

Bulletin 105

July-August 2018

CEO's Message

EMC's Non-Financial Performance Results for FY2017/2018

Rule Change Updates

Market Update

New Entrants to the NEMS

User Forums

EMC Training Programme

CEO's Message



We are well into the third quarter of the year. I am pleased that EMC has once again achieved outstanding results for two important sets of performance indicators – the performance

standards set by the Energy Market Authority (EMA) as well as our own annual Customer Satisfaction Survey.

This would not have been possible without the dedication of our colleagues and the support of all our partners in the National Electricity Market of Singapore (NEMS). I would like to take this opportunity to express my sincere appreciation.

Ahead of the full liberalisation of the electricity retail market in the last quarter of 2018, the NEMS welcomed another new retailer in July. In the same month, four new intermittent generation source (IGS) facilities were registered, which contributed to an increase in the total registered capacity of such facilities to more than 45MW.

In August, two rule changes were approved by the EMA – one pertaining to the credit support documents provided by the NEMS' market participants, and the other relating to the introduction of a validation check on load forecasts received from the Power System Operator.

In the wholesale market, the monthly Uniform Singapore Energy Price (USEP) remained above \$100/MWh in the last two months, reaching a high of \$112.89/MWh in August, which is the highest monthly level so far this year.

The final three months of the year will be exciting ones for the industry as well as electricity consumers, with the extension of the Open Electricity Market to the rest of Singapore. I look forward to a vibrant retail market as electricity retailers compete to add value to customers with competitive and innovative packages, and collaborations.

Toh Seong Wah
Chief Executive Officer

EMC's Non-Financial Performance Results for FY2017/2018

We are proud to share the excellent results achieved by the EMC team for our key sets of performance measures for FY2017/2018.

Energy Market Authority (EMA) Performance Standards

EMC has exceeded all performance targets set by the EMA for the third consecutive year since these targets were introduced. The outstanding performance can be attributed to the team's sustained efforts in enforcing high standards and quality in our critical processes.

Service Dimension	Service Indicator	For the Period 1 July 2017 to 30 June 2018	
		Performance Target	Achievement
Systems Availability	Percentage of availability of EMC's systems including (i) trading website; (ii) clearing systems; and (iii) settlement system.	99.90%	100.00%
Pricing Accuracy	Percentage of all trading days free of incidents caused by EMC error.*	99.70%	99.99%
Settlement Accuracy	Percentage of all settlement payments free of EMC error.*	99.90%	100.00%
Customer Responsiveness	Percentage of all market participants' issues lodged with EMC Helpdesk to be resolved within 6 business days.	80.00%	100.00%
	Percentage of all market participants' issues lodged with EMC Helpdesk to be resolved within 10 business days.	100.00%	100.00%

*Excludes inaccurate data provided by other service providers or market participants in the NEMS and trading days when the system is unavailable.

EMC Customer Satisfaction Survey

Separately, EMC conducts an annual Customer Satisfaction Survey to get feedback from key stakeholders of the National Electricity Market of Singapore (NEMS). This is a voluntary exercise that we undertake to ensure that we continue to deliver high service levels to our stakeholders.

We are encouraged by the high satisfaction ratings that we continue to receive from our stakeholders despite the challenge of managing the expectations of an increasing number and changing mix of market participants in the NEMS.

We thank all NEMS stakeholders for their continued participation in the survey. We will work towards closing the gaps where there were service lapses, while maintaining our service levels for areas that we have done well.

Measurement	Achievement 1 July 2017 – 30 June 2018
Satisfaction with Customer Responsiveness	95.38%
Satisfaction with Market Assessment and Dispute Resolution Services	100.00%
Satisfaction with Rule Change Services	92.22%

Rule Change Updates

Templates for banker's guarantees and standby letters of credit

The Singapore Wholesale Electricity Market (SWEM) allows for banker's guarantees (BG) and letters of credit to be provided as credit support.

A review of the BG template was conducted to address a concern that its original drafting might inadvertently imply a continuous liability for the issuing bank even after the BG's expiry date. Revisions were also made to improve clarity and flow, and to include the option for BGs to be automatically renewed.

