MOS ESTIMATES FOR MOS PERIOD 1 DECEMBER 2013 – 28 FEBRUARY 2014

Prepared By: Gas System Operations

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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 December 2013 – 28 February 2014.

3. MOS estimates for MOS period 1 Dec 2013 – 28 Feb 2014

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 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 December 2010 – 28 February 2011, 1 December 2011 – 29 February 2012 and 1 December 2012 – 28 February 2013 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 (SEA) – these supply gas to the Adelaide STTM hub.

The input data collected from the previous three years was combined to create a larger and more representative sample of MOS allocations, as stated under Method 2 in the methodology.

[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 hub

The Brisbane STTM hub commenced operations on 1 December 2011. Therefore The MOS quantities for this period are based on 'Method 2' for year 3 to year 6 of an STTM hub.[3] This means MOS estimates for the upcoming MOS period for the Roma to Brisbane Pipeline (RBP), the sole pipeline that supplies gas to the Brisbane STTM hub are derived using the actual daily MOS allocation quantities for the periods 1 December 2011 – 29 February 2012 and 1 December 2012 – 28 February 2013.

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

[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	17,694	19,717	14,623	1,558	7,245
MOS decrease	32,270	5,072	14,106	13,914	13,247

Figure 1 – Curves of daily MOS quantities

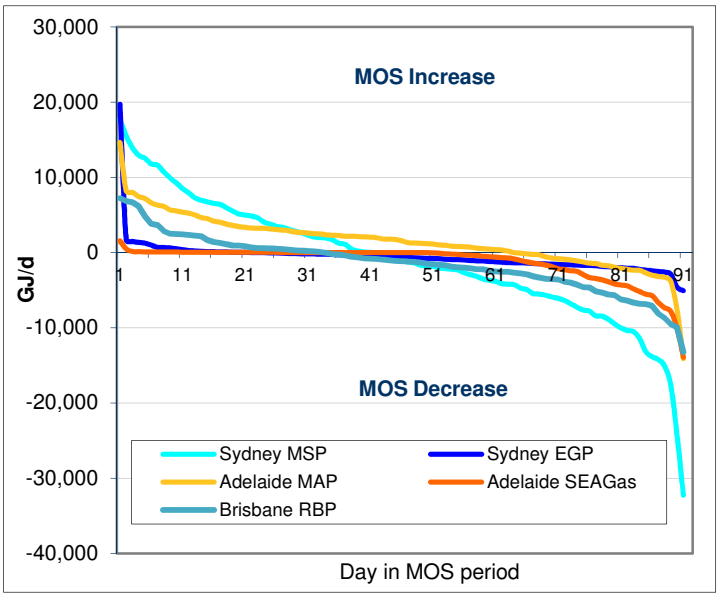

Table 2 – Summary statistics of daily MOS quantities

	Summary statistics GJ/d				
	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
Maximum	17,694	19,717	14,623	1,558	7,245
95%	12,152	1,109	6,890	67	4,306
75%	4,327	-20	3,226	27	592
50%	-873	-571	1,553	-2	-1,172
25%	-5,603	-1,497	-440	-1,590	-3,404
5%	-14,044	-2,492	-3,107	-6,198	-7,605
Minimum	-32,270	-5,072	-14,106	-13,914	-13,247
Mean	-990	-560	1,483	-1,296	-1,436
Std deviation	8,372	2,436	3,592	2,524	3,709
% days positive	45%	24%	69%	43%	36%
% days negative	55%	76%	31%	57%	64%

Figure 2 – Distribution of daily MOS quantities

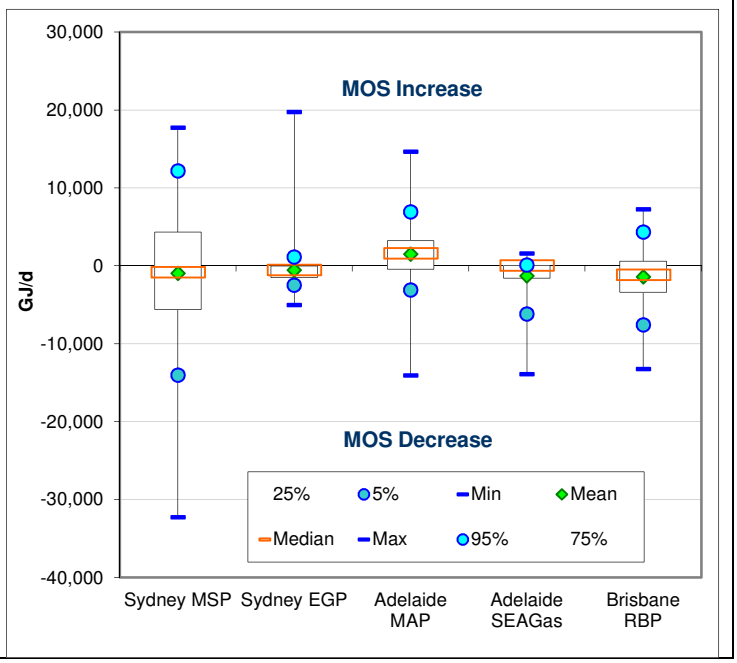

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Table 3 – Daily MOS quantities (GJ/d) from 1 December 2013 to 28 February 2014

