**DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL
MSCP/2007/D5**

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
9 February 2007

Party
Energy Market Company Pte Ltd ("EMC")

Subject
Failure to determine and release short-term schedule and publish information for period 24 on 4 April 2006

Applicable Rule(s) in the Singapore Electricity Market Rules

1. 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.

2. 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."

3.   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

4.   EMC reported that the short-term schedule for period 24 on 4 April 2006 was not sent to the PSO and the relevant information was not published on EMC's Trading Website within the deadline required under the Singapore Electricity Market Rules (the "market rules").

5.   According to EMC, on the morning of 4 April 2006, its IT system experienced slower database performance due to multiple "resource intensive" processes running at the same time.

6.   A number of Settlements "front-end user initiated" queries were taking up a large amount of system resources. EMC suspected that this was a result of one particular query which was resource intensive.   EMC had previously advised its staff to refrain from running the Settlement queries during the market clearing engine ("MCE") schedule processing windows as this query was a "known potential issue". However on 4 April 2006, a number of amended meter files were sent to EMC, resulting in the execution of this particular Settlement function several times. Even though these queries were not executed during the MCE schedule processing time, there was not enough time between each execution, resulting in the degraded performance of the system.

7.   In addition to the above queries, there were other ad-hoc user queries that were running at the same time that increased the contention for system resources.

8. The combination of these processes (which were running at the same time as the short-term schedule was being processed) resulted in the late release and publication of the short term schedule for period 24 on 4 April 2006.

9. The settlements function that took up high system resources has been re-designed and was implemented into production on 24 April 2006, after completion of testing.

10. A procedure has also been put in place for the Settlements team to avoid potential resource contention with MCE schedule processing.

11. On 11 May 2006, EMC implemented a function into the NEMS system to "re-prioritise" user queries and internal front-end functionality to take lower priority than market clearing schedule processing. The user processing is programmed to "wait" until system resources are released by market clearing schedule processes. This will prevent a similar problem from occurring again in future.

12. Based on our investigation, this incident had resulted in a failure to determine and release the short-term schedule for period 24 on 4 April 2006 and publish the relevant information within the deadline required under the market rules.

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

Determination

14. On 3 October 2006, the MSCP issued a letter informing EMC that it considered that EMC had prima facie breached sections 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.

15. The MSCP determined on the basis of the facts referred to above that EMC breached sections 7.4A.1 and 7.7.2A of Chapter 6 of the market rules when it was unable to determine, release and publish the short-term schedule for period 24 on 4 April 2006 within the deadline required under the market rules.

16. However, the breach was self-reported, inadvertent and without significant impact on the wholesale electricity markets. Remedial action had also been taken.

17. 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