To more accurately reflect the type of letter of credit which is applicable in the SWEM context, this rule change further incorporated an amendment which stipulates that the acceptable form of credit support is a standby letter of credit (SBLC) instead of any commercial letter of credit. A standard template for the SBLC was also introduced to reduce the transaction costs and processing time for market participants who wish to use a SBLC as credit support.

This rule change took effect on 4 September 2018.

Validating load forecasts

The Market Clearing Engine (MCE) uses the load forecasts received from the Power System Operator (PSO) to produce real-time and forecast schedules. When erroneous and extreme load forecasts are received from the PSO, the corresponding schedules produced by the MCE might not be usable and could adversely impact system operation.

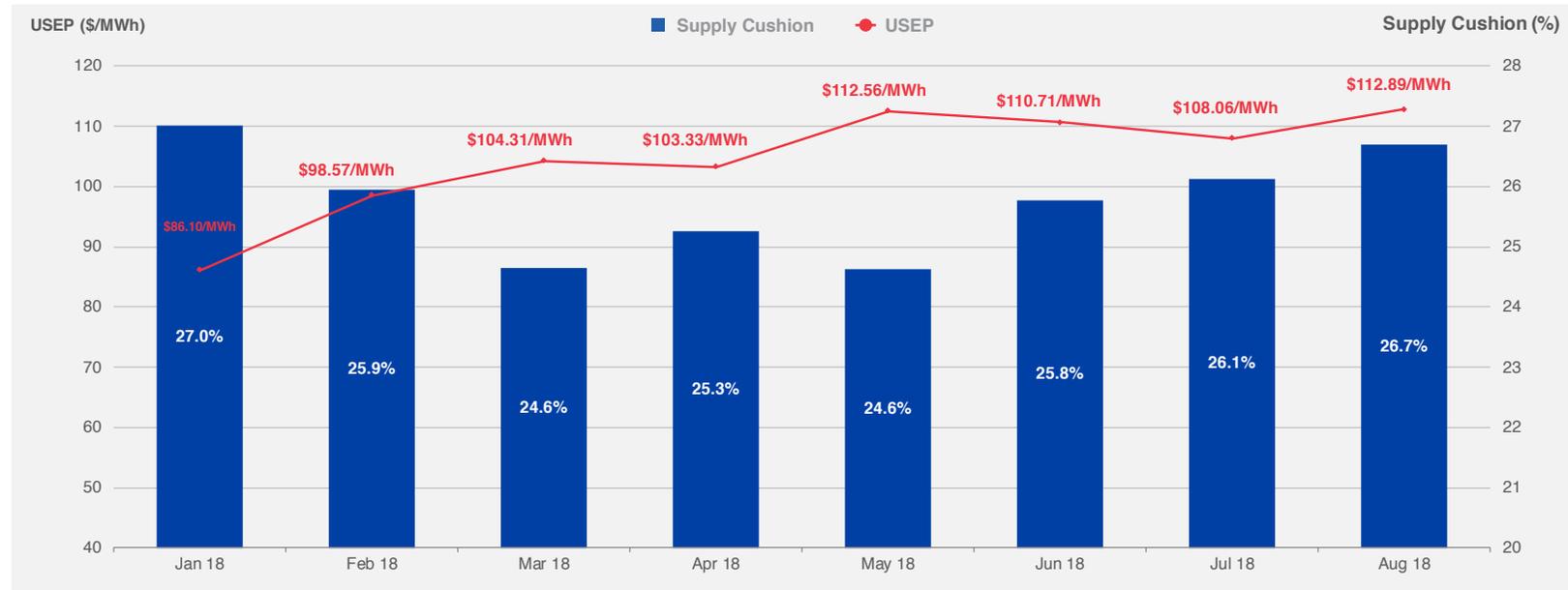
A rule change was thus proposed to introduce a validation check on the load forecasts received from the PSO. The load forecast for a given period will be considered valid for use in the MCE only when it falls within a fixed maximum difference from the latest valid load forecast for the prior period. The fixed maximum difference will be set by the PSO annually, based on the maximum difference between the historical load forecasts of any two consecutive periods.