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	17,694	19,717	14,623	1,558	7,245	1	-1,265	-640	1,319	-2	-1,219
1	15,483	1,692	8,209	479	6,832	1	-1,369	-690	1,257	-3	-1,257
1	13,927	1,472	8,004	133	6,658	1	-1,685	-744	1,212	-5	-1,342
1	12,928	1,355	7,434	100	6,166	1	-1,776	-771	1,169	-6	-1,489
1	12,521	1,241	7,177	68	4,799	1	-1,848	-791	1,133	-40	-1,558
1	11,782	976	6,602	65	3,813	1	-2,055	-834	1,007	-97	-1,641
1	11,613	683	6,299	64	3,638	1	-2,120	-883	967	-158	-1,693
1	10,737	655	6,131	61	2,854	1	-2,236	-934	845	-231	-1,894
1	9,924	619	5,669	58	2,499	1	-2,322	-952	807	-250	-1,952
1	9,241	503	5,539	55	2,441	1	-2,693	-999	778	-328	-2,029
1	8,508	388	5,354	51	2,407	1	-2,953	-1,071	718	-366	-2,101
1	7,926	268	5,225	50	2,353	1	-3,176	-1,099	574	-402	-2,205
1	7,265	215	4,992	49	2,240	1	-3,522	-1,133	507	-497	-2,227
1	6,955	166	4,643	48	2,180	1	-3,690	-1,197	459	-544	-2,418
1	6,731	140	4,490	47	1,644	1	-3,850	-1,224	394	-603	-2,519
1	6,528	99	4,165	45	1,400	1	-4,138	-1,271	315	-673	-2,548
1	6,394	91	4,023	44	1,280	1	-4,216	-1,318	180	-739	-2,564
1	5,954	69	3,784	42	1,098	1	-4,284	-1,354	-25	-844	-2,703
1	5,526	42	3,600	42	944	1	-4,726	-1,388	-92	-1,054	-2,793
1	5,135	35	3,435	39	941	1	-4,934	-1,394	-176	-1,235	-2,910
1	4,986	13	3,340	36	828	1	-5,470	-1,448	-255	-1,412	-3,161
1	4,841	6	3,254	30	670	1	-5,522	-1,491	-307	-1,514	-3,329
1	4,611	-12	3,230	29	597	1	-5,684	-1,504	-572	-1,665	-3,479
1	4,042	-29	3,221	25	586	1	-5,912	-1,557	-746	-1,878	-3,548
1	3,778	-40	3,150	21	539	1	-6,097	-1,603	-834	-2,168	-3,563
1	3,472	-57	3,058	14	505	1	-6,371	-1,634	-882	-2,268	-3,862
1	3,349	-91	2,985	11	462	1	-6,807	-1,636	-994	-2,437	-4,000
1	3,081	-122	2,896	8	369	1	-7,270	-1,672	-1,116	-2,504	-4,286
1	2,800	-141	2,726	6	278	1	-7,645	-1,706	-1,261	-2,942	-4,595
1	2,629	-158	2,666	4	241	1	-7,792	-1,730	-1,421	-3,340	-4,639
1	2,324	-175	2,570	4	194	1	-8,427	-1,773	-1,457	-3,441	-5,149
1	2,074	-191	2,501	3	159	1	-8,453	-1,859	-1,690	-3,636	-5,339
1	1,983	-228	2,466	3	94	1	-8,865	-1,898	-1,762	-3,886	-5,574
1	1,902	-241	2,342	2	-55	1	-9,494	-1,988	-1,976	-4,178	-5,669
1	1,659	-277	2,301	2	-223	1	-10,002	-2,017	-2,081	-4,314	-6,209
1	1,236	-292	2,258	1	-277	1	-10,365	-2,076	-2,232	-4,426	-6,379
1	1,080	-313	2,176	0	-374	1	-10,510	-2,091	-2,341	-4,827	-6,659
1	449	-321	2,168	0	-548	1	-11,414	-2,263	-2,361	-5,163	-6,832
1	211	-335	2,125	0	-628	1	-13,174	-2,342	-2,710	-5,545	-6,877
1	88	-369	2,081	0	-758	1	-13,851	-2,452	-3,010	-5,738	-7,079
1	30	-394	2,047	-1	-836	1	-14,237	-2,532	-3,204	-6,658	-8,131
1	-24	-423	1,964	-1	-859	1	-15,102	-2,616	-3,292	-7,353	-8,692
1	-132	-473	1,800	-1	-951	1	-17,669	-2,902	-3,867	-7,832	-9,526
1	-246	-490	1,771	-1	-1,035	1	-24,337	-4,605	-7,665	-10,131	-9,929
1	-571	-529	1,730	-2	-1,097	1	-32,270	-5,072	-14,106	-13,914	-13,247
1	-873	-571	1,553	-2	-1,172	1					

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