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CEO’S MESSAGE
EMC’s financial year ended on 30 June 2017. I am pleased that we ended the year with excellent results for two key sets of performance measures: one set by the Energy Market Authority (EMA), and the other tracked by EMC voluntarily to gauge our level of service to the stakeholders of the National Electricity Market of Singapore (NEMS).

We are very encouraged by the results, and thank all NEMS stakeholders for their vote of confidence in EMC.

I am also happy to note that we completed all our business continuity preparedness (BCP) exercises in the last year with no major issues. These regular BCP exercises are critical in ensuring that we are prepared in the event of emergency situations.

The last two months have been busy ones for all of us at EMC. In May, we registered the NEMS’ 20th retail electricity licensee and conducted a two-day training programme for Tenaga Nasional Berhad, Malaysia’s largest electricity utility.

We also rallied close to 50 staff volunteers from ten market participants (MPs) to participate in the annual charity outing with Child at Street 11, the industry’s adopted charity. This is the best turnout that we have had in recent years, and I would like to thank the MPs for their support.

In the wholesale market, the supply cushion remained below 30.0 percent in both May and June. The Uniform Singapore Energy Price (USEP) stayed above $80.00/MWh during the same period.

As we enter the new financial year, I look forward to the Singapore Electricity Roundtable 2017 which will be held on 1 August at the Mandarin Oriental, Singapore. Registration for the Roundtable opened in May and I am delighted to see strong support for the event once again.

This year’s Roundtable will feature a strong line-up of industry experts who will discuss topics of interest and importance, including renewable energy, carbon pricing and full retail competition. There will also be updates on the Singapore and Taiwan electricity markets.

If these topics and the opportunity to network with experts in the power sector interest you, do register for the event. I look forward to welcoming and meeting you at the Roundtable.

Toh Seong Wah
Chief Executive Officer

EMC’S CUSTOMISED TRAINING PROGRAMME

On 24 and 25 May, EMC conducted a customised training course in Kuala Lumpur for Tenaga Nasional Berhad (TNB).

Around 30 participants from different departments of TNB attended the training course which covered Singapore’s success in deregulating the electricity industry, and the unique design features of the Singapore Wholesale Electricity Market.

Since the programme was introduced in 2005, EMC has conducted training for more than a thousand local and overseas participants. If you are keen to explore similar training programmes for your organisation, please contact us at trainingprogramme@emcsg.com.
If you have not registered for the biennial Singapore Electricity Roundtable, register now before all seats are taken up. Don’t miss the opportunity to gain insights into the electricity industry, and the chance to network with industry experts and decision makers from the power sector.

The Singapore Electricity Roundtable will be held on 1 August 2017 at the Mandarin Oriental, Singapore. The Roundtable is EMC’s flagship event and an important forum in the Asia Pacific for the discussion of regional and global issues facing the electricity and energy sectors.

Our distinguished guests who will be speaking at the Roundtable are veterans and experts in the energy field. They are:

- **Ng Wai Choong**, Chief Executive, Energy Market Authority (EMA), who will share EMA’s roadmap for Singapore’s power sector;
- **Carl Hansen**, Chief Executive, Electricity Authority, New Zealand, who will discuss the pre-requisites for a successful competitive retail market, and New Zealand’s experience;
- **Dr Chuan-Neng Lin**, Director-General, Bureau of Energy, Taiwan, who will update participants on developments in Taiwan’s electricity market;
- **Kees-Jan van Oeveren**, Director and Country Manager, Clean Technology Centre, DNV GL - Energy, who will speak about integrating renewable energy into electricity markets;
- **John Pellegrini**, Senior Consultant, Energy and Risk Management Consulting, who will share Europe’s experience with carbon pricing and the lessons learnt; and
- **Paul Poh**, Executive Vice President, Energy Market Company, who will speak about preparing the NEMS for new energy markets.

A networking cocktail reception and dinner will be specially organised for all Roundtable participants in the evening.