This rule change will take effect on 26 June 2019.

For more details of the above two rule changes, please visit [EMC's website](#).

Market Update

Overview of USEP and Supply Cushion – Jan to Aug 2018



The monthly average Uniform Singapore Energy Price (USEP) declined in July before reaching its highest level for the year so far in August at \$112.89/MWh, surpassing that of May at \$112.56/MWh.

In contrast to July, when the USEP decreased 2.4 percent as the supply cushion rose to 26.1 percent, the USEP increased in August despite a higher supply cushion of 26.7 percent. Coupled with rising fuel prices, the USEP rose in August and recorded its highest daily level for the last two years of \$297.06/MWh on 27 August, when the supply cushion averaged 22.3 percent.

New Entrants to the NEMS

New market participant and facilities registered in the NEMS

One new market participant (MP) was registered in the National Electricity Market of Singapore (NEMS) in July:

Market Participant	Market Participant Class	Date Registered
Greencity Energy Pte Ltd	Retailer	25 July

The total number of retailers in the NEMS is now 24.

In addition, four new facilities were registered by an MP in July:

Market Participant	Facility Type	Capacity (MW)	Date Registered
Sun Electric Energy Assets Pte Ltd	Intermittent Generation Source (IGS)	1.044	13 July

With these additions, coupled with capacity revisions for the other IGS facilities, the total registered capacity of IGS facilities is currently 45.150MW or 0.3 percent of the total registered generation capacity in the NEMS.

User Forums

Market Information Sharing Forum (MISF)



The Market Operations team hosted the 100th session of the bi-monthly MISF on 12 July.

During the forum, the following topics were shared with the attendees:

- Market performance from May 2017 to June 2018;
- Key highlights in May and June 2018;
- System enhancements and projects; and
- Feature topics:
 - Revamp of the format of trading reports;
 - Backup submission process;
 - Reports for market share of scheduled generation and Withdrawal Energy Quantity (WEQ);
 - Update on operation incidents; and
 - Withdrawal of market participants.

We would like to thank all participants for their continuous support and strong interest in the MISF. The next MISF is scheduled for 13 September. Market participants who are interested in presenting at future MISFs are encouraged to come forward.

Market Systems User Group (MSUG)

The bi-monthly MSUG forum was held on 16 August. EMC Technology team updated attendees on the following topics:

- Overview of NEMS systems availability year-to-date for FY2017/2018 and FY2018/2019;
- Overview of NEMS systems service desk calls received between August 2017 and July 2018;
- Overview of change releases deployed between August 2017 and July 2018;
- Disaster Recovery Preparedness Exercise;
- Status updates on Technology (infrastructure) projects:
 - Server Hardware Application Refresh Project (SHARP);
 - Annual Secure Sockets Layer (SSL) certificate renewal;
 - Migration to Office 365; and
 - Managed Security Services (MSS).
- Status updates on Technology (applications) projects:
 - EMC's corporate website User Interface (UI) update;
 - Compensation for generators adversely affected by price revision; and
 - Annual Generator Outage Programme (AGOP) file upload and publication in Excel.

The next MSUG forum is tentatively scheduled for Thursday, 18 October.

EMC Training Programme

Next course on 15 and 16 November 2018

EMC will be holding the next run of its two-day course *Understanding Electricity Markets* on 15 and 16 November 2018. Our staff will be conducting seven sessions covering the following topics:

- Understanding Electricity
- Why Reform and Regulation are Essential in the Electricity Industry
- The National Electricity Market of Singapore and its Unique Features
- Introduction to SGX Electricity Futures Market
- Pricing in Detail
- Market Settlement and Credit Risk Management
- How Consumers can Influence Electricity Markets
- The course dates for 2018 and 2019 are as follows:
 - 15-16 November 2018
 - 21-22 February 2019
 - 16-17 May 2019

We advise you to book early to secure your place in the course date of your choice, and benefit from our early-bird discount.

Further details on the programme and on how to register are on our website, www.emcsg.com. For enquiries, please e-mail trainingprogramme@emcsg.com or contact Jan Lee at +65 6779 3000.