WEEKLY GAS MARKET ANALYSIS

AUSTRALIAN ENERGY REGULATOR

28 June - 4 July 2009

Preface

As part of its new monitoring roles for the National Gas Market Bulletin Board (bulletin board) and Victorian Gas Market, the AER is publishing a weekly gas market report. Part A of the report looks at gas usage and flows of registered facilities in southern and eastern Australia. Part B provides a summary of operational and market data in the Victorian Gas Market, which is currently the only declared wholesale gas market in Australia.

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

Bulletin board participants include pipeline operators and production/storage facilities in southern and eastern Australia. The participants report forecast and actual operational data.

Overall, total pipeline flows and gas production were unchanged from the previous week. Total pipeline usage was unchanged at 62 per cent of total capacity, while usage of production facilities fell by one per cent to 61 per cent for the week ending 4 July.

A number of bulletin board facilities failed to provide flow information within the prescribed times. The Eastern Gas and Queensland Gas pipelines failed to provide pipeline flow information from Tuesday to Saturday. The Moomba-Sydney and Tasmanian Gas pipelines, along with the Minerva and Longford gas plants, each failed to provide actual flow data on various days. The AER monitors and reviews patterns of late submission of data and will continue to engage with facilities to ensure that in the future the information requirements of the Bulletin Board are satisfied. The analysis in this report reflects this missing data (refer to Figures A1 and A2 in the Appendix).

Victorian Gas Market

Total gas injections and withdrawals increased by around 3 per cent from the previous week. The average price of gas traded in the market was $2.22/GJ, which was higher than the previous week's average price of $1.82/GJ, but still lower than the 2009 calendar year-to-date average of $2.80/GJ.

There was more rebidding compared to the previous week, with intra-day rebids of gas submitted at Culcairn, Iona, Longford and SEAGas.

Minor system constraints at Bass Gas and Culcairn reduced the capacity of gas flow at these facilities.

Pipeline and production/storage flows

Figure 1 sets out the average daily pipeline flows for the week ending 4 July for each key demand region across the National Gas Market. It compares the average flows for each region with the previous week, and also the calendar year to date averages. (A list of pipeline facilities for each demand region is provided in the Appendix).

Figure 1: Average daily pipeline flows (TJ) into each demand region

						QLD		
Average daily flows	**NSW**	**ACT**	**VIC**	**SA**	**TAS**	Brisbane	Mt Isa	Gladstone
Current week (28 June - 4 July)	404	45	854	283	27	134	94	72
Previous week (21 - 27 June)	431	41	779	320	38	133	88	69
Calendar Year-to-date 2009*	348	22	600	301	32	169	83	68

*Average daily injection flows from 1 January 2009 to the current week (inclusive)
Source: National Gas Market Bulletin Board http://www.gasbb.com.au

Notes:

1. Data for NSW is calculated from flows on the Moomba-Sydney and Eastern Gas pipelines and northward flows on the NSW-VIC interconnect, and deducting flows into ACT. This figure may include gas taken at EGP off-takes in Victoria such as Bairnsdale and Orbost.
2. Data for ACT is calculated using off-take flows from the Moomba-Sydney and Eastern Gas pipelines
3. Data for VIC is calculated by adding flows on Longford-Melbourne and South West pipelines. This excludes Victorian off-takes from the EGP (between Longford and the NSW-VIC border). Further, imports into Victoria from Culcairn have not been included.
4. Data for SA is calculated by adding flows on the Moomba-Adelaide and SEAGas pipelines.
5. Data for TAS is taken from flows on the Tasmanian Gas Pipeline.
6. Data for Brisbane, Mt Isa, and Gladstone is calculated using flows along the Roma-Brisbane Pipeline, Carpentaria Gas Pipeline and Queensland Gas Pipeline respectively.

Figure 2 sets out the daily average flows from production and storage facilities for the week ending 4 July from each production zone across the National Gas Market. It compares these average flows for each zone with flow outcomes from the previous week and the year to date average (a list of production and storage facilities for each production zone is provided in the Appendix).

Figure 2: Daily average production/storage flows (TJ) for each production zone

Average daily flows	**Roma/Ballera (QLD)**	**Eastern (VIC)**	**Otway Basin (VIC)**	**Moomba (SA)**
Current week (28 June - 4 July)	397	784	358	365
Previous week (21 - 27 June)	395	895	340	365
Calendar Year-to-date 2009*	384	722	318	282

*Average daily injection flows from 1 January 2009 to the current week (inclusive)
Source: National Gas Market Bulletin Board http://www.gasbb.com.au

Notes:

1. Data for Roma/Ballera is taken from the combined actual production flows from Ballera gas plant and the various production facilities in Roma (a full list of these facilities is provided in the Glossary)
2. Data for Eastern (VIC) is taken from the combined actual production flows from Orbost, Lang Lang, and Longford gas plants, along with LNG flows (if any).
3. Data for Otway Basin (VIC) is taken from the combined actual production flows from Minerva and Otway gas plants, along with flows from Iona Underground Storage.
4. The Moomba (SA) figure is taken from the actual production flows from the Moomba gas plant in South Australia.

Overview of production and pipeline flows across South East Australia

Temperature is an important driver of gas demand, particularly in Victoria where there is large residential gas heating demand. Average maximum temperatures in the Victoria (VIC) and Australia Capital Territory (ACT) demand regions were slightly lower for the week ending 4 July, which may have lead to marginally higher pipeline flows into those regions compared to the previous week. In contrast, average temperatures in the NSW demand region were slightly warmer, which perhaps lead to the marginally lower gas flows compared to the previous week.[1]

Average pipeline flows into all demand regions except Tasmania (TAS), South Australia (SA) and Brisbane were higher than their respective 2009 calendar year-to-date average. Production was higher in each of the four production zones compared to the respective calendar year-to-date averages.

