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## CEO'S MESSAGE

The Singapore Electricity Roundtable returns this year on 8 July at The St. Regis Singapore. Registration for the Roundtable opened in April and we are excited to see strong support for the event once again.

The Roundtable is a leading forum for the electricity sector in the Asia Pacific region. We have a strong line-up of industry experts this year who will be discussing gas market developments in Europe and Asia, as well as power sector developments in the Middle East, the Philippines and Singapore. Details of the event can be found in this issue of the EMC Bulletin.

In the National Electricity Market of Singapore

(NEMS), the quarterly average Uniform Singapore Energy Price (USEP) continued to fall and trade below the vesting prices, averaging \$88/MWh in the first quarter of 2015. This can be attributed to falling fuel oil prices in the first three months of the year.

Still on the market – EMC conducts the Rules Change Panel (RCP) work plan prioritisation exercise in the first quarter of each year to seek feedback from key stakeholders of the NEMS and identify the rule changes the RCP should focus on as a priority for the year. This annual exercise is an important process for the evolution of the wholesale electricity market and ensures that the Market Rules are kept current and relevant at all times. The FY2015/2016 work plan was approved by the RCP in March. Details can be found on the EMC website.

Just as important to us are the business continuity preparedness (BCP) exercises that we conduct each year. The exercises, which test our systems, processes and personnel responses, are critical in preparing us for emergencies or disasters. We provide an overview of our BCP work plan and the exercises that we have completed for the current financial year in this issue of the EMC Bulletin.

In April, EMC colleagues together with our friends from the industry took time off work to participate in the annual NEMS charity outing. I am heartened that our relations with Child at Street 11, NEMS' adopted charity, remain strong after nine years of partnership. I am also happy to hear that all who went for the event – from the children to the teachers and the volunteers – had an enjoyable time.

Finally, with the second quarter of the year already in full swing, I just want to mention that EMC will have a special one-off 15-month financial year ending 30 June this year. This is in compliance with the Companies Act, which requires EMC's financial year to be aligned with that of our holding company following the completion of the Singapore Exchange's acquisition of EMC on 1 October 2014. EMC's new financial year will be from 1 July of the year to 30 June of the following year. The change will not impact market participants or operations of the NEMS.

I look forward to welcoming you at the Singapore Electricity Roundtable in July.

**Dave Carlson**  
Chief Executive Officer

## NEW FACILITIES REGISTERED IN THE NATIONAL ELECTRICITY MARKET OF SINGAPORE (NEMS)

Shell Eastern Petroleum registered its second generation facility with a maximum capacity of 67.8MW in the NEMS on 2 April. This new generation facility bolstered the total generation capacity of Embedded Generation (EG) in the NEMS by 15.6 percent, to 434MW in April 2015.

On 9 April, CPVT Energy Asia registered a new Interruptible Load (IL) facility with a capacity of 2.7MW to provide contingency reserve. With this new addition, the total IL capacity registered in the NEMS for the provision of contingency reserve stands at 28.1MW as of April 2015.

# REGISTER NOW FOR SINGAPORE ELECTRICITY ROUNDTABLE 2015



Registration for the tenth Singapore Electricity Roundtable opened in April, and we are encouraged by the registrations that have come in to date. The event will be held on 8 July 2015 at The St. Regis Singapore.

The Roundtable is EMC's flagship event and an important energy forum in 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 this year are veterans and experts in these sectors.

The Roundtable speakers and topics this year are:

