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# MOS ESTIMATES REPORT

MOS PERIODS: March 2020, APRIL  
2020 & MAY 2020

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# Important notice

## PURPOSE

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## Acknowledgement

AEMO acknowledges the support, co-operation and contribution of all participants in providing data and information used in this publication.

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## VERSION CONTROL

Version	Release date	Changes
1.0	14/06/2019	New document published quarterly

# 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 monthly 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 MOS periods: March 2020, April 2020 and May 2020.

The MOS quantities for each STTM pipeline and each gas day are as determined in accordance with the published methodology for determining MOS estimates<sup>1</sup>.

### 2.1 Sydney, Adelaide and Brisbane hubs

The Sydney and Adelaide STTM hubs commenced operations on 1 September 2010, while the Brisbane STTM hub commenced operations on 1 December 2011. Therefore, the MOS estimate quantities are based on 'Method 3' for year 6 + of an STTM hub<sup>2</sup>. This means they are derived using the actual daily MOS allocation quantities for the periods December from 2014 to 2018; January from 2015 to 2019; and February from 2015 to 2019; for the following STTM pipelines:

- Moomba to Sydney Pipeline (MSP) and Eastern Gas Pipeline (EGP) – these pipelines supply gas to the Sydney STTM hub; and
- Moomba to Adelaide Pipeline (MAP) and SEA Gas pipeline (SEA) – these pipelines supply gas to the Adelaide STTM hub.
- Roma to Brisbane Pipeline (RBP) – the sole pipeline that supplies gas to the Brisbane STTM hub.

The input data collected from the previous years was combined to create a larger and more representative sample of MOS allocations.

### 2.2 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.

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<sup>1</sup> AEMO, *Methodology for determining MOS estimates*, Available at: <http://www.aemo.com.au/Gas/Short-Term-Trading-Market-STTM/Market-operations/Market-Operator-Service>.

<sup>2</sup> AEMO, *Methodology for determining MOS estimates*, pg 22

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 by month in the following sections tables and charts.