Compared to the previous week, production from Eastern (VIC), which provides gas into VIC, NSW and TAS demand regions, was down. This fall in production occurred despite a slight increase in demand in Victoria (see part B of this Report). The fall in production from Eastern (VIC) appears to have occurred partly because injections in to Victoria from Otway Basin producers and through the NSW-VIC interconnect displaced Eastern (VIC) supplies. Additionally, this fall in production appears to have occurred because of lower demand in the NSW and TAS demand regions.

Queensland

There are four bulletin board registered pipelines in Queensland (Figure 3). Flows on each of these pipelines were higher compared to the calendar year to date average flows. Flows on Roma-Brisbane and Carpentaria pipelines were relatively constant compared to the previous week.

Figure 3: Average daily flows for Queensland pipelines

Average daily flows (TJ)	Carpentaria Pipeline	Queensland Gas Pipeline	South West Queensland Pipeline^	Roma to Brisbane Pipeline
Current week (28 June - 4 July)	134	94	72	166
Previous week (21 - 27 June)	133	88	69	167
% change from previous week*	0.73%	6.27%	5.59%	-0.58%
Calendar Year-to-date 2009**	169	83	68	94

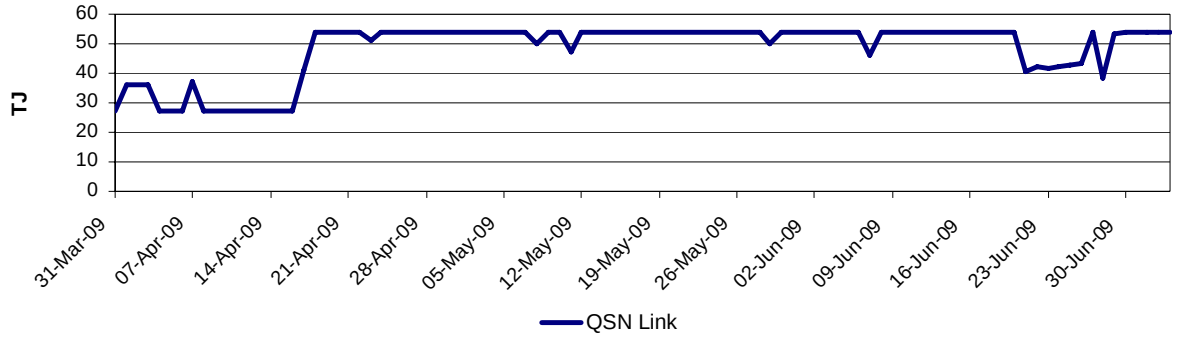
^Includes the Ballera to Moomba section of the pipeline (QSN Link)
*The percentage change in the average daily flow from the previous week to the current week
**Average daily injection flows from 1 January 2009 to the current week (inclusive)
Source: National Gas Market Bulletin Board http://www.gasbb.com.au

Commissioning of the QSN link

In January 2009, the new QSN Link (Ballera to Moomba) was commissioned, creating for the first-time the ability to deliver dry-gas between Queensland and the southern states. This link is an important source of new inter-basin competition, as Queensland-sourced coal seam methane gas can now be delivered to compete with Moomba and the southern-basin gas sources. Figure 4 shows the daily flows along the QSN link since it began reporting flows on the bulletin board from 31 March 2009.

[1] http://www.bom.gov.au/climate/dwo/IDCJDW3050.latest.shtml
http://www.bom.gov.au/climate/dwo/IDCJDW2124.latest.shtml
http://www.bom.gov.au/climate/dwo/IDCJDW2801.latest.shtml

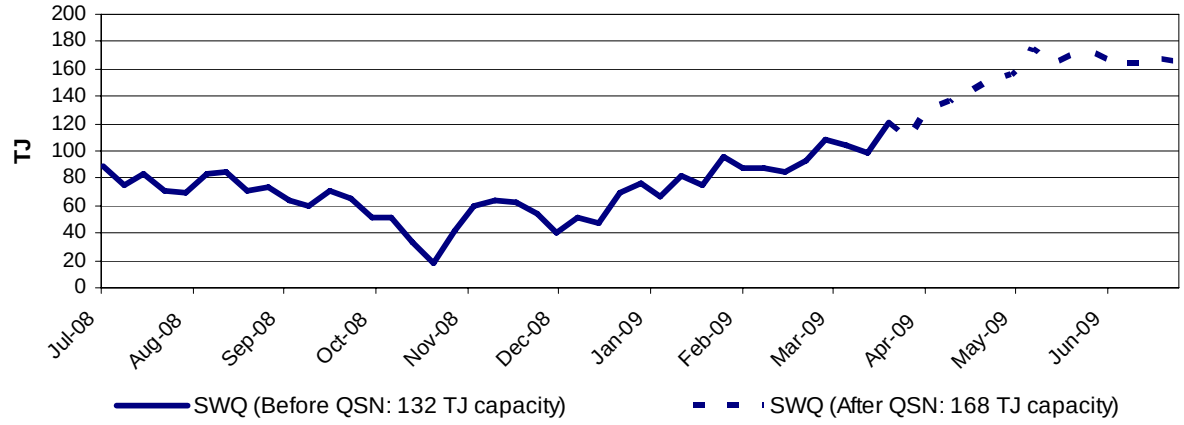
Figure 4: Average daily flows on the QSN Link



Source: National Gas Market Bulletin Board http://www.gasbb.com.au

Since the commissioning of the QSN link, there has been a significant increase in westerly flows along the South West Queensland Pipeline (SWQP), which feed into the QSN link (and the Carpentaria Gas Pipeline to Mt Isa). Figure 5 shows the average daily flows along the SWQP, with the dotted line marking the additional flows along the SWQP since the introduction of the QSN link allowed Queensland gas to flow to Moomba. Average daily flows on the SWQP for the week ending 4 July 2009 were about 60 TJ higher than the average flows on the first week of July 2008.

Figure 5: South West Queensland Pipeline (includes QSN Link flows to Moomba, SA)



Source: National Gas Market Bulletin Board http://www.gasbb.com.au

Notes: Reporting of flow data for the QSN link only began on the 31 March 2009, despite being commissioned in January 2009.

