MOS ESTIMATES FOR MOS PERIOD 1 SEPTEMBER 2012 – 30 NOVEMBER 2012

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1. Introduction

MOS (Market Operator Service) estimates provide a guide of the largest daily increase and decrease MOS that market participants may reasonably expect for each STTM pipeline. The MOS estimate is based on historical data and therefore does not limit the quantity of MOS that may be experienced in the future.

The MOS estimate determines the value of overrun MOS. If the MOS estimate for an STTM pipeline exceeds the total MOS offers, then overrun MOS is paid at the weighted average price within the MOS stack. Otherwise, if the total MOS offers for an STTM pipeline exceed the MOS estimate then overrun MOS is paid at the highest priced offer within the stack.

In accordance with rule 397 of the National Gas Rules (STTM Rules), AEMO publishes MOS estimates for each STTM pipeline and each MOS period prior to the commencement of the relevant MOS period. In determining the MOS estimates for each MOS period, AEMO must use the data specified in Section 5.2 (b) of the STTM Procedures.

2. The MOS period

MOS periods are defined in section 5.1 of the STTM Procedures. The MOS estimates contained in this document relate to the MOS period 1 Sep 2012 – 30 Nov 2012.

3. MOS estimates for MOS period 1 Sep 2012 – 30 Nov 2012

The MOS quantities for each STTM pipeline and each gas day are as determined in accordance with the published methodology for determining MOS estimates.[1]

Sydney and Adelaide hubs

The MOS quantities for this MOS period are based on Method 2 for Year 3 and are therefore derived from daily allocated MOS quantities for the periods 1 Sep 2011 – 30 Nov 2011 and 1 Sep 2010 – 30 Nov 2010 for the following STTM pipelines:

- Moomba to Sydney pipeline (MSP) and the Eastern Gas Pipeline (EGP) which supply gas to the Sydney hub; and
- Moomba to Adelaide pipeline (MAP) and the SEA Gas pipeline (SEAGas) which supply gas to the Adelaide hub.

The input data collected from the previous two years was combined to create a larger and more representative sample of MOS allocations. This is known as 'Method 2' in the methodology.[2]

Brisbane hub

The Brisbane STTM hub commenced operations on 1 December 2011, and therefore MOS allocation data from previous years was not available. The MOS quantities for the Roma to

[1] Available at: http://www.aemo.com.au/en/Gas/Wholesale-Gas-Markets/Short-Term-Trading-Market/Market-Operator-Service-MOS.

[2] *Methodology for determining MOS estimates v2.0,* 2011; p.18.

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Brisbane Pipeline (RBP) supplying gas to the Brisbane hub are derived from historic daily allocation and nomination quantities. These were provided to AEMO by the pipeline operator.

Explanation of MOS quantities and summary statistics

Positive MOS quantities indicate the requirements for increase MOS, whereas negative MOS quantities indicate the requirements for decrease MOS.[3]

Rule 397(1)(a) of the STTM Rules requires that AEMO publish its estimate of the maximum quantity of MOS (by way of increase and decrease) likely to be required on any gas day in the relevant MOS period. This is provided in Table 1 below.

Rule 397(1)(b) of the STTM rules specifies that AEMO must publish its estimate of the range of daily quantities of MOS (by way of increase and decrease) likely to be required, together with the number of gas days in the MOS period to which each of those estimated quantities applies. This is provided in the following tables and charts:

- Table 2 showing the summary statistics of the distributions of MOS quantities, including a measure of central location (median), two measures of dispersion/spread (the range and the inter-quartile range).[4] The means, standard deviations, the 5 and 95 percentile of the distributions are also shown together with the proportions of days in the MOS period with positive and negative MOS quantities.
- Table 3 showing the daily MOS quantities sorted in descending order and the number of day(s) associated with each estimated- quantity.
- Figure 1 displaying the curves of daily MOS quantities sorted in descending order from the highest to the lowest values.
- Figure 2 showing the Box plots which provide a graphical summary of the data and are useful tools for comparing the MOS quantities of the different STTM pipelines.

[3] Note that MOS increase offers and MOS decrease offers must comply with the requirements in section 5.4(b)(ii) and section 5.4(c)(ii) of the STTM Procedures, and should be greater than zero for the purpose of creating the MOS stacks.

