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CEO's Message

I would like to begin with a reminder to register for this year's Singapore Electricity Roundtable, 28 and 29 October at Suntec, Singapore. This event is definitely one you don't want to miss: an annual highlight for our industry and a key event of the Singapore International Energy Week (SIEW). We have secured a fantastic line-up of international speakers and high-profile panelists to discuss topics of great interest to our industry. Please see the article below for full details and information on how to register.

I am very proud to announce that EMC has received two prestigious awards, the IDC-Enterprise Innovation Award 2010 and iCMG

Architecture Award for Excellence 2010, both for the recently launched Settlement System Revamp (SSR) project. These awards recognize our efforts to improve the robustness of the National Electricity Market of Singapore (NEMS) systems and our pursuit for excellence in customer orientation. Full details are on page 5.

Looking at the NEMS, demand continued its downward trend from June into July and August. For more information, see page 2.

In August, we had the privilege to host for the eighth year in a row the EMC Golf Day for our invited guests from Singapore's electricity

industry. A very special thanks to all of our players, dinner guests and sponsors for their support and for making it once again an enjoyable and successful day—despite the rain. More on this fun-filled event are on pages 2 and 3.

I look forward to meeting many of you again at the Roundtable 2010, our much-anticipated October event.

Dave Carlson
Chief Executive Officer

Don't forget to register for the Singapore Electricity Roundtable 2010



Thursday, 28 October 2010
Friday morning, 29 October 2010
Suntec, Singapore

Register now for the sixth Singapore Electricity Roundtable on 28 and 29 October 2010 at Suntec Singapore, one of the key events of Singapore's International Energy Week (SIEW).

For this year's Roundtable, we are pleased to offer a terrific line-up of high-profile speakers

covering an exciting array of thought-provoking and informative topics. In addition, workshops on Day 2 will provide an update on the NEMS and cover electricity derivatives markets in greater depth.

Our confirmed distinguished speakers are as follows:

- Keynote speaker: **Professor Frank A Wolak**, Holbrook Working Professor of Commodity Price Studies in the Department of Economics, and Director of the Program on Energy and Sustainable Development, Stanford University, will address challenges in developing regional electricity markets.
- **Paul Sell**, Director, Energy Market Consulting Associates, will discuss the deployment of smart metering in the UK,

Australia and New Zealand and how benefits are being realized.

- **Dr Pallapa Ruangrong**, Commissioner, Energy Regulatory Commission Thailand, will give an update on developments in Thailand's electricity sector.
- **Mark Landis**, Founding Principal, MRL Management Services, will discuss the Australian electricity derivatives markets and industry lessons learned.

Our distinguished panelists will discuss Singapore's Economic Strategies Committee (ESC) recommendations and the implications for the power sector.

- **Professor Frank A Wolak**
- **John Ng**, Managing Director, PowerSeraya Ltd

(continued on page 2)



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- **Brendan Wauters**, President and CEO, Senoko Energy Ltd
- **Ng Meng Poh**, Executive Vice President, Head, Singapore Utilities Sembcorp Industries Ltd

Kenneth Lim, Senior Vice President, Market Operations & Information Technology, Energy Market Company and Dr Chiao Yen Shong, Business Development Manager, Energy Market Company, with co-presenter Mark Landis will conduct workshops on Day 2, providing a

comprehensive update on the National Electricity Market of Singapore (NEMS) and covering electricity derivatives markets in depth.