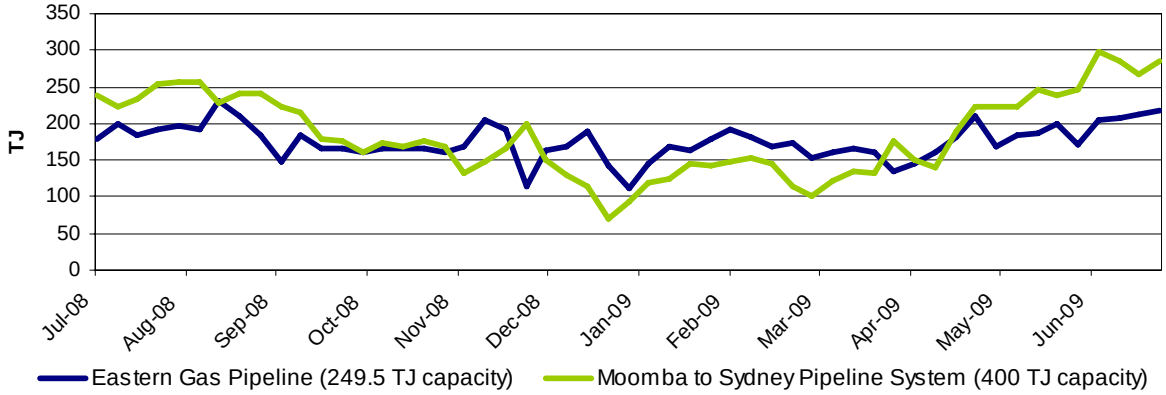
New South Wales / Australian Capital Territory

There are two main pipelines providing gas to the NSW and ACT demand regions. As shown in figure 6, Moomba to Sydney Pipeline (MSP) and Eastern Gas Pipeline (EGP) have followed similar flow trends since January 2009 and are currently supplying similar quantities of gas into NSW and ACT. The NSW-VIC interconnect allows bi-directional flows and the direction of gas flow changes depending on whether the demand for Victorian gas, from users in NSW, such as the Uranquinty Power Station, is higher than the demand for gas to be shipped into Victoria from NSW.

Flows trended slightly upwards this week on both the MSP and EGP. This may have been partly due to the increased demand from the ACT demand region, as well as higher injections of gas through the NSW-VIC interconnect via the connected MSP.

Similar to the previous week, the majority of gas flows through the NSW-Victoria Interconnect pipeline were in the 'reverse' direction. Gas flowed north on Thursday at 8 TJ, but flowed south for the rest of the week at 118 TJ.

Figure 6: Average daily flows to NSW/ACT demand region



Average Daily Flows (TJ)	Eastern Gas Pipeline	Moomba to Sydney Pipeline	NSW-VIC Interconnect^
Current week (28 June - 4 July)	217	286	-16
Previous week (21 - 27 June)	212	266	-6
% change from previous week*	2.09	7.52	147.76
Calendar Year-to-date 2009**	175	183	14

^Flows on the NSW-VIC Interconnect can flow in reverse direction from NSW into Victoria (represented by negative values)
*The percentage change in the average daily flow from the previous week to the current week
**Average daily injection flows from 1 January 2009 to the current week (inclusive)
Source: National Gas Market Bulletin Board http://www.gasbb.com.au

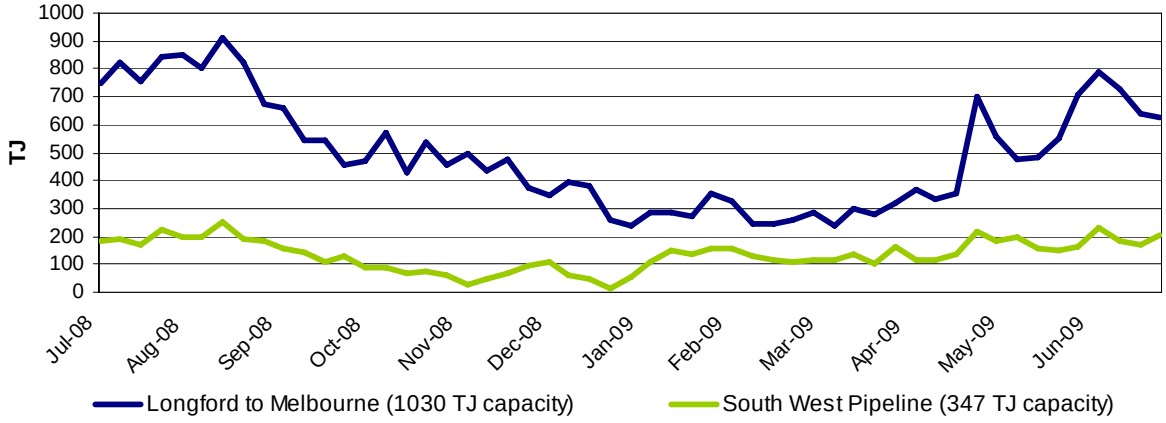
Notes: The figure for the EGP includes some gas that is consumed in Victoria, from Victorian EGP off-takes.

Victoria / Tasmania

There are two main pipelines providing gas into the Victorian demand region. As shown in Figure 7, the Longford to Melbourne Pipeline (LMP) and the South West Pipeline (SWP) have experienced broadly similar flow trends since January 2009. In the current week there was an increase in demand in the Victorian gas market from the previous week. There was a reduction in average daily flows along the LMP but an increase along the SWP. This is consistent with greater production in the Otway Basin compared to the previous week but less production at Eastern (VIC).

The Tasmanian Gas Pipeline (TGP), which is connected to Victorian production facilities, provides gas into the Tasmania demand region. Slightly lower average daily flows along the TGP occurred at the same time as there were marginally warmer temperatures in Tasmania.

