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CEO's Message

EMC's flagship customer event for 2011, the Singapore Electricity Roundtable 2011, took place on 1 and 2 November.

The number of Roundtable participants has increased every year since its inception, and this year we saw a new record of close to 230 attendees. I would like to thank all new and returning participants -- you continue to inspire us to do better.

This year, we were privileged to have four seasoned electricity market experts speak, on topics relevant to the National Electricity Market of Singapore (NEMS). We also heard from an expert representing one of the world leaders in nuclear power, who took us through the events at Fukushima and shared the prospects for nuclear power in ASEAN.

I would like to thank all speakers for taking time out of their busy schedules to join us at the event. Special thanks as well to the members

of the panel discussion for the lively debate on the benefits and challenges of increasing competition in the NEMS. More highlights of the Roundtable can be found in the article below.

In September, we welcomed delegates from the Electricity Regulatory Authority of Vietnam (ERAV) and Philippine Electricity Market Corporation (PEMC), who were here to learn more about the NEMS. Both ERAV and PEMC last visited EMC in 2009. We are always glad to host returning delegations as their repeated visits reflect the success of the NEMS and the strong ties we have cultivated in the region. See the article on page 5 for more details.

October was also an eventful month. A half-day dispute management workshop was held for NEMS market participants (MPs) in mid-October, and earlier that month, our colleagues spent a meaningful morning with the children of Chao Yang School. Read more about these

activities on pages 3 and 5 respectively.

The total value of energy traded in the NEMS as of early October has exceeded that for the whole of 2010. Demand increased in September over August, but fell again in October. The Uniform Singapore Energy Price, however, saw a decreasing trend since August. More details on the market's performance can be found on page 3.

As we approach the end of the year, I would like to thank all NEMS MPs, the Energy Market Authority and our partners for their ongoing support. We look forward to another successful year for the NEMS in 2012.



Dave Carlson
Chief Executive Officer

Singapore Electricity Roundtable 2011



Keynote speaker Carl Hansen, Electricity Authority, addressing the audience

The seventh Singapore Electricity Roundtable, held on 1 and 2 November at the Suntec Singapore International Convention & Exhibition Centre, saw a record number of attendees. Close to 230 participants attended the Roundtable this year, including representatives from the National Electricity Market of Singapore (NEMS) as well as related industries like oil and gas. The event also attracted many participants from supporting industries including power generation suppliers, financial institutions and consultancies, as well as representatives from local and foreign government ministries and agencies.

This is the fourth year that EMC has partnered with the Energy Market Authority (EMA),

(continued on page 2)



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Roundtable Panelists with EMC Chairman, Wong Meng Meng (extreme left) and EMC CEO, Dave Carlson (extreme right)

hosting the Roundtable as part of the Singapore International Energy Week (SIEW). Participants of the Roundtable this year came from many different countries, including Australia, Hong Kong, Indonesia, Malaysia, New Zealand and Thailand, as well as European countries such as Sweden and United Kingdom.

The event opened with a welcome address by EMC Chairman Wong Meng Meng, who noted that the Roundtable has become an important platform for the exchange of ideas among experts in the electricity and energy sectors. The SIEW has also grown in size and content over the years, reflecting the increasing importance that governments and businesses around the world place on energy and electricity issues.

Our keynote speaker was Carl Hansen, Chief Executive of the Electricity Authority of New Zealand (NZ). He gave an overview of NZ's electricity system and markets, as well as the role and policy objective of the Electricity Authority. Carl also took the audience through the development of a hedge market in the country, which turned out to be a timely presentation as the EMA announced at SIEW that Singapore is looking at introducing an electricity futures market next year.

Besides Carl, we were privileged to have three other seasoned electricity market experts speaking at the Roundtable this year. Peter Geers, Senior Manager Market Convergence from the Australian Energy Market Operator, spoke on Australia's experience with the integration of gas and electricity markets; Kjell Asserlind, the Vice President of International Energy Sales



Audience asking questions

at NASDAQ OMX, provided an update on the European electricity markets and shared his views on the opportunities for an electricity derivative market in Singapore; and Dallan Kay, Managing Director of Diamond Energy Group, gave a presentation on demand response.

Nuclear power was also included as a topic this year, arising from feedback received from the event in 2010. Dr Selena Ng, Regional Director of South-East Asia & Oceania at AREVA, gave a detailed account of the Fukushima nuclear incident and the international response from governments worldwide following it, before touching on the prospects for nuclear power in ASEAN.

