CEO’s Message

One of the highlights coming up for the electricity industry is the Singapore Electricity Roundtable 2011, which will be held on 1 and 2 November at the Suntec Singapore International Convention & Exhibition Centre. Prominent industry experts from Singapore and around the world will gather to discuss issues and challenges of great importance to our industry, so remember to register for the Roundtable if you have not done so. For details on the speakers, panelists and topics, please see the article below.

The much-anticipated EMC Golf Day 2011 took place on 18 August amid fantastic weather. The networking event, in its ninth year this year, saw the highest number of participants to date, and we would like to thank all players, dinner guests and sponsors for their support. Information and pictures of the event can be found on page 2.

In July, EMC colleagues joined the students and teachers of Chao Yang School for their annual sports day. Like previous years, all of us who participated in this event had lots of fun with the children while helping the teachers out with the competitions. Read about the excitement of the day on page 4.

Events aside, we also hosted guests from Singapore, China and Australia who wanted to have a better understanding of EMC’s role and specific functions. Find out more about these visits on page 3.

Focusing on the National Electricity Market of Singapore (NEMS), the Rules Change Panel recently proposed an amendment to recover reserve or regulation payments made to non-providers. For details on this rule change, together with another on the eligibility of regulation offers, please see article on page 4.

In terms of market performance, demand in July reached 5,248MW, the highest level to date for this year, while the Uniform Singapore Energy Price (USEP) for the months of July and August averaged about 28 percent higher than the first half of the year. More updates on the market can be found on page 5.

I look forward to meeting many of you again at the Singapore Electricity Roundtable in November.

Dave Carlson
Chief Executive Officer

Register Early for the Singapore Electricity Roundtable 2011

Registration for the seventh Singapore Electricity Roundtable 2011 opened in early August, and we are heartened by the response that we have received to date from both local and overseas participants. Don’t forget to register for the Roundtable, which is one of the key events of the Singapore International Energy Week (SIEW).

We have secured a great line-up of high-profile and experienced industry experts for this year’s Roundtable, who will be speaking on a wide range of topics of great significance to the electricity industry. Our distinguished speakers and topics for Day 1 of the Roundtable include:

- **Carl Hansen**, Chief Executive, Electricity Authority, who will speak on the role and approach of the New Zealand Electricity Authority in the development of a competitive and reliable market;
- **Peter Geers**, Senior Manager Market Convergence, Australian Energy Market Operator Ltd., who will share the benefits of integrating gas and electricity markets;
- **Dr Selena Ng**, Regional Director, South-East Asia & Oceania, AREVA, who will touch on the prospects for nuclear power in ASEAN;
- **Kjell Asserlind**, Vice President International Energy Sales, NASDAQ OMX, who will give an update on the European electricity markets and explore the opportunities for an electricity derivative market in Singapore; and
- **Dallon Kay**, Managing Director, Diamond Energy Group, who will discuss demand response in electricity markets.

In addition, the following panelists, all prominent figures in Singapore’s electricity industry, will debate the benefits and challenges of...
Winners of the EMC Challenge Trophy with EMC Chairman (L to R): David Wong, Joey Poh, Wong Meng Meng (EMC Chairman) and John Lim (not in picture: Bob Tan)

Participants of 9-hole game

EMC Golf Day – Nine Years of Success!

For nine consecutive years, EMC has been delighted to host an annual Golf Day for guests from Singapore’s electricity industry.

On 18 August, close to 65 golfers and 130 dinner guests attended this year’s event at the Sentosa Golf Club. Guests included chairpersons, board members, CEOs, panel members, and other senior management team members from our market participants and other key industry players.

EMC Golf Day – Nine Years of Success!

the past years, saw an increase in the number of participants this year. Nearly 31 novice and beginning golfers joined golf pros Alan Murray, Mark Lazenby and Skye Neal for the golf clinic, who shared basic techniques and tips. Three flights of golfers then proceeded with the 9-hole game. Overall, it was a wonderful level of participation.

Towards the end of the day, many golfers and participants of the golf clinic proceeded to enjoy the massage service which has now become so much a part of the event.

For the seventh year in a row, we invited four of Singapore’s leading junior lady golfers to participate as part of our ongoing support for the development of young golfers through the Singapore Ladies Golf Association (SLGA). Our guests have always found it a delight to play with these rising stars and to see a mixture of familiar and new faces. We were all impressed by how well these young golfers played. As with past years, EMC donated $5,000 to the SLGA to support the development of such young golfing talents.

