

Bulletin 129

July–August 2022

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CEO's Message



July marks the start of our new financial year. For the financial year that ended in June, I am pleased to share that the EMC team has achieved exceptional results for the key performance targets set by the Energy Market Authority (EMA). Since 2015 when EMA began measuring these targets, we have consistently received perfect scores in all the regulated performance standards. This is an achievement we can be particularly proud of given the challenges faced during the Covid-19 pandemic.

I would like to thank our stakeholders for working closely with us and also my colleagues for their dedication and continuous efforts in ensuring that the National Electricity Market of Singapore (NEMS) operates smoothly despite the

challenging operating environment.

I would also like to thank our partners for participating in our annual Customer Satisfaction Survey and for giving us high satisfaction ratings in all categories. It is a reflection of the commitment by the EMC team to effectively engage our stakeholders on their concerns and needs.

On the market update, the wholesale electricity market saw 24 days which recorded a daily average Uniform Singapore Energy Price (USEP) of more than \$300.00/MWh in July amid a tighter supply cushion. This resulted in the monthly average USEP increasing by 67.3 percent to \$360.28/MWh. An increase in the supply cushion and a fall in the fuel oil price in August subsequently led to a decline in the monthly average USEP to \$241.09/MWh.

With the further easing of community measures in August, there is renewed hope that the worst of the pandemic is behind us. The outlook for tourism-related sectors such as aviation and food & beverage services, as well as professional services sectors like consultancy and legal firms, have improved. I am confident that, with the united efforts of everyone, including the EMC team, coupled with the strong partnerships with all our stakeholders, we will continue to exceed our targets in the new financial year.

Toh Seong Wah
Chief Executive Officer

EMC's Non-Financial Performance Results for FY2021/2022

We are pleased to share that the EMC team has once again scored exceptional results based on our key performance measures for FY2021/2022.

The results are a testament to the efforts and dedication of our colleagues in ensuring that the National Electricity Market of Singapore (NEMS) continued to operate efficiently throughout the Covid-19 pandemic.

Regulated Performance Standards

EMC continues to do well in all the performance targets set by the Energy Market Authority (EMA). For the seventh consecutive year since the targets were introduced, we have achieved perfect scores for all four service dimensions; systems availability, pricing accuracy, settlement accuracy, and customer responsiveness. The team is committed to maintain its high standards and deliver excellent performance to all our stakeholders.

Service Dimension	Service Indicator	For the Period 1 Jul 2021 to 30 Jun 2022	
		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%	100.00%
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

EMC conducts an annual Customer Satisfaction Survey to gather feedback from the key stakeholders of the NEMS. The survey is a voluntary exercise that we undertake to ensure that we continue to deliver high service levels to our stakeholders.

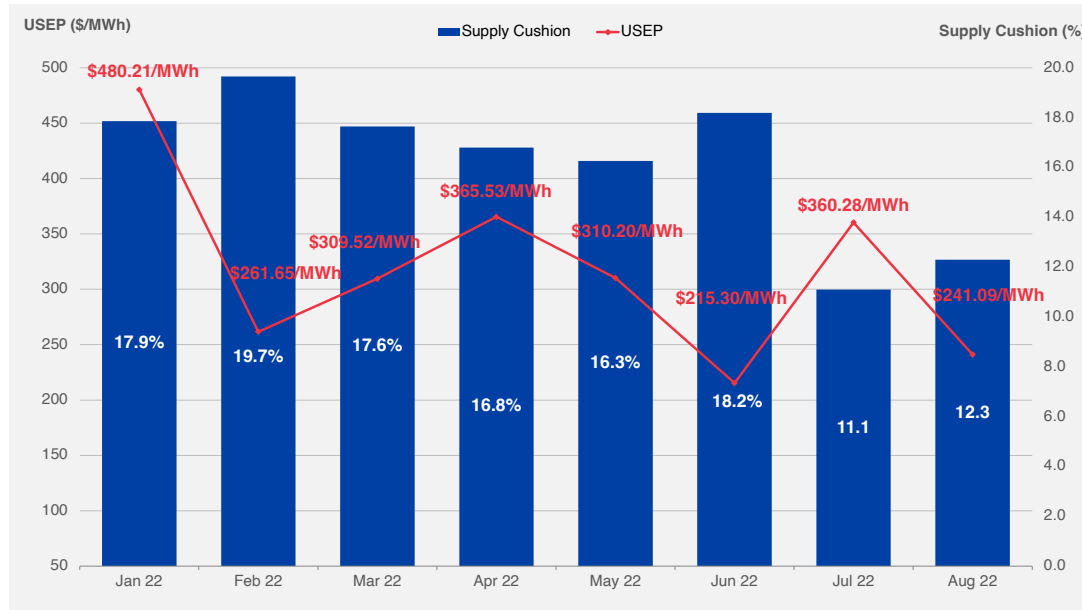
We thank everyone for their feedback and acknowledgement as we continue to receive high satisfaction ratings from our stakeholders despite challenges in the market.