As with previous years, the panel discussion was one of the highlights of the Roundtable. The topic "Next Steps for NEMS – Benefits and Challenges of Increasing Competition" generated a lively debate from the leaders of three of Singapore's largest utilities companies – Lim Kong Puay, President & Chief Executive Officer of Tuas Power Generation; Ng Meng Poh, Executive Vice President & Head, Singapore and ASEAN (Utilities), Sembcorp



Participants at cocktails and dinner at Jim Thompson



Participants at the Day 2 workshops

Industries; and Jeanne Cheng, Managing Director of SP Services. Our keynote speaker Carl Hansen also sat on the panel, providing an external perspective to the discussion.

The first day ended with a networking cocktail and dinner at Jim Thompson on Dempsey Hill. Guests were treated to an evening of authentic fine Thai cuisine in a heritage venue, amid warm Thai hospitality. Thai dancers welcomed the attendees upon their arrival and entertained the guests with their dance during the dinner.

The workshops on the second day, conducted by EMC's in-house experts, also saw a record number of attendees. Tan Liang Ching, EMC's Vice President of Market Administration, shared the key findings from the Electricity Market Operation Benchmarking Survey 2010, while Henry Gan, EMC's Vice President of Market Operations, gave an overview of and provided a comprehensive update on the NEMS.

We would like to thank all participants for their continued support of the Roundtable. The strong interest shown by both new and returning participants serves as an inspiration to us each year, and we hope to welcome everyone again at the Singapore Electricity Roundtable 2012. More photos of the Roundtable are available at www.emcsg.com/roundtable2011highlights.



Dispute Management Workshop



DMS contacts at the workshop on 16 October

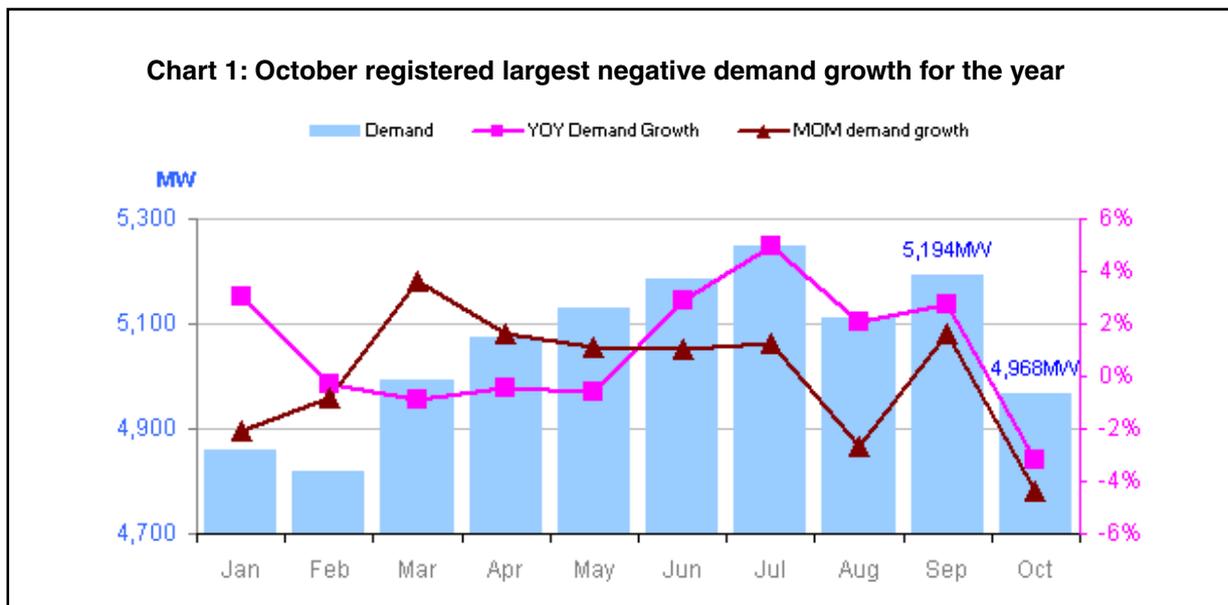
On 16 October 2011, Mr George Lim, Dispute Resolution Counsellor (DRC) of the National Electricity Market of Singapore (NEMS), and Mr Raymond Chan, an arbitrator on the Dispute Resolution and Compensation Panel (DRCP), conducted a half-day workshop for the Dispute Management Systems (DMS) contacts of our market participants. The workshop took place at EMC and was organized and supported by EMC's Market Assessment Unit.

The purpose of this workshop was to give the DMS contacts a refresher on the NEMS Dispute Guide and an introduction to new arbitration rules recently proposed by the DRC and drafted by Mr Raymond Chan for the market's consideration.