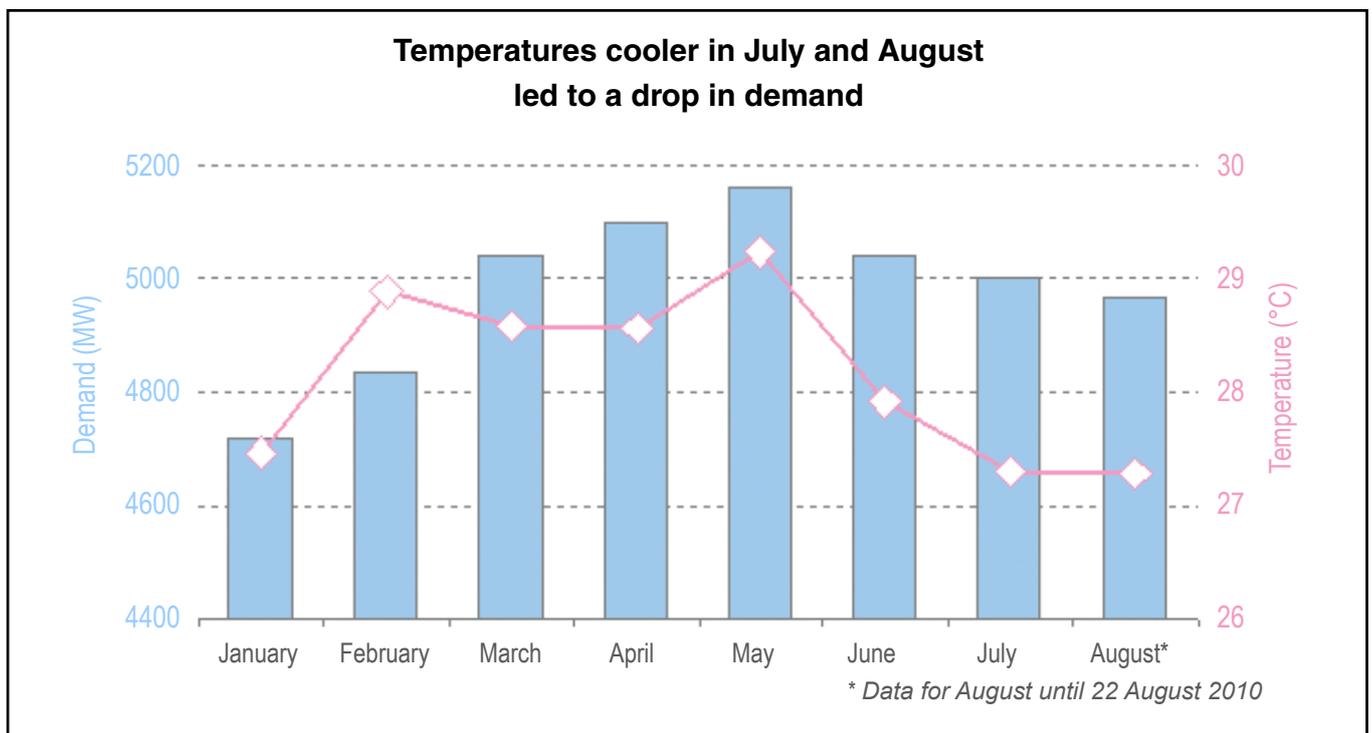
Don't miss this industry highlight of the year!

For the latest information and online registration, visit our website at www.emcsg.com/roundtable.

For more information on Singapore International Energy Week, please visit www.singapore.iew.com.sg.

Market Update

Demand continues its drop in July and August since its peak in May



After slipping in June, demand continued to move downward in July and August. From an average of 5,039MW in June, the demand weakened to 5,000MW in July and dipped further to about 4,965MW for the first

three weeks of August. The drop in demand in July and August was partly attributed to the decline in temperatures.

EMC Golf Day—A Great Success Despite The Heavy Downpour

For eight consecutive years, EMC has been delighted to host the annual Golf Day for guests from Singapore's electricity industry.

On 18 August, close to 65 golfers and 120 dinner guests attended this year's event at the Sentosa Golf Club. Guests included chairpersons, board members, CEOs and senior management from our market participants and other key industry players.

