

11 July – 17 July 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 was one instance of missing flow data on the Bulletin Board this week on Sunday at Origin's Otway Gas Plant. There was also one instance of incorrectly reported data on Saturday when flow on APA's Moomba to Sydney Pipeline was reported as 17,065.2 TJ.

Figure 4 shows changes in gas demand and production and pipeline flows compared to the previous week. Total average daily demand for gas decreased by 157 TJ (7 per cent) compared to the previous week, influenced by higher temperatures. Significant reductions were recorded in Victoria 69 TJ (7 per cent), South Australia 45 TJ (13 per cent) and NSW/ACT 37 TJ (7 per cent). Total average daily Gas Powered Generation (GPG) gas usage decreased by 42 TJ (8 per cent) compared to the previous week. In Queensland however, GPG usage increased 14 TJ (9 per cent), while in South Australia GPG usage decreased by 37 TJ (19 per cent).

Average daily production volumes fell by 206 TJ (8 per cent) compared to the previous week. Decreased gas production was recorded at the Otway Basin (96 TJ or 24 per cent), the Eastern production zone in Victoria (48 TJ or 5 per cent), the Roma production zone (18 TJ or 3 per cent) and at the Moomba gas plant (46 TJ or 12 per cent). With the exception of the Queensland Gas Pipeline, decreased flows were recorded on all Bulletin Board pipelines this week. The most significant reductions occurred on the Moomba to Sydney pipeline (34 TJ) and pipelines supplying gas to Melbourne and Adelaide from Victorian production zones. Flows decreased by 45 TJ on the South West Pipeline, 31 TJ on the SEA Gas Pipeline and 26 TJ on the Longford to Melbourne Pipeline.

Victorian Gas Market

In line with the decreased demand in Victoria, average gas injections fell by 89 TJ (9 per cent) compared to the previous week (See Figure V3). The average imbalance price decreased from \$3.49/GJ for the previous week to \$1.85/GJ (see Figure V2). This coincided with an increase in low priced gas offered to the market (see Figure V4).

AEMO issued demand overrides on Sunday 11 July (-6 TJ), Monday 12 July (-1 TJ), Wednesday 14 July (-19 TJ) and Saturday 17 July (-16 TJ) (see figure A5).

A Demand Point Constraint (SDPC) was applied to Iona withdrawals on 16 July.

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
11 July – 17 July	439	47	873	298	49	189	87	84
Full Financial Year 2009-10	375	21	585	288	39	168	87	71

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
11 July – 17 July	77	3	159	33	178
Full Financial Year 2009-10	85	36	171	24	162

^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'

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.)

