

CURRENT ISSUE TOPICS

CEO's Message

EMC's Customised Training Programme

Save the Date - Singapore Electricity Roundtable 2017

Celebrating Chinese New Year with MINDS ATDC

Market Update

New Entrants to the NEMS

Rule Change Updates

User Forums

EMC Training Programme



CEO'S MESSAGE

I am pleased to share that EMC's flagship event, the Singapore Electricity Roundtable, will be back this year. The event will be held on 1 August at the Mandarin Oriental, Singapore.

This biennial event sees strong participation from the market participants of the National

Electricity Market of Singapore (NEMS), together with influencers, decision-makers and experts in the electricity and related industries.

As always, we have pulled together a strong lineup of speakers and topics that are current and important to the industry. We look forward to your continued support for Roundtable 2017.

The year's trading started amidst a high supply cushion of more than 30 percent in both January and February. Following last December's trend, the monthly average Uniform Singapore Energy Price (USEP) remained above the \$80.00/MWh mark in the first two months of the year.

In February, we welcomed two new market participants in the NEMS – a retailer and a wholesaler. In addition, two rule changes took effect the same month. One pertains to the lead time required for the extension of a commissioning generation facility's registration, while the other involves changes

to the Settlement Market Manual to align with current procedures and Market Rules.

A third rule change, on the publication of half-hourly metered generation of all generation facilities by facility type, will be effective 1 June 2017.

Finally, we welcomed the Year of the Rooster with a series of celebrations. Aside from the traditional lion dance and 'lo hei' in the office, a group of our colleagues also joined the Chinese New Year celebrations at the Movement for the Intellectually Disabled of Singapore (MINDS) Ang Mo Kio Training and Development Centre, a voluntary welfare organisation that we have been supporting since 2005. I am heartened to see strong support from our colleagues for our charity events year after year, despite our busy schedules.

I look forward to another fruitful year in partnership with all our stakeholders.

Toh Seong Wah
Chief Executive Officer

EMC'S CUSTOMISED TRAINING PROGRAMME



EMC team with the delegation from Sharjah Electricity & Water Authority

EMC offers customised training programmes that combine expertise from engineering, economics and regulatory perspectives, for organisations that are interested in learning more about competitive electricity markets.

In December 2016 and February 2017, EMC conducted two runs of training on electricity markets tailored for the Sharjah Electricity and Water Authority (SEWA). A total of 15 SEWA delegates attended the training held in Singapore.

Please write to consultancy@emcsg.com if you wish to explore similar training programmes for your organisation.

SAVE THE DATE – SINGAPORE ELECTRICITY ROUNDTABLE 2017

EMC is pleased to announce that the biennial Singapore Electricity Roundtable is back this year. The event will be held on 1 August 2017 at the Mandarin Oriental, Singapore.

This will be the 11th year that EMC is organising and hosting the Roundtable. An important forum for the discussion of opportunities, challenges and key issues facing the electricity and energy sectors, the Roundtable connects influencers, decision-makers, potential investors and experts in the electricity and related industries from the region and around the world. More than 200 participants attended the last Roundtable in 2015. We expect just as many participants this year.

The distinguished speakers and topics* lined up for Roundtable 2017 include:

- Ng Wai Choong, Chief Executive, Energy Market Authority: *EMA's Roadmap for Singapore's Power Sector*;
- Carl Hansen, Chief Executive, Electricity Authority, New Zealand: *Prerequisites for a Successful Competitive Retail Market – New Zealand's Experience*;
- Mathias Steck, Executive Vice President, Energy & Renewables Advisory, DNV GL – Energy: *Integrating Renewable Energy into Electricity Markets*; and
- Paul Poh, Executive Vice President, Energy Market Company: *Preparing the NEMS for New Energy Markets*.



Other speakers and topics will be announced in due course. The one-day event will end with a networking dinner with cocktails at the Aura restaurant, National Gallery Singapore. The networking dinner is exclusive to all Roundtable attendees and a highlight of the event every year.

So, mark the date of Roundtable 2017 in your calendar. Do not miss the opportunity to gain insights into the electricity industry and network with industry experts and decision-makers from the region and around the world.

