

**DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL
MSCP/2006/D11**

Market Surveillance and Compliance Panel (“MSCP”)

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

Date of Determination

24 August 2006

Party

Energy Market Company Pte Ltd (“EMC”)

Subject

Failure to determine, release and publish information on 8 July 2005 for

- a. Real-time schedule for period 40 and
 - b. Short-term schedule for period 41
-

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:
- 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.

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 30 seconds before 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 prior to 30 seconds before 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 30 seconds before the beginning of the dispatch period.

4. Section 7.4A.1 of Chapter 6

“The EMC shall, in accordance with section 7.6 and Appendix 6A, determine a short-term schedule corresponding to the nodal load forecast described in section 7.2.1.1.”

According to the market operations timetable, the EMC is required to commence computing the short-term schedule 4 minutes prior to the beginning of the dispatch period.

5. Section 7.7.2A of Chapter 6

“Not later than 25 minutes prior to the commencement of the first dispatch period of the short-term schedule referred to in section 7.4A, the EMC shall, for each dispatch period included in the short-term schedule:

- 7.7.2A.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;
- 7.7.2A.2 publish the information described in section 7.7.3; and
- 7.7.2A.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.”

6. 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.”

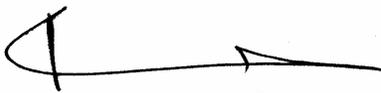
Facts and Circumstances

- 7. According to EMC, it failed to determine and release the real-time schedule for period 40 and short-term schedule for period 41 on 8 July 2005 and to publish the relevant information within the deadlines required under the market rules.
- 8. EMC reported that one of its storage controllers “hung” when it installed a new disk at its IT systems. While trying to re-start the “hung” controller, the EMC also had a contingency plan to fully re-start its NEMS IT systems if there was a need to replace the controller. Before carrying out the re-start of the “hung” controller, EMC had sent out an urgent email notification to market participants informing them of the shutdown of the NEMS IT systems to rectify the fault.
- 9. During the down time, the attempt by EMC to re-start the “hung” controller failed. EMC then fully re-started the NEMS IT systems and the “hung” controller was re-started successfully.

10. Due to the shut down time of the NEMS IT systems, EMC failed to determine and release the real-time schedule for period 40 and short-term schedule for period 41 and publish the relevant information.
11. EMC also reported that its IT vendor had investigated and was unable to establish the cause of the controller “hung” during disk installation. The controller had “hung” during the run_config phase which is a process to automatically scan and recognize new disks. According to EMC, it had previously installed disks several times with the run_config phase without any problem. To mitigate the risk, EMC would in future add disks only during the scheduled monthly maintenance period.
12. This incident did not have a significant impact on the wholesale electricity markets.

Determinations

13. On 3 May 2006, the MSCP issued a letter informing EMC that it considered that EMC had prima facie breached sections 9.2.1, 9.2.3, 9.2.4, 7.4A.1 and 7.7.2A of Chapter 6 of the Singapore Electricity Market Rules (the ‘market rules’) and invited EMC to make written representations. No written representations were received by the deadline stipulated.
14. The MSCP determined on the basis of the facts referred to above that the EMC breached sections 9.2.1, 9.2.3, 9.2.4, 7.4A.1 and 7.7.2A of chapter 6 of the market rules.
15. However, the breaches were self-reported, inadvertent without significant impact on the wholesale electricity markets. Remedial action had also been taken.
16. Therefore, the MSCP determined that it would issue a letter of non-compliance to EMC and direct EMC to pay costs, fixed at \$1,000.



Joseph Grimberg
Chair
Market Surveillance and Compliance Panel