Figure 7: Average daily flows to Victoria demand region



Average Daily Flows (TJ)	Longford to Melbourne Pipeline	South West Pipeline	Tasmanian Gas Pipeline^
Current week (28 June - 4 July)	626	205	27
Previous week (21 - 27 June)	643	168	38
% change from previous week*	-2.56	22.29	-28.1
Calendar Year-to-date 2009**	495	135	32

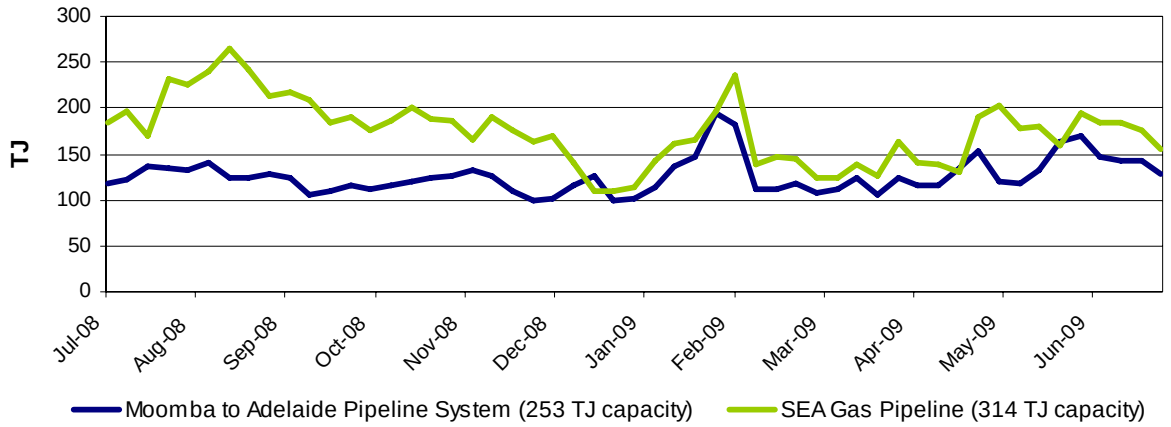
^Gas on the Tasmanian Gas Pipeline flows from Eastern Victoria into Tasmania, ending in Hobart.
*The percentage change in the average daily flow from the previous week to the current week
**Average daily injection flows from 1 January 2009 to the current week (inclusive)
Source: National Gas Market Bulletin Board http://www.gasbb.com.au

South Australia

There are two main gas pipelines flowing into the South Australian demand region. As shown in Figure 8, the Moomba to Adelaide Pipeline and SEAGas Pipeline have followed broadly similar flow trends from January 2009 to the current week. Both SEA Gas and Moomba-Adelaide pipelines experienced lower flows for the week ending 4 July. This correlated with lower demand from the SA demand region, which may have been due to slightly warmer temperatures, and subsequently lower gas usage for heating and/or gas-fired electricity generation.

Both pipelines are not currently operating near pipeline nominated Maximum Daily Quantity (MDQ), which is a measure of total pipeline capacity. (Refer also to the Appendix for usage of pipeline facilities)

Figure 8: Average daily flows to South Australia demand region



Average Daily Flows (TJ)	Moomba to Adelaide Pipeline	SEAGas Pipeline
Current week (28 June - 4 July)	128	155
Previous week (21 - 27 June)	143	177
% change from previous week*	-10.98	-12.15
Calendar Year-to-date 2009**	126	175

*The percentage change in the average daily flow from the previous week to the current week
**Average daily injection flows from 1 January 2009 to the current week (inclusive)
Source: National Gas Market Bulletin Board http://www.gasbb.com.au

Participation in the market

Figure V1 below shows participant bids submitted for the start of the gas day (6am) at injection and withdrawal points on the Victorian Principal Transmission System (VPTS). The shaded boxes indicate that the participant submitted injection/withdrawal 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 "N.S" indicates that none of the gas was scheduled. Withdrawal bids are typically used for export out of Victoria.

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	SEAGas	VicHub	Otway	Culcairn	IONA	SEAGas	VicHub
AETV Power	Trader	1							S					
AGL Sales (Qld)	Retailer	1				NS								
AGL Sales	Retailer	6		NS	NS	NS	S				S	S		
Aust. Power & Gas	Retailer	2				NS	S							
Country Energy	Transmission Customer	1									S			
International Power	Transmission Customer	1											S	
Origin (Vic)	Retailer	8	S	S	NS	NS	S	S			NS	NS		
Origin (Uranquinty)	Trader	1					S							
Red Energy	Retailer	2				NS	S							
Santos	Retailer	2						S						S
TRU Energy	Retailer	4			S	NS	S					NS		
Victoria Electricity 2	Trader	2			NS							S		
Victoria Electricity	Retailer	6		S	S	NS	S	S	S					
Visy Paper	Distribution Customer	2					S				S			
Simply Energy	Retailer	4			S	NS	S	S						
Energy Australia	Retailer	2		S			S							

^Bids taken from 6am data for each gas day during the current week.
Source: http://www.aemogas.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.
It is understood though that on occasion, scheduling requires some bids in price merit order to be displaced by higher priced bids due to physical supply constraints.

As for last week, no injection bids were scheduled at the LNG facility during the week ending 4 July, reflecting the higher-priced LNG bids when compared with bids at other

injection points. Country Energy and International Power continued only nominating withdrawal bids, consistent with their interests in interconnected pipelines and interstate customer bases.

Market Prices and Ancillary Payments

In the Victorian gas market, gas volumes (imbalances) are traded five times a day with most volume being traded at the beginning of day 6am pricing schedule. Smaller amounts of gas are traded at later 10am, 2pm, 6pm and 10pm pricing schedules. Figure V2 displays volume-weighted average daily imbalance prices for the week ending 4 July, compared to the previous week and longer-term financial year-to-date averages. Secondly, daily imbalance prices for each day during the current week are noted.

