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## CEO's Message

It has been another busy few months for EMC and the National Electricity Market of Singapore (NEMS). Focusing on the NEMS first: In March, demand continued its decline and the Uniform Singapore Energy Price (USEP) followed—but the first half of April saw a reverse, with both demand and the USEP rising. For more details, please read the article on page 4.

The annual prioritization exercise with stakeholders to update the Rules Change Panel's (RCP) work plan is always a key focus for EMC's Market Administration team at the beginning of each year. We updated the work plan, and this was approved at the March RCP meeting. This exercise is important to ensure the ongoing evolution of the NEMS; the article below has full details on this year's agreed-upon work plan.

EMC had the privilege of hosting two visiting

delegations, one from the Electricity Regulatory Commission of Thailand and one from the California Independent System Operator. Such visits allow EMC to forge closer ties between our markets, share ideas and practices, and better understand the challenges and opportunities our markets face. See the article on page 3 for full details on both visits. These visits come in addition to the many interactions we have with our market participants and other key contacts through regular meetings such as the Market Information Sharing Forum and the Market System User Group, covered on page 4, or ad-hoc gatherings and meetings to share and exchange information, updates, issues and ideas. The open and on-going interaction with all our stakeholders is an important element of EMC's service. We always seek further enhancements and welcome any suggestions and feedback.

At EMC we have also been busy with the end of our financial year. The results will be published in the next bulletin. In addition, we have recently published the 2008 NEMS Market Report and the Market and Surveillance Annual Report 2008 on the EMC website at [www.emcsg.com](http://www.emcsg.com). Copies of both reports are available and have been mailed to market participants and interested parties who have registered on our mailing list. We invite you to review both reports and, as always, we welcome your questions and comments.

Dave Carlson  
Chief Executive Officer

## RCP Work Plan Prioritisation Exercise 2009

In January and February of this year, EMC conducted a Rules Change Panel (RCP) work plan prioritisation exercise with the NEMS stakeholders—Market Participants, Singapore Power (SP) Services and the Power System Operator (PSO). EMC updates the RCP work plan on a yearly basis and presents it to the RCP for consideration.

### Issue Identification

The first stage of the prioritisation exercise involved consultation with the stakeholders to identify issues to be included in the updated work plan. Apart from issues that were carried

over from the previous work plan, a record number of 18 new issues were raised by stakeholders for consideration.

These include the following:

1. Redefine Market Clearing Engine (MCE) methodology for determining regulation offers' eligibility.
2. Proposed retention and extension of Type 4 price re-runs.
3. Modelling of fault level contributions into the MCE.
4. MCE to automatically change reserve limits on Interruptible Loads (IL) when

the intertie status with Tenaga Nasional Berhad (TNB) changes.

5. Modelling of a dynamic adjustment of Gas Turbines/Combined Cycle Plants' (GTs/CCPs) capacity into the MCE that changes with on-site ambient temperature.
6. Shortening of PSO budget process.
7. Review of data releases studied in the CRA 2007 survey titled "Analysis of Data Release Practices in Centrally-Dispatched Electricity Markets".
8. Obligation to revise offers in the event of a complete system outage at EMC

(continued on page 2)



(continued from page 1)

9. Reserve compensation for Interruptible Loads (IL).
10. Contingency activation for Interruptible Loads (IL).
11. Conflict of interest for dispatch coordinator.
12. Allocate 5% of reserve costs to loads and require Generation Settlement Facilities (GSFs) to pay for reserve cost.
13. Amendments to the System Operation Manual (SOM) to be put through the same approval process as Rule Changes.
14. Allocate regulation costs to generators using the Runway method.
15. Differentiation in probability of failure computation for multi-shaft plants and single-shaft plants.
16. Publication of historical dispatch schedules.
17. Overhaul of reserves arrangements.
18. Transparency of transmission constraint and compensation for must-run units.

#### Meeting with Stakeholders

The second stage of the prioritisation exercise involved EMC meeting with 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 clarify or define the scope of the issues.

#### Approach to Prioritisation

EMC then consolidated the priority rankings and feedback obtained from all the 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: The priority ranking by stakeholders indicates which issues are likely to provide the most value to those parties that are directly affected by the performance of the market.
2. The need for EMC to complete work streams already advanced, even though stakeholders may now rate these less highly. Since work has already begun for these ongoing work streams, it makes sense to complete them before EMC

embarks on new issues. This is also in line with the message conveyed by many stakeholders during the consultation process asking EMC to focus on consolidation in the short run, i.e., to complete work on issues which are already in progress.

3. Views of the RCP members on which work streams are likely to contribute most to the long-term evolution of the NEMS: It is usually 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 2009

At its 42nd meeting on 3 March, EMC presented the updated RCP work plan to the RCP for consideration. The table below presents the updated work plan agreed to by the RCP for the period 1 April 2009 to 31 March 2010, while the longer work plan covering the next two years can be found on the EMC website (<http://www.emcsg.com/n5141,82.html>).

