

**DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL  
MSCP/2007/D17**

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**Market Surveillance and Compliance Panel (“MSCP”)**

Mr Joseph Grimberg, Chair  
Professor Lim Chin  
Mr Lee Keh Sai  
Mr TPB Menon

**Date of Determination**

31 August 2007

**Party**

Energy Market Company Pte Ltd (“EMC”)

**Subject**

Failure to determine and release pre-dispatch schedules for periods 25 & 29 and to publish relevant information on 6 April 2007

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**Applicable Rule(s) in the Singapore Electricity Market Rules**

1. Section 7.4.1 of Chapter 6

“The EMC shall, in accordance with section 7.6 and Appendix 6A, determine three pre-dispatch schedule scenarios corresponding to the nodal load forecast described in section 7.2.1 adjusted where applicable under section 7.2.3”.

2. Section 7.7.2 of Chapter 6

“Not later than 15 minutes prior to the commencement of the first dispatch period of each of the three pre-dispatch schedule scenarios referred to in section 7.4.1, the EMC shall, for each dispatch period included in each of those three pre-dispatch schedule scenarios:

7.7.2.1 release to the dispatch coordinator for each registered facility the projected schedules for energy, regulation and reserve, by reserve class, for that registered facility;

7.7.2.2 publish the information described in section 7.7.3; and

7.7.2.3 communicate to the PSO the projected schedules for energy, regulation and reserve, by reserve class, for each registered facility, together with the information described in section 7.7.3, in accordance with the system operation manual and any applicable market manual.”

3. Section 7.7.3 of Chapter 6

“In accordance with sections 7.7.1, 7.7.2 and 7.7.2A, the EMC shall publish the following information for each dispatch period and for each market outlook scenario, pre-dispatch schedule scenario and short-term schedule:

- 7.7.3.1 the projected total load;
- 7.7.3.2 the projected transmission losses;
- 7.7.3.3 total reserve requirements by reserve class;
- 7.7.3.4 total regulation requirements;
- 7.7.3.5 projected energy prices associated with each market network node at which a generation registered facility or generation settlement facility is located....;
- 7.7.3.6 the projected uniform Singapore energy price....;
- 7.7.3.7 projected reserve prices for each reserve class and reserve provider group....;
- 7.7.3.8 projected regulation prices....;
- 7.7.3.9 any predicted system energy shortfalls;
- 7.7.3.10 any predicted system reserve shortfalls, by reserve class;
- 7.7.3.11 any predicted system regulation shortfalls; and
- 7.7.3.12 a list of security constraints and generation fixing constraints applied.”

**Facts and Circumstances**

- 4. Energy Market Company (“EMC”) made a self-report on 20 April 2007 regarding its failure to determine and release the pre-dispatch schedules for periods 25 and 29 and to publish relevant information on 6 April 2007 within the deadlines required under the market rules.
- 5. According to EMC, it first noticed the failure to determine and release the pre-dispatch schedule for period 25 on 6 April 2007 at 9:45 am. EMC said that it was caused by the the Market Clearing Engine (“MCE”) failing to process outage files from the PSO. From 10:30 am to 1:30 pm, EMC carried out trouble shooting and made a number of attempts to reload the PSO outage files. The PSO outage files were successfully loaded at approximately 1:40 pm and the processing of pre-dispatch schedules for period 29 was completed at 1:50 pm. As a result of the incident, EMC failed to determine and release pre-dispatch schedules and publish relevant information for periods 25 and 29 on 6 April 2007 within the deadlines under the market rules.
- 6. EMC further said an Oracle software error caused the PSO outage file processing to be abnormally terminated. As follow-up, EMC attempted to reproduce the error in a test environment to provide Oracle support personnel with more information on the error. However, the error did not recur. EMC said it would continue the attempt to reproduce the error and follow up with Oracle technical support personnel in order to find out the root cause of the issue.
- 7. EMC said it planned to modify the NEMS system to “auto-retrigger” the outage file processing when the processing of the pre-dispatch schedules failed to complete within a reasonable time frame. EMC said that this should minimise the risk of future occurrences of such incidents.
- 8. This incident was self-reported, inadvertent, rectified quickly and did not have a significant impact on the wholesale electricity markets.

## Determinations

9. On 29 May 2007, the MSCP issued a letter informing EMC that it considered that EMC had prima facie breached sections 7.4.1, and 7.7.2 of Chapter 6 of the Singapore Electricity Market Rules (the 'market rules') and invited EMC to make written representations.
10. On 13 June 2007, EMC submitted written representations to the MSCP. In the written representations, EMC said that it had on 11 March 2007 commissioned a major technology refresh project to replace the NEMS servers, database and networks. It is a high value project the EMC embarked on, following extensive consultation and with support from the industry, to provide greater value to the market. The NEMS software has since been migrated to this new server platform. EMC said that as with any major IT project, there are inherent risks associated with it and the potential for some disruption to system availability with such major change is inevitable. EMC had managed to undertake the project with utmost professionalism to minimise such instances. It added that a recent audit on its Settlement Systems covering the new IT systems found no non-conformance.
11. The written representations also stated that EMC had expedited the resolution of the system outages as soon as it became aware of the event and there was minimal impact on market participants as a result of the breach. EMC said that it recognized the severity of the circumstances leading to every breach occurring and that steps were taken to ensure that there was no recurrence. EMC said it trusted the MSCP would take into consideration EMC's diligence in the matter and its commitment to ensuring the smooth and reliable operation of the NEMS system.
12. The MSCP determined on the basis of the facts referred to above that EMC breached sections 7.4.1 and 7.7.2 of Chapter 6 of the market rules.
13. However, the breach was self-reported, rectified quickly and without significant impact on the wholesale electricity markets.
14. Therefore, the MSCP determined that the appropriate action to be taken was to issue a letter of non-compliance to EMC and to direct EMC to pay costs, fixed at \$1,000.00.



Lim Chin  
for Chair, Market Surveillance and Compliance Panel