CEO’s Message

We started the new year with a new Chief Operating Officer for EMC. I am pleased to welcome Lim Chew, who joined the EMC team on 1 February. Lim Chew was previously with the Singapore Exchange (SGX) where he gained extensive experience in critical business functions like finance, risk management and regulation. Coupled with his exposure in business consulting prior to the SGX, Lim Chew offers new perspectives and insights which will be invaluable to EMC.

I am excited to share that the biennial Singapore Electricity Roundtable is back this year. The event will be held on Tuesday, 30 July at The Fullerton Hotel. This will be the 12th year we are organising the Roundtable, and we have already confirmed a strong line-up of international speakers for the event. We look forward to your continued support for Roundtable 2019.

In the wholesale electricity market, the Uniform Singapore Energy Price (USEP) has been on the rise in the first two months of the year. Four new intermittent generation source facilities were registered, and a rule change on the publication of offer data was also approved by the Energy Market Authority.

EMC colleagues ushered in the Year of the Earth Pig with the clients, caregivers and staff of MINDS Ang Mo Kio Training and Development Centre (ATDC) in February. This marks the 15th year that we have supported MINDS ATDC and I am heartened to see how our support has made a difference to the Centre and its clients.

I would like to take this opportunity to wish our NEMS stakeholders and other partners a successful year ahead. I look forward to your continued support and partnership in 2019.

Toh Seong Wah
Chief Executive Officer
Save the Date - Singapore Electricity Roundtable 2019

EMC is pleased to announce that the highly-anticipated Singapore Electricity Roundtable will be held on 30 July 2019 at The Fullerton Hotel, Singapore.

This will be the 12th year that EMC is organising and hosting the Roundtable. The biennial event connects influencers, decision makers, potential investors and experts in the electricity and related industries. It is an important forum for the discussion of the challenges and issues facing the electricity and energy sectors globally. The last Roundtable, held in 2017, had more than 240 participants from the region.

The distinguished speakers and topics* lined up for Roundtable 2019 include:

• Ngiam Shih Chun, Chief Executive, Energy Market Authority: Regulator’s Perspectives on the Singapore Electricity Market;
• Damien Sanford, Executive General Manager of Operations, Australian Energy Market Operator (AEMO): The Role of Technology in Power System Security and Reliability;
• Phillip Harris, Consultant and Former President and CEO of PJM Interconnection: Case for a Capacity Market in Singapore;
• Stephen Woodhouse, Director, Pöyry Management Consulting: UK Retail Market – Liberalisation and Back Again?; and
• Veronica Rodriguez, Senior Vice President, Market Administration, Energy Market Company: A Sustainable Market Design for the NEMS.

The one-day event will end with a networking cocktail and dinner at Monti at Fullerton Pavilion. The Roundtable networking cocktail and dinner, a highlight of the event every year, is exclusive to all Roundtable attendees.

So, mark the date of Roundtable 2019 in your calendar. Do not miss the opportunity to gain insights into the electricity industry and network with key industry experts and decision makers.

For the latest updates, visit our website: www.emcsg.com/roundtable.

*Speakers and topics are subject to change

Rule Change Update

Publication of Offer Data

EMC has been publishing energy offer information since July 2014, following the Energy Market Authority’s (EMA) decision to increase the availability of information to facilitate efficient spot and electricity futures trading. Energy offer data is currently aggregated (where offer quantities at the same offer price are summed up) and released 28 days after each trading day, without identifying individual facilities.

Arising from a review of the publication of offer data in the Singapore Wholesale Electricity Market, a rule change was proposed to release reserve and regulation offer information in the same way as energy offers.

Extending the release of offer information to ancillary services can encourage greater participation and reduce information asymmetries. The release of such offer data is unlikely to significantly increase the likelihood of collusion given the low occurrence of pivotal suppliers in the reserve and regulation markets.

The rule change was supported by the Rules Change Panel in November 2018 and approved by the EMA on 31 January 2019. It will come into effect on 1 July 2019.