Figure V2: Imbalance Weighted Average Prices

	Current Week (28 June - 4 July)	Previous Week (21 - 27 June)	2009 Calendar Year (to 4 July)*	2008 Calendar Year (to 4 July)**
Average daily price ($/GJ)	2.22	1.82	2.80	*3.40*

Current Week (28 June - 4 July)	**Sun**	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
Daily price ($/GJ)	2.55	1.49	1.48	2.58	2.64	3.27	1.50

*Average daily imbalance weighted average price from 1 Jan 2009 to 4 July 2009 (inclusive)
**Average daily imbalance weighted average price from 1 Jan 2008 to the 4 July 2008 (inclusive)
Source: http://www.aemogas.com.au (INT 041)

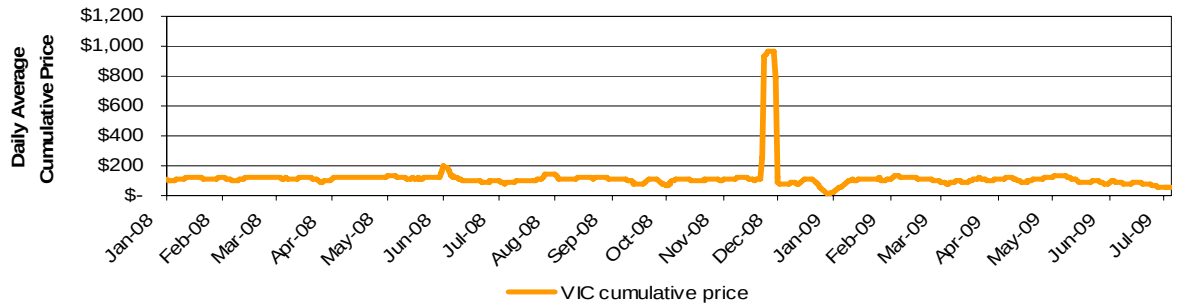
Notes: The daily average market price is a volume weighted imbalance price taking account of trading amounts at five times through the gas day — 6:00am, 10:00am, 2:00pm, 6:00pm and 10:00pm.

The imbalance weighted average price was marginally higher than for the previous week, although still lower than the 2009 calendar year-to-date average, as well as the 2008 equivalent. Overall, average prices have also been significantly lower in 2009 than in 2008.

The range of prices for the current week was larger than the previous week. Prices this week ranged from $0.50/GJ on Wednesday at the 10:00 pm schedule, to $3.31/GJ on Thursday at the 6:00 pm schedule (see Appendix Figure A3 for all market clearing prices across the week).

Figure V3 shows the daily average cumulative price (taken over the last 35 scheduling intervals) for the Victorian gas market. The importance of the cumulative price is that if it surpasses a threshold of $3700, the cap on the maximum price for gas in the market will be reduced from $800/GJ to $40/GJ. Cumulative prices continue to be well below the Cumulative Price Threshold of $3700.

Figure V3: Daily average cumulative price



Notes: The Cumulative Price is the weekly rolling cumulative price paid for gas injected into the transmission system. The Cumulative Price is calculated over 35 scheduling intervals.
Source: http://www.aemogas.com.au (INT 199)

Ancillary Payments

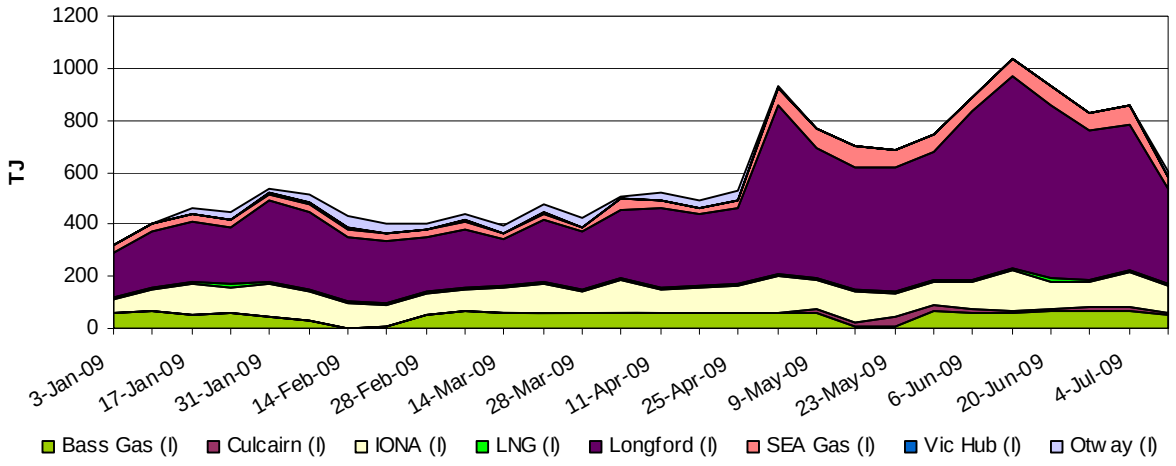
Significant ancillary payments can occur in the market from time to time, particularly if the systems' capacity to deliver gas is limited because of high demand or outages, and higher-priced gas is required out of price merit order. Significant ancillary payments can be made to participants who are called upon to provide gas to alleviate system constraints. As with last week, there were no significant ancillary payments made during the week ending 4 July.

System Injections

Figure V4 provides the total amount of gas injected into the Victorian Principal Transmission System for the week ending 4 July, the previous week, along with the financial year-to-date average injections from each injection point on the system.

Figure V4: Average daily flows (TJ) from Injection Points on the VPTS

Injection Point:	Current Week (28 June - 4 July)	Previous Week (21 - 27 June)	2009 Calendar Year to date*
Culcairn^	18	10	6
Longford	564	575	372
LNG	8	10	8
IONA^	130	96	104
VicHub^	0.39**	0.10**	1.29**
SEAGas^	73	70	44
Bass Gas	65	70	50
Otway	0	0	17
TOTAL	**859**	**831**	**602**



^The reported flows from these bi-directional system points reflect the daily *net* injection flows; that is the net amount of flows after subtracting for withdrawal flows at these system points.
*Average daily injection flows across weeks from 1 January 2009 to the current week (inclusive)
**Figures have been rounded off to 2 decimal places to reflect the relatively small amount of gas flows (i.e. under 1 TJ)
Source: http://www.aemogas.com.au (INT 150)