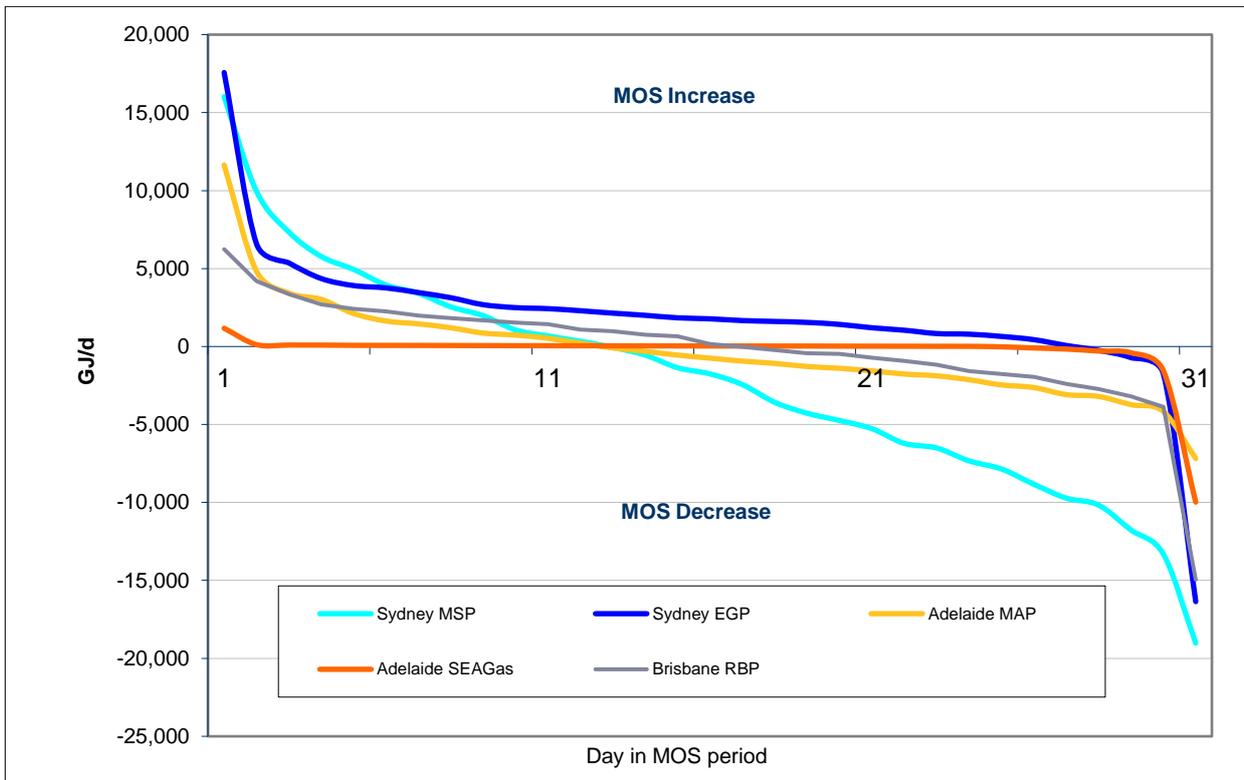
# 3. MOS Estimates

## 3.1 MOS Period March 2020

**Table 1 Maximum MOS quantities (GJ)**

	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
MOS increase	16,023	17,570	11,641	1,170	6,241
MOS decrease	19,023	16,360	7,184	9,977	14,952

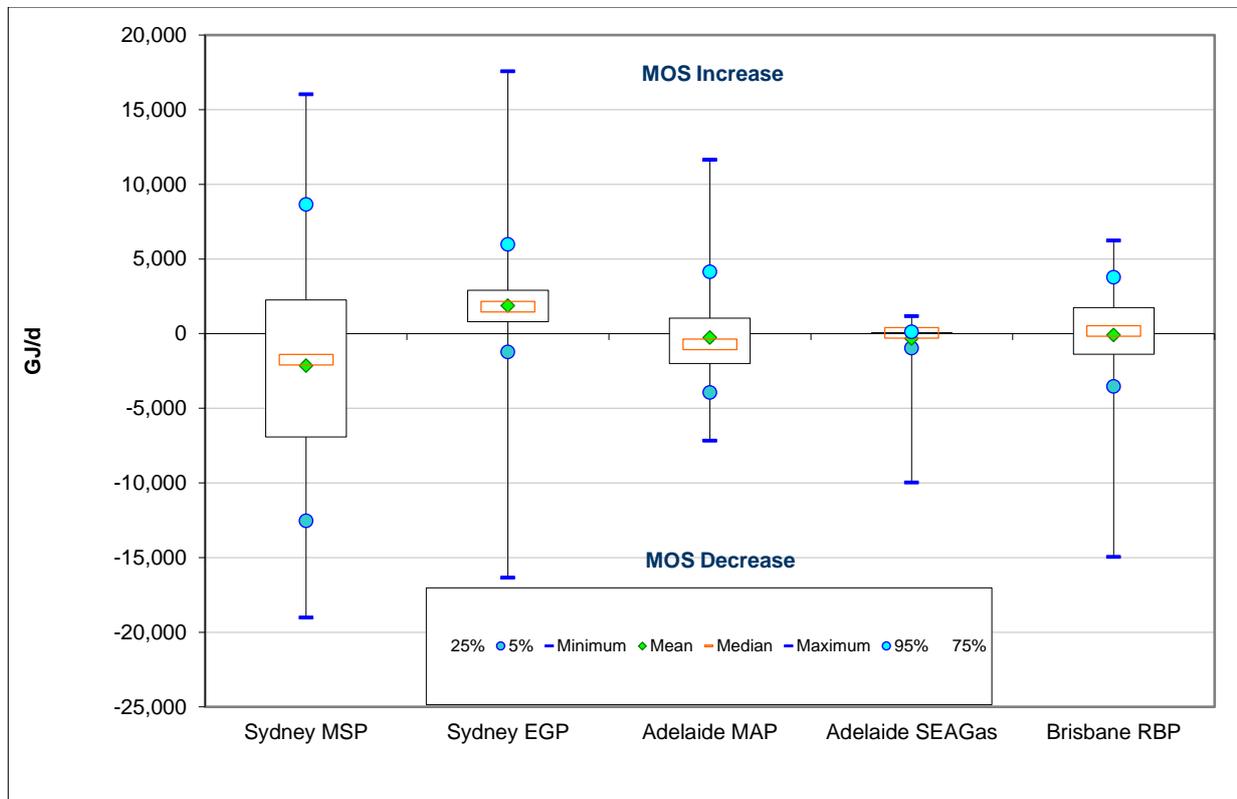
**Figure 1 Curves of daily MOS quantities**



