

professional transparent cost-effective people ideas integrity commitment teamwork

CEO's Message

I begin this month's message with a reminder to anyone who has not yet registered for the Singapore Electricity Roundtable on 14 to 15 November. Come and see familiar faces who were involved in the early stage of the market and new faces who play a role in our now maturing market. This promises to be a stimulating gathering and one that you should not miss.

In September, Singapore saw average energy prices reach a historic high since the commencement of the National Electricity Market of Singapore (NEMS), mainly due to a rebound of demand and a tightening of supply. Full details are in the article on page 2.

A report released by the Monetary Authority of Singapore on 24 August, covering economic developments in Singapore for the first six months of 2005, noted that the recent sharp rise in oil prices had had a limited impact on CPI inflation, reflecting the modest pass-through to petrol pump prices and electricity tariffs.

The report notes that electricity tariffs are benchmarked to high sulphur oil prices, which have seen more measured increases compared to the headline crude oil price. Furthermore, households and industries have benefited from efficiency gains as generating companies switch from fuel oil to gas. Competition among these companies has also constrained electricity price increases. These are very favourable comments about the competitiveness of the

Singapore wholesale market and EMC is proud to play a part in it.

On the governance side, the Dispute Resolution Counsellor (DRC) and the Market Assessment Unit organised a Dispute Management Workshop in August to equip market players with the knowledge and skills to successfully implement the new dispute resolution rules. Shirli Kirschner, Dispute Resolution Advisor for the National Electricity Market of Australia, conducted the workshop with the DRC. I would like to thank her for sharing her knowledge and experience with the group, thereby preparing the market to develop an appropriate dispute management system.

The Rules Change Panel (RCP) will complete its first three year term on 31 December 2005. As the RCP Chairman, I would like to take this opportunity to thank all panel members for their hard work and for their

significant contributions to the continuous evolution of the market. I would also like to thank the market participants for making senior personnel available for this important NEMS governance function. Some of the current panel members will serve in the new RCP, which has just been appointed by the EMC Board, and I wish all of them a successful new term.

As we move into the last two months of 2005, I am very pleased that this year has been another successful one for the operation and evolution of the NEMS. The Roundtable will be a highlight of November and I hope to see many of you there.

Allan Dawson CEO, Energy Market Company

Last Chance to Register for the Singapore Electricity Roundtable, 14 to 15 November 2005, Grand Hyatt

Some of the industry's leading lights will assemble for EMC's Singapore Electricity Roundtable this month. This unique gathering promises to be the highlight of the electricity market's calendar, featuring some of its most well-known speakers.

Leading practitioners in the electricity industry — Frederick T. Baird, Sohail Hasnie, Allan H.K. Koh, Geoff Swier and Bruce Turner

— will be here to debate and discuss key issues, such as market design, regulatory issues and risk management.

Local luminaries include Roy Adair and Neil McGregor, who will both be on a panel with Mr Baird to debate the benefits and cost of transparency in electricity markets.

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Tight Supply Drives Prices to Record High in September

Average monthly energy prices in September surged more than 42 percent, registering an all time high of \$147/MWh since the commencement of the National Electricity Market of Singapore (NEMS). This is mainly attributed to a rebound of demand and a tightening of supply experienced in late September.

In fact, peak demand hit a record high of 5,292MW on 27 September in period 32 and the average monthly demand rebounded by another two percent after it had fallen to a low in July as depicted in Chart 1.

The increase in demand coincided with a plunge in combined-cycle gas turbine (CCGT) supply as up to three CCGT units were not available for dispatch in the latter half of the month. Out of the three CCGT units, two were on maintenance while the third had to be urgently shut down on 21 September for technical reasons. The market responded with more steam turbine (ST) supply (see Chart 2) pushing its market share to 26 percent, the highest since April 2005.

The tight supply seen in late September also affected the ancillary markets. This saw the total reserve cost in September registering \$31.3 million, another new monthly high for the market (see Chart 3).