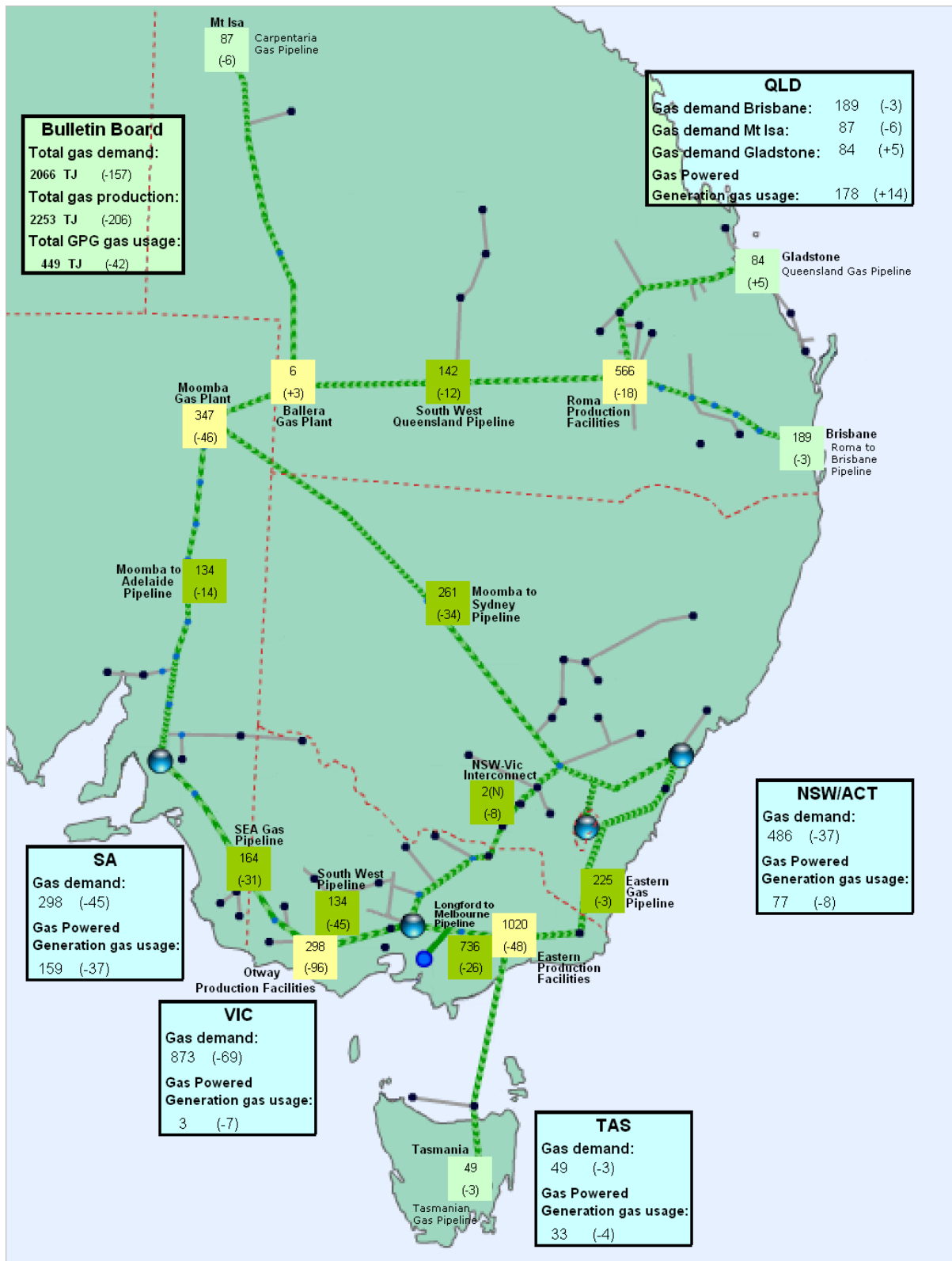
Figure 3: Daily average production flows (TJ) for each production zone

Average daily flows	Roma (QLD)	Eastern Victoria	Otway Basin (VIC)	Moomba (SA/QLD)
11 July – 17 July	566	1020	298	353
Full Financial Year 2009-10	475	692	290	284

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)



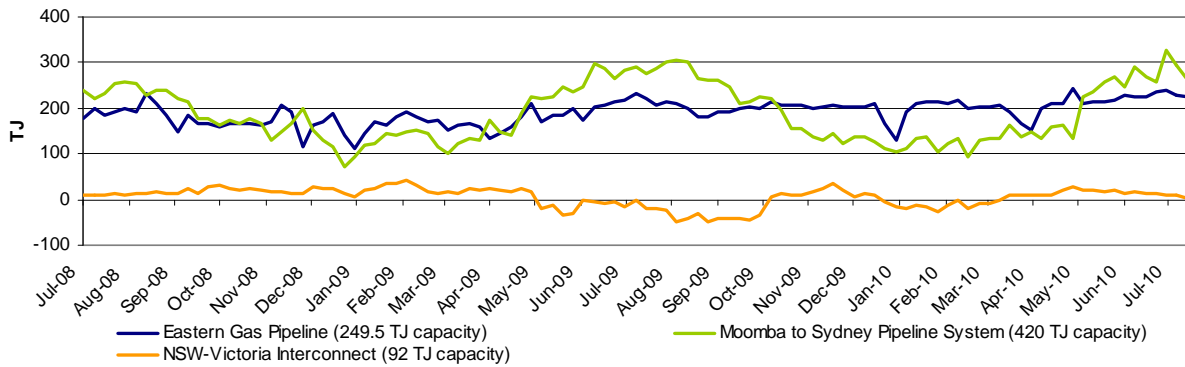
Source: Natural Gas Market Bulletin Board <http://www.gasbb.com.au>

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.

