

## DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL MSCP/2005/D15

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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

8 July 2005

### Party

Energy Market Company Pte Ltd (“EMC”)

### Subject

Failure to determine and release real-time schedule and to publish information for period 31 on 12 July 2004

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

1. Section 9.2.1 of Chapter 6 of the market rules provides that:

“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 in accordance with section D.24 of Appendix 6D, 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 in 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 in Appendix 6A of Chapter 6 provides for the EMC to release the real-time dispatch schedule to the PSO prior to 30 seconds before the commencement of the dispatch period.

2. Section 9.2.3 of Chapter 6 of the market rules provides that:

“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 in Appendix 6A of Chapter 6 provides that the EMC must release the real-time dispatch schedule to market participants prior to 30 seconds before the commencement of the dispatch period.

3. Section 9.2.4 of Chapter 6 of the market rules provides that:

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

- 9.2.4.1.1 total load;
- 9.2.4.1.2 total transmission losses;
- 9.2.4.1.3 total reserve requirements by reserve class;
- 9.2.4.1.4 total regulation requirements;
- 9.2.4.1.5 energy prices associated with each market network node at which a generation registered facility or generation settlement facility is located...;
- 9.2.4.1.6 the uniform Singapore energy price...;
- 9.2.4.1.7 reserve prices for each reserve class and reserve provider group...;
- 9.2.4.1.8 regulation prices...;
- 9.2.4.1.9 any system energy shortfalls reported by the market clearing engine;
- 9.2.4.1.10 any system reserve shortfalls, by reserve class, reported by the market clearing engine;
- 9.2.4.1.11 any system regulation shortfalls reported by the market clearing engine; and
- 9.2.4.1.12 a list of security constraints and generation fixing constraints applied.”

The market operations timetable in 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 30 seconds before the commencement of the dispatch period.

### **Facts and Circumstances**

4. According to the EMC, the market clearing engine (MCE 04) was unable to connect with the Oracle database after completing the real-time dispatch run for period 31 on 12 July 2004. Although the dispatch run was reported as successful in the NEMS system, the market clearing

engine could not communicate the results of the completed dispatch run to the Oracle database. This caused the real-time dispatch schedules generated by the database for publication and release to the market participants and to the PSO to have no data.

5. The EMC stated that the connectivity problem was likely to occur during periods of high network traffic. The market clearing engine was not programmed to re-establish a connection with the Oracle database after a connection failure.
6. The EMC has rectified the problem by changing the design of the application within the market clearing engine to make 3 attempts to establish connection with the database if such an incident recurs.
7. This incident did not have a significant impact on the wholesale electricity markets.

### **Determination**

8. On 11 April 2005, 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.
9. 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.
10. However, the breach was self-reported, rectified quickly and without significant impact on the wholesale electricity markets.
11. Therefore, the MSCP determined that the appropriate enforcement action to be taken was to issue a letter of non-compliance to the EMC and to direct the EMC to pay costs, fixed at \$1,000.



Joseph Grimberg  
Chair  
Market Surveillance and Compliance Panel