

## DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL MSCP/2003/D2

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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**

13 August 2003

### **Party**

Energy Market Company Pte Ltd (“EMC”)

### **Subject**

Failure to determine and release schedules and publish information

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### **Applicable Rules in the Singapore Electricity Market Rules**

#### 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:
- a. energy prices for each market network node;
  - b. the uniform Singapore electricity price;
  - c. reserve prices for each reserve class and for each reserve provider group; and
  - d. 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.

#### 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 that the EMC must issue the real-time dispatch schedules and the real-time pricing schedule to the market participants and the PSO prior to the beginning of the dispatch period.

#### 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 prior to the dispatch period issue the market information set out in section 9.2.4 of Chapter 6.

## Facts and Circumstances

Upon the market clearing engine completing the automatic dispatch run for a dispatch period, the EMC would have performed the following obligations under sections 9.2.1, 9.2.3 and 9.2.4 of the market rules:

- (a) determined a real-time dispatch schedule and a real-time pricing schedule;
- (b) released the real-time dispatch schedule to the PSO;
- (c) released the real-time dispatch schedule to the dispatch coordinators for each registered facility comprising of that portion of the real-time dispatch schedule that relates to that registered facility as well as the real-time pricing schedule; and
- (d) published the information specified under section 9.2.4.

Automatic dispatch runs for the following dispatch periods did not commence in time for the dispatch runs to be completed prior to the commencement of the dispatch periods:

- (a) Period 24 on 23 January 2003;
- (b) Period 28 on 27 January 2003;
- (c) Period 26 on 6 February 2003;
- (d) Period 29 on 9 February 2003;
- (e) Period 37 on 12 February 2003; and
- (f) Period 14 on 27 February 2003.

These were caused by failure in the Weblogic and SonicMQ Client applications in the infrastructure of the market clearing engine.

The automatic dispatch runs on 23 January 2003 and 27 January 2003 did not commence on time due to failures in the Weblogic application. The Weblogic application failed as a result of having to deal with exceptionally high traffic from the market clearing engine, the trading website and other internal applications.

The automatic dispatch runs on 6 February 2003, 9 February 2003, 12 February 2003 and 27 February 2003 did not commence on time due to a memory leak in the MCE server caused by the interaction of the SonicMQ Client application with the SonicMQ server.

Upon discovery that the dispatch runs automatically performed by the market clearing engine did not commence on time, the EMC attempted to initiate manual dispatch runs to perform its obligations prior to the beginning of the affected dispatch periods. However, the manual dispatch runs were completed only after the affected dispatch periods had commenced.

According to the EMC, it has taken remedial action to deal with these problems. The Information Technology team now performs daily health checks on the market clearing engine. It has separated the usage of the Weblogic application by the MCE server, the trading website and other internal applications. The EMC is also working towards removing both the Weblogic and SonicMQ Client applications from the market clearing engine's infrastructure so as to remove the dependency of the market clearing engine on these applications.

## Determination

In a statement made on 30 December 2002, the MSCP gave notice of the enforcement policy it would adopt in the event of a rule breach during the 3 months immediately following market start.

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.

However, the EMC made reasonable attempts to comply with its obligations by initiating manual dispatch runs when the automatic dispatch runs failed to commence on time. The EMC made self-reports on these incidents. There was also no serious impact on the market. The breaches were caused by problems with the infrastructure of the market clearing engine and the EMC stated that it was working towards rectifying these problems.

Therefore, the MSCP determined that no enforcement action was to be taken.

A handwritten signature in black ink, consisting of a large, stylized 'G' followed by a horizontal line and a small flourish at the end.

Joseph Grimberg  
Chair, Market Surveillance and Compliance Panel