

professional transparent cost-effective people ideas integrity commitment teamwork

CEO's Message

One of the key projects for EMC at the beginning of each year is the work plan prioritisation exercise for the Rules Change Panel (RCP). This annual exercise, spearheaded by EMC's Market Administration team and conducted in consultation with industry stakeholders, identifies the areas of focus for the RCP for the coming year, and is critical to the evolution of the National Electricity Market of Singapore (NEMS). Details of the 2011 RCP work plan can be found in the article below.

The first quarter of the year saw the completion of the NEMS Market Report 2010 and the Market Surveillance and Compliance Panel Annual Report 2010. Both reports are available on EMC's website at www.emcsg.com. Hard copies of the reports will also be mailed to market participants (MPs) and other interested parties on our mailing list.

On the regional front, EMC participated in the Association of Power Exchanges Asia Pacific (APEX APAC) Meet in March. This annual conference was hosted by the Power Exchange of India Limited and held in New Delhi this year. EMC's contingent of eight made a total of four presentations at the event, which was attended by delegates from seven countries. Find out more about APEX APAC 2011 on page 3.

Also in March, an event was organised for the children from Child at Street 11, a charity that the NEMS adopted five years ago. Close to 50 volunteers from EMC and four MPs took the children out for a day at the zoo. This is the biggest volunteer turnout we have to date for an event with Child at Street 11, and we would like to thank all volunteers who helped out that day. Read more about the zoo outing on page 4.

In terms of market performance, compared to the last quarter of 2010 (Q4 2010), electricity demand dipped slightly in the first quarter of this year (Q1 2011) to 4,891MW. This is in line with the trend in the past years where demand in the first quarter was the lowest for the year due to festive holidays and cooler weather. The Uniform Singapore Energy Price (USEP), at \$169.22/MWh in Q1 2011, also registered a small drop from Q4 2010. More details of the NEMS' performance can be found on page 5.

Dave Carlson Chief Executive Officer

RCP Work Plan Prioritisation Exercise 2011

In January and February this year, EMC conducted a Rules Change Panel (RCP) work plan prioritisation exercise with the National Electricity Market of Singapore (NEMS) stakeholders — market participants, Singapore Power (SP) Services and the Power System Operator (PSO). Based on their inputs, EMC updated the proposed RCP work plan and presented it to the RCP for endorsement.

Issue Identification

The first stage of the prioritisation exercise involved consulting stakeholders to identify issues to be included in the updated work plan. Apart from issues that were carried over from the previous work plan, six new issues were raised by stakeholders for consideration.

The six new issues are:

- 1. Enhancements to the Annual Review of Reserve Provider Groups

Process (Proposed by Diamond Energy)

- 2. Formation of a NEMS Data Release Committee (Proposed by Diamond Energy)
- 3. Alignment of Electricity Market and Gas Market Trading Periods (Proposed by Diamond Energy)
- 4. Review of Value of Lost Load (VoLL) (Proposed by Diamond Energy)
- 5. Apply a Cap on Reserve and Regulation Charges Imposed on Embedded Generators (Proposed by Shell Eastern Petroleum)
- 6. Remove Requirement to Withdraw Market Advisory Notice (Proposed by Energy Market Company)

Meeting with Stakeholders

The second stage of the prioritisation exercise involved EMC meeting with

(continued on page 2)



(continued from page 1)

stakeholders individually. Stakeholders were asked to prioritise the issues to be included in the updated work plan in terms of importance and urgency. They were also given the opportunity to further clarify and define the scope of the issues.

Approach to Prioritisation

EMC then consolidated priority rankings and feedback obtained from all stakeholders. In drawing up the updated work plan for the RCP to consider, EMC took into account the following:

1. Priority ranking and feedback received from stakeholders during the consultation process, which highlighted the issues most likely to provide value to parties directly affected by the performance of the market.
2. The need for EMC to complete ongoing work streams, even if they may no longer be ranked as highly by stakeholders. Since work has already begun for these ongoing work streams, it makes sense to complete them before EMC embarks on new issues.
3. Views of the RCP members on which work streams are likely to contribute the most to the long-term evolution of the NEMS. It is beneficial to pursue work streams that address current and urgent issues, as well as those contributing to the long-term evolution of the market.