As always, the highlight of the dinner was the much anticipated prize presentation for the lucky draw winners and winning golf teams. We had a total of 20 lucky draw prizes and this year’s top prize winner walked away with

Sign up for the Roundtable today! Don’t miss the opportunity to gain insight into the electricity industry, learn about the issues and challenges facing the energy and electricity sectors, and network with local, regional and global industry experts and decision makers.

The latest information and online registration for the Roundtable can be found at www.emcsg.com/roundtable. For information on the SIEW, visit www.siew.sg.
EMC GOLF DAY 2011
18 August Sentosa Golf Club

Lucky draw 1st prize winner Robin Langdale (L) receiving prize from 2nd prize winner Chua Gwen Heng (R)

a $1,450 Cameron Highlands Resort Stay. The Samsung Galaxy Tab and Apple Wi-Fi Ipad 2 were also coveted prizes on the list. Unfortunately, there was again no taker for this year's Hole-in-One prize – an 8 days 7 nights Morocco Golf Festival trip for two.

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 (Singapore), Symantec Singapore, e-Cop, Power Systems Consultants, OCBC, SunGard Energy & Commodities, Acme Associates, Ernst & Generation for contributing to the goody bags, novelty hole prizes, food at hole, lucky draw prizes and massage services. It is our pleasure to host this annual event. Thank you to everyone for making it an enjoyable day. We look forward to hosting you again next year.

Our Sponsors

Young, SingTel, Rajah & Tann and The Fullerton Bay Hotel.

In addition, we would like to offer special thanks to our industry sponsors: Diamond Energy, Keppel Energy, PowerSeraya, Sembcorp, Senoko Energy, SP Services and Tuas Power

Our Sponsors

Visitors to Energy Market Company

Chee Hong Tat, EMA CE and his team at EMC office

In the months of July and August, EMC hosted three groups of visitors from Singapore and the region.

The Energy Market Authority’s new Chief Executive, Mr Chee Hong Tat, visited EMC in July along with his team, to gain a better understanding of EMC’s role and operations, and to explore additional areas of cooperation in the future.

Liu Guangming (2nd from left) with EMA and EMC representatives

In August, we received visitors from China and Australia. Mr Liu Guangming, the Deputy Bureau Chief of Price Administration of the Guangdong Province (who was doing a Masters programme at the NUS Lee Kuan Yew School of Public Policy), visited EMC to better understand the market operations of the National Electricity Market of Singapore (NEMS). On the same day, we hosted the Western Australia IMO representatives (1st and 3rd from right) together with EMC representatives

Finance Manager and Senior Settlement Manager from Western Australia’s Independent Market Operator (IMO). They came to learn about the NEMS settlement function and its internal controls.

We appreciate opportunities like these as they provide an excellent platform for the exchange of ideas and experiences with other countries.
Chao Yang Sports Day – First Collaboration with Presbyterian High School

EMC volunteers at the Chao Yang Sports Day

EMC celebrated Chao Yang School’s sixth annual Sports Day on 15 July. This was the first time that Chao Yang School collaborated with Presbyterian High School, which provided the venue and volunteers for this annual event.

EMC CEO, Dave Carlson receiving token of appreciation from Madam Aslinah Ahmad, Principal of Chao Yang School

Chao Yang School, under the auspices of the Association for Persons with Special Needs (ASPN), caters to the needs of children with mild intellectual disability. EMC has sponsored the school’s Sports Day for the past six years. The children competed in four houses and had great fun doing their house cheers with their respective mascots which include a shark (blue team), an eagle (red team), a tiger (green team), and a cheetah (yellow team).

Close to 20 volunteers from EMC worked closely with the teachers from Chao Yang and student volunteers from Presbyterian High School to run the competitions. EMC volunteers were kept busy preparing the children for their races, recording the winning teams for the different sporting events, and updating the score board.

It was a fun-filled and meaningful day for all who participated and we look forward to the next Sports Day with Chao Yang School in 2012.

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Rules Change Update

Recovery and Refund of Reserve and Regulation Payments

In the past, reserve and regulation providers were paid based on their respective scheduled quantities, which were determined prior to the dispatch period for which the services were required. Even if these providers failed to provide the services eventually (e.g. if they tripped inside the dispatch period), they would still receive their reserve and regulation payments.