**Table 2 Summary statistics of daily MOS quantities**

	Summary statistics GJ/d				
	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
<b>Maximum</b>	16,023	17,570	11,641	1,170	6,241
<b>95%</b>	8,649	5,973	4,127	107	3,777
<b>75%</b>	2,262	2,904	1,031	61	1,741
<b>50%</b>	-1,756	1,777	-745	34	160
<b>25%</b>	-6,921	810	-2,005	12	-1,372
<b>5%</b>	-12,537	-1,232	-3,947	-976	-3,540
<b>Minimum</b>	-19,023	-16,360	-7,184	-9,977	-14,952
<b>Mean</b>	-2,154	1,870	-276	-329	-101
<b>Std deviation</b>	7,315	4,718	3,294	1,828	3,548
<b>% days positive</b>	39%	87%	39%	77%	52%
<b>% days negative</b>	61%	13%	61%	23%	48%

**Figure 2 Distribution of daily MOS quantities**



**Table 3 Daily MOS quantities (GJ/d) for March 2020**

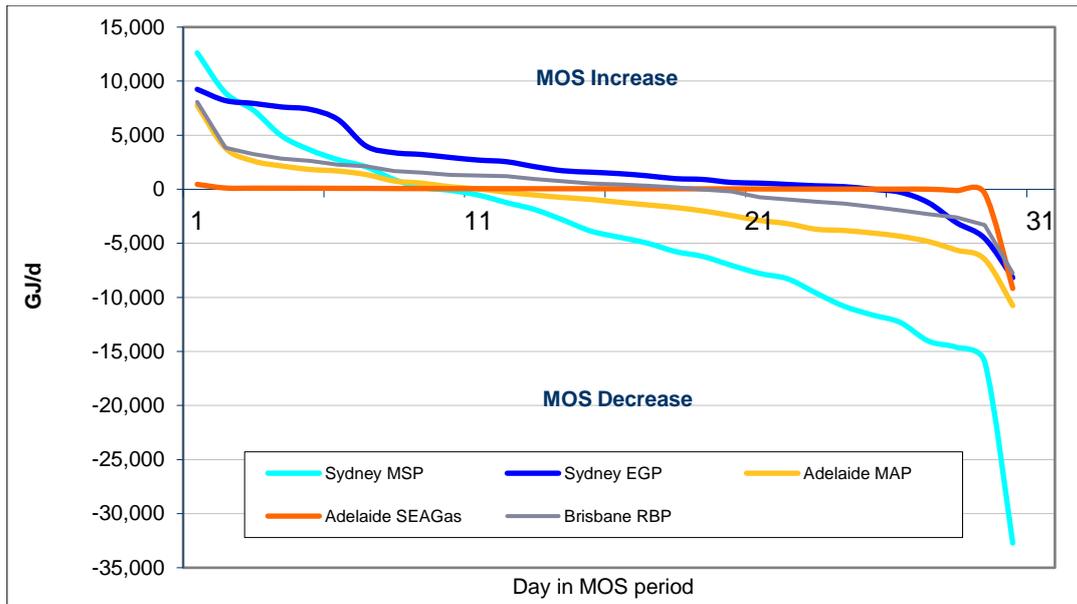
No of days	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
1	16,023	17,570	11,641	1,170	6,241
1	9,957	6,589	4,828	121	4,198
1	7,340	5,357	3,426	93	3,355
1	5,771	4,357	3,021	90	2,692
1	4,941	3,907	2,115	75	2,411
1	3,943	3,759	1,635	71	2,251
1	3,413	3,459	1,450	68	1,978
1	2,544	3,127	1,201	64	1,814
1	1,979	2,682	861	58	1,668
1	1,058	2,493	731	55	1,537
1	678	2,428	528	51	1,434
1	336	2,292	208	47	1,087
1	-58	2,140	-92	44	985
1	-549	2,000	-313	39	762
1	-1,361	1,841	-551	36	662
1	-1,756	1,777	-745	34	160
1	-2,442	1,664	-938	32	-25
1	-3,579	1,607	-1,084	29	-231
1	-4,279	1,546	-1,282	28	-422
1	-4,748	1,417	-1,397	23	-472
1	-5,268	1,202	-1,565	20	-711
1	-6,214	1,044	-1,767	18	-924
1	-6,507	831	-1,881	13	-1,163
1	-7,334	790	-2,129	11	-1,581
1	-7,854	646	-2,463	-20	-1,757
1	-8,830	440	-2,632	-95	-1,951
1	-9,722	68	-3,084	-162	-2,389
1	-10,171	-245	-3,202	-291	-2,718
1	-11,765	-716	-3,727	-403	-3,203
1	-13,309	-1,748	-4,166	-1,548	-3,877
1	-19,023	-16,360	-7,184	-9,977	-14,952

