CEO’s Message

The Covid-19 Taskforce announced the tightening of safe management measures on 30 April in view of an increase in the number of Covid-19 infections in Singapore in recent weeks.

To safeguard the operations of the wholesale electricity market and for the safety of our colleagues, we took a decision for all EMC staff to work from home from 3 to 16 May. The move has no impact on the market’s operations, and we thank our market participants for their understanding and support.

In March, we published the National Electricity Market of Singapore (NEMS) Market Report 2020. I hope that the additional analyses this year on the impact of the Covid-19 pandemic provided interesting insights to our market participants. The Market Surveillance and Compliance Panel’s (MSCP) annual report, which includes an assessment of the competitiveness, market efficiency and market rule compliance within the NEMS last year, has also been published.

Another key yearly project – the Rules Change Panel (RCP) work plan prioritisation exercise – was completed in the first quarter of the year. The RCP will be working on the 12 issues that have been identified and prioritised this year.

In April, we registered two new market participants and welcomed the NEMS’ first energy storage system (ESS). As Singapore deploys more solar energy into our power system, ESS will be critical in managing solar intermittency and enhancing grid resilience. The new 2.4MW ESS will also help us assess the impact of such storage systems on the wholesale electricity market.

Looking at the market’s performance, the monthly average Uniform Singapore Energy Price rose above the $100/MWh level in March but receded below this level again in April. This came at the back of higher oil prices in March.

Finally, I am pleased to see a growing number of businesses benefitting from EMC’s PowerSelect electricity procurement portal. We introduced PowerSelect to help businesses secure the best electricity offers efficiently through the portal’s unique 15-minute live auctions. Since its launch in 2018, we have conducted close to 200 successful auctions on the portal and helped more than 150 businesses secure the most competitive packages in the market. Last year, we further introduced Renewable Energy Certificates (RECs) on PowerSelect to support our customers’ sustainability goals. We will continue to expand our offerings on the portal to meet the evolving needs of our customers.

Toh Seong Wah
Chief Executive Officer
Close to 200 Auctions Conducted on PowerSelect Since Launch

Since the launch of EMC’s PowerSelect in November 2018, we have conducted close to 200 live auctions on the portal, helping more than 150 businesses secure the best electricity packages available in the market.

PowerSelect, an online electricity purchasing platform for businesses, uses a unique bidding process to help our customers get the most competitive deals. PowerSelect customers come from a wide range of industries, including manufacturing, real estate, accommodation and food services, and wholesale and retail trade (see the breakdown in the table below). On average, we have helped our customers achieve additional savings of between 3% and 5% relative to the best price they could get on their own or their starting auction price.

Breakdown of PowerSelect customers by industries

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage of Auctions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation and Food Services</td>
<td>14%</td>
</tr>
<tr>
<td>Construction</td>
<td>7%</td>
</tr>
<tr>
<td>Health and Social Services</td>
<td>6%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>28%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>11%</td>
</tr>
<tr>
<td>Wholesale and Retail Trade</td>
<td>7%</td>
</tr>
<tr>
<td>Others</td>
<td>27%</td>
</tr>
</tbody>
</table>

Savings aside, PowerSelect customers also benefit from a much more efficient procurement process when they purchase their electricity via the portal. Compared to the usual practice of obtaining and evaluating quotes from individual electricity retailers which can take months, the entire purchasing process once customers have agreed to come on board PowerSelect, can be completed within two business days. With 15 participating retailers, our customers can access a wide range of offers at one go.

PowerSelect brings important benefits

1. Competitive and transparent bidding
2. Wide pool of electricity retailers
3. Easy to use
4. Access to electricity price data
5. Free for businesses

Since October last year, customers with additional needs, for example, those who wish to offset their electricity consumption as part of their sustainability efforts, have been able to purchase Renewable Energy Certificates (RECs) on PowerSelect. We will continue to expand the platform's offerings to meet the needs of our customers.