We will work with all NEMS stakeholders to close the service gaps and address any issues, while maintaining the high service levels that are expected from EMC.

Measurement	Achievement 1 Jul 2021 – 30 Jun 2022
Satisfaction with Customer Responsiveness	100.00%
Satisfaction with Market Assessment and Dispute Resolution Services	100.00%
Satisfaction with Rule Change Services	94.44%

Market Update

Overview of USEP and supply cushion – Jan to Aug 2022



The daily average Uniform Singapore Energy Price (USEP) ranged between \$233.25/MWh and \$1,034.23/MWh in July, and between \$136.31/MWh and \$466.63/MWh in August. The monthly average USEP increased 67.3 percent to \$360.28/MWh in July but declined 33.1 percent in August to \$241.09/MWh.

In July, demand marginally grew by 0.7 percent to 6,412MW while supply plunged 7.3 percent to 7,215MW as compared to the previous month. As a result, the supply cushion fell 7.1 percentage points and USEP increased 67.3 percent to the monthly average of \$360.28/MWh in July. It is the third highest monthly USEP for 2022 thus far. Despite a 19.9 percent decline in fuel oil price, the rise in July's USEP can be attributed to the increased number of days when the daily USEP climbed above \$300.00/MWh amid tighter supply cushion – there were 24 days which recorded a daily average USEP of more than \$300.00/MWh, compared to three days in June.

In August, demand decreased 0.3 percent to 6,391MW while supply improved by 1.0 percent to 7,285MW. This led to the supply cushion climbing 1.1 percentage points to 12.3 percent. This coupled with fuel oil price falling by 2.4 percent resulted in the drop in August's USEP.

New Entrant to the NEMS

Diamond Electric Pte Ltd registered one new facility in the National Electricity Market of Singapore (NEMS) in July:



Market Participant	Facility Type	Capacity (MW)	Date Registered
Diamond Electric Pte Ltd	Load Registered Facility (LRF)	7.2	20 July

With the addition of the LRF, the maximum contingency reserve capacity provided by the LRFs stands at 22.9MW.

User Forums



Market Information Sharing Forum

Our Markets and Operations team hosted the 124th session of the bi-monthly Market Information Sharing Forum (MISF) on 14 July.

The following topics were shared with the attendees during the session:

- market performance and key highlights in May and June;
- system enhancements and projects; and
- feature topic:
 - prepayment automation

We would like to thank all participants for their continuous support and strong interest in the MISF.

Market participants who are interested in presenting at future MISFs are encouraged to contact the Markets and Operations team.