### 3.2 MOS Period April 2020

**Table 4 Maximum MOS quantities (GJ)**

	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
MOS increase	12,623	9,247	7,758	454	8,086
MOS decrease	32,718	8,174	10,755	9,166	7,751

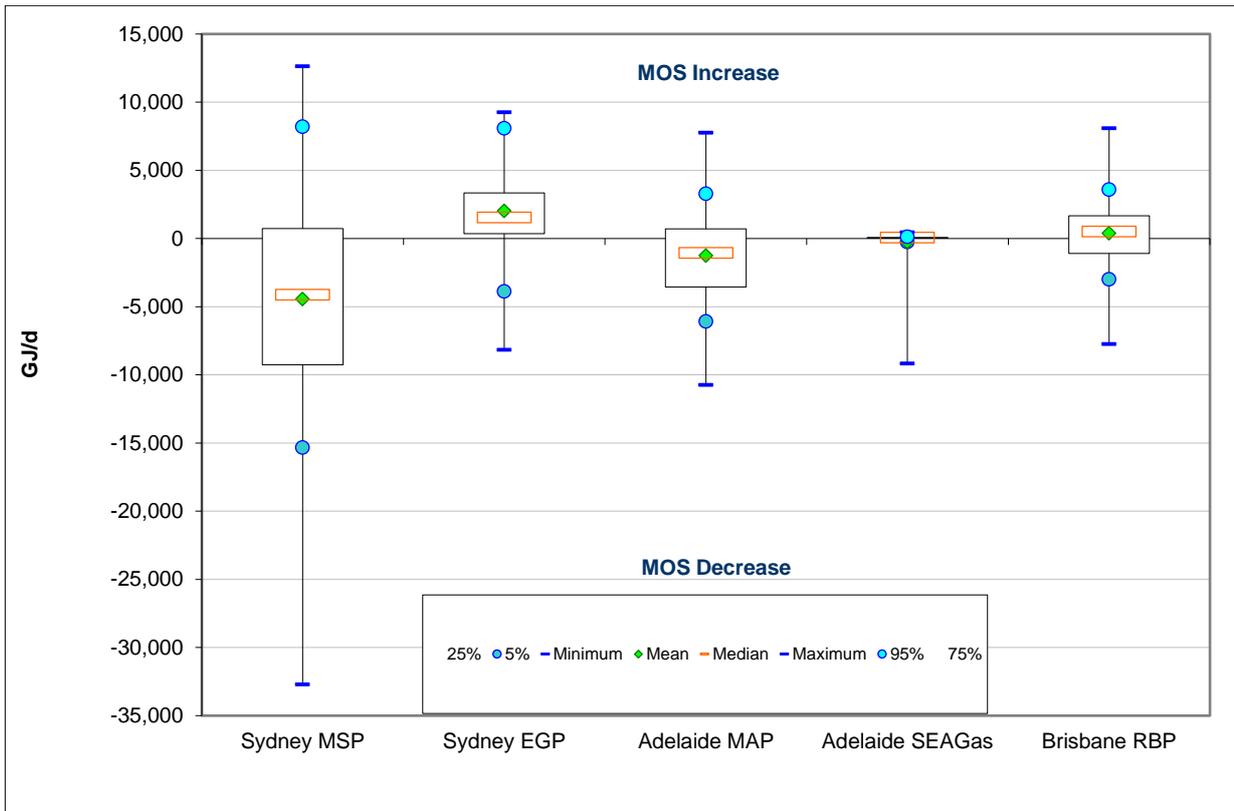
**Figure 3 Curves of daily MOS quantities**