(continued on page 3)



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(L to R): Junior golfers and SLGA rep Kok Jo Ee, Low Si Xuan, Deborah Lee and Marvane E, receive EMC's donation from Dave Carlson

For the first time in many years, the 18-Hole Golf Challenge at Serapong Course was delayed due to heavy rain and lightning. Nevertheless, golfers managed to tee off with only a half-hour delay, competing in teams for the EMC Challenge Trophy and individually for the hole-in-one prize and additional novelty prizes. Food and drinks were provided on the course and at the halfway house. The very popular massage service was again a hit with the golfers and participants of the golf clinic.

Given the positive response from last year's golf clinic and 9-hole game, we once again hosted both for novice and beginning golfers. Nearly 25 golfers joined golf pros Alan Murray,

Drew Dubberlin and Skye Neal, who shared basic techniques and tips. Two flights of golfers then proceeded with the 9-hole game.

For the sixth year in a row, we invited three of Singapore's leading junior lady golfers to participate in Golf Day as part of our ongoing support for the development of young golfers through the Singapore Ladies Golf Association (SLGA). Our guests are always delighted to play with these rising stars and to see a mixture of familiar and new faces. These young women play very well for their age and have progressed much in their skills over the years. To support the development of young golfers, EMC donated \$5,000 to the SLGA.

This year, the World Golfers Championship sponsored our hole-in-one prize—a 10 Day/8 Night Mauritius Anahita Resort Tamalou Trophy Trip for Two, valued at \$12,000. Unfortunately, there were no takers for this great prize.

As always, the highlight of the dinner event was the much-anticipated prize presentation for the lucky draw winners and



9-hole game players



The winners of the EMC Challenge Trophy pose with EMC Chairman Wong Meng Meng (R to L): Adrian Wong, Teo Chwee Beng, Cecilia Goh and Kenneth Lai

winning golf teams. We had very generous sponsors this year and were able to offer 28 lucky draw prizes. This year's top lucky draw prize winner walked away with a \$1,400 Tanjong Jara Resort stay. The latest Apple 3G+Wi-Fi I-pads were also coveted prizes on the list.

We would like to thank our many sponsors for their support of our event. The EMC Golf Day would not have been possible—or nearly as much fun—without their generosity: World Golfers Championship, e-Cop, Hitachi Data Systems, Power Systems Consultants, OCBC, TSMP Law Corporation, NCS, Acme Associates, Orange Business Services, Symantec, BT Frontline, SingTel, Rajah & Tann, The Fullerton Hotel, Dacon Networks and Fuji Xerox.

In addition, we would like to offer special thanks to our industry sponsors: Keppel Energy, PowerSeraya, Sembcorp, Senoko Energy, SP Services and Tuas Power Generation for contributing to the goody bags, novelty hole prize, food at holes, lucky draw prizes and massage services.

It was indeed our pleasure to host this event! Thank you to everyone for making it an enjoyable day. We look forward to hosting you again next year—rain or shine.



Our Sponsors



PowerSeraya Registered Two Combined-Cycle Gas Turbine (CCGT) Units as Generation Registered Facilities (GRFs)

Two combined-cycle gas turbine (CCGT) units which were repowered in 2009, were each registered as GRFs with 370MW capacity on 6 July 2010. Both GRFs are able to offer ancillary services into the wholesale electricity market.

New TWG appointments – Mr Loh Poh Soon and Ms Tini Mulyawati

In May 2010, Mr Kwok Foo Seng of the Power System Operator (PSO) and Mr James Ooi of Seraya Energy Pte Ltd stepped down from the Technical Working Group (TWG). The Rules Change Panel (RCP) appointed Mr Loh Poh Soon of the PSO to replace Mr Kwok on the TWG (effective from 31 May 2010) and Ms Tini Mulyawati of Keppel Energy Pte Ltd to replace Mr Ooi (effective from 7 July 2010). The terms of appointment for both members will run until 20 January 2011.

EMC would like to thank Mr Kwok and Mr Ooi for their valuable contributions to the TWG, and welcome Mr Loh and Ms Mulyawati on board. As always we are indebted to the strong and willing support of the industry nominating such high caliber candidates for our committees and working groups.

