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CEO's Message

November's highlight for many of us in the electricity and energy industries was the Singapore Electricity Roundtable which EMC hosted as part of the Singapore International Energy Week (SIEW). The Roundtable brought together high-profile speakers and panelists from three continents, sharing perspectives from market players, consultants and leading experts covering developments in the electricity and LNG markets in the US, the UK, Asia and Singapore. I enjoyed hosting the panel discussion which focused on the factors necessary for, and the benefits of, attracting investors to participate in the National Electricity Market of Singapore (NEMS). I am pleased that our speakers, panelists and participants viewed

this year's Roundtable as a great success. Thank you to everyone for your support. Highlights of the event are in the article below.

Looking at the market, November 2009 saw the average electricity price of the wholesale market (USEP) fall below the vesting contract hedge price (VCHP) for the first time in seven months. For full details see the article on page 5.

Over the last few months, EMC has also been busy conducting training and seminars for our market participants and hosting two overseas delegations. Such activities ensure our market participants can maximise the tools and services we provide and allows us to share with other markets the benefits of a liberalised electricity

market. Please see the articles on pages 4 and 5 for full details.

This issue marks the last 2009 EMC Bulletin so I would like to thank once more all of our market players and stakeholders for their ongoing support and combined efforts in evolving the NEMS. We at EMC look forward to a continuous successful working relationship and wish you a happy and prosperous new year.



Dave Carlson
Chief Executive Officer

Singapore Electricity Roundtable 2009 — Another Big Success



Keynote speaker Stuart Senior addressing the audience

The fifth Singapore Electricity Roundtable on 17 and 18 November at the St. Regis Hotel sparked great interest. This is the second year EMC partnered the Energy Market Authority and Energy Studies Institute, hosting the Roundtable as part of the Singapore International Energy Week (SIEW).

Close to 200 participants attended the Roundtable, including representatives of our market participants, the electricity and energy industries, power generation suppliers, financial institutions, law firms, consultancies and local and overseas government ministries and agencies. Journalists were also invited to attend the Roundtable, and the event was covered in the media.

Participants hailed from a diverse spectrum of industries and wide range of countries,

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Panel discussion

Australia, Brunei, Hong Kong, Indonesia, Korea, Malaysia, New Zealand, Thailand, Vietnam, the UK and the US. EMC thanks everyone for their support of the Roundtable and your strong show of interest from both new and returning participants inspires us each year.

High-profile speakers and panellists from three continents shared their insights. EMC Chairman Wong Meng Meng welcomed the attendees, noting that this Roundtable and the SIEW offered an excellent opportunity to facilitate closer cooperation and the exchange of ideas among governments, businesses and academics on a regional and global basis.

Stuart Senior, Chief Executive Officer, Elexon Ltd, UK, raised very interesting issues in his keynote, when addressing the challenges the UK electricity market is facing in view of its market design and the call for delivering secure low carbon electricity.

Professor William W. Hogan, Raymond Plank Professor of Global Energy Policy, John F. Kennedy School of Government, Harvard University, gave his insights on electricity

market reforms – market design and the green agenda. Addressing the fundamental challenges of restructuring electricity markets as “green”, he focused on SmartGrids as part



Professor Hogan presenting

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Group at networking reception



Audience asking questions

of the solution for climate change policies in most markets.

Rajnish Goswami, Vice President, Head of Gas & Power Consulting, Asia & Middle East, Wood Mackenzie, provided his perspectives on recent trends and development in the LNG market. He covered the current and expected outlook for LNG demand and supply, and the factors influencing the supply and demand balance and prices.

Pham Manh Thang, Director General, Electricity Regulatory Authority of Vietnam (ERAV), gave an update on restructuring and tariff reform of the power sector in Vietnam. Mr Thang provided a comprehensive overview of the Vietnam power sector, its development strategies, electricity tariff reforms the market had adopted, and the issues and lessons learnt from such reforms.

The panel discussion, “Benefits and opportunities in attracting global players to Singapore’s energy and electricity markets”, featured EMC CEO Dave Carlson as the moderator, joined by panellists Lawrence Wong, Chief Executive, Energy Market Authority (EMA); John Ng, CEO, PowerSeraya; Roy Adair, President and CEO, Senoko Power;

and Lim Kong Puay, President and CEO, Tuas Power. The lively discussion and Q & A covered factors an investor is looking for when making investment decisions, how has Singapore benefitted in the past from attracting foreign investors, to assessments on the NEMS’s ability to meet the new challenges of foreign ownership. Mr Wong described the variety of opportunities for foreign investors the EMA provides, ranging from SmartGrid projects to electrical vehicles; further, he announced that the government will be releasing a new land site to develop a power station in the east. Panellists agreed that investors are looking for the type of stable legal and regulatory framework that Singapore provides.