For latest updates, visit our website: www.emcsg.com/roundtable.

*Speakers and topics are subject to changes

CELEBRATING CHINESE NEW YEAR WITH MINDS ATDC



Bryan Lim, Acting Head of MINDS ATDC, handing a token of appreciation to Toh Seong Wah, EMC CEO



EMC staff who joined in the celebrations



EMC staff participating in one of the games

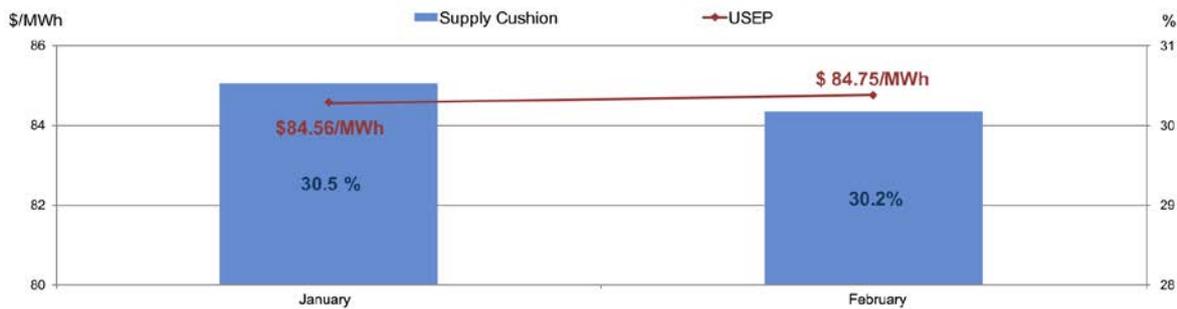
On 10 February, EMC staff volunteers welcomed the Year of the Rooster with the clients, caregivers and staff of the Movement for the Intellectually Disabled of Singapore (MINDS) Ang Mo Kio Training and Development Centre (ATDC).

EMC has been supporting MINDS ATDC for the past 13 years. EMC's sponsorship over the years has helped the Centre defray some of its operating costs, and enabled it to launch and sustain service improvement initiatives.

The Chinese New Year celebration had a good mix of songs, dances and games that involved everyone present, from MINDS ATDC's clients and staff, to the invited guests who included caregivers and our EMC colleagues. We valued the opportunity to catch up with the Centre's clients and staff, as well as learn more about its activities and developments over the past year.

MARKET UPDATE

Overview of USEP and Supply Cushion - Jan and Feb 2017



The monthly average Uniform Singapore Energy Price (USEP) for January and February was \$84.56/MWh and \$84.75/MWh respectively. The supply cushion in the first two months of the year similarly stayed within a narrow range, registering 30.5 and 30.2 percent respectively.

Apart from a slight decrease in the supply cushion in February, the USEP rose marginally (by 0.2 percent) that month due to a drop in offers in the cheaper price bands. The proportion of offers priced below \$100.00/MWh decreased 0.2 percentage point from January to February.

NEW ENTRANTS TO THE NEMS

New Market Participants in the NEMS

The National Electricity Market of Singapore (NEMS) welcomed its first new market participant for the year, Union Power Pte Ltd, on 17 February. Union Power, a subsidiary of the local liquefied petroleum gas (LPG) supplier, Union Energy Corporation Pte Ltd, joined the NEMS as a retail electricity licensee.

On 28 February, Changi Mega Solar Pte Ltd joined the NEMS as a wholesaler. The company is 51% owned by Sinenergy Holdings Pte Ltd, a wholly owned subsidiary of SHS Holdings Ltd, and 49% owned by Sembcorp Utilities Pte Ltd. Changi Mega Solar is developing a 3.6 megawatt solar photovoltaic system for the SATS Airfreight Terminal.

RULE CHANGE UPDATES

Lead Time for Extension of Commissioning Generation Facility Registration

This rule change introduces a requirement for a market participant (MP) who wishes to extend the registration of its Commissioning Generation Facility (CGF), to submit the request for extension to the Power Systems Operator (PSO) no less than five business days before the most recent expected completion date (of the final commissioning test) approved by the PSO. In addition, the rule change requires the PSO to inform the MP of the outcome of the request within four business days after receiving it.

