MOS ESTIMATES FOR MOS PERIOD 1 MARCH 2013 – 31 MAY 2013

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1. Introduction

MOS (Market Operator Service) estimates provide a guide of the largest daily increase and decrease MOS quantities 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 estimates also determine the value of any overrun MOS. If the MOS estimate (increase or decrease) for an STTM pipeline exceeds the total quantity of MOS offered for that pipeline (increase or decrease respectively), then any overrun MOS is paid at the weighted average price within the relevant MOS stack. Otherwise, if the total quantity of MOS offered for an STTM pipeline exceeds 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 increase and decrease estimates for each STTM pipeline prior to the commencement of each 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 March 2013 – 31 May 2013.

3. MOS estimates for MOS period 1 March 2013 – 31 May 2013

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 STTM hubs

The MOS quantities for this period are based on 'Method 2' for year 3 to year 6 of an STTM hub.[2] This means they are derived using the actual daily MOS allocation quantities for the periods 1 March 2011 – 31 May 2011 and 1 March 2012 – 31 May 2012 for the following STTM pipelines:

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

The data collected from the previous two years was combined to create a larger and more representative sample of MOS allocations for this MOS period, as described under 'Method 2' in the methodology.

Brisbane STTM hub

The Brisbane STTM hub commenced operations on 1 December 2011. Therefore only the daily MOS allocation data during 1 March 2012 to 31 May 2012 has been used to determine the MOS

[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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estimates for the upcoming MOS period for the Roma to Brisbane Pipeline (RBP), the sole pipeline that supplies gas to the Brisbane STTM hub. This is the method prescribed under Year 2 of an STTM hub.[3]

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.[4]

STTM Rule 397(1)(a) requires AEMO to 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.

STTM Rule 397(1)(b) requires AEMO to publish its estimate of the range of daily quantities of MOS 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 shows summary statistics of MOS quantity distributions, including the means, standard deviations, 5 and 95 percentile of the distributions, range and inter-quartile range,[5] and the proportions of days in the MOS period with positive and negative MOS quantities.
- Table 3 shows the daily MOS quantities sorted in descending order and the number of day(s) associated with each estimated- quantity.
- Figure 1 displays the curves of daily MOS quantities sorted in descending order from the highest to the lowest values.
- Figure 2 shows the Box plots which provide a graphical summary of the data and are useful tools for comparing the MOS increase and decrease quantities of the different STTM pipelines.

[3] See *Methodology for determining MOS estimates v2.0,* 2011; p.17.
[4] Note MOS increase and 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.
[5] 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 SEAGas	Brisbane RBP
MOS increase	22,156	4,284	12,113	846	8,810
MOS decrease	35,576	13,021	9,550	10,666	10,683

Figure 1 – Curves of daily MOS quantities

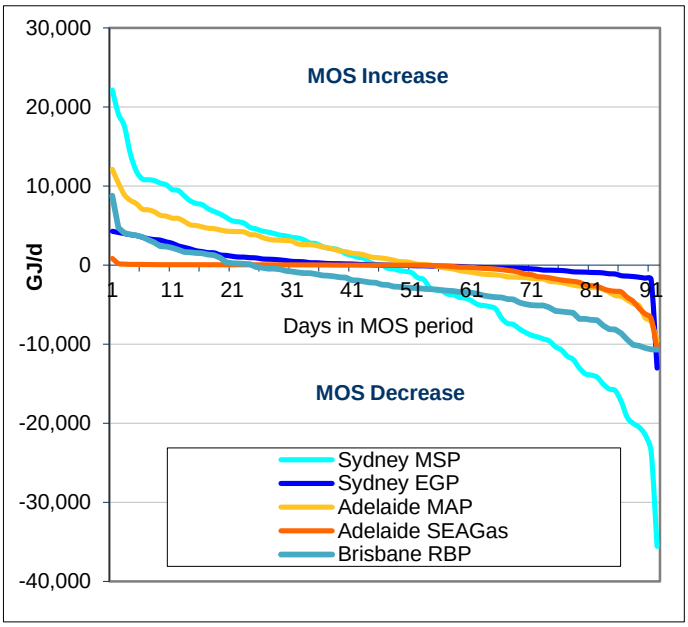

Table 2 – Summary statistics of daily MOS quantities

	Summary statistics GJ/d				
	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
Maximum	22,156	4,284	12,113	846	8,810
95%	11,350	3,629	7,401	90	3,655
75%	4,904	962	3,954	44	122
50%	-184	4	839	-2	-2,475
25%	-8,172	-395	-1,549	-973	-4,776
5%	-19,591	-1,410	-4,604	-4,290	-9,731
Minimum	-35,576	-13,021	-9,550	-10,666	-10,683
Mean	-1,574	304	1,152	-848	-2,413
Std deviation	10,136	2,004	3,942	1,794	3,854
% days positive	50%	50%	59%	47%	26%
% days negative	50%	50%	41%	53%	74%

