

**DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL  
MSCP/2004/D8**

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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 periods 23, 24 and 25 on 2 May 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 release the real-time dispatch schedule and real-time pricing schedule engine 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 Oracle database connects with the Weblogic application to send job requests to the Weblogic application. Whenever a request has been sent, the connection between the Oracle Database and the Weblogic application would expire. For connections that have not expired and are left idle, the database would automatically remove these idle connections after 5 days.
- 5. In this incident, the Weblogic application attempted to connect to the Oracle database using an idle connection that had been removed and this caused the database to hang. The cause of the problem was due to an Oracle bug. The EMC took some time to diagnose the cause of the problem and during this time, 3 dispatch runs were missed.

6. The EMC has rectified this problem by adding another application (ie connection pool) in the system to remove idle connections instead of using the database to do this.
7. The EMC also informed all market participants about the missed real-time dispatch runs via the telephone followed by a preliminary investigation report via email.
8. There was no significant impact resulting from this incident.

### **Determination**

4. 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.
5. 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.
6. 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.
7. Therefore, the MSCP determined that the appropriate enforcement action to be taken is to issue a letter of non-compliance to the EMC and directs the EMC to pay costs, fixed at \$1,000.

A handwritten signature in black ink, appearing to read 'Lim Chin', followed by a long horizontal line extending to the right.

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