Market Systems User Group Forum

The bi-monthly Market Systems User Group (MSUG) forum was held on 18 August. Our Technology team updated participants on the following topics:

- overview of the NEMS systems availability year-to-date for FY2021/2022 and FY2022/2023;
- overview of the NEMS systems service desk calls received for FY2021/2022 and FY2022/2023;
- overview of change releases deployed between August 2021 and July 2022;
- NEMS systems incidents;
- planned NEMS maintenance;
- Disaster Recovery Preparedness (DRP) exercise;
- statistics on report downloads (via Web Services);
- status updates on Technology (infrastructure) project:
 - Settlements Prepayment Automation Project;
- status updates on Technology (applications) projects:
 - NEMSCAP Refresh Project (NRP);
 - NEMS Applications on Chromium Edge Project;
 - Settlement Engine Application Upgrade Project;
 - Settlements Prepayment Automation Project;
 - providing real-time estimates of Reserve Responsibility Share (RRS) for each Generation Registered Facility (GRF); and
 - incorporation of solar generation forecasts.

The next MSUG forum is tentatively scheduled for Thursday, 20 October. We will update all participants ahead of the forum.

EMC Training Programmes

Singapore Electricity Network and Market Course

In July, EMC partnered Singapore Institute of Power and Gas (SIPG) to conduct four runs of the *Singapore Electricity Network and Market* course for technicians, engineers and executives from YTL PowerSeraya Pte. Ltd.

The participants learned about Singapore's electricity network and market, and examined some of its unique features. As evidenced from the discussions and feedback received, participants developed a deeper understanding of the operations and constraints in operating the electricity network and market.

The next run will be conducted in November and will cover the following six topics:

- Overview of Singapore's Electricity Network
- Electricity Transmission, Distribution Network Configuration and Network Equipment
- Market Reform Milestones and Demand Characteristics
- Market Structure
- Market Operations
- Regulatory Tools and Governance Structure

The course serves as a good primer for participants who are keen to attend the *Understanding Electricity Markets* course, our flagship course which has been conducted since 2005.

To register, please contact SIPG at 6916 7930 or training-institute@spgroup.com.sg.

More information about the course is available on our [website](#).

Customised Electricity Market Course

EMC conducted a customised electricity market course for engineers, analysts and procurement/financial professionals from PSA International in August.

The participants gained insights into Singapore's electricity market and learned about topics such as the overview of the market structure and products as well as the market clearing process in the Singapore wholesale electricity market. The course ended with discussions centering on how global events are affecting Singapore's electricity and fuel supply and the potential pathways for Singapore's power sector to reach net zero in 2050.

For enquiries on customised electricity market courses, please email us at trainingprogramme@emcsg.com or contact Jan Lee at 6779 3000.

Market Clearing Workshop

The next public run of the *Market Clearing Workshop* will be held over two and a half days, on 12, 13 and 14 (half day) October 2022. The workshop will be conducted through a mix of physical and virtual sessions.

The workshop will cover the following nine topics:

- Market Clearing Overview
- Market Clearing Engine Mathematical Model
- Generation Dispatch and Marginal Pricing
- Transmission Modelling and Nodal Pricing
- Ancillary Services Markets
- Co-optimisation amongst Energy and all Ancillary Products
- Constraint Violation Penalties (CVP) and Stepwise CVP
- Tie-Breaking
- Demand Response

More information about the workshop and registration details are available on our [website](#).

Understanding Electricity Markets

Our next *Understanding Electricity Markets* training programme will be held over two and a half days on 17, 18 and 21 (half day) November 2022. The programme will be conducted through a mix of physical and virtual sessions.

Our trainers will cover the following four topics:

- Basic Understanding of Electricity and Electricity Markets
- National Electricity Market of Singapore (NEMS) and its Unique Features
- Pricing Mechanism and Economic Dispatch
- Market Settlement and Credit Risk Management

More information about the programme and registration details are available on our [website](#).

For enquiries on private runs of the *Understanding Electricity Markets* training programme or *Market Clearing Workshop*, please email us at trainingprogramme@emcsg.com or contact Jan Lee at 6779 3000.