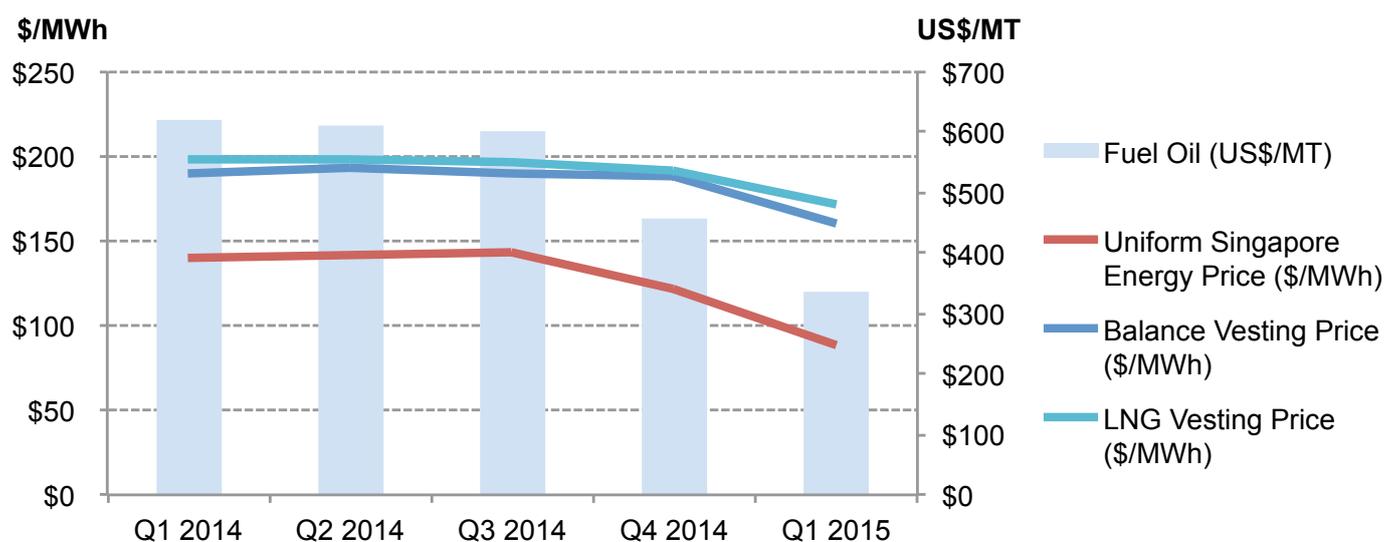
- **Arnaud Dubois-Denis**, General Manager, BG Singapore Gas Marketing, who will share his perspective on the race to establish an Asian LNG hub;
- **Lim Yeow Keong**, Chief Executive Officer, Sembcorp Salalah Power & Water Company, who will speak on the developments in the power sector in the GCC countries and share Sembcorp's experience from its power project in Oman;
- **Eugene Toh**, Director, Policy, Energy Market Authority, who will provide updates on EMA's initiatives to support a competitive market and foster a dynamic energy sector in Singapore, as well as EMA's key areas of focus moving forward;
- **Martin J. van der Lugt**, Director, Chambers Street (UK) Limited, who will speak on the developments in the European gas markets and the implications for Singapore;
- **Melinda L. Ocampo**, President, Philippine Electricity Market Corporation, who will give an update on the power sector in the Philippines; and
- **Toh Seong Wah**, Deputy Chief Executive Officer, Energy Market Company, who will update participants on the latest developments in the National Electricity Market of Singapore (NEMS).

The latest information and online registration for the Roundtable can be found at <https://www.emcsg.com/roundtable>.

Sign up for the Roundtable today. 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 region and around the world.

## MARKET UPDATE

### USEP continues to trade below vesting prices in the first quarter of 2015



Oil prices continued to fall in the first quarter of 2015, exerting downward pressure on the Uniform Singapore Energy Price (USEP). The quarterly average USEP fell to \$88/MWh in the first quarter of 2015, a level last seen in the first quarter of 2009. This also represented a gap of over \$70/MWh between the USEP and the vesting prices<sup>[1]</sup> in the first quarter of 2015.

<sup>[1]</sup> Balance Vesting Price and LNG Vesting Price for Q1 2015 were \$160.2/MWh and \$170.77/MWh respectively.

