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CEO's Message

I would like to begin with a final reminder to register for the Singapore Electricity Roundtable, 17 and 18 November at the St. Regis Hotel. This event is definitely one you don't want to miss — the annual highlight for our industry and one of the key events of the Singapore International Energy Week (SIEW). We have secured a fantastic line-up of international speakers and high-profile panelists. Please see the article below for full details and information on how to register.

Looking at the National Electricity Market of Singapore (NEMS), demand and the Uniform

Singapore Electricity Price (USEP) averaged lower for the first three quarters of this year compared to last year's figures. The market also welcomed two new market participants in the past two months. For full details see the articles on page 2.

An important new rule change was supported by the Rules Change Panel and approved by the Energy Market Authority in October. Using Mixed Integer Programming (MIP) for Reserves will better represent the physical capabilities of the generating units. This enhancement marks another important step in

the ongoing evolution of the NEMS. For more information please see the articles on page 3.

I look forward to meeting many of you at the Roundtable, our much-anticipated November event.

Dave Carlson Chief Executive Officer

Last Chance to Register for the Singapore Electricity Roundtable 2009



Tuesday, 17 November 2009
Wednesday morning, 18 November 2009
St. Regis Hotel, Singapore

You only have a few days left to register for one of the key events of the Singapore International Energy Week and the industry event of the year. This year's Singapore Electricity Roundtable offers a terrific line-up of high-profile speakers and panelists to discuss timely topics for the electricity and gas markets.

Our confirmed distinguished speakers:

- Stuart Senior, Chief Executive Officer, Exelon Ltd, UK, will provide perspectives on developments and trends in the UK electricity market;
Rajnish Goswami, Vice President, Head of Gas & Power Consulting, Asia & Middle East, Wood Mackenzie, will provide an overview of trends and developments in the LNG market;
Professor William W. Hogan, Raymond Plank Professor of Global Energy Policy, John F. Kennedy School of Government, Harvard University, will describe trends in competitive electricity markets; and
Pham Manh Thang, Director General, Electricity Regulatory Authority of

Vietnam, will give us an update on the restructuring and tariff reform of the power section in Vietnam.

Our distinguished panelists will debate benefits and opportunities in attracting global players to Singapore's energy and electricity markets:

- Lawrence Wong, Chief Executive, Energy Market Authority;
John Ng, CEO, PowerSeraya;
Lim Kong Puay, President and CEO, Tuas Power; and
Roy Adair, President and CEO, Senoko Power.

Kenneth Lim, Senior Vice President, Market Operations & Information Technology, Energy Market Company and Dr Chiao Yen Shong,

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Business Development Manager, Energy Market Company, will conduct workshops on Day 2, providing a comprehensive update on the National Electricity Market of Singapore (NEMS) and on regional developments in electricity markets.

Seats for the Singapore Electricity Roundtable are limited, so register immediately. Don't miss this industry highlight of 2009!

The brochure and registration form are available on our website at www.emcsg.com/roundtable.

For more details on the Singapore International Energy Week, please visit www.singapore.iew.com.sg.

Two new incineration plants enter the NEMS; older incineration plant exits

Two new market participants joined the NEMS, Senoko Waste-to-Energy Pte Ltd, and Keppel Seghers Tuas Waste-to-Energy Plant Pte Ltd.

A 55MW incineration plant at Senoko, formerly owned by the National Environment Agency Pte Ltd, was transferred to Senoko Waste-to-Energy Pte Ltd with effect from 7 September 2009.

On 6 October 2009, another generation registered facility was

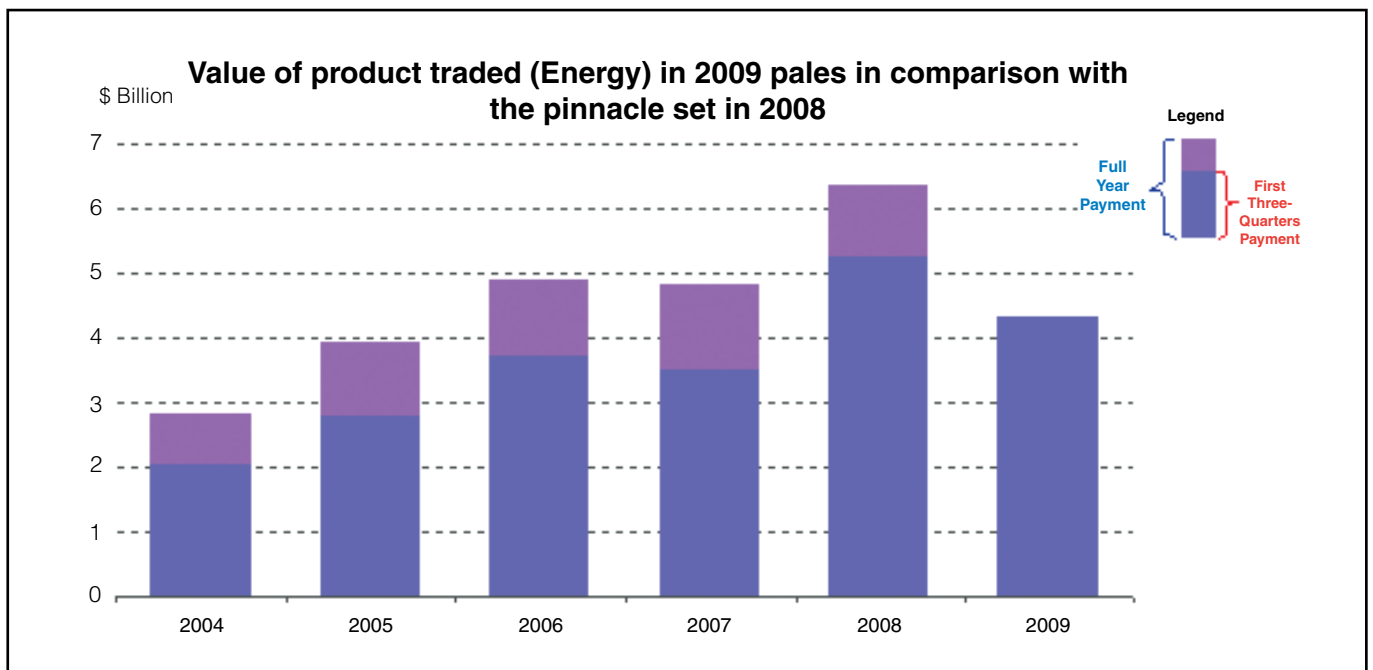
made effective in the NEMS. This latest addition was a 24MW incineration plant registered by Keppel Seghers Tuas Waste-to-Energy Plant Pte Ltd.