For more details of the above rule change, please visit EMC’s website.
Celebrating Chinese New Year with MINDS ATDC

This year marks EMC’s 15th year of partnership with MINDS Ang Mo Kio Training and Development Centre (ATDC).

For some of us, this represents 15 years of friendship with several long-serving staff and a few clients at the Centre. As an organisation, we are glad to continue our support of the Centre and make a difference to the development and general well-being of its clients.

One of the highlights in our calendar of events each year is the annual festive celebration with the Centre as it gives us the opportunity to interact with the Centre’s clients, caregivers and staff. This year’s Chinese New Year celebration, held at the Kebun Baru Community Club on 15 February, was filled with fun games and entertaining performances.

Judging by the smiles on the clients’ faces and enthusiastic participation of family members who joined us, the event was a huge success.
Market Update
Overview of USEP and Supply Cushion (Jan and Feb 2019)

The daily average Uniform Singapore Energy Price (USEP) ranged between $77.54/MWh and $266.91/MWh in January. There were three days in the month when the daily average USEP was above $200.00/MWh, with the highest level of $266.91/MWh registering on 6 January due to a forced outage of a generating unit. The three days of high USEPs caused a 12.1 percent increase in January’s average USEP compared to the preceding month, to $112.57/MWh.

In February, the monthly average USEP rose to $115.17/MWh despite a modest expansion of 0.5 percentage point in the supply cushion to 26.0 percent. This was primarily due to tight supply conditions on 16 February arising from one unplanned outage, one forced outage and three CCGT units being on planned maintenance.

The increases in January and February’s USEPs also corresponded with increases in fuel oil prices, which rose 3.4 percent and 6.7 percent respectively in the two months.

New Entrants to the NEMS
Four new facilities registered in the NEMS

Four new facilities were registered by two market participants (MPs) 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>0.960</td>
<td>11 January</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.660</td>
<td>11 January</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.220*</td>
<td>15 February</td>
</tr>
<tr>
<td>Sun Electric Energy Assets</td>
<td>IGS</td>
<td>0.242</td>
<td>30 January</td>
</tr>
</tbody>
</table>

*Capacity revised from 1.140MW on 15 February at registration, to 2.220MW on 22 February.

With these additions, the total registered capacity of IGS facilities stands at 63.433MW, or 0.5 percent of the total registered generation capacity in the NEMS.
User Forums
Market Information Sharing Forum (MISF)

The Market Operations team hosted the 103rd session of the bi-monthly MISF on 10 January. During the forum, the following topics were shared with the attendees:

- Market performance in 2018;
- Key highlights in 2018;
- System enhancements and projects; and
- Feature topics:
  - Launch of revamped market trading reports;
  - Status update on Charis Electric and Red Dot Power;
  - Criteria for declaration of provisional prices; and

We would like to thank all participants for their continuous support and strong interest in the MISF. The next MISF is tentatively scheduled for 14 March. 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 28 February. EMC Technology team updated attendees on the following topics:

- Overview of NEMS systems availability year-to-date for FY2018/2019;
- Overview of NEMS systems service desk calls received between February 2018 and January 2019;
- Overview of change releases deployed between February 2018 and January 2019;
- NEMS systems incidents;
- Planned NEMS maintenance;
- Disaster Recovery Preparedness Exercise;
- Status updates on Technology (infrastructure) projects:
  - Server Hardware Application Refresh Project (SHARP);
  - Managed Security Services (MSS); and
  - Application Programming Interface (API) Gateway Management Solution.
- Status updates on Technology (applications) projects:
  - Validation of load forecasts;
  - Publication of additional load scenarios;
  - Risk exposure enhancement; and
  - Implementation of API gateway.

The next MSUG forum is tentatively scheduled for Thursday, 25 April.

EMC Training Programme

Next course on 16 and 17 May 2019

EMC will be holding the next run of its two-day course Understanding Electricity Markets on 16 and 17 May 2019. 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 2019 are as follows:
- 16-17 May
- 22-23 August
- 14-15 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.

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.