[4] The inter-quartile range is the range of values between the first (25%) and third quartiles (75%) of the distributions.

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Table 1 – Maximum MOS quantities (GJ)

	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEA Gas	Brisbane RBP
MOS increase	26,139	5,465	10,023	124	11,215
MOS decrease	31,169	5,977	8,732	8,502	18,634

Figure 1 – Curves of daily MOS quantities

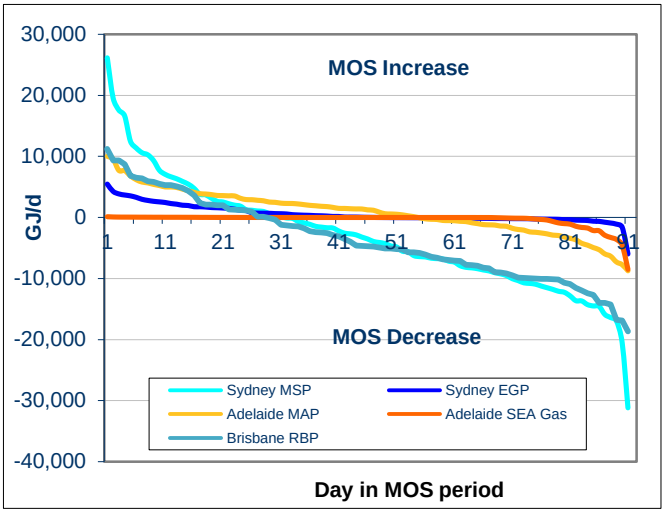

Table 2 – Summary statistics of daily MOS quantities

	Summary statistics GJ/d				
	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
Maximum	**26,139**	**5,465**	**10,023**	**124**	**11,215**
95%	11,926	3,418	6,498	54	6,671
75%	1,939	1,274	3,336	6	1,258
50%	-3,520	21	1,246	-2	-4,702
25%	-9,142	-169	-1,324	-42	-8,972
5%	-15,207	-707	-5,618	-2,543	-14,000
Minimum	**-31,169**	**-5,977**	**-8,732**	**-8,502**	**-18,634**
Mean	**-3,093**	**561**	**856**	**-400**	**-3,736**
Std. deviation	9,185	1,477	3,720	1,208	6,673
% days positive	34%	52%	59%	41%	31%
% days negative	66%	48%	41%	59%	69%

Figure 2 – Distribution of daily MOS quantities

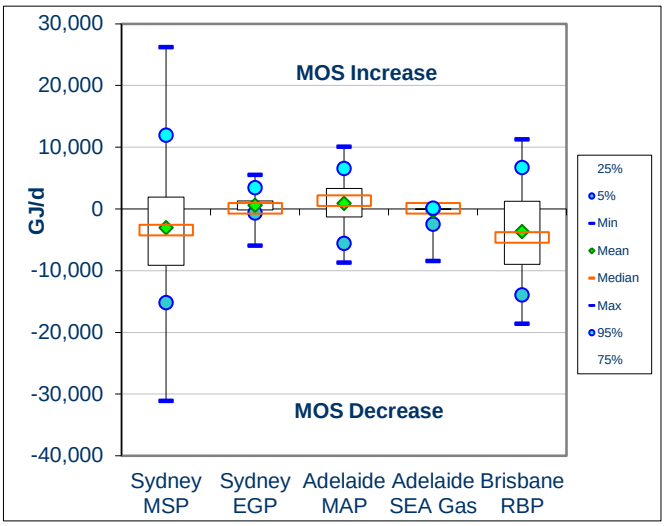

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Table 3 – Daily MOS quantities (GJ/d) from 1 September 2012 to 30 November 2012