Expected completion/commencement date	Issue Title
Within 12 Months (by March 2010)	Mixed Integer Programming (MIP) for Reserves
	Simultaneous/Consecutive Tripping of Multiple Generation Registered Facilities (GRFs)
	Reserve Requirement to meet the largest risk, not just the largest (scheduled output + reserve) online GRF: Power Station with only one remaining generation connection to the Grid
	Shortening of Settlement Cycle
	Amendments to the System Operation Manual (SOM) to be put through the same approval process as Rule Changes
	Compensation for Excess Regulation
	Review of Price Disparity between market network nodes (MNNs)
	Proposed Retention and Extension of Type 4 Dispatch Re-runs
	Transparency of transmission constraint and compensation for must-run units
	Review EMC Fee Methodology to Charge Fee to Interruptible Loads (IL) Providers
	Publication of Historical Dispatch Schedule
	Modelling of Fault Level Contributions into the MCE
	Allocate 5% of reserve costs to loads and require GSFs to pay for reserve cost
	Review of Data Releases studied in the CRA 2007 survey, "Analysis of Data Release Practices in Centrally-Dispatched Electricity Markets"

## Visiting Delegations



**Anjali Sheffrin in a discussion with Dave Carlson (extreme right), Kenneth Lim (extreme left) and Henry Gan**

EMC had the pleasure of hosting two delegations in March. The first was a visit from the California Independent System Operator (ISO) and the second was from the Energy Regulatory Commission of Thailand.

Anjali Sheffrin, Chief Economist of California ISO, visited EMC on 4 March. She was given a tour of the market operations pricing and settlement systems before she met with over 30 staff to provide an overview of the roles and responsibilities of the California ISO. She shared with the audience some of the current challenges they face as a system operator in California. A lively Q&A ensued, with the main focus on how California ISO

overcame the operational issues pertaining to their initial setup.

The respective departments in EMC, i.e., Market Administration, Market Operations & IT, had separate sessions with Ms Sheffrin for in-depth discussions on specific topics of relevance.

EMC also invited representatives from the Energy Market Authority (EMA) to meet with Ms Sheffrin during her visit. Three representatives from the Market Department, Regulation Division, EMA, met with Ms Sheffrin and had a useful discussion with her.



**(L to R) Anjali Sheffrin with Dave Carlson**

A delegation of ten from the Energy Regulatory Commission of Thailand visited EMC on

16 March. EMC's Senior Vice President, Market Administration, Paul Poh hosted the delegation. Poh presented an overview of the NEMS, covering aspects of market reform, industry and market structure, and market performance. This discussion was followed by a Q & A session in which the delegation's questions and discussion centred on NEMS price-finding mechanisms and the move to more efficient generation.

These valuable exchanges of information, sharing of best practices and lessons learned are important opportunities allowing EMC to build closer regional and global ties and are valuable both for the evolution of the NEMS and for the liberalisation processes in other countries.



**Delegation from Thailand with EMC staff**

## Sharing session with EMC technology partners

EMC gathered with close to 50 representatives from its technology partners at the Furama Riverfront Hotel on 25 February for a sharing and networking session. The Market Operations and IT team presented



**Technology partners at the sharing session**

the 2009–2012 IT roadmap for the NEMS market. The session was designed to provide our technology partners with a better



**MOIT sharing the business plans**

understanding of our upcoming business needs, and to encourage more IT synergies between EMC and its technology partners. EMC also took this opportunity to present appreciation awards to partners who had gone the extra mile to help EMC achieve the NEMS IT roadmap targets and milestones over the past year.



**Networking amongst the technology partners**



**Award presentations to technology partners**



## Market Update

### In line with demand, the USEP falls in March and climbs in April

Table 1: The USEP and electricity demand from January to 16 April 2009

	Jan-09	Feb-09	Mar-09	Apr-09*
USEP (\$/MWh)	\$73.98	\$95.75	\$87.18	\$120.24
Demand (MW)	4,153	4,339	4,309	4,436

\* Apr 09 data covers 1 April 2009 to 16 April 2009.

The Uniform Singapore Energy Price (USEP) declined in March following lower demand. This trend was reversed in April as demand climbed, pressuring the USEP to ascend. Evaluating the USEP against the quarterly vesting contract hedge price (VCHP), based on preliminary data up to 16 April, the April USEP has closed above its respective VCHP of \$115/MWh. This is in contrast to the monthly USEP observed between October 2008 and March 2009 when all the monthly USEPs closed beneath their respective quarterly VCHP.

## User Forum

### Market Information Sharing Forum (MISF)

The MISF on 18 March gave the first update on market performance for 2009. In addition to the analysis of our key market indicators covering the first two months of 2009, we put forward summaries on the Singapore economy and manufacturing sector performance in the market outlook section.

The next MISF will be held on Wednesday, 20 May.

### Market Systems User Group (MSUG) Update

The bi-monthly MSUG forum was held on 16 April. Attendees were briefed on the details of improvements to the dispatch schedule approval timings implemented in the NEMS systems on 15 April.

EMC also updated the audience on the enhancements in the pipeline for the NEMS Offer Management System and Web Services. Many of these changes come in response to the valuable suggestions and feedback from market participants. Attendees were also briefed on new projects that EMC will be undertaking in upcoming months and on the plans for the existing NEMS applications.

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

## EMC Training Programme – Next Course on 21 and 22 May 2009

EMC will be holding its two-day training course, *Understanding Electricity Markets*, on 21 and 22 May 2009. 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

The next courses are scheduled for:

20 - 21 August 2009

19 - 20 November 2009

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](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

The EMC Bulletin is written by EMC for you and we are always striving to improve our service. 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 any questions either via e-mail to [info@emcsg.com](mailto:info@emcsg.com) or via fax to +65 6779 3030.

Thank you in advance for your time and effort.