**Table 5 Summary statistics of daily MOS quantities**

	Summary statistics GJ/d				
	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
Maximum	12,623	9,247	7,758	454	8,086
95%	8,202	8,089	3,280	113	3,578
75%	720	3,343	716	70	1,660
50%	-4,150	1,518	-1,068	51	490
25%	-9,261	354	-3,563	24	-1,103
5%	-15,341	-3,881	-6,085	-253	-2,985
Minimum	-32,718	-8,174	-10,755	-9,166	-7,751
Mean	-4,440	2,020	-1,268	-259	380
Std deviation	8,916	3,820	3,521	1,686	2,737
% days positive	30%	83%	37%	90%	60%
% days negative	70%	17%	63%	10%	40%

**Figure 4 Distribution of daily MOS quantities**



**Table 6 Daily MOS quantities (GJ/d) for April 2020**

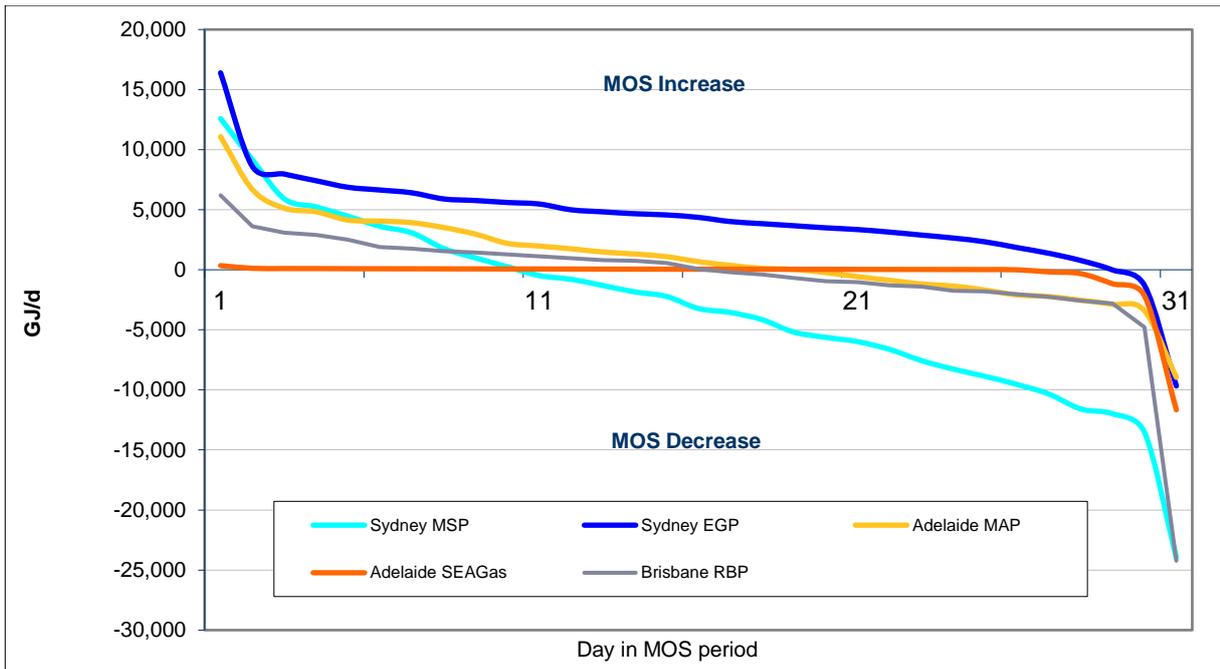
No of days	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
1	12,623	9,247	7,758	454	8,086
1	8,929	8,206	3,824	119	3,838
1	7,313	7,945	2,615	106	3,260
1	4,939	7,612	2,160	103	2,843
1	3,654	7,398	1,837	98	2,619
1	2,739	6,462	1,690	90	2,284
1	2,086	4,011	1,368	85	2,126
1	906	3,386	765	71	1,698
