DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL
MSCP/2016/D9

Market Surveillance and Compliance Panel ("MSCP")
Mr T P B Menon, Chair
Mr Lee Keh Sai
Mr Philip Chua
Professor Euston Quah
Professor Walter Woon

Date of Determination
27 December 2016

Party
Energy Market Company Pte Ltd ("EMC")

Subject
Failure of Energy Market Company Pte Ltd to release real-time dispatch schedule and short-term schedule to the Power System Operator on 22 August 2016

FACTS AND CIRCUMSTANCES

1. EMC submitted a self-report on 20 September 2016 that it did not release the real-time dispatch schedule for period 33 and the short-term schedule for period 34 on 22 August 2016 to the Power System Operator ("PSO").

2. On 22 August 2016, EMC network engineer prepared a firewall rule change to the production site as part of the Disaster Recovery Plan (DRP) dry run tasks and accidently executed this rule change to the production firewall. The dry run tasks are a set of operational tasks to prepare the Disaster Recovery (DR) site to be ready for switch-over from the production site.

3. At 3.59p.m., on 22 August 2016, EMC IT support personnel were alerted that the real-time dispatch schedule files were not sent to the PSO.

4. EMC IT team identified the causes and resolved the issue by rolling-back the firewall rule change that had been executed earlier. The process of file transfer to the PSO resumed and subsequent dispatch files for real-time dispatch schedule and short-term schedule were sent to the PSO successfully.

5. The dispatch files of real-time dispatch schedule for period 33 and short-term schedule for period 34 were generated and the results were published successfully. Only the transmissions of these files to the PSO servers failed.

6. As the real-time dispatch schedule for period 33 on 22 August 2016 was not released to the PSO in accordance with the market rules, the PSO dispatched the generation facilities for the affected period based on the latest available short-term schedule (i.e. short-term schedule issued at period 33 on 22 August 2016).

7. EMC said that the full DRP switch-over procedure involves a set of tasks, some of which are verification tasks (no execution required) while some are execution tasks.

8. During the dry run, EMC network engineer was supposed to execute as well as verify a number of firewall rule changes for production site. However, EMC network engineer misread the operational procedure and executed one of the tasks which only required verification by mistake.

9. The network connectivity between EMC and the PSO was disrupted due to the executed firewall rule change which blocked the file transfer traffic.

10. To prevent similar occurrences, EMC IT team had updated the following operational procedure for DRP switch-over exercise: i) demarcate the verification tasks and change execution tasks clearly; ii) highlight the critical execution tasks, e.g. firewall rule change; iii) insert precautionary notes for these critical change execution tasks to remind the engineer to validate the correct target environment before execution.

11. EMC also implemented additional periodic connectivity monitoring between EMC and the PSO to ensure timely automatic notification if there is any issue on the connectivity.

12. On 2 November 2016, the MSCP wrote to inform EMC that EMC had prima facie breached sections 7.7.2A.3 and 9.2.1.1 of Chapter 6 of the market rules and invited EMC to make written representations.

13. EMC did not make any written representations.

APPLICABLE MARKET RULES

14. <u>Section 7.7.2A.3 of Chapter 6 of the market rules provides that</u>

    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*:

    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*.

15. <u>Section 9.2.1.1 of Chapter 6 of the market rules provides that</u>

    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*:

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.

ENFORCEMENT

16. Based on the facts available, the MSCP determined that EMC breached sections 7.7.2A.3 and 9.2.1.1 of Chapter 6 of the market rules on 22 August 2016.

17. The incident was resolved quickly, self-reported and did not have any significant impact on the wholesale electricity markets. However, a breach of this nature could potentially distort an efficient market outcome.

18. The MSCP hereby imposes a financial penalty of $3,000 on EMC and directs EMC to pay costs, fixed at $1,500.

T P B Menon
Chair, Market Surveillance and Compliance Panel