On 13 October 2009, an existing 16MW incineration generation unit at Ulu Pandan was deregistered from the NEMS.

As of 13 October 2009, incineration plant installed capacity stood at 2.63%.

Market Update

First three quarters of 2009



For the first three quarters of 2009, electricity demand and the Uniform Singapore Electricity Price (USEP) averaged 4,564MW and \$143/MWh respectively, as compared to 4,639MW and \$178/MWh in the same period last year. Due to softer electricity demand

and a lower USEP, the total value of product traded (energy) in 2009 was significantly less than in 2008. Total energy traded crossed the six billion dollar mark in 2008, while it remained only modestly above four billion dollars in the first-three quarters of 2009.



Rule Change Update

Mixed Integer Programming (MIP)-Based Modeling of Reserve Constraints

This rule change proposal aims to more accurately model the energy-reserve relationship for generating units in the NEMS Market Clearing Engine (MCE), better representing units' physical capabilities.

A generating unit is physically unable to provide reserve when its energy output is below its Low Load level. However, the MCE could still schedule the unit for reserve within the constraints of the Linear Programming (LP) used to model the energy-reserve relationship. This possibility raises security concerns, as such generation registered facilities (GRFs) will be unable to provide reserve should they be called upon to do so (such as in the event of a forced outage).

At the 45th Rules Change Panel (RCP) meeting, the RCP supported the introduction of Mixed Integer Programming (MIP) to remodel the energy-reserve relationship. MIP overcomes the limitations of LP to effectively disqualify GRFs operating below Low Load from providing reserve. This MIP enhancement will apply only to primary and secondary reserves; contingency reserve can be reviewed in the future, if the need arises.

The introduction of MIP has been approved by the Energy Market Authority, and will take effect on 9 February 2010.

New RCP Member

EMC announced on 24 April 2009 that Yu Tat Ming has stepped down as the Generation Licensee representative on the Rules Change Panel (RCP). The EMC Board has thereafter appointed Brendan Wauters to the RCP, effective from 1 June 2009 to 31 December 2011. EMC would like to join the industry in thanking Mr Yu for his contributions to the evolution of the wholesale electricity market as a RCP member, and welcome Mr Wauters on board.

New MSCP Member

On 26 August 2009, the EMC Board appointed Mr Philip Chua as a member of the Market Surveillance and Compliance Panel (MSCP).

Mr Chua is a Consultant in the banking industry. Prior to this, he was the Senior Country Executive of American Express Bank Singapore. In this role, Mr Chua functioned as the Chief Executive of the bank and is responsible for its overall governance within the confines of all applicable laws, regulations and internal policies. He also drove the implementation and integration of global strategic directions locally to achieve market-level alignment.

Concurrently, Mr Chua was the Head of Global Financial Markets

South East Asia, Global Product Head of the Collateralized Trading Program, and Regional Treasurer for Asia, positions which he assumed progressively since joining the bank in 1994. He also served as a Council Member of the Association Bank of Singapore and was a lecturer with the Institute of Banking & Finance.

Mr Chua's vast experience in financial markets makes him a valuable addition to the MSCP.

The MSCP is chaired by Mr Thean Lip Ping and its other panel members are Professor Lim Chin, Mr Lee Keh Sai and Mr TPB Menon.

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.



User Forum

Market Information Sharing Forum (MISF)

The MISF held on 16 September 2009 examined the market movements for July and August. Our next MISF will be held on Wednesday, 11 November 2009.

Market Systems User Group (MSUG) Update

The bi-monthly MSUG forum was held 15 October 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 role migration plan for market participants.

The SEW is a single electronic platform to access information and to perform transactions in the NEMS. Its goal is to enhance the user experience through a single login platform and to facilitate the exchange of information among stakeholders. The SEW is scheduled to go live in mid 2010.

EMC also gave updates on the timing changes of the look-ahead schedules, the recent Disaster Recovery exercise for the NEMS systems from 25 August—15 September and the sunset schedule for older NEMS applications. Participants were also briefed on the progress on other NEMS systems projects and planned projects for the next financial year.

The next MSUG is tentatively scheduled for Thursday, 17 December 2009.

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. Staff will be conducting six sessions covering the following topics:

- Understanding Electricity
- Pricing in Detail
- Overview of the Electricity Sector
- Settlement
- The NEMS and its Unique Features
- The Demand Side

The upcoming November 2009 course is fully booked.

The next courses are scheduled as follows:

20 – 21 May 2010
19 – 20 August 2010
18 – 29 November 2010

We advise you to book early to secure 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.