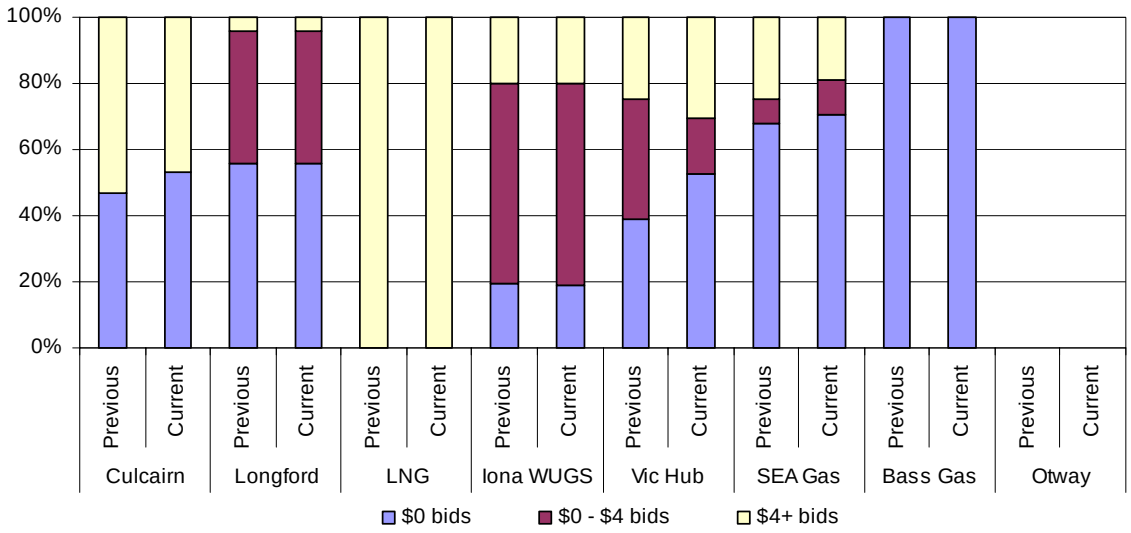
Notes: LNG injections were not scheduled by the market operator, but the reported flows from the LNG injection point indicate the amount of LNG that flowed into the system due to activities to manage the LNG facility's tank level. LNG is also regularly used by the connected BOC plant.

Average daily injections decreased by about 3 per cent for the week ending 4 July, consistent with slightly colder weather than in the previous week. Average daily injections fell at Longford and Bass Gas by around 2 per cent and 7 per cent respectively, while injections from IONA and SEAGas rose by 35 per cent and 5 per cent respectively. There were also increases in injections at Culcairn and VicHub. There were no gas injections from the Otway injection point, a continuing trend from June this year.

Bidding Activity

Figure V5 shows 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.

Figure V5: Price structure of bids by injection points



Source: http://www.aemogas.com.au (INT 131) - bids submitted for the 6:00am 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.

For the week ending 4 July, there was an increase in the proportion of $0/GJ bids at Culcairn, VicHub and SEAGas. Overall, there was still a large amount of gas bid in at the $0/GJ price band. This may reflect market participant bidding strategies to bid in their gas at lower prices to ensure that adequate contracted gas is dispatched to meet customer demand. All gas at Bass Gas continued to be bid in at $0/GJ and was consequently scheduled into the market; while all gas at LNG bids were in the greater than $4/GJ range and not scheduled. As with last week, no bids were submitted at Otway.

Figure V6 provides a table of injections point on the VPTS where market participants submitted intra-day renominations, for each day of the week.

Figure V6: Intra-day rebidding of gas injections

Injection Point:	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Culcairn		Origin			Origin		
Longford	TRU	TRU Origin	TRU Origin	TRU Origin	Origin	Origin	TRU Origin
LNG					Origin		
IONA	TRU	TRU	TRU	TRU	TRU Origin	TRU	TRU
VicHub							
SEAGas	Simply	Simply	Simply	Simply	Simply	Simply	
Bass Gas							

Source: http://www.aemogas.com.au (INT 131)

Notes: Origin = Origin Energy | AGL = AGL Sales | TRU = TRUenergy | Simply = Simply Energy

Overall, there was a larger amount of intra-day rebidding by participants compared to the previous week. Three participants submitted gas rebids – Origin Energy, TRUenergy and

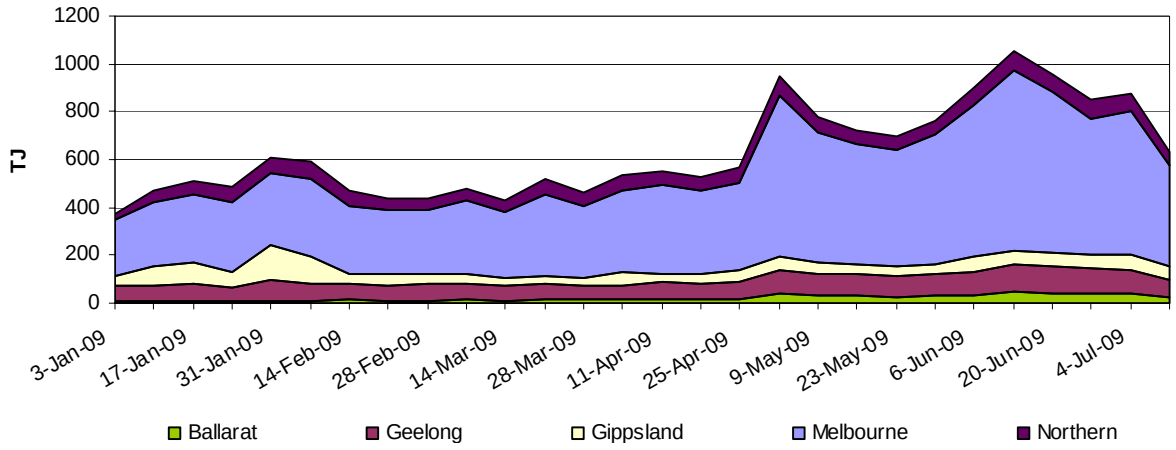
Simply Energy. Origin Energy submitted the majority of gas rebids at Longford, while TRUenergy and Simply Energy continued to submit the majority of their rebids at IONA and SEAGas respectively on several days during the week. There was also some gas rebids submitted at Culcairn in contrast to the previous week.