Figure 2 – Distribution of daily MOS quantities

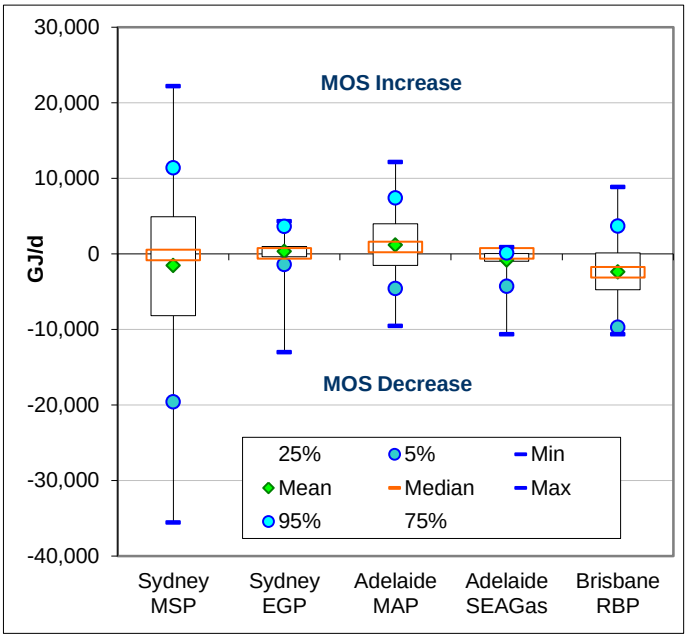

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Table 3 – Daily MOS Estimate quantities (GJ/d) for 1 March 2013 – 31 May 2013

No. of days	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP	No. of days	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
1	22,156	4,284	12,113	846	8,810	1	-386	-1	782	-2	-2,498
1	19,135	4,136	10,385	209	4,726	1	-470	-8	629	-2	-2,695
1	17,594	3,991	8,917	132	4,070	1	-683	-18	442	-3	-2,743
1	14,093	3,854	8,198	95	3,888	1	-794	-23	422	-4	-2,813
1	11,896	3,742	7,790	93	3,777	1	-948	-65	295	-5	-2,858
1	10,903	3,536	7,083	87	3,555	1	-1,588	-83	111	-8	-2,923
1	10,801	3,346	6,997	77	3,221	1	-1,820	-85	83	-19	-2,997
1	10,713	3,232	6,755	67	2,888	1	-2,818	-115	18	-41	-3,030
1	10,369	3,168	6,314	62	2,379	1	-3,160	-128	-115	-66	-3,089
1	10,167	2,941	6,198	61	2,338	1	-3,243	-132	-297	-103	-3,138
1	9,562	2,771	5,944	58	2,185	1	-3,665	-140	-382	-135	-3,254
1	9,442	2,442	5,912	58	1,965	1	-3,743	-149	-494	-185	-3,262
1	8,779	2,251	5,539	57	1,683	1	-4,092	-167	-691	-250	-3,388
1	8,137	2,058	5,103	55	1,616	1	-4,177	-208	-806	-260	-3,395
1	7,805	1,818	5,015	54	1,540	1	-4,507	-258	-912	-274	-3,474
1	7,658	1,717	4,847	53	1,497	1	-4,971	-277	-1,042	-364	-3,661
1	7,132	1,575	4,665	51	1,342	1	-5,107	-297	-1,143	-403	-3,830
1	6,791	1,558	4,620	49	1,244	1	-5,242	-342	-1,190	-438	-3,964
1	6,474	1,296	4,456	48	923	1	-5,507	-350	-1,234	-490	-4,035
1	6,050	1,234	4,308	47	371	1	-6,681	-362	-1,310	-556	-4,099
1	5,617	1,119	4,263	46	249	1	-7,365	-369	-1,488	-664	-4,295
1	5,494	1,029	4,248	45	197	1	-7,507	-370	-1,497	-754	-4,337
1	5,316	1,016	4,203	45	171	1	-8,060	-387	-1,543	-923	-4,724
1	4,767	944	3,871	44	106	1	-8,507	-418	-1,565	-1,121	-4,933
1	4,588	918	3,822	43	-253	1	-8,865	-471	-1,666	-1,198	-5,045
1	4,317	787	3,525	43	-310	1	-9,077	-518	-1,719	-1,438	-5,086
1	4,177	752	3,291	41	-437	1	-9,331	-623	-1,744	-1,502	-5,106
1	4,008	726	3,176	40	-449	1	-9,596	-632	-2,034	-1,598	-5,329
1	3,796	661	3,163	38	-529	1	-10,316	-651	-2,114	-1,749	-5,784
1	3,700	581	3,105	36	-722	1	-10,718	-680	-2,192	-1,874	-5,878
1	3,515	480	3,047	36	-805	1	-11,515	-741	-2,374	-1,974	-5,960
1	3,429	452	2,679	33	-922	1	-11,945	-846	-2,528	-2,056	-6,029
1	3,194	422	2,600	33	-995	1	-13,002	-865	-2,653	-2,174	-6,805
1	2,806	312	2,585	30	-1,019	1	-13,739	-885	-2,690	-2,473	-6,806
1	2,732	306	2,499	29	-1,120	1	-13,913	-925	-2,843	-2,594	-6,928
1	2,376	258	2,320	26	-1,299	1	-14,176	-938	-2,856	-2,671	-6,973
1	2,160	210	2,163	22	-1,346	1	-15,045	-983	-3,052	-2,997	-7,640
1	2,077	190	2,002	8	-1,431	1	-15,671	-1,095	-3,427	-3,214	-8,080
1	1,864	185	1,791	4	-1,544	1	-15,870	-1,114	-3,842	-3,304	-8,143
1	1,447	158	1,701	2	-1,578	1	-17,228	-1,335	-3,941	-3,384	-8,611
1	1,241	151	1,510	2	-1,914	1	-19,238	-1,385	-4,396	-4,062	-9,442
1	1,000	105	1,431	0	-1,939	1	-20,023	-1,441	-4,859	-4,569	-10,085
1	868	74	1,314	0	-2,072	1	-20,511	-1,527	-5,140	-5,460	-10,200
1	354	57	1,059	-1	-2,183	1	-21,458	-1,649	-6,647	-6,162	-10,499
1	93	17	962	-1	-2,234	1	-23,569	-1,799	-7,176	-6,743	-10,655
1	18	10	896	-1	-2,452	1	-35,576	-13,021	-9,550	-10,666	-10,683

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