With this rule change, MPs will have greater clarity on the lead time required for the extension of their CGF registrations.

This rule change took effect on 20 February 2017.

Update of Market Operations Market Manual (Settlement)

A full review of the Market Operations Market Manual – Settlement (Chapter 7 of the Market Rules) (“Settlement Market Manual”) has never been conducted since the market started. A review was thus conducted to ensure that the Settlement Market Manual reflects current procedures and is aligned with the existing Market Rules. Some sections were rewritten for better readability and simplicity.

This review also incorporated changes to other documents and market manuals, namely the Application Form for Market Participant

Registration, the Application Form for Authorisation of Market Support Services Licensee, and the Market Operations Market Manual – Automatic Financial Penalty Scheme (Chapter 5 of the Market Rules). These changes were made for consistency and to align these forms and market manuals with the updated Settlement Market Manual.

This rule change took effect on 20 February 2017.

Publication of Half-Hourly Metered Generation By Facility Type

With the increasing installed capacity of solar generation facilities in Singapore, there has been growing interest from the industry for information on the installed capacity and half-hourly generation of solar generation facilities in Singapore.

In an effort to improve the transparency of information related to solar generation, a study on the availability and publication of capacity, recorded generation and metered generation information for solar generation facilities was conducted and presented to the Rules Change Panel. The Panel supported the proposal for EMC to publish the half-hourly total gross and net metered generation of all generation facilities by facility type, including intermittent generation facilities which currently consist of only solar generation facilities.

This rule change will take effect from 1 June 2017. The metered generation data for 1 June 2017 will be available for download on EMC’s website ten business days later, on 15 June 2017.

USER FORUMS

Market Information Sharing Forum (MISF)

The Market Operations team hosted the 91st session of the bi-monthly MISF on 19 January. During the forum, the following topics were shared with the attendees:

- Market Performance and Key Highlights for November and December 2016;
- System Enhancements and Projects; and
- Feature Topics:
 - » Publication of real-time estimation of Hourly Energy Uplift Rebate;
 - » Shutdown of Tuas-Labrador 400kV circuits from 2 to 6 December 2016;
 - » Sharing of feedback received on the Offer Management System; and
 - » Recap on Demand Response Scheme.

We would like to thank all participants for their continuous support and strong interest in the MISF. The next MISF is scheduled for 21 March. Market participants who are interested in presenting at future MISFs are encouraged to come forward.

Market Systems User Group (MSUG)

The bi-monthly MSUG forum was held on 23 February. EMC IT updated the attendees on the following topics:

- Overview of NEMS systems availability year-to-date for FY 16/17;
- Overview of NEMS systems service desk calls received between January 2016 and January 2017;
- Overview of Change Releases deployed between January 2016 and January 2017;
- Planned NEMS Maintenance;
- New Helpdesk and Settlement certificates;
- Status updates on IT Infrastructure projects:
 - » NEMS Windows Server virtualisation at primary site;
 - » Enterprise Monitoring System (Phase 2);
 - » Data Warehouse Re-platform; and
 - » Primary Site Network Enhancement.
- Status updates on key on-going Application projects:
 - » Provision of Real-Time Estimates of the Hourly Energy Uplift Rebate (HEUR);
 - » Publication of Half-Hourly Metered Generation By Facility Type; and
 - » Migration of Offer Management System (OMS) into the Submission Management System.

The next MSUG forum is tentatively scheduled for Thursday, 13 April.

EMC TRAINING PROGRAMME NEXT COURSE ON 11 AND 12 MAY 2017

EMC will be holding the next run of its two-day course *Understanding Electricity Markets* on 11 and 12 May 2017. Our staff will be conducting seven sessions covering the following topics:

- Understanding Electricity
- Why Reform and Regulation are Essential in the Electricity Industry
- The National Electricity Market of Singapore and its Unique Features
- Introduction to SGX Electricity Futures Market
- Pricing in Detail
- Market Settlement and Credit Risk Management
- How Consumers can Influence Electricity Markets
- The course dates for 2017 are as follows:
 - » 11-12 May
 - » 17-18 August

We advise you to book early to secure your place in the course date 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.

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