	117	119	119	116	113	142	63	116	90	67
Roma to Brisbane Pipeline	169	195	196	195	202	192	169	219	85	188	186	131
South West QLD Pipeline	N/A	N/A	123	150	133	144	128	181	80	136	144	159
<b>NSW/ACT</b>												
Eastern Gas Pipeline	225	247	244	248	248	239	217	268	87	238	233	214
Moomba to Sydney Pipeline	284	314	328	345	324	265	209	420	69	296	291	296
NSW-VIC Interconnect <sup>^</sup>	8	17	-18	-17	-5	7	5	92	5	0	5	-25
<b>VIC</b>												
Longford to Melbourne	766	799	839	834	817	752	696	1030	74	786	766	678
South West Pipeline	112	140	257	203	148	117	106	347	50	155	173	203
<b>SA</b>												
Moomba to Adelaide Pipeline	N/A	N/A	132	120	138	130	136	253	55	131	139	130
SEA Gas Pipeline	162	217	201	177	186	179	114	314	60	177	188	161
<b>TAS</b>												
Tasmanian Gas Pipeline	65	55	54	51	51	48	45	129	39	53	50	24

\*Average daily estimated gas consumption measured from 1 July 2010 to the current week (inclusive)

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

<sup>^</sup>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**
<b>Roma (QLD)</b>												
Berwyndale South	104	106	101	103	104	105	104	140	68	104	95	83
Fairview	126	129	131	32	132	132	131	130	94	116	122	106
Kenya Gas Plant	69	69	69	69	69	68	69	160	36	69	58	20
Kincora	12	8	15	0	5	15	0	25	21	8	5	1
Kogan North	10	10	10	10	10	10	10	12	81	10	10	5
Peat	11	11	11	11	11	11	11	15	71	11	11	11
Rolleston	11	11	11	11	11	11	11	30	39	11	12	12
Scotia	29	29	29	29	29	29	29	29	95	29	28	8
Spring Gully	53	55	53	54	54	57	56	60	88	55	53	52
Strathblane	53	55	53	54	54	57	56	60	88	55	53	52
Taloona	32	33	32	33	33	34	34	36	89	33	32	31
Wallumbilla	10	9	9	9	9	9	9	20	47	9	9	7
Yellowbank	13	13	13	13	14	13	13	30	43	13	13	15
Talinga	62	62	62	63	64	64	49	81	74	61	60	
<b>Moomba (SA/QLD)</b>												
Moomba Gas Plant	351	380	390	387	387	384	339	430	85	374	366	378
Ballera	7	23	4	0	6	0	14	150	4	8	6	1
<b>Eastern (VIC)</b>												
Orbost Gas Plant	0	0	0	0	0	0	0	100	0	0	0	0
Lang Lang Gas Plant	51	51	51	51	51	51	51	70	73	51	51	53
Longford Gas Plant	1034	1061	1059	1090	1083	1016	934	1145	89	1040	1015	875
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0	0
<b>Otway Basin (VIC)</b>												
Minerva Gas Plant	84	94	88	94	94	94	68	94	91	88	86	81
Otway Gas Plant	102	183	122	0	98	157	105	206	71	110	147	149
Iona Underground Gas Storage	94	98	205	275	159	71	53	440	30	137	133	130

\*Average daily estimated gas consumption measured from 1 July 2010 to the current week (inclusive)

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

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)
<b>8 – 14 August</b>	Average min.	10.8	9.1	0.9	7.7	8.3	4.9
	Average max.	20.9	17.9	12.7	14.1	14.9	13.8
<b>1 – 7 August</b>	Average min.	10.8	8.4	1.6	7.7	6.1	5.0
	Average max.	21.8	17.5	11.6	14.5	13.1	13.4

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**

<b>8 – 14 August</b>	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
<b>Sun</b>	3.30	3.30	3.30	1.21	3.26	3.27
<b>Mon</b>	3.30	3.56	1.55	0.15	0.15	3.17
<b>Tue</b>	3.48	3.78	3.89	3.46	3.68	3.51
<b>Wed</b>	3.46	1.65	1.76	3.50	3.50	3.39
<b>Thu</b>	3.71	3.30	1.77	1.65	1.65	3.61
<b>Fri</b>	1.27	1.16	2.41	1.00	2.80	1.28
<b>Sat</b>	1.27	0.36	0.40	1.51	0.17	1.24

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	
8-Aug	MP:	947	936	929	928	930	0
	AEMO:	891	897	880	853	883	
	MP as % of AEMO	106	104	106	109	105	
9-Aug	MP:	983	1001	996	988	983	-2
	AEMO:	984	999	987	952	904	
	MP as % of AEMO	100	100	101	104	109	
10-Aug	MP:	1014	1066	1101	1073	1072	20
	AEMO:	1000	1073	1145	1116	1106	
	MP as % of AEMO	101	99	96	96	97	
11-Aug	MP:	1087	1051	1066	1074	1065	12
	AEMO:	1086	1071	1054	1085	1091	
	MP as % of AEMO	100	98	101	99	98	
12-Aug	MP:	1047	1019	1010	1006	1005	5
	AEMO:	1046	1027	1014	995	991	
	MP as % of AEMO	100	99	100	101	101	
13-Aug	MP:	892	886	888	889	889	0
	AEMO:	856	865	869	867	870	
	MP as % of AEMO	104	102	102	102	102	
14-Aug	MP:	844	848	831	835	814	-25
	AEMO:	848	819	833	834	799	
	MP as % of AEMO	100	104	100	100	102	

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