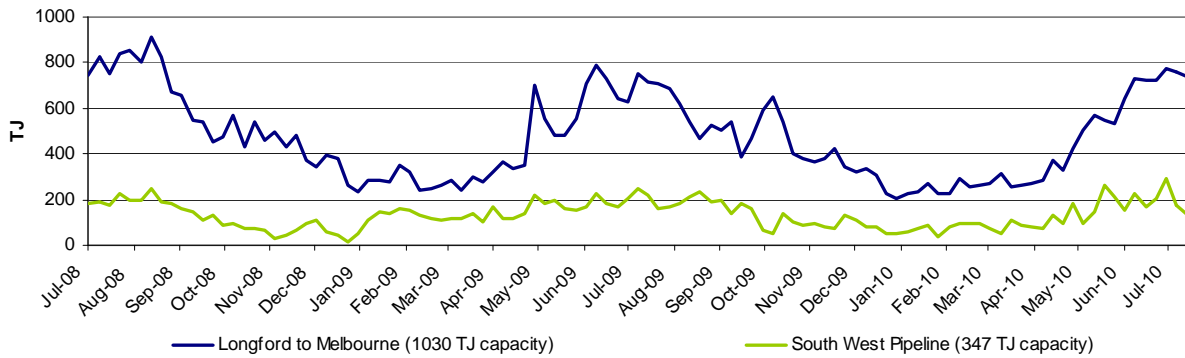
Figure 5: Average daily flows (TJ) into NSW/ACT demand region



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

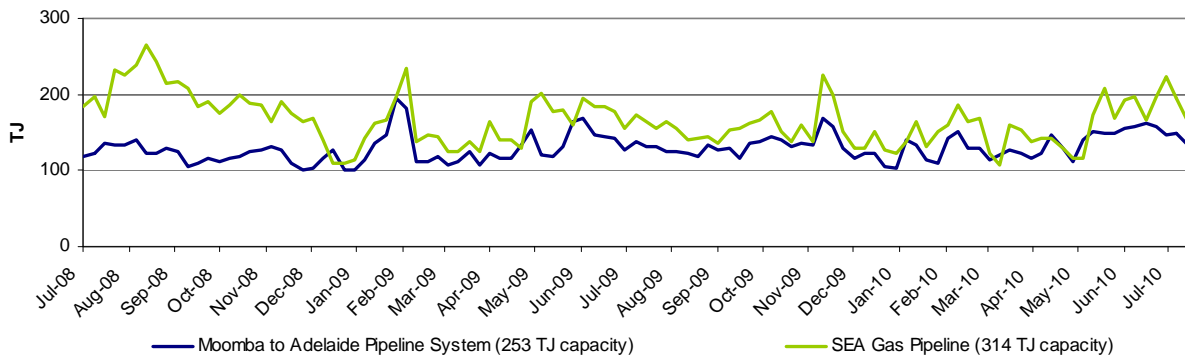
Notes: Negative flows on the NSW-Victoria Interconnect represent flows out of NSW into VIC.

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	S	NS	S					NS	NS		
Aurora Energy	Retailer	1					S								
Aust. Power & Gas	Retailer	3			S	NS	S						S		
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		
Origin (Vic)	Retailer	6	S	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	4			S	NS	S	S							
TRU Energy	Retailer	4			S	NS	S						S		NS
Victoria Electricity	Trader	2			S					NS			S		
Victoria Electricity	Retailer	5		NS	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 total 2009-10 financial year average. Daily imbalance prices for each day during the current week are also noted.

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

	11 July – 17 July	4 July – 10 July	2009-2010 Financial Year
Average daily price	1.85	3.49*	1.83

11 July – 17 July	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Daily price	0.26	1.24	2.97	1.05	3.48	1.11	2.88

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.

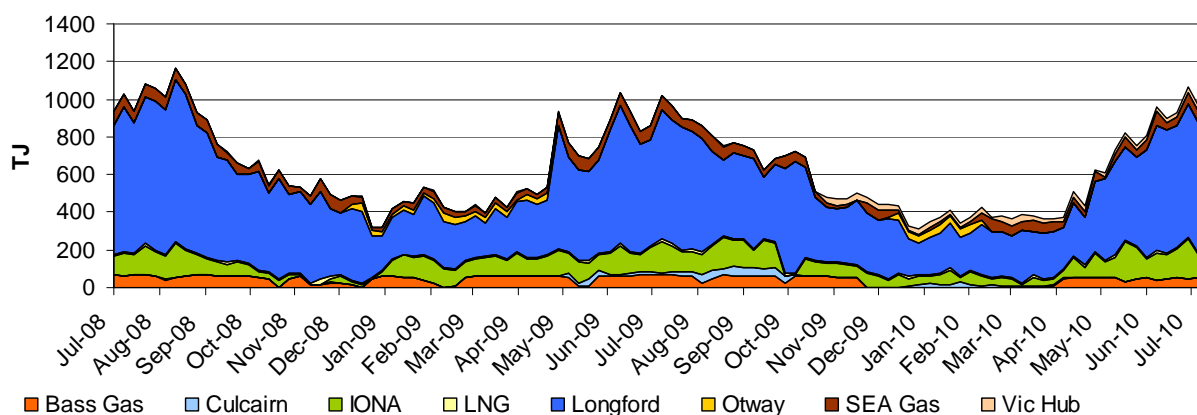
* This figure is different to the \$3.50 figure reported in the AER gas weekly analysis for the week ending 10 July. This difference was caused by values in MIBB report INTO41 being updated for July 4 2010 between the time these two AER reports were produced.