This arrangement of paying units even if they failed to provide reserve and regulation in real time was undesirable, as it compromised system security and did not encourage the reliable provision of ancillary services.

The Rules Change Panel thus decided to recover reserve or regulation payments made to non-providers using a Pre-Settlement Adjustment method. Essentially, no payments will be made to non-providers identified before the preliminary settlement statement is posted. Non-provision cases identified subsequently may be referred to the Market Surveillance and Compliance Panel (MSCP), and any recovered amounts arising from MSCP determinations will be refunded to the market through the Market Energy Uplift Charge. The Power System Operator will make a determination on the non-provision cases and non-providers, and provide the data to EMC for the settlement adjustment.

Eligibility of Regulation Offers

Generators are physically able to provide regulation service only when their energy output is within a given range. Thus, EMC checks if a generator’s expected generation output at the start of the upcoming period is within this range before qualifying it to provide regulation for that period.

Currently a generator's output at the start of the upcoming period is proxied using its output captured by the Power System Operator 10 minutes before the start of the period. Given the 10-minute lag, this proxy could be a poor estimate that compromises the effectiveness of the eligibility check, especially if the generator is ramping up or down.

EMC refined this check by using the generator’s scheduled energy instead, which is the energy output a generator is required to reach at the end of the current period (or equivalently, the start of the upcoming period). For situations where the generator is physically unable to reach this scheduled output level (e.g. due to ramping constraints), EMC will extrapolate based on its actual output 10 minutes before and its maximum ramping capabilities.

Before the proposal was implemented, EMC conducted a simulation and found that the revised eligibility check resulted in more qualified regulation offers, and a more optimal dispatch with higher net benefit values.
The Uniform Singapore Energy Price (USEP) in July and August* averaged $263/MWh and $265/MWh respectively. Comparing the average USEP of these two months to that of the first half of 2011, the USEP is about 28 percent higher. This was mainly due to a lower supply cushion (which averaged 22 percent for July and August, versus 24 percent for the first six months of the year).

Of the 2,832 periods in July and August*, the USEP surpassed the $1,000/MWh mark on 10 occasions. This was due to forced outages of two or more combined cycle gas turbine (CCGT) plants on 4 July, 15 August and 19 August 2011.

Demand in July and August* averaged 5,248MW and 5,131MW, respectively.

Demand in July registered the highest this year, following temperature changes from June. Since the start of the National Electricity Market of Singapore (NEMS), this is only the second time that demand in July has surpassed that of June.

Compared against July, demand in August* fell. This was again in line with temperature changes, as well as the public holiday effect of National Day and Polling Day.

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*Data for August is until 28 August 2011

^Supply cushion measures the percentage of total supply available after matching off demand.
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.

User Forum

Market Information Sharing Forum (MISF)

The MISF held on 13 July 2011 covered the performance of the National Electricity Market of Singapore (NEMS) in May and June. The peak demand of 6,312MW on 24 June was highlighted.

In addition, the 58th MISF ended with a feature topic - market network node processing in the market clearing engine.

The next MISF will be held on Wednesday, 14 September 2011. All MISF and Market Systems User Group delegates are encouraged to register online.

Market Systems User Group (MSUG) Update

The bi-monthly MSUG forum was held on 25 August 2011. Aside from the regular updates on NEMS systems’ availability and market incidents, participants were briefed on the Shareplex replication tool simulation run that has been deployed to the Disaster Recovery site, and also the planned Disaster Recovery exercise scheduled for the months of November and December. In addition, EMC briefed participants on the system enhancements related to the Recovery and Refund of Reserve and Regulation Payments, the schedule for phasing out older NEMS applications, and the progress of other ongoing projects for the NEMS systems.

The next MSUG is tentatively scheduled for Tuesday, 20 October 2011.

EMC Training Programme – Next Course on 17 and 18 November 2011

EMC will be holding the next run of its two-day course Understanding Electricity Markets on 17 and 18 November 2011. Our staff will be conducting six sessions covering the following topics:

- Understanding Electricity
- Overview of the Electricity Sector
- The National Electricity Market of Singapore 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 tentatively scheduled for 23 and 24 February 2012.

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