Briefing for DRCP and Visit to Tuas Power Station

On 30 July 2010, EMC and Mr George Lim, the Dispute Resolution Counsellor (DRC) jointly invited the Dispute Resolution and Compensation Panel (DRCP) to a power station visit and a briefing session.

Mr Lau Tai Hwee, Tuas Power's SVP of Generation Business, kindly hosted the DRC, the DRCP members and the Market Assessment Unit of EMC at the Tuas Power Station. The DRCP members were given an overview of the NEMS and were introduced to Tuas Power's power plant operations. After the briefings, the DRC and DRCP members were

treated to a guided tour of the power station and facilities by Mr Lau.

Following the visit, the group returned to EMC's office for lunch and a short briefing by the DRC on the dispute resolution process in the NEMS.

The DRCP members gave very positive feedback, feeling that this was a very rewarding and educational visit.

EMC and the DRC would like to thank Tuas Power again for its generosity and hospitality in providing this very educational tour for the DRCP.

Dispute Management Workshop



DMS contacts attending the workshop

On 15 July 2010, EMC held a workshop on "Getting the Most out of a Dispute" for the dispute management system contact persons (DMS contacts) for all market players in the NEMS.

The facilitators for this workshop were Mr George Lim, Dispute Resolution Counsellor of the NEMS, and Associate Professor Lim Lei

Theng from the National University of Singapore. AP Lim is also a member of the NEMS' Dispute Resolution and Compensation Panel. The one-day event took place at EMC and was organized and supported by EMC's Market Assessment Unit.

The key message of the workshop was that conflicts are inevitable and can be opportunities for unexpected gain. Participants were taught appropriate techniques to analyze a conflict and strategic approaches to conflict management in order to turn an unpleasant situation into a situation of advantage for both sides.

This one-day workshop revisited some of the issues covered in previous NEMS workshops, but the focus was on application in different situations. Various approaches to analyzing conflict were also addressed. In the course of the workshop, participants were asked to envisage the worst possible negotiation situation, and then work through the scenario with the help of the facilitators.

Participants' feedback was very positive, with many indicating interest in attending additional workshops. The day was also a useful networking and bonding opportunity for all DMS contacts.

Chao Yang Sports Day – Rainy but Fun-filled Day!



Sports Day Mascot – Blue Dino

EMC celebrated Chao Yang School's fifth annual Sports Day on 16 July. Chao Yang School, under the auspices of the Association for Persons with Special Needs (ASPN), caters to the needs of people with learning disabilities. This is the fifth year EMC sponsored the sports day, from

tee-shirts to trophies. As in years past, the children were keen to compete in their four houses, each with their own mascot. The mascot theme was expanded to a competition this year, with the children working hard with cheers to achieve the best mascot award.

The nine volunteers from EMC enjoyed close interaction with the children and teachers. In addition to helping prepare the children for their races, stewarding the activities, and cheerleading throughout, we also joined in a game for parents and volunteers, which we all enjoyed thoroughly.

The Sports Day was once again held at the school, with level 1 to 6 children participating. The big difference this year was the heavy rain! The children tried to sing the rain away, but alas, that did not work. All activities were shifted to the school hall but the children were just as enthusiastic, if not more so.

Despite the rain, or perhaps because of it, it was a fun-filled day for all, and worth every effort. The Sports Day is an event that the school deeply appreciates and looks forward to each year. We, too, look forward to our next Sports Day with Chao Yang.

Rule Change Update — Review of the “Application Form for Market Participant Registration” and the “Application Form for Authorisation of Market Support Services Licensee”

The “Application Form for Market Participant Registration” and the “Application Form for Authorisation of Market Support Services Licensee” facilitate the application process for potential Market Participants (MPs)/Market Support Services Licensees (MSSLs) who wish to be registered/authorised to participate in the Singapore Wholesale Electricity Market.

As both forms were last updated prior to the market start, this rule change took the opportunity to refine both forms in line with the associated Market Rules to improve their clarity, correctly reflect the existing requirements, and ensure consistency with other parts of the Market Rules and Market Manuals. The new forms are available on the EMC website under “Market Participation Registration”.