Our first day ended with a networking reception for Roundtable and SIEW attendees at the garden terrace of the Shangri-La hotel. Guests had the opportunity to network with their counterparts while enjoying the open-spaced terrace.

Our second day began with a sumptuous breakfast, followed by two workshops conducted by EMC members. Both workshops were fully-subscribed, with over 130 attendees.

The first workshop was conducted by Kenneth Lim, Senior Vice President, Market Operations and Information Technology, who presented an overview of the NEMS and provided updates to the Singapore market with an emphasis on the market development and performance.

The second workshop was conducted by Chiao Yen Shong, Business Development Manager, and his co-presenters: Pham Quang Huy, Director, Power Market Department, Electricity Regulatory of Vietnam (ERAV); and Young-Meen Eom, Deputy Manager, Electricity Market Department, Korea Power Exchange (KPX). Dr Chiao and his co-presenters described three different electricity markets in Asia: the Philippines wholesale electricity spot market (WESM), the Vietnam power market and the Korean electricity market. The team emphasised the evolution of each market, key market features and recent developments.

We thank all participants for their active engagement in this year’s event and we hope to see you again at the Singapore Electricity Roundtable 2010. Some of the press coverage and more photos are available at <http://www.emcsg.com/roundtable2009highlights>.

Offer Management System (OMS) User Training Session

The IT Applications team conducted the final round of the NEMS OMS user training session on 4 November - two other sessions had taken place in August and September. The November session was fully subscribed, with 28 market participants (MPs) attending. As the previous sessions, participants received an overview of the features and functionalities of the OMS application as well as hands-on practice. MP key contacts were also provided the skills to train their new staff internally.



Delegate Visits



Visitors from the Energy Commission Malaysia

EMC hosted international visitors in October and November.

On 27 October, a delegation of four from the Energy Commission Malaysia visited EMC to gain an in-depth knowledge of the NEMS, EMC's role in the market, and most importantly, the lessons learnt from the liberalisation of the electricity market in Singapore since 2003. This was the delegation's second visit to EMC—the first was in August 2008 when the Commissioner and others visited EMC to gain an understanding of the NEMS market features.

The Energy Commission of Malaysia is the regulator for the energy industry in Malaysia. One of its roles is to encourage and promote the development of the electricity supply industry, the gas supply industry and self-regulation in Malaysia.



Visitors from SN Aboitiz Power

On 19 November, EMC hosted a delegation of 15 from SN Aboitiz Power of the Philippines. SN Aboitiz Power formed from a partnership between Aboitiz Power Corporation (APC) and Statkraft Norfund (SN) Power. Their vision is to be the leading renewable energy provider in the Philippines.

The delegation from SN Aboitiz Power wanted to gain an overview of the Singapore electricity market and learn how the power exchange works. A lively Q & A session took place centred on NEMS price-finding mechanisms. The session was also an opportunity for EMC to learn more about the challenges in the Philippine market.

EMC values such visits as they enable us to exchange best practices and lessons learned with our counterparts and give us the opportunities to build closer regional and global ties with our energy sector partners.

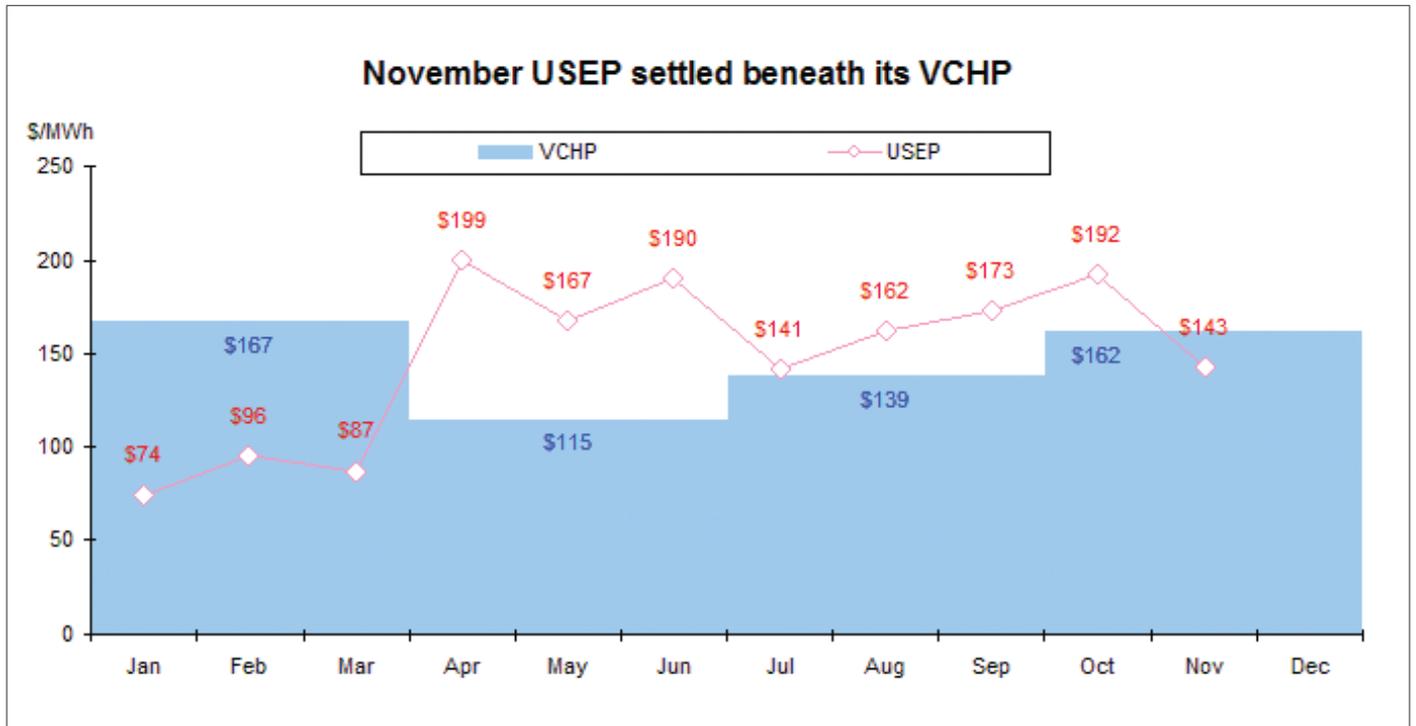
Settlement System Revamp (SSR)

