CEO's Message

Celebrating the Year of the Tiger

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2022 got off to a shaky start. As Singapore was preparing to streamline safe management measures, the number of Covid-19 infections grew exponentially, causing the streamlining to be delayed.

The rise in the number of infections has also affected all of us. Most have friends or family infected with the virus. Some of us received Health Risk Notices and were quarantined at home. A few unfortunately caught the virus. While these have caused some inconveniences to our work, I am encouraged by the resilience of our staff in ensuring that our operations and businesses continue to function well.

The high energy prices from end 2021 continued into the new year. January's monthly average Uniform Singapore Energy Price overtook December 2021's level to become the second highest monthly level since the market started at $480.21/MWh but dropped significantly to $261.65/MWh in February due to a slight decrease in demand and an increase in supply.

As part of our continued effort to educate the public about the market, we have partnered the Singapore Institute of Power and Gas to launch a new *Singapore Electricity Network and Market* course, scheduled to be conducted in March.

Though the pandemic continues, I believe that we can look forward to the Year of the Tiger with optimism. I wish you all good health, peace and endless joy in the new year.

Toh Seong Wah
Chief Executive Officer
Celebrating the Year of the Tiger

On 11 February, we held a virtual Lunar New Year (LNY) celebration to welcome the Year of the Tiger. The event was well-received by our staff and everyone had fun participating in the activities.

We kicked off the event with well wishes from our CEO followed by a video featuring LNY greetings from our staff! While we could not hold our usual lion dance and lo hei physically in the office, everyone enjoyed a virtual lo hei with individually-packed yu sheng.

The event continued with birthday celebrations for colleagues born in the months of January and February.

The final activity was a feng shui masterclass conducted by renowned geomancer Master Mark Tan.

We look forward to an exciting Year of the Tiger and wish everyone good health, happiness, and prosperity!

Market Update

Overview of USEP and supply cushion – Jan and Feb 2022

The daily average Uniform Singapore Energy Price (USEP) ranged between $250.40/MWh and $1,054.62/MWh in January, and between $151.96/MWh and $625.60/MWh in February. The monthly average USEP rose 1.1 percent to $480.21/MWh in January, setting the second highest monthly level since the market started. In February, the monthly average USEP plunged 45.1 percent to $261.65/MWh, the lowest monthly level since October 2021.

In January, demand decreased 0.8 percent to 6,225MW and supply decreased 1.0 percent as compared to the previous month. This led to a 0.2 percentage point dip in the monthly supply cushion to 17.9 percent. As a result, the monthly average USEP increased slightly from $475.06/MWh in December 2021 to $480.21/MWh in January.

In February, demand decreased a further 0.4 percent to 6,198MW, in line with the usual seasonality where lower demand is typically observed during the Lunar New Year period, while supply increased 1.8 percent. This resulted in a 1.8 percentage points increase in the supply cushion to 19.7 percent, thereby bringing the monthly average USEP down to $261.65/MWh.
New Entrant to the NEMS

We welcomed one new market participant in the National Electricity Market of Singapore (NEMS) in February:

<table>
<thead>
<tr>
<th>Market Participant</th>
<th>Market Participant Class</th>
<th>Date Registered</th>
</tr>
</thead>
<tbody>
<tr>
<td>SolarLand Alpha Assets Pte Ltd</td>
<td>Wholesaler Market Trader</td>
<td>15 February</td>
</tr>
</tbody>
</table>

With the above addition, there are now 16 wholesaler market traders in the NEMS.

User Forums

Market Information Sharing Forum

Our Markets and Operations team hosted the 121st session of the bi-monthly Market Information Sharing Forum (MISF) on 13 January.

The following topics were shared with the attendees during the virtual session:
- market performance and key highlights in 2021;
- system enhancements and projects; and
- feature topics:
  - market simulation for electricity imports; and
  - case study on price provisionalisation without revision in November and December 2021.

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

Market Systems User Group Forum

The bi-monthly Market Systems User Group (MSUG) forum was held virtually on 17 February. Our Technology team updated participants on the following topics:
- overview of the NEMS systems availability year-to-date for FY2021/2022;
- overview of the NEMS systems service desk calls received between February 2021 and January 2022;
- overview of change releases deployed between February 2021 and January 2022;
- NEMS systems incidents;
- planned NEMS maintenance;
- Disaster Recovery Preparedness (DRP) exercise;
- status updates on Technology (infrastructure) projects:
  - NEMSCAP Refresh Project (NRP); and
  - Settlement Engineer Application Upgrade Project.
- statistics on report downloads (via Web Services);
- setting of hard limit threshold on report downloads (via Web Services) for all market participants from 1 September;
- status updates on Technology (applications) projects:
  - NEMSCAP Refresh Project (NRP);
  - Electricity Import Project;
  - NEMS Applications on Chromium Edge Project;
  - Settlement Engine Application Upgrade Project;
  - Settlements Prepayment Automation Project; and
  - Providing real-time estimates of Reserve Responsibility Share (RRS) for each Generation Registered Facility (GRF).

The next MSUG forum is tentatively scheduled for Thursday, 21 April. We will update all participants via email ahead of the forum.
EMC Industrial Training

Introductory Seminar on the Singapore Wholesale Electricity Market
On 14 February, we conducted a half-day virtual introductory seminar on the Singapore Wholesale Electricity Market for postgraduate students from the Singapore Institute of Technology’s Electrical Power Engineering programme.

The students learned about the evolution of Singapore’s wholesale electricity market and how the overall market-clearing process ensures an efficient, reliable and secure power network for the country. As evidenced from the feedback received, the students developed a better understanding of how the electricity market operates.

For enquiries on courses and seminars on Singapore’s Wholesale Electricity Market and other related topics, please email us at trainingprogramme@emcsg.com or contact Jan Lee at 6779 3000.

Singapore Electricity Network and Market Course
We are pleased to announce that EMC is partnering Singapore Institute of Power and Gas (SIPG) to launch a new Singapore Electricity Network and Market course on 23 and 24 March.

The course will provide participants with a broad overview of Singapore’s electricity network and market and examine some of its unique features. It will also serve 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.

The new course will cover the following topics:

- Overview of Singapore 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

At the end of the course, participants will have a deeper appreciation of Singapore’s electricity network and electricity market, and understand how the whole electricity eco-system works to bring electricity from the generators to the consumers.

To register, please contact SIPG at 6916 7930 or training-institute@spgroup.com.sg. More information about the course is available on our website.

Market Clearing Workshop
The next public run of the Market Clearing Workshop will be held over two and a half days, from 26 to 28 April. The workshop will be conducted through a mix of physical and virtual sessions. The nine sessions will cover the following topics:

- Market Clearing Overview
- Market Clearing Engine Mathematical Model
- Generation Dispatch and Marginal Pricing
- Transmission Modelling and Nodal Pricing
- Ancillary Services Markets
- Co-optimisation among 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
The next public run of the Understanding Electricity Markets training programme will be held on 19 and 20 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 programme is also scheduled to be conducted on 18 and 19 August, and 17 and 18 November.

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.