EMC wins two prestigious awards

EMC has been awarded two prestigious awards, both for the recently launched Settlement System Revamp (SSR) project. The SSR project went live on 18 February (see Bulletin 54 for details) and the new system has been running smoothly.

These two awards recognize our efforts to improve the robustness of the National Electricity Market of Singapore (NEMS) systems and our pursuit for excellence in customer service. We are the proud recipient of these awards and dedicate them to the NEMS.

Winner: IDC-Enterprise Innovation Award 2010

EMC is one of the winners (from over 300 nominations) of the IDC Enterprise Innovation Awards 2010 (www.idc.com). The award recognizes Asia's top organizations in IT innovation, application and business excellence. EMC received the award on 29 July 2010 at the IDC's Asia/Pacific CIO Summit 2010. The award recognizes EMC's innovative use of the business process and rules engine to externalize the market rules in the recently launched SSR project. The other Singapore winners:

YCH Group, Resorts World Sentosa (RWS), the Central Provident Fund Board, Jurong Port, Neptune Orient Lines, Kim Eng Securities, Singapore General Hospital and Singapore 2010 Youth Olympic Games Organising Committee (SYOGOC).

Winner: iCMG Architecture Award for Excellence 2010

EMC also won the iCMG Architecture Excellence Awards 2010 (www.icmgworld.com) in the category of “Customer Oriented Business Models”. This award recognizes architects and enterprises whose work demonstrates a combination of talent, vision and workmanship in creating successful and enduring systems. Winners are selected by an international panel of judges. Other winners from Singapore include the Defense Science and Technology Agency and Ministry of Education. The award was presented on Architecture Awards Night on 27 July in Bangalore and recognizes EMC for the IT architecture and approach deployed in the SSR project.



User Forum

Market Information Sharing Forum (MISF)

The MISF on 21 July offered an in-depth analysis of the market fundamentals of demand and supply for the months of May and June and a comprehensive assessment of two market events. The July forum also provided a review of market performance for the first half of every year since market start. Finally, we showcased a new feature on our corporate website: online registration for the MISF and MSUG. Our next MISF will be held on Wednesday, 22 September 2010.

Market Systems User Group (MSUG) Update

The bi-monthly MSUG forum was held on 26 August 2010. Participants received updates on the NEMS systems availability and incidents as well as the Disaster Recovery Exercises (DRP) scheduled between 23 September 2010 and 14 October 2010. EMC covered in detail the changes to the Gross Bidding for Embedded Generator and Settlement Net Treatment scheme resulting from new enhancements of the NEMS Systems. Furthermore, participants were briefed on the sunset schedule for older NEMS applications and given a progress report of other ongoing projects related to the NEMS systems. As the MISF, this forum also ended with EMC showcasing the online registration feature for events and training on our corporate website. The next MSUG is tentatively scheduled for Thursday, 21 October 2010.

All MISF and MSUG participants with a registered corporate website account are encouraged to register online for all future events.

EMC Training Programme – Next Course on 18 and 19 November 2010

EMC will be holding its next available two-day training course Understanding Electricity Markets on 18 and 19 November 2010. Our staff will be conducting six sessions covering the following topics:

- Understanding Electricity
- Overview of the Electricity Sector
- The NEMS and its Unique Features
- Pricing in Detail
- Settlement
- The Demand Side

Courses are always conducted in February, May, August and November and the next course is scheduled for :

24 – 25 February 2011

We advise you to book early to secure your place in the course 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.

Send us Comments, Feedback or Questions

The EMC Bulletin is written by EMC for you and we are always striving to improve our service. Therefore we are interested in any feedback you might have about specific articles and topics covered or comments and suggestions about other areas you would like to see included.

Please send your comments, feedback or questions via e-mail to info@emcsg.com or via fax to +65 6779 3030.

Thank you in advance for your time and effort.