*Speakers and topics are subject to changes*

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**NEMS CHARITY EVENT**

**DUCK TOUR WITH CHILD AT STREET 11**

On 12 May, close to 50 staff volunteers from ten companies in Singapore’s power sector came together for the annual National Electricity Market of Singapore (NEMS) charity event. The volunteers brought 32 children from Child at Street 11 for a ride on DUCKtours, followed by lunch at Marché Mövenpick in Suntec City.

The children, aged three to six, thoroughly enjoyed themselves as they explored Singapore’s historical landmarks and took in the breathtaking view of Singapore’s skyline on a remodeled WWII amphibious war craft. After the hour-long ride, they happily tucked into the sumptuous lunch spread that included pizzas and pasta, and ended with ice-cream treats.

Child at Street 11 is a not-for-profit organisation that looks after the emotional and educational needs of vulnerable children in the Ang Mo Kio area. Market participants of the NEMS have been supporting the centre since 2006.
EMC’S NON-FINANCIAL PERFORMANCE RESULTS FOR FY2016/2017

We are proud to share the excellent results achieved by the EMC team for our key sets of performance measures for FY2016/2017:

Energy Market Authority’s (EMA) Performance Standards

For the second consecutive year, EMC achieved perfect scores of 100% for all four service dimensions of the performance targets set by the EMA. The results can be attributed to our sustained efforts in enforcing high standards and quality in our deliverables, and putting in place an effective risk management plan when executing complex business process and system changes.

<table>
<thead>
<tr>
<th>Service Dimension</th>
<th>Service Indicator</th>
<th>For the Period 1 Jul 2016 to 30 Jun 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Performance Target</td>
</tr>
<tr>
<td>Systems Availability</td>
<td>Percentage of availability of EMC's systems including (i) trading website; (ii) clearing systems; and (iii) settlement system.</td>
<td>99.90%</td>
</tr>
<tr>
<td>Pricing Accuracy</td>
<td>Percentage of all trading days free of incidents caused by EMC error.*</td>
<td>99.70%</td>
</tr>
<tr>
<td>Settlement Accuracy</td>
<td>Percentage of all settlement payments free of EMC error.*</td>
<td>99.90%</td>
</tr>
<tr>
<td>Customer Responsiveness</td>
<td>Percentage of all Market Participants’ issues lodged with EMC Helpdesk to be resolved within 6 business days.</td>
<td>80.00%</td>
</tr>
<tr>
<td></td>
<td>Percentage of all Market Participants’ issues lodged with EMC Helpdesk to be resolved within 10 business days.</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

*Excludes inaccurate data provided by others and subject to system availability.

EMC’s Customer Satisfaction Survey

Separately, EMC conducts an annual Customer Satisfaction Survey to get feedback from key stakeholders of the National Electricity Market of Singapore (NEMS). This is a voluntary exercise that we do to ensure that we continue to deliver high service levels to our stakeholders.

We are encouraged by the strong satisfaction ratings that we continue to receive from our stakeholders despite an increasing number of survey respondents each year.

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Achievement</th>
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</thead>
<tbody>
<tr>
<td>1 Apr 2015 – 31 Mar 2016:</td>
<td>1 Apr 2016 – 31 Mar 2017:</td>
</tr>
<tr>
<td>Satisfaction with Customer Responsiveness</td>
<td>100.00%</td>
</tr>
<tr>
<td>Satisfaction with Market Assessment and Dispute Resolution Services</td>
<td>100.00%</td>
</tr>
<tr>
<td>Satisfaction with Rule Change Services</td>
<td>94.44%</td>
</tr>
</tbody>
</table>

We thank all NEMS stakeholders for their vote of confidence in EMC. We will work towards closing the gaps where there were service lapses, while maintaining our service levels for areas that we have done well.
EMC’S BUSINESS CONTINUITY PREPAREDNESS EXERCISES FOR FY2016/2017

Every year, we conduct a series of business continuity preparedness (BCP) exercises to ensure that we are well prepared should a crisis occur. EMC completed the following exercises as part of our workplan for financial year 2016/2017:

<table>
<thead>
<tr>
<th>Type of BCP Test</th>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaster Recovery</td>
<td></td>
<td></td>
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<tr>
<td>Preparedness Exercises</td>
<td></td>
<td></td>
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<tr>
<td>Exercise 1: July to August 2016</td>
<td></td>
<td>• NEMS system switched over to backup site.</td>
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<td>Exercise 2: September to October 2016</td>
<td></td>
<td></td>
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<tr>
<td>Exercise 3: June to July 2017</td>
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<td></td>
</tr>
<tr>
<td>BCP Site Readiness Test</td>
<td>August 2016</td>
<td>• Critical teams worked from alternate office site.</td>
</tr>
<tr>
<td>Exercise Epsilon / EMC Call Tree</td>
<td>November 2016</td>
<td>• All staff activated by phone.</td>
</tr>
<tr>
<td>Activation</td>
<td></td>
<td>• Management team and identified personnel reported to office within pre-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>specified timeframe.</td>
</tr>
<tr>
<td>Exercise Thunderbolt</td>
<td>November 2016</td>
<td>• All staff evacuated from office to simulate emergency situation.</td>
</tr>
<tr>
<td>Home Quarantine Order</td>
<td>February 2017</td>
<td>• Critical teams conducted their daily operations from home.</td>
</tr>
<tr>
<td>Exercise</td>
<td></td>
<td></td>
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<tr>
<td>Desktop Scenario Test</td>
<td>June 2017</td>
<td>• Management team worked on various scenarios to ensure familiarity with</td>
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<tr>
<td></td>
<td></td>
<td>emergency crisis and business continuity procedures.</td>
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MARKET UPDATE

The supply cushion in the wholesale electricity market continued to fall and remained below 30.0 percent in the last two months. It averaged 28.1 percent in May, before falling further to a six-month low of 27.1 percent in June.

In May, the abundance of cheaper supply offset the effect of the weaker supply cushion. As a result, the Uniform Singapore Energy Price (USEP) only dropped marginally to $82.50/MWh.

The USEP rebounded to $84.13/MWh in June primarily due to the weak supply cushion.

NEW ENTRANT TO THE NEMS

The National Electricity Market of Singapore (NEMS) welcomed a new market participant, Energy Supply Solutions Pte Ltd, on 9 May. With this addition, there are now 20 retailers registered in the NEMS.
Market Information Sharing Forum (MISF)

The Market Operations team hosted the 93rd session of the bi-monthly MISF on 11 May. During the forum, the following topics were shared with the attendees:

- Market Performance and Key Highlights for Q1 2017;
- Market Performance and Key Highlights for March and April 2017;
- System Enhancement and Projects; and
- Feature Topics:
  - Post-implementation review of the provision of real-time estimates of the Hourly Energy Uplift Rebate (Estimated HEUR);
  - Risk exposure report publication on Single Electronic Window (SEW); and
  - Credit support value and risk exposure level calculation tool.

We would like to thank all participants for their continuous support and strong interest in the MISF. The next MISF is scheduled for 13 July. 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 15 June. EMC IT updated the attendees on the following topics:

- Overview of NEMS systems availability year-to-date for FY16/17;
- Overview of NEMS systems service desk calls received between May 2016 and May 2017;
- Overview of Change Releases deployed between May 2016 and May 2017;
- Major IT incidents that occurred and actions taken to resolve them;
- Reminder on Certificate Authority (CA) Root Certificate Renewal and Backup Offer Submission;
- Status updates on key on-going Application projects:
  - Publication of Half-Hourly Metered Generation by Facility Type;
  - Revised Spinning Reserve Requirement;
  - Migration of Offer Management System (OMS) into the Submission Management System; and
  - Publication of Risk Exposure Report.

The next MSUG forum is tentatively scheduled for Thursday, 17 August.

EMC Training Programme

EMC will be holding the next run of its two-day course Understanding Electricity Markets on 17 and 18 August 2017. 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 2017 are as follows:
  - 17-18 August
  - 09-10 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.