Chart 1

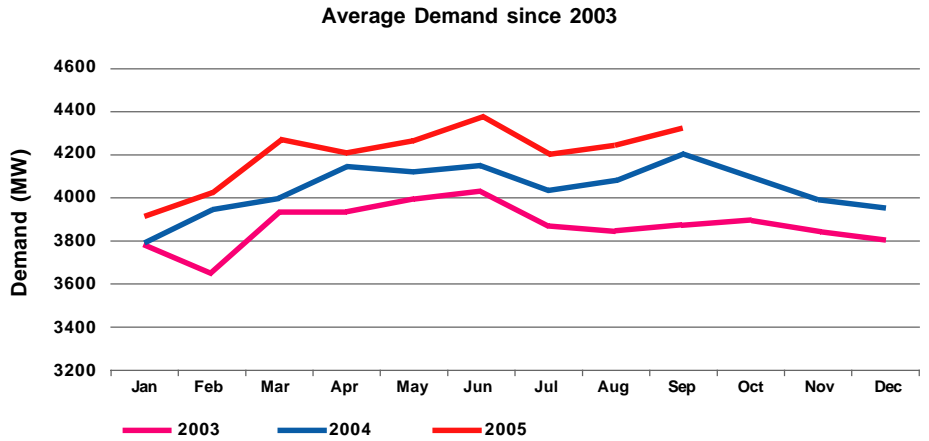


Chart 2

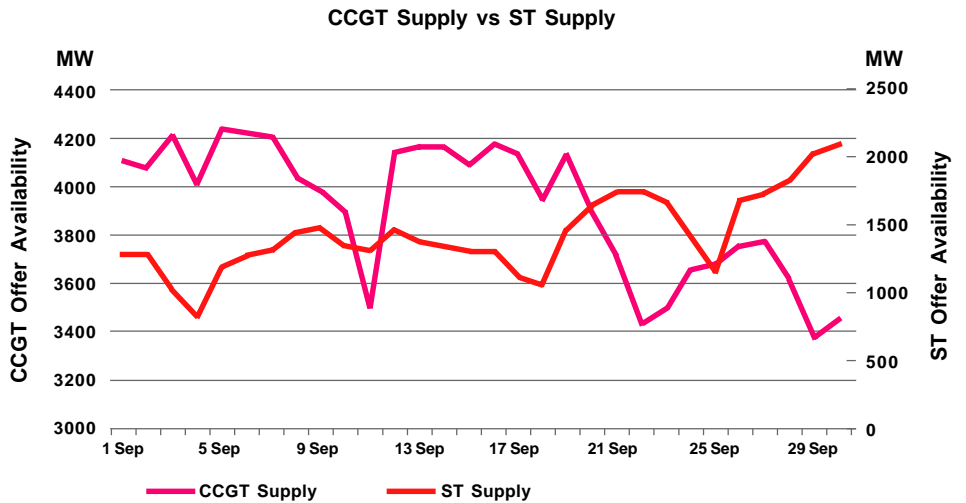
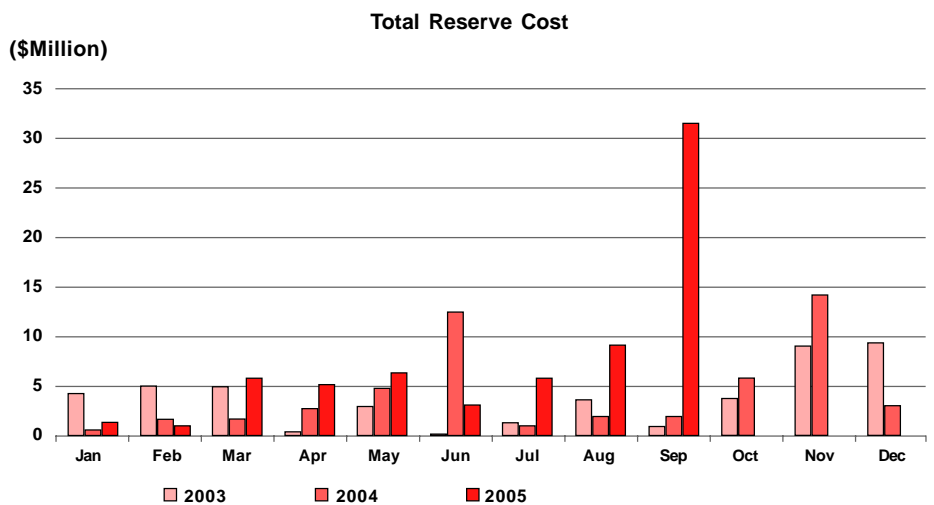


Chart 3



EMC Hosts Group from Several ASEAN Countries

On 23 September, EMC was happy to host five delegates from ASEAN electricity markets at the request of SP Services, who was hosting this group as part of the Second HAPUA (Heads of ASEAN Power Utilities/Authorities) Sub-working Group Meeting.

The group included two visitors from the Electricity of Vietnam (EVN), one from Electricity Generating Authority of Thailand (EGAT) and two from National Power Corporation, Philippines.

The delegates had expressed great interest in learning more about the NEMS. Our presentation provided them with an overview of the NEMS and the subsequent questions and discussions mainly focused on how prices are determined in the NEMS as well as the bidding and settlement processes.