No of days	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEA Gas	Brisbane RBP	No of days	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEA Gas	Brisbane RBP
1	26,139	5,465	10,023	124	11,215	1	-3,933	9	1,182	-2	-4,748
1	19,580	4,277	9,567	85	9,346	1	-4,095	-1	874	-2	-4,944
1	17,580	3,856	7,706	66	9,335	1	-4,271	-8	611	-2	-5,085
1	16,637	3,679	7,677	61	8,694	1	-4,656	-16	574	-2	-5,088
1	12,482	3,538	6,809	57	6,840	1	-4,824	-22	527	-2	-5,200
1	11,369	3,297	6,187	51	6,501	1	-5,523	-24	429	-3	-5,239
1	10,603	2,976	5,804	48	6,416	1	-5,600	-30	274	-3	-5,706
1	10,259	2,793	5,664	45	5,947	1	-6,256	-33	131	-3	-5,715
1	9,323	2,648	5,417	41	5,808	1	-6,410	-36	-60	-3	-5,814
1	7,735	2,553	5,235	40	5,521	1	-6,464	-41	-222	-3	-6,096
1	7,063	2,455	5,001	37	5,325	1	-6,671	-63	-296	-4	-6,417
1	6,660	2,279	4,998	36	5,322	1	-6,735	-71	-326	-4	-6,602
1	6,335	2,173	4,912	33	5,092	1	-6,801	-75	-487	-4	-6,851
1	5,901	2,004	4,644	32	4,823	1	-7,152	-84	-509	-4	-6,946
1	5,457	1,958	4,378	28	4,380	1	-7,315	-100	-532	-5	-7,082
1	4,770	1,764	4,110	27	3,600	1	-7,903	-106	-626	-5	-7,140
1	3,804	1,762	3,895	17	2,363	1	-8,164	-119	-672	-6	-7,775
1	3,709	1,712	3,841	16	2,091	1	-8,249	-130	-864	-6	-7,824
1	3,147	1,628	3,745	13	2,086	1	-8,385	-133	-1,006	-7	-7,918
1	2,640	1,598	3,606	9	1,982	1	-8,594	-143	-1,160	-7	-8,228
1	2,535	1,549	3,584	9	1,981	1	-8,756	-150	-1,207	-10	-8,345
1	2,250	1,486	3,542	8	1,344	1	-9,046	-166	-1,240	-30	-8,948
1	2,014	1,354	3,527	7	1,293	1	-9,237	-172	-1,407	-55	-8,995
1	1,863	1,194	3,144	5	1,223	1	-9,514	-176	-1,438	-83	-9,149
1	1,265	1,124	2,932	5	1,149	1	-10,020	-188	-1,773	-103	-9,491
1	1,181	777	2,910	4	960	1	-10,331	-193	-1,966	-120	-9,833
1	1,055	711	2,815	4	109	1	-10,701	-196	-2,069	-128	-9,911
1	985	695	2,731	3	92	1	-10,792	-210	-2,359	-173	-9,933
1	610	683	2,526	3	-79	1	-10,920	-254	-2,421	-255	-10,010
1	281	634	2,483	3	-365	1	-11,228	-266	-2,540	-325	-10,049
1	116	614	2,345	2	-1,223	1	-11,498	-276	-2,682	-417	-10,062
1	-87	574	2,296	1	-1,325	1	-11,773	-286	-2,889	-656	-10,094
1	-147	459	2,287	1	-1,417	1	-12,087	-307	-2,951	-893	-10,163
1	-649	412	2,213	0	-1,464	1	-12,252	-367	-3,197	-1,006	-10,682
1	-882	373	2,102	0	-1,749	1	-12,843	-373	-3,418	-1,094	-10,881
1	-1,120	346	1,988	0	-2,238	1	-13,630	-437	-3,661	-1,440	-11,535
1	-1,451	299	1,919	0	-2,419	1	-13,663	-460	-4,230	-1,632	-11,934
1	-1,578	274	1,829	0	-2,472	1	-14,265	-492	-4,527	-1,727	-12,423
1	-1,687	233	1,777	0	-2,548	1	-14,491	-609	-4,929	-2,140	-12,652
1	-1,728	168	1,650	-1	-2,889	1	-14,540	-637	-5,271	-2,174	-13,991
1	-2,204	166	1,490	-1	-3,100	1	-15,873	-777	-5,965	-2,912	-14,008
1	-2,568	75	1,480	-1	-3,479	1	-16,391	-908	-6,341	-3,268	-14,234
1	-2,681	69	1,432	-1	-3,977	1	-16,924	-1,094	-7,284	-3,595	-16,783
1	-2,846	65	1,396	-1	-4,606	1	-20,504	-1,590	-7,730	-4,536	-16,890
1	-3,217	39	1,391	-1	-4,679	1	-31,169	-5,977	-8,732	-8,502	-18,634
1	-3,520	21	1,246	-2	-4,702	1					

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