Updated RCP Work Plan 2011

At its 54th meeting on 15 March, EMC presented the updated RCP work plan to the RCP for consideration. The table below presents the updated work plan agreed on by the RCP for FY2011/2012. The detailed description of the issues, as well as the longer work plan covering the next two years, can be found on the EMC website at <http://www.emcsg.com/MarketRules/RulesChangePanel/WorkPlan>.

Expected Completion/ Commencement Date	Issue Title
Within 12 Months (by March 2012)	Redefine MCE Methodology for Determining Regulation Offers' Eligibility
	Transparency of Transmission Constraint and Translation into Dispatch Arrangement
	Remove Requirement to Withdraw Market Advisory Notice
	De-registration of Generation Facilities with a Market Participant's Premises
	Allocation of Allocated Regulation Price (AFP) to Load
	Demand Side Bidding in the Energy Market
	Review of Value of Lost Load (VoLL)
	Composition of the RCP
	New Forms of Collateral
	Apply Cap on Reserve and Regulation Charges Imposed on Embedded Generators
	Introduction of Tie-breaking
	Publication of Generation Registered Capacity by Unit
	Number of Business Days for Suspension Order Hearing



APEX Asia Pacific Meet in Delhi, 6 to 8 March



EMC delegates at APEX APAC Meet in Delhi

APEX, the Association of Power Exchanges (of which EMC is a member), is an international body formed to facilitate the development and communication of ideas and best practices in global competitive electricity markets. This year's APEX Asia Pacific (APEX APAC) Meet, hosted by the Power Exchange of India Limited and held in New Delhi, India, was the fourth of its kind. Members and sponsors from Australia, India, South Korea, New Zealand, the Philippines, Singapore and the United Kingdom participated in this Meet. The APEX APAC Meet was followed by an international conference which brought together many other important industry participants and observers.

The Meet began with an exclusive cocktail dinner at the Kingdom of Dreams, Gurgaon, which showcased the cultures of the different states of India. The programme for the following two days was intensive with many presentations and panel discussions covering

a wide range of topics. These included annual market updates from each participating country as well as talks on market dynamics, the impact of competitive power markets, the role of power traders, demand response, the integration of green energy, energy derivatives and smart grids. Of special interest to most delegates was India's Renewable Energy Certificates trading regime (Asia's first) and South Korea's Jeju Island integrated smart-grid test beds. These pioneering efforts represent an exciting step towards an even



Delegates attending one of the APEX APAC Meet sessions

more developed electricity market in this region.

EMC's delegates made a total of four presentations at the Meet. Dave Carlson (CEO) spoke on the role of power traders in enhancing market dynamics, Henry Gan (Vice President, Market Operations) discussed the impact of competitive power markets on the power sector, Nerine Teo (Economist, Market Administration) gave an update on the National Electricity Market of Singapore (NEMS), while Henry Wee (Senior Analyst, Market Administration) spoke on the introduction of demand response in electricity markets. The presentations were well received and appreciated by the audience and drew lively participation during the various panel discussions.



Henry Gan, Vice President Market Operations, presenting at APEX APAC Meet

The three-day event was informative and educational and the EMC delegation learnt a lot through their interactions with participants from other countries. At the same time, while travelling between venues, the team had the opportunity to take in the sights of Delhi including monuments like the India Gate, Parliament House and Jantar Mantar, and managed to squeeze in some photo-taking at a famous historical site, Qutub Minar.

We look forward to next year's APEX APAC Meet to be hosted by the Korean Power Exchange in Seoul.

New Rules Change Panel (RCP) Member Mr Loh Chin Seng

In March 2011, Mr Ng Meng Poh relinquished his position as Retail Electricity Licensee representative on the RCP. The EMC Board appointed Mr Loh Chin Seng to take his place on the RCP, effective from 1 April 2011 to 31 December 2011. EMC would like to thank Mr Ng for his invaluable contributions to the RCP, and welcome Mr Lim on board.