The visit offered EMC another opportunity to build valuable relationships with more participants of electricity markets in Asia. It also allowed EMC to facilitate the exchange of best practices and lessons it learned that are important for the liberalisation process in these countries.



ASEAN delegates with EMC staff

(continued from page 1)

Last Chance to Register for the Singapore Electricity Roundtable, 14 to 15 November 2005, Grand Hyatt

Two stimulating workshops will be conducted by trained professionals on Day Two.

This is a good opportunity to tap some of the best minds in international electricity markets and share insights and glean perspectives that come from many years of experience.

Seats are limited, so participants are encouraged to register early for this exclusive event, organised by EMC. Full agenda and registration details are available at www.emcsg.com

Understanding Electricity Markets Course in 2006

EMC will be holding its regular training course *Understanding Electricity Markets* on 15 to 16 February 2006. Our staff will be conducting seven 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
- An Overview of Current Electricity Market Design Issues

A further course is scheduled for 18 to 19 May 2006.

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 Ong Pui Sze at +65 6779 3000.



Dispute Management Workshop

A Dispute Management Workshop was conducted on 23 and 24 August, jointly organised by the Dispute Resolution Counsellor (DRC) and the Market Assessment Unit. Shirli Kirschner, Dispute Resolution Advisor for the National Electricity Market of Australia, conducted the workshop with the DRC.

Market participants have been working closely with EMC and the DRC to develop a dispute resolution process appropriate for the NEMS. Recognising that stakeholders also need to be equipped with the requisite knowledge and skills to successfully implement the new market rules, the workshop was organised to support market participants.

During the workshop, participants explored the new dispute resolution process through role play. Through viewing videos and exercises, participants were inspired with new ideas to resolve conflicts. With Australian precedents available for reference, participants actively

shared their views on a feasible dispute management system (DMS) for the NEMS. Several participants also volunteered for a working group to assist in the development of DMS guidance notes and a model DMS for the NEMS.

Additionally, the new rules will require industry players to nominate DMS contacts as their first point of contact should a dispute arise. DMS contacts will facilitate information sharing and meetings to resolve problems. If used effectively, they can assist organisations by saving time and costs in resolving disputes. Following the workshop, industry CEOs were invited to nominate people to act as DMS contacts for their organisations when the new rules are in place. The DMS guidance notes and a model DMS for the NEMS will be developed in consultation with these nominees.

The workshop was well received by the industry, with many compliments received from participants in their evaluations.



Shirli Kirschner (front row, centre) facilitated the workshop, which gave participants relevant insights into a dispute management system for the NEMS. The workshop was organised by the DRC George Lim (front row, second left) and EMC's Market Assessment Unit.



Renewal after Successful First Term for the Rules Change Panel

The Rules Change Panel (RCP) took office when the wholesale electricity market of the National Electricity Market of Singapore (NEMS) started on 1 January 2003. Its first term concludes on 31 December 2005 and a new panel has been appointed by the EMC Board to serve the industry from 1 January 2006 to 31 December 2008.

As an important NEMS governance body that evolves the wholesale electricity market for greater efficiency and competition, the RCP is charged with the responsibility to analyse and recommend changes to the Singapore Electricity Market Rules.

New Rules Change Panel for 2006-2008

Nominations for the new RCP membership began in September 2005. The EMC Board then met on 29 September to appoint members from the list of nominees to the new RCP. Accordingly, the EMC Board has appointed the following members to the new RCP:

NEW RCP (2006 - 2008) MEMBERS		
MEMBER CATEGORY	NOMINATED BY	MEMBER
Chair, Chief Executive Officer of EMC	-	Allan Dawson
Employee of EMC not being the Chief Executive Officer	EMC Board Chairman	Henry Gan Wee Teck*
Representative of the Power System Operator (PSO)	PSO	King Meng Hwee*
Representatives of the generation licensee class of market participant	Power Seraya Senoko Power Tuas Power	Low Boon Tong Tay Swee Lee* Philip Tan Pei Lip*
Representative of the transmission licensee class of market participant	SP PowerGrid (agent of SP PowerAssets)	Daniel Cheng Tai Yip
Representatives of the retail electricity licensee class of market participant	Keppel Electric SembCorp Power	Koh Kah Aik* Francis J Gomez
Representative of the market support services licensees	SP Services	Lim Ah Kuan*
Representative of the financial community in Singapore	ICPAS	Robin Langdale

*New member

RCP can benefit from the injection of new perspectives from new members and yet rely on the considerable experience of re-appointed members. This is an excellent outcome that balances innovation and operational efficiency nicely.