The Settlement System Revamp project (SSR), started in December 2008, is in Phase 2 of the User Acceptance Testing (UAT). The project is expected to be released to the market in March 2010. The SSR aims to achieve the following business objectives:

- Implement a new flexible and scalable NEMS system architecture, improving support for current and future needs of market participants (MPs) and EMC;
- Reduce human intervention in handling the settlement process by implementing as much straights-through processing (STP) as possible, thereby minimizing business risks;
- Enable EMC to use a workflow model and business rule engine for the daily settlement processes. This change will make it easier to identify possible gaps and improve business processes, allowing EMC to deliver quality and consistent settlement outcomes for MPs.



Market Update



After closing below the vesting contract hedge price (VCHP) for the first three months of this year, the monthly average Uniform Singapore Energy Price (USEP) ran above the VCHP from April to October. But in November, the USEP fell below the VCHP for the fourth month this

year, averaging 11.7 percent lower than the fourth quarter 2009 VCHP. The average USEP averaged \$148/MWh for 2009, 9 percent lower than its 2008 average, (comparing year-to-date until November 30). However, year-to-date demand edged up 0.2 percent against last year.

Second GST Information Session for Market Participants

EMC hosted a Goods and Services Tax GST information session on 30 October for market participants (MP) of the National Electricity Market of Singapore (NEMS), covering the following GST matters:

- Update on changes made to the revised e-Tax guide on the NEMS;
- Voluntary Disclosure Program, a recent addition to the GST Act by the Inland Revenue Authority of Singapore (IRAS);
- Assisted Compliance Assurance Program, an IRAS audit program;
- Overview of changes to the GST Act; and
- Specific GST questions by MPs

This second session, like the first held in February of this year, received very positive responses. Both sessions were conducted by Yeo Kai Eng, Partner from Ernst & Young specializing in GST matters.

Re-appointment of MSCP Chair

The EMC Board has re-appointed Mr L P Thean as Chair of the Market Surveillance and Compliance Panel (MSCP) for a new three-year term beginning 1 January 2010.

EMC would like to express its appreciation to Mr Thean for continuing to devote his time and effort to the National Electricity Market of Singapore.



User Forum

Market Information Sharing Forum (MISF)

The MISF on 11 November 2009 examined the market movements for September and October. Our next MISF will be held on Wednesday, 20 January 2010.

Market Systems User Group (MSUG) Update

The bi-monthly MSUG forum was held on 16 December 2009. In addition to our regular updates on the NEMS systems availability and incidents, participants were briefed on the Single Electronic Window (SEW) project regarding the user and roles migration activities and the latest developments. EMC also provided participants with updates on the latest patches and system upgrades related to the Offer Management System, on the most recent developments related to the Settlement System Revamp project (SSR) and on the sunset schedule for older NEMS applications. Lastly, EMC shared with participants the project plan and related activities for the newly launched "Vesting Contract Tender Scheme" project.

The next MSUG is tentatively scheduled for Thursday, 18 February 2010.

EMC Training Programme – Next Course on 25 and 26 February 2010

EMC will be holding its next available two-day training course Understanding Electricity Markets on 25 and 26 February 2010. 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 May 2010

19 – 20 August 2010

18 – 19 November 2010

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 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.