NEMS Charity Initiative – Zoo Outing with Child at Street 11



All of us at the zoo (photo from PowerSeraya)

On 25 March, close to 50 volunteers from Diamond Energy, PowerSeraya, Senoko, Tuas Power Generation and EMC brought 31 children between the ages of three and six from Child at Street 11 to the zoo for a day of fun, as part of the National Electricity Market of Singapore (NEMS) charity initiative. Child at Street 11 is a childcare and after-school centre for underprivileged children that the NEMS group adopted.

This is the fifth year that the NEMS group has come together to support a good cause and help make a difference to these children by organising outings to various places. We



Boat ride to Rainforest Kidzworld

decided to bring the children back to the zoo as they enjoyed it tremendously during a similar outing two years ago. This time round, the children took a nice boat ride to the Rainforest Kidzworld, where the bulk of the fun was.



Fun at the water playground

The children wasted no time changing into their swimming suits and heading straight to the water playground as this was what they were looking forward to the whole morning. Squeals of laughter could be heard from all around the water playground, as both children and adults tried to get each other as wet as possible. The zoo's animal show was



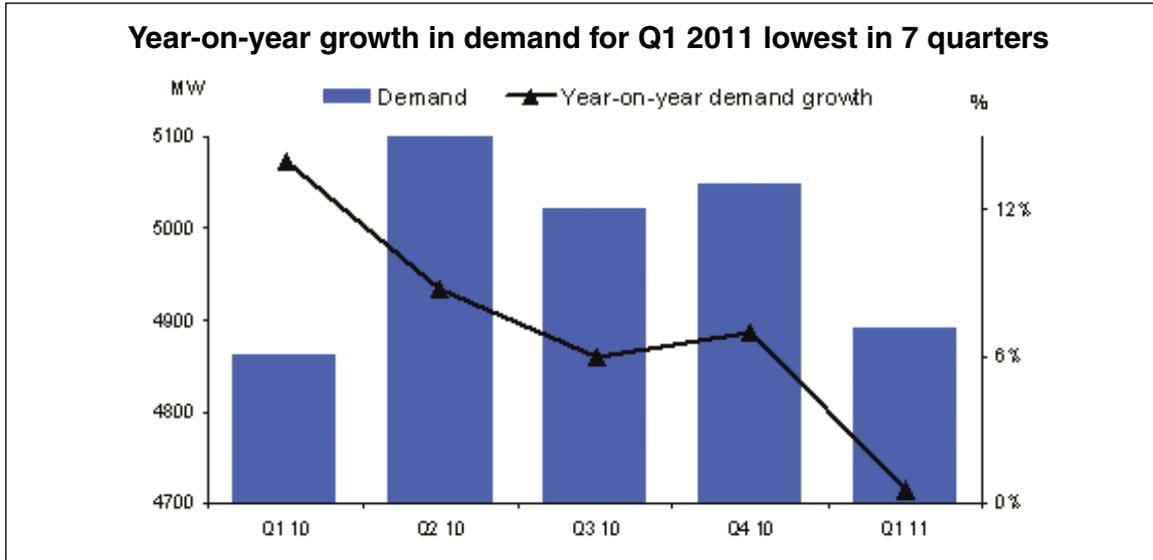
Taking part in the animal show

the next item in line and the children were mesmerised by the cat and dog performance during the show. The outing ended with lunch for all at the zoo. By the time we returned to Child at Street 11, some of the children were already half asleep and had to be carried by volunteers into the centre where they continued with their nap.

It was an unforgettable day for all who participated in the outing. We would like to thank all market participants for their ongoing support of the NEMS charity initiative, and we look forward to the next activity in the new financial year.