1	162	3,216	567	66	1,545
1	-96	2,942	235	62	1,347
1	-534	2,702	34	60	1,269
1	-1,233	2,550	-277	56	1,219
1	-1,871	2,094	-533	54	938
1	-2,831	1,717	-753	53	749
1	-3,868	1,584	-939	52	547
1	-4,431	1,451	-1,197	49	433
1	-4,975	1,250	-1,440	48	317
1	-5,753	987	-1,685	46	177
1	-6,221	907	-2,007	42	-19
1	-7,038	635	-2,429	35	-208
1	-7,784	570	-2,877	31	-727
1	-8,283	447	-3,183	26	-945
1	-9,587	323	-3,690	23	-1,155
1	-10,815	243	-3,811	21	-1,322
1	-11,617	7	-4,043	18	-1,616
1	-12,314	-273	-4,348	15	-1,948
1	-14,040	-1,235	-4,832	8	-2,292
1	-14,620	-3,089	-5,625	-119	-2,585
1	-15,930	-4,529	-6,462	-362	-3,313
1	-32,718	-8,174	-10,755	-9,166	-7,751
1	12,623	9,247	7,758	454	8,086

### 3.3 MOS Period May 2020

**Table 7 Maximum MOS quantities (GJ)**

	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
MOS increase	12,579	16,395	11,082	346	6,199
MOS decrease	23,970	9,676	8,957	11,657	24,223

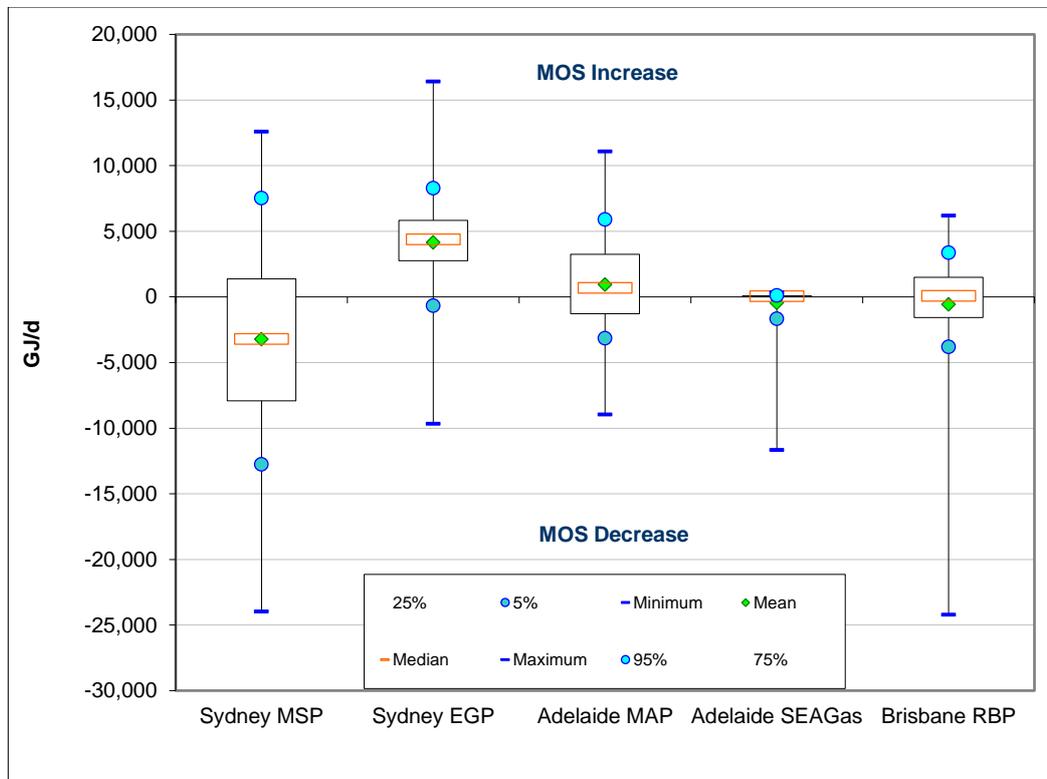
**Figure 5 Curves of daily MOS quantities**