System Injections

Figure V3 notes the average daily injections into the VPTS for the current week, compared with the total 2009-10 financial year daily averages.

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

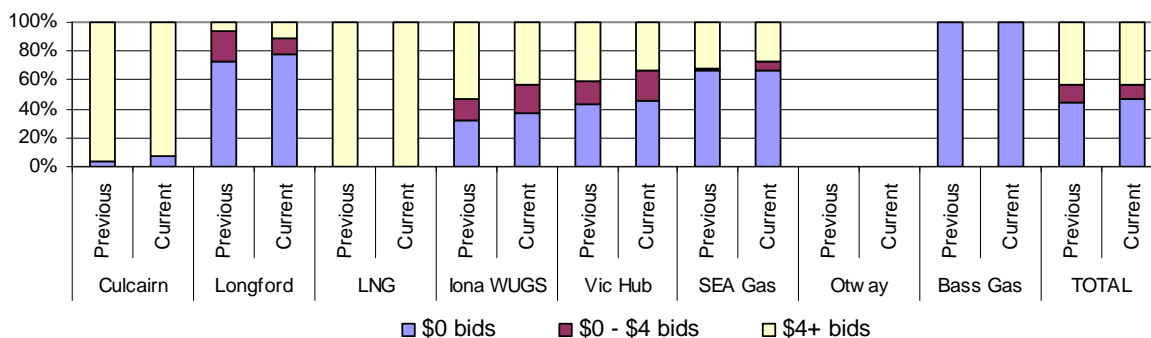
Injection Point:	11 July – 17 July	4 July – 10 July	2009-10 Financial Year
Culcairn (I)	3	1	13
Longford (I)	657	690	389
LNG (I)	8	8	9
IONA (I)	76	124	87
Vic Hub (I)	28	33	19
SEA Gas (I)	57	62	42
Bass Gas (I)	52	52	34
Otway (I)	0	0	7
TOTAL	881	970	600



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					Vic Elec		
Longford	AGL Origin TRU	AGL Origin TRU	AGL TRU	AGL TRU		AGL Origin TRU	AGL TRU
LNG							
IONA	Origin TRU APG	TRU APG Vic Elec	Origin TRU Vic Elec	Origin APG Vic Elec	AGL Origin APG Vic Elec	Origin TRU APG	Origin TRU APG
VicHub	AETV	AETV	AETV	AETV	AETV	AETV	AETV
SEA Gas		Origin Vic Elec Santos Simply	Simply	Simply	Simply		Simply
Bass Gas							

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

Notes: Origin = Origin Energy | AGL = AGL Sales | TRU = TRUenergy | Simply = Simply Energy | Santos = Santos Direct
AETV = AETV Power | APG = Australian Power & Gas | Vic Elec = Victoria Electricity | CE = Country Energy

System withdrawals

Figure V6 notes the average daily gas usage on the VPTS for this week, compared with the total 2009-10 financial year daily average.

Figure V6: Average daily withdrawals (TJ) from system demand zones on the VPTS

System withdrawal zone:	11 July – 17 July	4 July – 10 July	2009-10 Financial Year
Ballarat	44	47	24
Geelong	108	114	82
Gippsland	53	57	45
Melbourne	600	663	393
Northern	83	93	57
TOTAL	888	974	601

^Data presented also includes withdrawals for the Western system withdrawal zone or Western Transmission System (WTS).

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	2009-10 Financial Year average daily flows
QLD											
Carpentaria Pipeline	95	93	82	81	83	88	90	117	78	87	87
QLD Gas Pipeline	77	78	83	87	88	92	85	79	101	84	71
Roma to Brisbane Pipeline	171	196	195	199	196	185	178	219	87	189	168
South West QLD Pipeline	111	136	134	139	153	171	153	181	84	142	138
NSW/ACT											
Eastern Gas Pipeline	211	231	227	228	234	232	211	250	91	225	204
Moomba to Sydney Pipeline	229	286	259	273	287	1706 5.2 TJ**	233	420	68	261	193
NSW-VIC Interconnect [^]	-2	4	4	2	5	15	-17	92	8	2	-4
VIC											
Longford to Melbourne	665	731	722	780	786	733	738	1030	73	736	441
South West Pipeline	58	104	116	181	209	135	134	347	49	134	131
SA											
Moomba to Adelaide Pipeline	133	145	136	140	140	123	122	253	55	134	133
SEA Gas Pipeline	136	172	179	177	193	180	113	314	60	164	156
TAS											
Tasmanian Gas Pipeline	46	49	47	49	51	50	48	129	38	49	39

