

## DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL MSCP/2004/D9

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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

14 September 2004

### Party

Energy Market Company Pte Ltd (“EMC”)

### Subject

Failure to determine and release schedules and publish information for period 43 on 26 June 2003

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

1. Section 9.2.1 of Chapter 6

“The EMC shall, prior to the commencement of each dispatch period and in accordance with the market operations timetable, use the market clearing engine to determine for that dispatch period:

9.2.1.1 a real-time dispatch schedule, containing schedules of energy, reserve and regulation for registered facilities, to be released to the PSO, which in accordance with section 9.1.2 of Chapter 5 shall be deemed to constitute the dispatch instructions issued by the PSO to the applicable dispatch coordinators unless and until further dispatch instructions are issued by the PSO to a given dispatch coordinator pursuant to section 9.1.3 of Chapter 5; and

9.2.1.2 a real-time pricing schedule determined by the market clearing engine...including:

- energy prices for each market network node;
- the uniform Singapore electricity price;
- reserve prices for each reserve class and for each reserve provider group; and
- regulation prices.”

The market operations timetable under Appendix 6A of Chapter 6 provides for the EMC to begin computing a real-time dispatch schedule using the market clearing engine 5 minutes prior to the beginning of the dispatch period.

The market operations timetable under Appendix 6A of Chapter 6 provides for the EMC to release the real-time dispatch schedule to the PSO prior to the beginning of the dispatch period.

2. Section 9.2.3 of Chapter 6

“The EMC shall, in accordance with the market operations timetable, release to the dispatch coordinator for each registered facility a real-time dispatch schedule comprising that portion of the real-time dispatch schedule referred to in section 9.2.1.1 that describes the quantities of energy, reserve by reserve class and regulation scheduled in respect of that registered facility.”

The market operations timetable under Appendix 6A of Chapter 6 provides for the EMC to issue the real-time dispatch schedule and real-time pricing schedule to market participants prior to the beginning of the dispatch period.

3. Section 9.2.4 of Chapter 6

“The EMC shall, in accordance with the market operations timetable, publish the following information as it pertains to each dispatch period:

- 9.2.4.1 total load;
- 9.2.4.2 total transmission losses;
- 9.2.4.3 total reserve requirements by reserve class;
- 9.2.4.4 total regulation requirements;
- 9.2.4.5 energy prices associated with each market network node at which a generation registered facility or generation settlement facility is located...;
- 9.2.4.6 the uniform Singapore energy price...;
- 9.2.4.7 reserve prices for each reserve class and reserve provider group...;
- 9.2.4.8 regulation prices...;
- 9.2.4.9 any system energy shortfalls reported by the market clearing engine;
- 9.2.4.10 any system reserve shortfalls, by reserve class, reported by the market clearing engine;
- 9.2.4.11 any system regulation shortfalls reported by the market clearing engine; and
- 9.2.4.12 a list of security constraints and generation fixing constraints applied.”

The market operations timetable under Appendix 6A of Chapter 6 provides that the EMC must publish the market information set out in section 9.2.4 of Chapter 6 prior to the beginning of the dispatch period.

### **Facts and Circumstances**

- 4. The EMC's IT system has 2 application servers : EMCPAPP01 and EMCPAPP02. The Oracle database resides on EMCPAPP01. The Weblogic and SonicMQ applications reside on EMCPAPP02. Both application servers also act has backups for each other ie when EMCPAPP01 is down, then the Oracle database will automatically operate from EMCPAPP02.
- 5. In this incident, the EMCPAPP02 hung around 2030 hrs on 26 June 2004 due to SAN storage controller failure. The EMC made a decision to switchover all the applications from EMCPAPP02 to EMCPAPP01 at 2040 hrs to facilitate a reboot of EMCPAPP02 to clear errors. The switchover process took around 4 minutes and the EMCPAPP02 was rebooted.

6. At 2048 hrs, EMCPAPP01 rebooted by itself when it was not supposed to. As a result, the applications residing on EMCPAPP01, including those that controlled the dispatch run and sending of dispatch files to the PSO were terminated.
7. After the EMC managed to recover the applications at 2058 hrs, the manual dispatch run was triggered. The dispatch run was completed at 2105 hrs which was after period 43 had commenced. Upon discussion with its vendor, the EMC was advised to reboot both application servers in the event of a similar incident.
8. There was no significant impact resulting from this incident.

### **Determination**

9. On 2 April 2004, the MCSP issued a letter informing the EMC that it considered that the EMC had prima facie breached sections 9.2.1, 9.2.3 and 9.2.4 of Chapter 6 of the Singapore Electricity Market Rules (the "market rules") and invited the EMC to make written representations. No written representations were received by the deadline stipulated.
10. The MSCP determined on the basis of the facts referred to above that the EMC breached sections 9.2.1, 9.2.3 and 9.2.4 of Chapter 6 of the market rules.
11. However, the breach was self-reported and had no significant impact on the market. The EMC had taken remedial actions to prevent this incident from recurring. There was also no indication that the EMC had not made a reasonable attempt to comply with the market rules.
12. Therefore, the MSCP determined that a letter of non-compliance be issued against the EMC and directs the EMC to pay costs, fixed at \$1,000.



Lim Chin  
for and on behalf of  
Chair, Market Surveillance and Compliance Panel