Businesses in Singapore have had to react quickly in the first two months of the year in response to the evolving COVID-19 pandemic.

In EMC, we have kept the National Electricity Market of Singapore’s (NEMS) operations and other business functions running smoothly to date by taking appropriate measures to protect our staff and minimise disruptions to the market. I would like to thank my colleagues and our industry partners for their understanding, and for putting up with some minor inconveniences arising from these measures.

In this issue of the Bulletin, we are pleased to provide an update on several systems and operational enhancements that we have introduced in recent months. We will continue to look for opportunities to improve our services and add value to our market participants (MPs), and roll out new service enhancements progressively when they are ready.

Toh Seong Wah
Chief Executive Officer
Service Enhancements in the NEMS

At EMC, we constantly strive to add value and improve our services to the market participants (MPs) of the National Electricity Market of Singapore (NEMS). We are pleased to provide an update on some of the service enhancements that we have introduced in recent months.

Additional data and market insights for MPs
We revamped the trading reports in early 2019 to provide additional market insights to MPs. In January this year, we further pushed out additional data via Webservices to facilitate MPs’ analysis and decision-making, including the following:

- market share of reserves and regulation;
- Withdrawal Price Quantity (WPQ) aggregated at the market level; and
- instances when the Automatic Financial Penalty Scheme (AFPS) was triggered, together with the penalty amount.

Aside from sharing existing data, we are also researching and developing new market indices to provide deeper insights into the market’s performance. The new Offer Price Index (OPI) that was introduced in February was the result of this effort.

Integration of Webservices into Application Programming Interface (API) gateway
We integrated Webservices into the API gateway in October last year. This has enabled us to optimise the performance of Webservices and improve the user experience. Specifically:

- The API gateway monitors the performance and load of Webservices in real time. This allows us to better manage the bandwidth and plan the utilisation of resources to ensure consistency in Webservices’ performance.
- The API gateway provides information that enables us to resolve issues quickly and improve Webservices’ availability.
- Through consistent enforcement of the API gateway policy, we are able to regulate Webservices’ traffic from each MP. This ensures fair usage and prevents any MP from hoarding the bandwidth due to misuse or unintentional programming error.

New discussion topics at Market Information Sharing Forum (MISF)
Since November 2019, prior to each MISF, we have gathered MPs’ inputs on topics they would like to be included. In addition, we have also introduced educational topics in the MISFs to enhance MPs’ understanding of the NEMS systems and operations. These new measures have helped to improve both attendance and engagement during the bi-monthly forums.

We thank all MPs for their continuous feedback and support, and will continue to share new service enhancements in the NEMS when they are ready.

Business Continuity Plan Kicks in for COVID-19

As the operator of Singapore’s wholesale electricity market, EMC has in place a comprehensive Business Continuity Plan (BCP) to safeguard the well-being of our colleagues and minimise potential disruptions to the market which runs twenty-four hours a day, seven days a week.

Our BCP was activated in response to the current COVID-19 pandemic. Since the end of January, we have implemented precautionary measures like twice-daily temperature monitoring and travel declarations by staff and visitors. Additional measures were introduced as the situation developed. When the Disease Outbreak Response System Condition (DORSCON) level for COVID-19 was raised to Orange on 7 February, we activated our split-team work arrangement and EMC colleagues carried out their work from different sites from 10 February. We also stepped up the frequency of cleaning our office, and reminded our colleagues to adopt good hygiene practices at all times.

Keeping our staff, the regulator and market participants of the National Electricity Market of Singapore (NEMS) informed during a crisis is also an important part of our BCP. We updated our key stakeholders on developments in EMC as and when needed, via communication channels such as teleconferences and emails.

Being prepared has enabled us to carry on with our operations and business functions during challenging times like this. We will continue to stay vigilant and adapt our BCP as necessary to protect our staff and the market.
Rule Change Update

Bank readiness check for market participant registration

The Market Rules require a market participant (MP) to maintain a bank account at the clearing bank appointed by EMC. An MP applicant’s bank readiness check is thus part of the process to approve its application to register and participate in the Singapore Wholesale Electricity Market (SWEM).

Previously, the bank readiness check required an MP applicant to submit a certified true copy of its duly executed Third Party Authorisation Form. However, the applicant’s ability to furnish this document did not necessarily indicate that its bank account was ready. EMC thus proposed that the applicant be required to submit the clearing bank’s written confirmation of the account’s readiness instead, as the supporting document for the bank readiness check.

The rule change proposal was supported by the Rules Change Panel in November 2019. It was approved by the Energy Market Authority on 4 February 2020, and took effect on 19 February 2020.

New Entrants to the NEMS

Eight new facilities registered in the NEMS

Two market participants registered eight new facilities in the National Electricity Market of Singapore (NEMS) in January and February:

<table>
<thead>
<tr>
<th>Market Participant</th>
<th>Facility Type</th>
<th>Capacity (MW)</th>
<th>Date Registered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sembcorp Solar Singapore</td>
<td>Intermittent Generation Source (IGS)</td>
<td>0.300, 1.440</td>
<td>17 January</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.816, 0.120, 0.516, 4.812, 0.576</td>
<td>4 February</td>
</tr>
<tr>
<td>LYS Genco Beta</td>
<td>Non-Exporting IGS</td>
<td>1.320</td>
<td>28 January</td>
</tr>
</tbody>
</table>

With these additions, coupled with capacity revisions and de-registrations of other generation facilities, the total registered capacity of IGS facilities stands at 147.087MW, or 1.2 percent of the total registered generation capacity in the NEMS.

Market Update

Overview of USEP and supply cushion – Jan to Feb 2020

The daily average Uniform Singapore Energy Price (USEP) ranged between $72.55/MWh and $137.51/MWh in January, and between $72.05/MWh and $229.64/MWh in February. The monthly average USEP was $84.15/MWh in January and increased 5.3 percent to $88.64/MWh in February.

Compared to December 2019, January’s USEP increased 18.1 percent due to a lower supply cushion. January’s supply cushion fell 1.1 percentage points as a result of a 2.4 percent increase in demand which outweighed a 0.9 percent increase in supply.

The USEP rose further in February. The supply cushion fell another 0.5 percentage point as a result of a 1.4 percent increase in demand and a smaller, 0.7 percent increase in supply. Contributing to the increase in the USEP was the tripping of a generating unit on 2 February, coupled with 1,905MW of combined-cycle gas turbine (CCGT) supply being out on maintenance on 2 and 3 February. These drove the daily USEP up on 2 and 3 February, to $133.85/MWh and $229.64/MWh respectively.
User Forums

Market Information Sharing Forum (MISF)
The Market Operations team hosted the 109th session of the bi-monthly MISF on 14 January. During the forum, the following topics were shared with the attendees:
- Market performance in 2019;
- Key highlights in November and December 2019;
- System enhancements and projects; and
- Feature topic:
  - Settlement invoice and associated goods and services tax (GST).

We would like to thank all participants for their continuous support and strong interest in the MISF. There is no MISF scheduled in March. The presentation slides will be shared with all participants when they are ready.

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 which was scheduled on 20 February was cancelled.

EMC’s Technology team will continue to update market participants via email.

EMC Training Programme

Next course on 14 and 15 May 2020

EMC will be holding the next run of its two-day course Understanding Electricity Markets on 14 and 15 May. Our staff 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 2020 are as follows:
- 14 and 15 May
- 20 and 21 August
- 19 and 20 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.