**DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL
MSCP/2006/D9**

**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**
3 May 2006

**Party**
Energy Market Company Pte Ltd ("EMC")

**Subject**
Failure to release and publish information on 22 April 2005 for
a.  Real-time schedules for periods 26, 27, 28, 29, 30 and 31;
b.  Short-term schedules for periods 27, 28, 29, 30, 31 and 32.

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

1.    <u>Section 9.2.3 of Chapter 6</u>

"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.

2.  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.

3.  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."

4.  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**

5.     According to the EMC, it failed to publish the following real-time schedules and short-term schedules on 22 April 2005:
   1.     real-time schedules for periods 26,27,28,29, 30 and 31; and
   2.     short-term schedules for periods 27, 28, 29,30, 31 and 32

   within the deadlines required under the market rules.

   As such, the real-time schedules and the short-term schedules for the respective periods were not released to the market participants within the deadlines required under the market rules.

6.     There are two aspects of WebLogic in the NEMS systems – internal and external. The internal aspect serves the market operator internal front end screens, whereas the external aspect serves all interfaces, such as the trading website, Application Programme Interface (API), offer submission and PSO Advisories. The EMC reported that on 22 April 2005 during the periods mentioned above, due to the failure of the external WebLogic, all external access to the NEMS system was affected and its trading website was completely unavailable. Internal access to the NEMS was not affected. As external WebLogic is the only mechanism which allows users to see the web pages on the trading website and extract the data from the database of the dispatch schedules, the users were unable to see the web pages at all and were therefore unable to see the relevant dispatch schedules.

7.     However, the processing of the relevant dispatch schedules by the market clearing engine was not affected and PSO was able to dispatch energy during the relevant periods according to these dispatch schedules.

8.     The external WebLogic was re-established by rebooting the server.

9.     The EMC and its WebLogic vendor carried out detailed investigations into the failure of the external WebLogic but were unable to identify the root cause of the problem.

10.    On 22 April 2005 at 1427 hrs, the EMC sent out an email informing market participants that the EMC was experiencing some problems with the NEMS system and offer submission and access to the trading website would not be possible and the API would also not be available. Market participants were informed that the NEMS system would be on urgent outage from 1500 hrs to 1600 hrs to rectify the problem.

11.    Subsequent to the incident, EMC's WebLogic vendor performed a complete health check of WebLogic and the Operating System configuration at EMC but was unable to identify the cause of the problem. This means that the EMC will not be able to predict or prevent a repeat of similar incidents in future.

12.    This incident did not have a significant impact on the wholesale electricity markets.

**Determinations**

13. On 13 October 2005, the MSCP issued a letter informing the EMC that it considered that the EMC had prima facie breached sections 9.2.3 and 9.2.4, and 7.7.2A of Chapter 6 of the Singapore Electricity Market Rules (the 'market rules') for its failure to release and publish
    a.     Real-time schedules for periods 26, 27, 28, 29, 30 and 31;
    b.     Short-term schedules for periods 27, 28, 29, 30, 31 and 32.
    within the deadlines required under 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 9.2.3 and 9.2.4 and 7.7.2A of chapter 6 of the market rules.

15. However, the breach was self-reported, rectified quickly and without significant impact on the wholesale electricity markets.

16. Therefore, the MSCP determined that the appropriate 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.
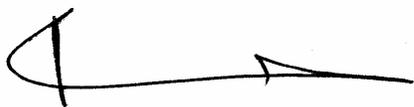
Joseph Grimberg
Chair
Market Surveillance and Compliance Panel