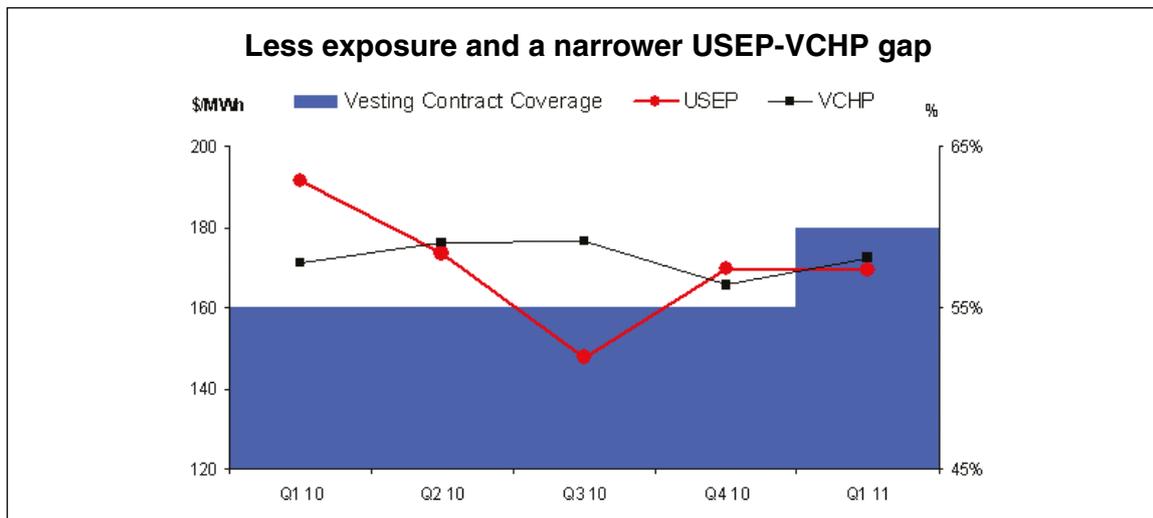


Market Update



Demand for Q1 2011 averaged 4,891MW. This level is similar to demand in Q1 2010, with a small increase of 0.6 percent which is the lowest year-on-year increase in the last seven quarters. When compared with Q4 2010, demand fell by three percent. This is in line with the seasonal impact.

Comparing year-on-year monthly averages, the demand for March decreased by less than one percent to 4,995MW, whilst the demand for April* decreased by one percent to 5,031MW.



The USEP in Q1 2011 averaged \$169.22/MWh, which is a less than one percent decrease from the USEP in Q4 2010 of \$169.89/MWh. While the gap between the USEP and the VCHP narrowed to \$3/MWh, there is now a smaller exposure to this gap (100 percent minus 60 percent in Q1 2011 vis à vis 100 percent minus 55 percent in Q4 2010).

Comparing monthly averages, the USEP for March and April* has continued the upward trend since January 2011. In March, the USEP increased fourteen percent to \$186.95/MWh. In April*, the USEP increased nine percent to \$204.21/MWh. For both March and April*, the USEP was above the VCHP.

**Data for April is until 24 April 2011*



User Forum

Market Information Sharing Forum (MISF)

The MISF held on 9 March 2011 covered the market performance for January and February in addition to an update on the Single Electronic Window (SEW) soft launch for EMC internal usage in January. Our next MISF will be held on Wednesday, 11 May 2011. All MISF and Market Systems User Group delegates are encouraged to register for the forum online.

Market Systems User Group (MSUG)

The bi-monthly MSUG forum was held on 21 April 2011. On top of regular updates on the NEMS systems availability and incidents, participants were also updated on the following:

- SEW architecture components set up between 26 December 2010 and 15 March 2011;
- Shareplex replication tool implementation in the EMC production environment;
- RSA tokens issuance to market participants; and
- Change in the Disaster Recovery procedures.

EMC also covered in detail the progress of the following projects:

- SEW and;
- “Gross Bidding for Embedded Generator and Settlement Net Treatment” scheme resulting from new enhancements to the NEMS systems.

In addition, 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. The next MSUG is tentatively scheduled for Tuesday, 23 June 2011.

EMC Training Programme – Next Course on 19 and 20 May 2011

EMC will be holding the next run of its two-day course *Understanding Electricity Markets* on 19 and 20 May 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

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.