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

** This value entered is incorrect and has been removed from averaging process.

[^]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	2009-10 Financial Year average daily flows
Roma (QLD)											
Berwyndale South	106	105	107	106	102	104	105	140	75	105	93
Fairview	90	128	128	128	129	139	97	130	94	120	113
Kenya Gas Plant	53	53	58	58	58	67	64	160	36	59	56
Kincora	0	0	0	0	0	0	0	25	32	0	2
Kogan North	11	10	11	11	8	7	10	12	85	10	9
Peat	11	11	11	11	11	11	11	15	73	11	9
Rolleston	10	11	12	12	12	12	12	30	39	12	11
Scotia	29	29	29	29	29	29	29	29	98	29	23
Spring Gully	53	53	53	53	53	53	53	60	88	53	43
Strathblane	53	53	53	53	53	53	53	60	88	53	43
Talooka	32	32	32	32	32	32	32	36	88	32	26
Wallumbilla	9	9	10	10	10	10	10	20	50	10	10
Yellowbank	13	12	13	13	7	13	13	30	42	12	13
Talinga	70	70	64	66	66	55	39	75	85	61	23
Moomba (SA/QLD)											
Moomba Gas Plant	332	350	323	355	378	365	324	430	88	347	272
Ballera	29	1	0	0	3	0	9	150	3	6	12
Eastern (VIC)											
Orbost Gas Plant	0	0	0	0	0	0	1	100	0	0	17
Lang Lang Gas Plant	53	53	52	52	51	52	52	70	72	52	34
Longford Gas Plant	874	924	945	993	1013	1000	1022	1145	87	967	641
LNG Storage Dandenong	0	0	0	0	0	0	0	158	0	0	0
Otway Basin (VIC)											
Minerva Gas Plant	58	94	78	83	78	88	54	94	89	76	72
Otway Gas Plant	N/A	112	151	153	184	183	79	206	79	144	126
Iona Underground Gas Storage	36	68	56	107	124	62	95	440	27	78	92

*Average daily estimated gas consumption measured from 1 July 2010 to the current week (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)
11 July – 17 July	Average min.	10.4	10.0	1.1	8.7	9.2	6.8
	Average max.	22.4	18.2	12.8	14.9	16.4	14.8
4 July – 10 July	Average min.	12.0	8.9	-1.5	5.5	5.3	3.8
	Average max.	21.3	16.1	12.6	14.7	15.6	13.2

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

11 July – 17 July	Scheduling Interval					Daily Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	0.21	2.80	0.01	0.01	0.76	0.26
Mon	1.17	1.60	3.00	1.52	0.81	1.24
Tue	3.02	3.00	0.22	0.25	0.11	2.97
Wed	1.00	0.26	0.22	3.46	3.48	1.05
Thu	3.49	3.46	3.07	3.00	2.10	3.48
Fri	1.12	1.12	0.53	1.12	0.11	1.11
Sat	2.89	2.90	0.70	3.44	3.41	2.88

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	
11-Jul	MP:	809	830	810	819	819	-6
	AEMO:	809	815	756	736	746	
	MP as % of AEMO	100	102	107	111	110	
12-Jul	MP:	917	904	903	902	901	-1
	AEMO:	877	892	862	831	835	
	MP as % of AEMO	105	101	105	109	108	
13-Jul	MP:	869	862	862	860	860	0
	AEMO:	849	848	851	837	831	
	MP as % of AEMO	102	102	101	103	104	
14-Jul	MP:	981	957	962	965	957	-19
	AEMO:	917	920	920	950	950	
	MP as % of AEMO	107	104	105	102	101	
15-Jul	MP:	980	988	988	985	985	0
	AEMO:	977	977	996	1002	970	
	MP as % of AEMO	100	101	99	98	102	
16-Jul	MP:	942	928	922	923	923	0
	AEMO:	958	925	896	891	855	
	MP as % of AEMO	98	100	103	104	108	
17-Jul	MP:	876	885	875	897	887	-16
	AEMO:	836	848	851	884	876	
	MP as % of AEMO	105	104	103	102	101	

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