System withdrawals

Figure V7 notes the average daily gas withdrawals from the VPTS compared with the previous week and 2009 calendar year to date daily averages.

Figure V7: Average daily withdrawals (TJ) from system demand zones on the VPTS

System withdrawal zone:	Current Week (28 June - 4 July)	Previous Week (21 - 27 June)	2009 Calendar Year to date**
Ballarat	41	38	22
Geelong*	99	105	78
Gippsland	62	57	57
Melbourne	603	572	416
Northern	75	75	63
TOTAL	**879**	**848**	**636**



*Data presented for the Geelong also includes withdrawals for the Western system withdrawal zone or Western Transmission System (WTS). Typical WTS demand is understood to be around 10 TJ based on AEMO planning documents.
**Average daily injection flows from 1 January 2009 across weeks to the current week (inclusive)
Source: http://www.aemogas.com.au (INT 150).

Average daily withdrawals from the system increased by around 4 per cent, consistent with the slightly colder temperatures compared with the previous week. The demand increases were particularly marked in Melbourne (5 per cent), Ballarat (6 per cent), and Gippsland (7 per cent); while withdrawals from Geelong and Northern fell by 5 and 1 per cent respectively.

System Outages and Constraints

There was a minor Supply Demand Point Constraint (SDPC) issued at Culcairn on Thursday 2 July, which reduced the daily injection and withdrawal capacity to 50 TJ and 40 TJ respectively. An SDPC was also issued at Bass Gas between 6am and 6pm on the same day which reduced the daily injection capacity to 50 TJ.

Australian Energy Regulator
July 2009

APPENDIX

AUSTRALIAN ENERGY REGULATOR

28 June - 4 July 2009

Figures A1 and A2 displays the daily gas flows from each pipeline and production/storage facility and pipeline facility (in TJ) 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, previous 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)	Current week average capacity usage (%)	Previous week average capacity usage (%)	Year to date average capacity usage* (%)
QLD											
Carpentaria Pipeline	92	93	94	94	94	94	96	117	80%	76%	71%
QLD Gas Pipeline	71	74	N/A	N/A	N/A	N/A	N/A	79	92%	87%	85%
Roma to Brisbane Pipeline	116	142	141	143	144	138	112	208	64%	64%	81%
South West QLD Pipeline	177	157	153	150	171	164	188	168	99%	99%	56%
NSW/ACT											
Eastern Gas Pipeline	204	229	N/A	N/A	N/A	N/A	N/A	250	87%	85%	70%
Moomba to Sydney Pipeline	224	286	287	274	328	321	N/A	420	68%	63%	44%
NSW-VIC Interconnect	-30	-27	-12	-4	8	-16	-29	90	-18%	-7%	15%
VIC											
Longford to Melbourne	635	541	530	651	676	723	626	1030	61%	62%	48%
South West Pipeline	178	149	140	206	319	264	183	347	59%	48%	39%
SA											
Moomba to Adelaide Pipeline	121	126	126	140	148	117	118	253	50%	57%	50%
SEA Gas Pipeline	109	176	169	167	179	166	120	314	49%	56%	56%
TAS											
Tasmanian Gas Pipeline	31	30	23	N/A	29	26	25	129	21%	29%	25%

NB. Actual flow data not reported by Bulletin Board polling time is indicated by N/A
^Negative figure represents a reverse flow of gas along the pipeline
*Average daily injection flows from 1 January 2009 to the current week (inclusive)

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)	Current week average capacity usage (%)	Previous week average capacity usage (%)	Year to date average capacity usage* (%)
Roma / Ballera (QLD)											
Berwyndale South	92	113	114	100	87	87	89	160	61%	57%	49%
Fairview	105	99	101	105	104	105	105	115	90%	95%	67%
Kincora	6	6	6	6	6	6	6	12	50%	50%	87%
Kogan North	11	11	11	11	11	11	11	15	73%	73%	70%
Peat	11	11	10	11	11	11	11	30	36%	37%	36%
Rolleston	0	0	0	0	0	0	0	27	0%	0%	81%
Scotia	55	55	55	54	55	55	55	60	91%	91%	97%
Spring Gully	55	55	55	54	55	55	55	60	91%	91%	83%
Strathblane	33	33	33	33	33	33	33	36	92%	91%	16%
Taloona	9	9	9	9	9	9	9	20	45%	45%	61%
Wallumbilla	15	16	16	15	16	16	16	30	52%	53%	48%
Yellowbank	0	0	0	3	0	0	0	150	0%	0%	20%
Ballera											
Eastern Victoria (VIC)	0	0	0	0	0	0	0	10	0%	0%	0%
Orbost Gas Plant	70	71	71	66	47	66	68	70	94%	101%	68%
Lang Lang Gas Plant	866	755	707	824	874	N/A	808	1140	71%	72%	59%
Longford Gas Plant	0	0	0	0	0	0	0	158	0%	0%	0%
LNG Storage Dandenong											
Otway Basin (VIC)	68	N/A	N/A	78	83	83	68	94	81%	87%	93%
Minerva Gas Plant	168	181	150	140	162	135	153	206	75%	78%	69%
Otway Gas Plant	0	73	69	134	235	185	102	320	36%	30%	28%
Iona Underground Gas Storage											
Moomba (SA)	355	335	371	371	400	386	334	430	85%	85%	66%
Moomba Gas Plant	92	113	114	100	87	87	89	160	61%	57%	49%

NB. Actual flow data not reported by Bulletin Board polling time is indicated by N/A
*Average daily injection flows from 1 January 2009 to the current week (inclusive)
^Commissioned as a Bulletin Board facility from 6 July 2009 (will report flows beginning from 7 July 2009)

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

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 shows the market prices at each of the scheduling intervals on each day during the week ending 4 July. The imbalance weighted average prices for each gas day are also provided.