# RULES CHANGE PANEL WORK PLAN PRIORITISATION EXERCISE 2015

In January and February this year, EMC consulted stakeholders of the National Electricity Market of Singapore (NEMS), including market participants (MPs), Singapore Power (SP) Services, SP PowerGrid 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 16 new issues were raised for inclusion in the updated work plan:

1. Requirement for service provider representatives on the RCP to send an alternative in their absence (Proposed by: Rules Change Panel)
2. Extend planning horizon of the AGOP and AEOP from 1 year to 3 years (Proposed by: PSO)
3. Combining Primary Reserve and Secondary Reserve into a single class of Reserve (Proposed by: PSO)
4. Setting the expiry date of registration of commissioning generation facilities in EMC's Market System (Proposed by: PSO)
5. Price assignment for an islanded GRF/GSF (Proposed by: EMC, Market Operations)
6. Publication of supply bidding behaviour in real-time (Proposed by: Singapore Oxygen Air Liquide)
7. Load restoration command from PSO to be in sync with the periods for which loads offered to provide reserve (Proposed by: CPVT Energy Asia)
8. Alternative method of sending invoices via normal email instead of secured email – (Proposed by: CGNPC Solar-Biofuel Power)
9. Paying renewable generation at the energy cost component of the tariff (Proposed by: CGNPC Solar-Biofuel Power)
10. Publication of total offer capacity for energy (Proposed by: Diamond Energy)
11. Publication of Annual Electricity Statement of Opportunities (Proposed by: Diamond Energy Supply)
12. Review of classification of market participants (Proposed by: Shell Eastern Petroleum)
13. Review composition of the Rules Change Panel to better reflect diversity of market participants (Proposed by: Shell Eastern Petroleum)
14. Clarifying the usage of 'connect' and 'generating unit' in the Market Rules (Proposed by: EMC, Market Administration)
15. Rectification of formula for net participant settlement credit (NPSC) in Chapter 7 section 3.7.2 of the Market Rules (Proposed by: EMC, Market Administration)
16. Removal of Section 4.3.10 of Chapter 3 (Proposed by: EMC, Market Assessment Unit)

## Meeting with stakeholders

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

## Updated RCP Work Plan from April 2015 to March 2016

After incorporating feedback from the stakeholders, EMC presented the proposed update to the two-year work plan to the RCP for consideration at its 78th meeting in March.

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

1. Demand side bidding in the Energy Market
2. Extension of Step-wise Approach to other Constraint Violation Penalties (CVP)
3. Eligibility of energy and reserve offers
4. Provision of Regulation by Storage Batteries
5. Requirement for service provider representatives on the RCP to send an alternative in their absence
6. Rectification of formula for net participant settlement credit (NPSC) in Chapter 7 section 3.7.2 of the Market Rules
7. Setting the expiry date of registration of commissioning generation facilities in EMC's Market System
8. Removal of Section 4.3.10 of Chapter 3
9. Price assignment for an islanded GRF/ GSF
10. Clarifying the usage of 'connect' and 'generating unit' in the Market Rules
11. Publication of supply bidding behaviour (for reserve and regulation)
12. Combining Primary Reserve and Secondary Reserve into a single class of Reserve

Issues prioritised within the next 13 to 24 months, including a detailed description of all issues in the next two years, can be found on EMC's website at <http://www.emcsg.com/MarketRules/RulesChangePanel/WorkPlan>.

# EMC'S BUSINESS CONTINUITY PREPAREDNESS EXERCISES FOR FY2014/2015

Every year, EMC conducts a series of business continuity preparedness (BCP) exercises to ensure that all staff are well prepared should a crisis occur.

EMC completed the exercises listed below as part of our workplan for financial year 2014/2015:

Type of BCP Test	Date	Activity
Desktop Scenario Test	June 2014	<ul style="list-style-type: none"> <li>Management team worked on injects to ensure familiarity with emergency crisis and business continuity procedures.</li> </ul>
BCP Site Readiness Test	June 2014	<ul style="list-style-type: none"> <li>Critical teams worked from alternate office site.</li> </ul>
Exercise Epsilon / EMC Call Tree Activation	September 2014	<ul style="list-style-type: none"> <li>All staff activated by phone.</li> <li>Management team and identified personnel reported to office within pre-specified timeframe.</li> </ul>
Exercise Jaguar	October 2014	<ul style="list-style-type: none"> <li>Industry-wide BCP exercise.</li> </ul>
Exercise Thunderbolt	December 2014	<ul style="list-style-type: none"> <li>All staff evacuated from office to simulate emergency situation.</li> </ul>
Home Quarantine Order Exercise	January 2015	<ul style="list-style-type: none"> <li>Critical teams conducted their daily operations from home.</li> </ul>
Disaster Recovery Preparedness Exercises	July 2014 January 2015	<ul style="list-style-type: none"> <li>NEMS system switched over to backup site.</li> </ul>