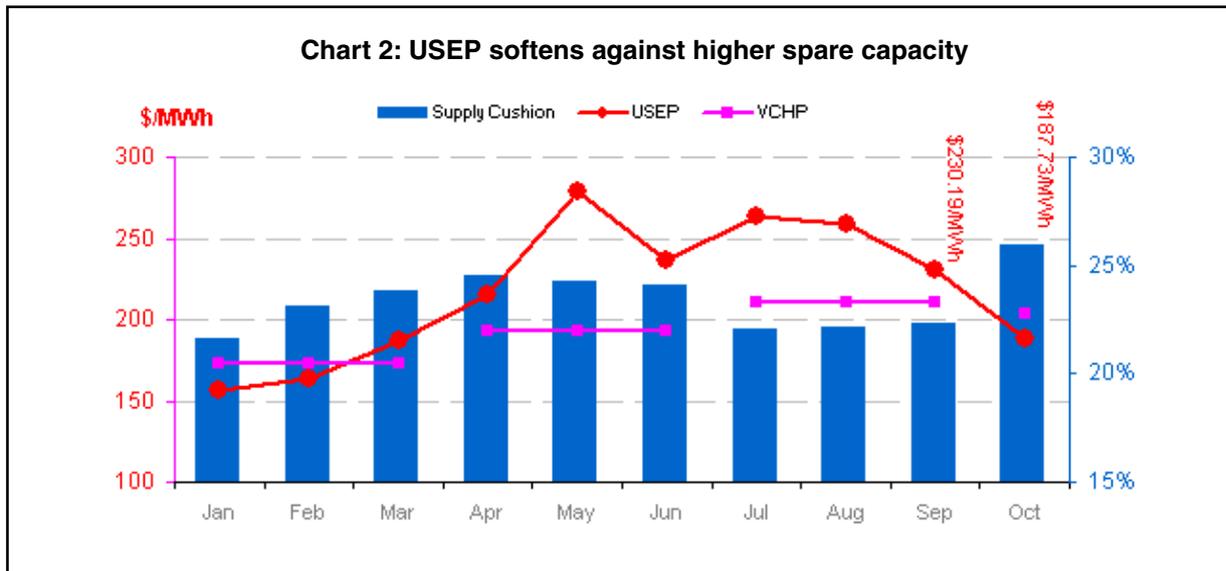
As with past workshops, this was also a great networking and bonding opportunity for all DMS contacts.

Market Update

Demand in September increased by 1.7 percent over August's demand to 5,194MW. This was due to the recovery from the holiday effect in August where there were three public holidays, and warmer weather in September. In October, demand fell from September's level by 4.4 percent to 4,968MW, going against the historical trend for most years¹. October also recorded the largest decrease in demand in 2011, on both a month-on-month (MOM) and year-on-year (YOY) basis.

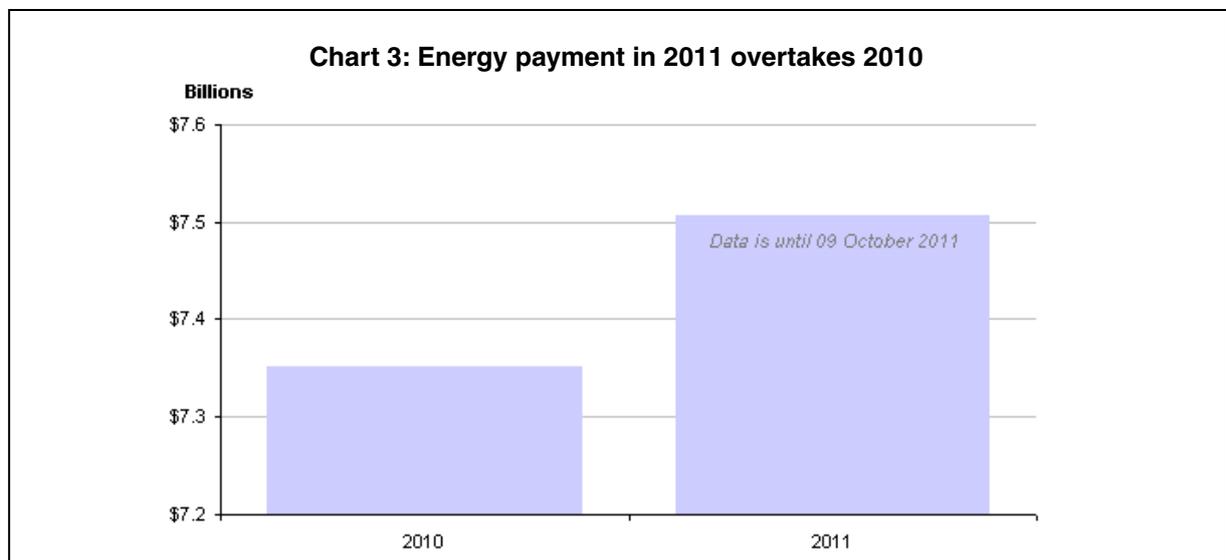


Compared to August, the Uniform Singapore Energy Price (USEP) traded lower for both September and October due to a higher supply cushion².



