**DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL
MSCP/2017/D2**

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
17 July 2017

Party
Energy Market Company Pte Ltd ("EMC")

Subject
Permitting access to confidential information on EMC's website on 19 April 2017

FACTS AND CIRCUMSTANCES

1. EMC submitted a self-report on 4 May 2017 for breach of confidentiality when a market participant, Air Liquide Singapore Pte Ltd ("ALS") downloaded a tax invoice belonging to another market participant ("MP"), from EMC's secure webpage.

2. On 19 April 2017 at 10:42am, ALS downloaded two statements (a tax invoice and a trade summary) from EMC's website for trade date 24 March 2017. However, the tax invoice downloaded turned out to be one belonging to the MP, which contained the consolidated amount of payment for trade date 24 March 2017.

3. On 25 April 2017 at 8:29pm, ALS notified EMC that a wrong invoice had been downloaded from the secure webpage of EMC's website.

4. On 26 April 2017 at 8:00am, EMC started investigation with a series of system checks and information gathering. It also performed a simulation to replicate the incident.

5. On 26 April 2017 at 6:02pm, EMC informed the MP of the incident. On 27 April 2017, upon the MP's request, EMC shared the flow of events and assured the MP that ALS did not have access to all other settlement files or reports of the MP.

6. On 27 April 2017 at 9:34am, EMC requested ALS to delete the wrong invoice they had downloaded and ALS replied that the invoice was deleted at 9:43am on the same day.

7. From its investigation, EMC found that at the time of the incident, both ALS and the MP users were accessing the settlement module of EMC website at the same time. The system was thus processing the two requests at the same time (to the millisecond).

8.	The two requests from ALS and the MP were allocated to the same server (there are two servers in use) and two threads of processes were running in parallel. The two processes share a common object which is used to store the participant ID. During the incident, ALS' participant ID was overwritten by the MP's participant ID although ALS's process of retrieving the invoice had not yet completed. The result was ALS accessing the settlement invoice module of the MP.

9.	EMC explained that the reason for sharing this common object was to optimise the performance of the system. However, a peculiar situation arises when two settlement module requests are received within the same millisecond and are assigned to the same server. Then, if the object of the first request is still resident in the server memory when the second request arrives, information in the first request may be overwritten by that of the second.

10.	EMC concluded that the root cause of the incident was a bug in the application code to handle this peculiar situation.

11.	The settlement module application code has been enhanced to handle multiple requests simultaneously.

12.	The code changes were peer-reviewed and the system was tested. The code changes were rolled out on 3 May 2017.

13.	The breach did not create any financial impact on the wholesale electricity market.

14.	Both ALS and the MP have agreed not to pursue the matter.

15.	On 5 June 2017, the MSCP wrote to inform EMC that EMC had prima facie breached section 6.4.2 of Chapter 3 of the Singapore Electricity Market Rules ("market rules") and invited EMC to make written representations.

16.	EMC did not make any written representations.

APPLICABLE MARKET RULES

17.	<u>Section 6.4.2 of Chapter 3 provides that</u>

Neither a *market participant* nor a *market support services licensee*, nor either of the *EMC* or the *PSO* shall:

6.4.2.1	disclose *confidential information* to any person except as permitted by the *market rules*, a *market manual* or the *system operation manual*;

6.4.2.2	permit access to *confidential information* by any person not authorised to have such access pursuant to the *market rules*, a *market manual* or the *system operation manual*; or

6.4.2.3	use or reproduce confidential information for a purpose other than the purpose for which it was disclosed or another purpose contemplated by the market rules, a market manual or the system operational manual.

ENFORCEMENT

18.   Based on the facts available, the MSCP has determined that EMC breached section 6.4.2 of Chapter 3 of the market rules.

19.   The incident was resolved quickly, self-reported and did not have any significant impact on the wholesale electricity markets.

20.   The MSCP hereby directs EMC to pay costs, fixed at $1,500.

T P B Menon
Chair, Market Surveillance and Compliance Panel