## NEMS CHARITY INITIATIVE VISIT TO PORT OF LOST WONDER WITH CHILD AT STREET 11



*All of us at Port of Lost Wonder*

On 17 April, volunteers from EMC and YTL PowerSeraya took 24 children from Child at Street 11 to the Port of Lost Wonder (POLW) located at Sentosa's Palawan Beach. Child at Street 11, a childcare and after-school centre for underprivileged children, is the National Electricity Market of Singapore's (NEMS) adopted charity.

The children, aged four to six, thoroughly enjoyed themselves at the Pirate Ship water play area - the main attraction of the POLW. There were lots of fun and laughter as they enjoyed the water facilities at the play area. This included exciting rides on different water slides and exchanging water gun shoot-outs with their friends, teachers and volunteers.

The outing ended with bento sets for all at the Celebration Cove, a sheltered mini hall within the attraction.

The annual outing was a perfect opportunity for the volunteers and children to interact. We thank market participants for their continuous support of the NEMS charity initiative and look forward to our next event.

## Market Information Sharing Forum (MISF)

Four analysts from the Market Operations team hosted the 80<sup>th</sup> session of the MISF on 12 March.

Cherie Chen opened the forum with key highlights of the market performance in January and February. Her analysis of the price impact resulting from the outage of the Intertie connection on two occasions in February, in particular, was well-received. Cherie also provided an update on the status of current system enhancements and on-going projects, focusing on the Automatic Financial Penalty Scheme and the Intermittent Generation Sources.

Johanna Toh, also took this opportunity to showcase the new Single Electronic Window interface for Bilateral File Upload. She wrapped up her presentation by providing a demonstration of this

new interface. The third presentation was by Ly Trong Trung, who touched on the purpose and reporting format of a new monthly report published by EMC on Hourly Energy Uplift Charges. The report aims to increase the transparency of the Hourly Energy Uplift charges within the market. Bai Jie closed the forum with an in-depth coverage of the Remodeling of Multi-unit Facilities (MUFs) with an identification of the issues on hand and how the proposed solutions will improve the efficiency and accuracy of the MCE modelling for such cases.

The MISF held on 14 May was presented by Tan Choon Kiat from the Market Operations team. 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 16 April. EMC IT updated attendees on the following topics:

- Overview of NEMS systems availability year-to-date for FY 14/15;
- List of all NEMS systems planned maintenance and unplanned disruptions from 1 April 2014 to 31 March 2015;
- Overview of NEMS systems service desk calls received;
- Overview of Change Releases that occurred between April 2014 and March 2015;
- IT incidents and market participants' (MPs) enquiries from February 2015 to April 2015;
- Successful deployment of the following changes on 12 March:
  - » Market Enhancements for Intermittent Generation Sources (IGS);
  - » Bilateral Contract Upload by Market Participants; and
  - » Remodelling of Multi-Unit Facilities
- Status updates on key on-going IT Infrastructure and Application projects:
  - » Enhanced Forward Sales Contract Scheme; and
  - » Demand Response, Compensation & Penalty Project

The next MSUG forum is tentatively scheduled for Thursday, 18 June.

## EMC TRAINING PROGRAMME NEXT COURSE ON 13 AND 14 AUGUST 2015

EMC will be holding the next run of its two-day course *Understanding Electricity Markets* on 13 and 14 August 2015. 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
- Settlement
- How Consumers can Influence Electricity Markets

The course dates for 2015 are as follows:  
◦ 13 – 14 August    ◦ 12 – 13 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](http://www.emcsg.com). For enquiries, please e-mail [trainingprogramme@emcsg.com](mailto:trainingprogramme@emcsg.com) or contact Jan Lee at +65 6779 3000.

### SEND US COMMENTS, FEEDBACK OR QUESTIONS

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