At \$230.19/MWh, the USEP in September was higher than the Q3 Vesting Contract Hedge Price (VCHP) of \$210.77 by \$19.42/MWh. This was the third month in a row that the USEP has surpassed the Q3 VCHP. This led the difference between the USEP and VCHP to close at a positive \$39.95/MWh for the quarter.

The USEP in October averaged \$187.73/MWh, 7.8 percent below the Q4 VCHP of \$203.66/MWh. This is a reversal of the trend for the past seven months, where the USEP ended above the VCHP. The supply cushion of 25.9 percent in October is the highest for the year so far.



The energy payment in 2011 has also exceeded that of 2010 as of early October.

¹ Except for 2004 and 2008.

² Supply cushion is the percentage of supply available, after matching off demand.



Children's Day Celebration with Chao Yang School

On the sixth of October, 12 volunteers from EMC, together with 65 children and eight teachers from the Chao Yang School, went to watch "Born to be Wild" at the Omni Theatre at Science Centre as part of their Children's Day celebration programme. This is the second year that EMC has organised this activity.

Chao Yang School, under the auspices of the Association for Persons with Special Needs (ASPN), caters to the needs of people with learning disabilities. EMC has supported the school's sports day for the last six years and excursion trips from time to time.

We stopped for breakfast at McDonalds and the Kinetic Garden before proceeding to the theatre for the IMAX show. The children enjoyed themselves at the Kinetic Garden, where they tried their hands on the various outdoor exhibitions that display the inter-relationships between the different forms of energy, scientific principles and phenomena. During the movie, many were also enthralled by the three-dimensional effects of the IMAX movie.

All of us enjoyed the outing and loved the interaction with the children. We are definitely looking forward to our next activity with the children from the Chao Yang School.



EMC volunteers at Kinetic Garden, Science Centre

Visitors to EMC



ERAV officials (4th, 6th to 10th from right) and representatives from EMC



PEMC delegates (2nd and 3rd from right) with EMC representatives

In September, EMC hosted visitors from the Philippines and Vietnam. Representatives from the Philippine Electricity Market Corporation (PEMC) visited EMC to better understand the design of the reserves markets in the National Electricity Market of Singapore (NEMS) on 28 September.

Six officials from the Electricity Regulatory Authority of Vietnam (ERAV) visited EMC on 29 September to gain a deeper understanding of the NEMS, the setup and role of EMC in the market and the approach taken for market monitoring and surveillance in the NEMS. Both PEMC and ERAV previously visited EMC in 2009. EMC appreciates hosting such returning delegations, as the visits reflect the success of the NEMS and the warm ties that we have cultivated throughout the region.



User Forum

Market Information Sharing Forum (MISF)

The 59th session of MISF held on 14 September 2011 covered the market performance of the National Electricity Market of Singapore (NEMS) in July and August, and provided a progress update on system enhancements.

In addition, there were two feature topics that were shared with the market participants:

1. Understanding the market clearing engine's calculation of reserve requirements; and
2. Understanding the offer expiry process following the derating of a registered facility's capacity.

A survey was also handed out to the market participants for the Single Electronic Window (SEW). The purpose of the survey was to gather feedback on the SEW since its launch in May 2010. Market participants who did not attend this MISF session are encouraged to participate in this survey online via www.emcsg.com/survey. The results of the survey will be used in planning future enhancements to SEW.

The next MISF will be held on Wednesday, 09 November 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 20 October 2011. Aside from the regular updates on NEMS systems' availability and market incidents, participants were briefed on the RSA Tokens replacement exercise, and the planned Disaster Recovery exercise scheduled for November and December. In addition, EMC briefed participants on 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 on-going projects for the NEMS systems. The next MSUG is tentatively scheduled for Thursday, 22 December 2011.

EMC Training Programme – Next Course on 23 and 24 February 2012

EMC will be holding the next run of its two-day course *Understanding Electricity Markets* on 23 and 24 February 2012. 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.

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.

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.