The current RCP (2003–2005) comprises the following members:

CURRENT RCP (2003 - 2005) MEMBERS		
MEMBER CATEGORY	NOMINATED BY	MEMBER
Chair, Chief Executive Officer of EMC	-	Allan Dawson
Employee of EMC not being the Chief Executive Officer	EMC Board Chairman	Yip Pak Ling
Representative of the Power System Operator (PSO)	PSO	Kok Shook Kwong
Representatives of the generation licensee class of market participant	SembCorp Cogen PowerSeraya	Francis J Gomez Low Boon Tong
Representative of the transmission licensee class of market participant	PowerGrid	Daniel Cheng Tai Yip
Representatives of the retail electricity licensee class of market participant	Senoko Energy Supply Tuas Power Supply Keppel Electric	Eu Pui Sun Ben Lau Shun Yin Tan Boon Leng
Representative of the market support services licensees	SP Services	T P Manohar
Representative of the financial community in Singapore	ICPAS	Robin Langdale

During its first term in office, the RCP set in motion many rule changes that benefited the NEMS. The most notable and significant contributions of the RCP included studying, designing and recommending rule changes on the following:

- Interruptible load participation in the reserve market
- Modifying reserve modelling in the Market Clearing Engine
- Removing line constraint violation penalties when load is not shed
- Streamlining the rule change process
- Implementing the Short-Term Schedule (STS)
- Tighter rules on gate closure and reduction of gate closure window
- Enhancing nodal load forecasts with dynamic load participation factors
- Automated Wholesale Settlement Re-run Regime

Some of these members also served for 10 months on the Pro-tem Rules Change Panel prior to market start and recommended over 100 changes.

EMC congratulates the current Rules Change Panel for a very successful first term and welcomes the new panel for a fruitful second term!



Upcoming Conferences

- **Singapore Electricity Roundtable**
14 -15 November
Grand Hyatt, Singapore
Organised by EMC, it draws leading practitioners and thinkers from the electricity industry in Asia Pacific and globally. For more information see article on page 1 and visit www.emcsg.com
- **Power Updates**
16 November
Singapore
Jointly organised by Seraya Energy and the Singapore Manufacturing Federation for members interested in learning more about the liberalisation of the electricity market of Singapore. Allan Dawson, CEO of EMC, will present an overview of how the National Electricity Market of Singapore operates.
- **7th International Power Engineering Conference**
IPEC 2005
29 November – 2 December
Singapore
EMC is a supporting organisation. Two papers will be presented: Lu Feiyu, Market Analyst — Overview of the National Electricity Market of Singapore, Ramon Staheli, Senior Economist — Interruptible Load: New Partnerships for Better Energy Management. For more information, visit www.ipec.sg
- **Asia Power 2006**
12 – 13 January 2006
Singapore
Paul Poh, SVP of Market Administration, EMC, will speak on Electricity Market Deregulation in Singapore: Challenges and Achievements So Far.

User Forums

Market Information Sharing Forum (MISF)

The MISF held on 21 September saw the usual good turnout of market participants. A special presentation on the benchmarking survey of market operations was shared with the participants. This survey, conducted for nine electricity market exchanges, drew lively discussion at the forum, as participants were given insights into the lessons that could be learned and the way forward from this benchmarking exercise.

The next MISF is scheduled for Wednesday, 23 November.

Market System User Group (MSUG)

The MSUG hosted on 29 September gave participants an update on the database split and server re-platform projects. It also discussed the upcoming DRP exercise and the appointment of key IT contacts in each company for crisis communications, in addition to hosting a technical knowledge sharing session on data replication.

The next MSUG is scheduled for Thursday, 24 November.

Changes at EMC

Joining

Mark Ashcroft
Oracle Developer/Systems Architect, IT

Our newest staff member, Mark Ashcroft, joined our IT Department in October. Mark has more than five years of experience in wholesale electricity markets in New Zealand and Singapore. His technical expertise is in the use of business intelligence products and the design and implementation of OLTP and OLAP relational databases.

Transfer

Chok Kian Loong
MAU Executive

Chok Kian Loong has transferred from EMC's Pricing and Information Unit, Market Operations Team to our Market Assessment Unit (MAU). He assumes the position of MAU Executive and reports to Ms Liew Siok Fang. Armed with an educational background in economics, Kian Loong joined us in July 2001. He has extensive market knowledge and an economist's perspective.

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 any questions either via e-mail to info@emcsg.com or via fax to +65 6779 3030.

Thank you in advance for your time and effort.