Figure A3: Daily Victorian gas market prices ($/GJ) at each scheduling interval

Current Week (28 June - 4 July)	Scheduling Interval					Imbalance Weighted Average Price
	6am	10am	2pm	6pm	10pm	
Sun	2.66	1.50	1.50	1.50	0.50	2.55
Mon	1.50	1.50	1.50	1.01	0.50	1.49
Tue	1.50	1.50	1.01	0.87	1.49	1.48
Wed	2.66	1.54	1.50	1.50	0.50	2.58
Thu	2.65	1.13	3.31	3.31	0.52	2.64
Fri	3.31	3.00	2.65	2.65	1.53	3.27
Sat	1.50	1.50	1.50	1.50	1.01	1.50

Source: http://www.aemogas.com.au (INT 041).

Figures G1 to G4 below provide geographical information for the various pipeline, production and storage facilities covered by the bulletin board. Figure G1 lists the production facilities that fall under the Roma zone. The majority of these facilities are Coal Seam Gas (CSG) plants.

Figure G1: Production facilities in the Roma Zone

Roma zone production facilities	
Berwyndale South	Scotia
Dawson Valley	Silver Springs
Fairview	Spring Gully
Kincora	Strathblane
Kogan North	Taloona
Peat	Wallumbilla
Rolleston	Yellowbank

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

Figure G2: Pipeline facilities

Map ID	Pipeline facility	Map ID	Pipeline facility
CGP	Carpentaria Gas Pipeline	RBP	Roma to Brisbane Pipeline
EGP	Eastern Gas Pipeline	QGP	Queensland Gas Pipeline
MAP	Moomba to Adelaide pipeline	SEAGas	South East Australian Gas pipeline
MSP	Moomba to Sydney pipeline	SWQP	South West QLD Pipeline
LMP	Longford to Melbourne pipeline	TGP	Tasmanian Gas Pipeline

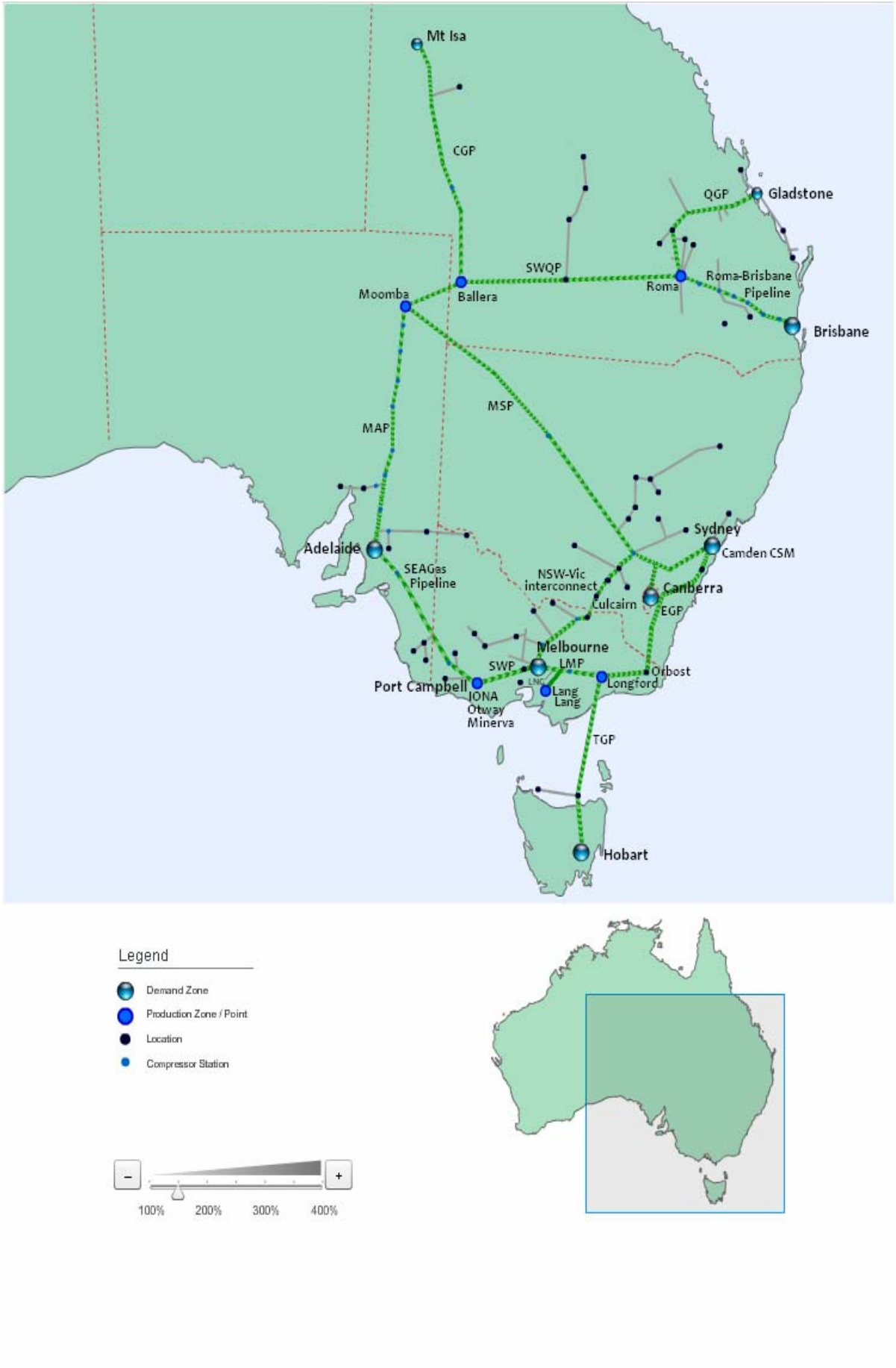
Source: Natural Gas Market Bulletin Board http://www.gasbb.com.au

Figure G3: Location of production and storage facilities

Facility	Location
Camden CSM	Located near Sydney
Minerva, Otway, Iona UGS	Located near Port Campbell
LNG Storage Dandenong	Located near Melbourne

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

Figure G4: Map of Bulletin Board Pipeline and Production Facility Locations



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