To find out more about PowerSelect and/or register your interest, scan the QR code below:
Rule Change Panel Work Plan Prioritisation Exercise 2021

In February this year, EMC consulted stakeholders of the National Electricity Market of Singapore (NEMS), including market participants (MPs), Singapore Power (SP) Services, SP PowerGrid, EMC and the Power System Operator (PSO), for the annual Rules Change Panel (RCP) work plan prioritisation exercise.

**Issue identification**

The first stage of the prioritisation exercise involved seeking inputs for new issues which stakeholders wished to address. The following eight new issues were raised for inclusion in the updated work plan:

1. Review the treatment of electricity imports in the market (Proposed by: Tuas Power Generation);
2. Review of reserve allocation and Automatic Financial Penalty Scheme (AFPS) for electricity imports (Proposed by: Tuas Power Generation);
3. Review the scope for compensation under section 5.4.3, Chapter 5 of the Market Rules (Proposed by: Tuas Power Generation);
4. Registration of facilities and settlement of auxiliary load of contracted ancillary service providers (Proposed by: YTL PowerSeraya / Seraya Energy);
5. Load forecasting, market clearing engine (MCE) dispatch and price determination when contracted fast start unit(s) is performing monthly test or during actual activation (Proposed by: YTL PowerSeraya / Seraya Energy);
6. Introduction of solar forecast in the existing MCE (Proposed by: PSO);
7. Review of AFPS (Proposed by: National Environmental Agency); and
8. Export rebate for solar photovoltaic (PV) systems installed at premises under master-sub metering scheme (Proposed by: LYS Genco Beta).

**Meeting with stakeholders**

In the second stage of the prioritisation exercise, EMC conducted joint briefing sessions with stakeholders to clarify and refine the scope of both existing and new issues. Stakeholders also ranked each issue according to its importance and urgency, and/or voted for issues to be removed.

**Updated RCP work plan from April 2021 to March 2022**

After incorporating feedback from the stakeholders, EMC presented the proposed update to the one-year work plan to the RCP for consideration at its 121st meeting in March.

At the meeting, the RCP decided to refer those issues that were not under the RCP’s purview or overlap with ongoing workstreams of the Energy Market Authority (EMA) to the EMA and remove them from the RCP work plan.

The RCP agreed to work on the following issues within the next 12 months:

1. Imposition of minimum net tangible asset as a condition of participation for retailers;
2. Holistic review of the current prudential requirement obligations and their enforcement process under the Market Rules;
3. Deterrence of settlement payment default by market participants (MPs);
4. Review allowable remedies for default events;
5. Proposed review of Constraint Violation Penalty (CVP) structure;
6. Provision of real-time estimates of the reserve responsibility share (RRS) for each generation registered facility (GRF);
7. Provision/clearing of ancillary services without active power generation;
8. Framework for determining compensation claims amount for MPs in compliance with the PSO’s directions;
9. Introduction of solar forecast in the existing MCE;
10. Load forecasting, MCE dispatch and price determination when contracted fast start unit(s) is performing monthly test or during actual activation;
11. Price revision (rerun) to market price cap for periods with real-time load shedding and periods whereby the PSO issues overriding dispatch instructions; and
12. Amendments to the StartGeneration used in the real-time schedule (RTS), and the first dispatch period of the short-term schedule (STS) and pre-dispatch schedule (PDS).

Detailed descriptions of all issues can be found on EMC’s website at https://www.emcsg.com/marketrules/ruleschangepanel/workplan.
Market Update

Overview of USEP and supply cushion – Jan to Apr 2021

The daily average Uniform Singapore Energy Price (USEP) ranged between $88.98/MWh and $168.09/MWh in March, and between $94.49/MWh and $184.89/MWh in April. The monthly average USEP, which rose 11.2 percent to $103.35/MWh in March, declined 5.3 percent to $97.86/MWh in April. The supply cushion continued to stay below 25.0 percent in the two months.