**Table 8 Summary statistics of daily MOS quantities**

	Summary statistics GJ/d				
	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
<b>Maximum</b>	12,579	16,395	11,082	346	6,199
<b>95%</b>	7,537	8,280	5,905	112	3,360
<b>75%</b>	1,382	5,831	3,244	74	1,497
<b>50%</b>	-3,226	4,360	675	46	49
<b>25%</b>	-7,918	2,764	-1,272	22	-1,583
<b>5%</b>	-12,762	-660	-3,145	-1,669	-3,805
<b>Minimum</b>	-23,970	-9,676	-8,957	-11,657	-24,223
<b>Mean</b>	-3,216	4,153	944	-444	-573
<b>Std deviation</b>	7,436	4,071	3,652	2,131	4,927
<b>% days positive</b>	32%	90%	61%	81%	52%
<b>% days negative</b>	68%	10%	39%	19%	48%

**Figure 6 Distribution of daily MOS quantities**



**Table 9 Daily MOS quantities (GJ/d) for May 2020**

No of days	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
1	12,579	16,395	11,082	346	6,199
1	9,163	8,593	6,679	121	3,623
1	5,911	7,967	5,130	103	3,096
1	5,231	7,411	4,823	99	2,889
1	4,456	6,868	4,132	88	2,490
1	3,616	6,641	4,050	85	1,901
1	3,078	6,406	3,918	81	1,771
1	1,775	5,898	3,520	76	1,550
1	989	5,764	2,967	72	1,444
1	252	5,601	2,202	68	1,275
1	-484	5,474	1,972	65	1,111
1	-794	4,995	1,744	61	967
1	-1,312	4,821	1,477	54	798
1	-1,844	4,665	1,310	51	745
1	-2,222	4,565	1,089	49	556
1	-3,226	4,360	675	46	49
1	-3,558	4,014	364	44	-199
1	-4,159	3,837	122	41	-390
1	-5,196	3,665	26	40	-693
1	-5,629	3,491	-239	37	-950
1	-5,988	3,346	-574	33	-1,020
1	-6,633	3,133	-876	27	-1,293
1	-7,564	2,888	-1,186	23	-1,412
1	-8,272	2,640	-1,357	20	-1,754
1	-8,877	2,324	-1,692	15	-1,798
1	-9,552	1,846	-2,089	-5	-2,038
1	-10,348	1,370	-2,229	-178	-2,254
1	-11,592	772	-2,536	-323	-2,582
1	-11,992	-18	-2,875	-1,170	-2,817
1	-13,532	-1,302	-3,414	-2,167	-4,792
1	-23,970	-9,676	-8,957	-11,657	-24,223