March’s supply cushion remained at 23.6 percent, as demand increased 4.1 percent while supply rose 4.0 percent. The rise in March’s USEP can be attributed to the increased number of days when the daily USEP climbed above $100.00/MWh – there were 11 days in March which recorded a daily average USEP of more than $100.00/MWh, compared to only four days in February. This increase was aligned with higher oil prices seen in March.

In April, the USEP declined 5.3 percent despite an increase of 1.1 percent in demand which surpassed a 0.5 percent rise in supply. This was aligned with a fall in oil prices in April.

New Entrants to the NEMS

Two new market participants and one new facility registered in the NEMS

We welcomed two new market participants in the National Electricity Market of Singapore (NEMS) in April:

<table>
<thead>
<tr>
<th>Market Participant</th>
<th>Market Participant Class</th>
<th>Date Registered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunseap Energy Ventures Pte Ltd</td>
<td>Wholesale Market Trader</td>
<td>6 April</td>
</tr>
<tr>
<td>Sunseap VPower Pte Ltd</td>
<td>Wholesale Market Trader</td>
<td>20 April</td>
</tr>
</tbody>
</table>

With the above additions, there are now 15 wholesale market traders in the NEMS. In the same month, one new facility was registered by Sunseap Energy Ventures:

<table>
<thead>
<tr>
<th>Market Participant</th>
<th>Facility Type</th>
<th>Capacity (MW)</th>
<th>Date Registered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunseap Energy Ventures Pte Ltd</td>
<td>Energy Storage System</td>
<td>2.4</td>
<td>23 April</td>
</tr>
</tbody>
</table>

This is the first energy storage system registered in the NEMS.
User Forums

Market Information Sharing Forum (MISF)
The Markets and Operations team hosted the 116th session of the bi-monthly MISF on 11 March virtually via WebEx. The following topics were shared with the attendees during the session:
- Market performance and key highlights in January and February;
- System enhancements and projects; and
- Feature topics:
  - Nodal price derivation for generation facilities;
  - Overview of price re-runs in the NEMS (January 2016 – February 2021); and
  - Review of Annual Generator Outage Programme (AGOP) processed data in comma-separated values (CSV) publication.

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

Market Systems User Group (MSUG)
The bi-monthly MSUG forum was held virtually via WebEx on 22 April. EMC’s Technology team updated attendees on the following topics:
- Overview of NEMS systems availability year-to-date for FY2020/2021;
- Overview of NEMS systems service desk calls received between April 2020 and March 2021;
- Overview of change releases deployed between April 2020 and March 2021;
- NEMS systems incidents;
- Planned NEMS maintenance;
- Disaster Recovery Preparedness (DRP) Exercise;
- Status updates on Technology (infrastructure) projects:
  - Storage Area Network (SAN) storage technology refresh;
  - NEMSCAP Refresh Project (NRP);
  - Database upgrade; and
  - Single Sign-On (SSO) server technology refresh.
- Statistics on report downloads (via Web Services)
- NEMS system user account form (version 2.1)
- Status updates on Technology (applications) projects:
  - Review of default levy arrangements (stage 2);
  - Migration of Submissions Management System (Submission 2.0);
  - Publication of Annual Generator Outage Programme (AGOP) notification subscription and Web Services in comma-separated values (CSV) format; and
  - Rule change on compensation guidelines for Interruptible Load facilities interrupted for prolonged duration.

The next MSUG forum is tentatively scheduled for Thursday, 17 June. We will update all participants via email ahead of the forum.

EMC Training Programme

Next course on 20 and 21 May 2021
The next run of the virtual two-day course Understanding Electricity Markets is scheduled on 20 and 21 May. Our trainers will be conducting six sessions covering the following topics:
- Understanding Electricity
- Why Reform and Regulation is Essential in the Electricity Industry
- The National Electricity Market of Singapore and its Unique Features
- Pricing Mechanism and Economic Dispatch
- Market Settlement and Credit Risk Management
- How Consumers can Influence Electricity Markets

The course dates for 2021 are as follows:
- 19 and 20 August
- 18 and 19 November

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

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.