

**DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL
MSCP/2024/D1**

Market Surveillance and Compliance Panel

Professor Walter Woon, Chairman
Professor Euston Quah
Mr. Philip Chua
Dr. Stanley Lai
Mr. Yeo Yek Seng

Date of Determination

11 April 2024

Party

Energy Market Company Pte Ltd

Subject

Disclosure of confidential information from April 2016 to December 2023

FACTS AND CIRCUMSTANCES

1. Energy Market Company Pte Ltd (“EMC”) submitted a self-report regarding its disclosure of confidential information from April 2016 to December 2023.
2. On 5 December 2023, a market participant (“MP”) informed EMC that a particular report (i.e. MCR011) downloaded via webservice¹ displayed the individual load registered facilities (“LRF”) schedule information of all the MPs participating in the Demand Response (“DR”) scheme; specifically, the reference energy withdrawal (“REW”) and curtailed load (“CL”) of the LRFs which were scheduled to curtail consumption within that dispatch period. Such information in the MCR011 webservice report should only be seen by the relevant MP to which the information relates.
3. There is an equivalent report on the National Electricity Market of Singapore (“NEMS”) secure website. EMC verified that the equivalent report displayed such information only to the relevant MP and no other MPs could view the information on the NEMS secure website.
4. Based on EMC’s root cause analysis, the MCR011 webservice report was last modified in April 2016 to support an Energy Market Authority (“EMA”) directive, “Implementing Demand Response in the National Electricity Market of Singapore” under the project implementation of the Demand Response, Compensation and Penalty (“DRCAP”) project. The DRCAP system requirement specifications (“SRS”) document consisted of two sections: the user interface requirements section for the NEMS secure website, and the webservice report section.

¹ Webservice is a value-added, non-chargeable service provided by EMC to MPs for automating data retrieval by MPs’ in-house systems from the NEMS via system-to-system connectivity. Webservice is also available to data subscribers at an annual subscription cost.

5. Due to the tight timeline and broad scope of work involved in implementing the various system changes required under the DRCAP project, two separate groups of application developers were assigned to implement the NEMS secure website user interface and the MCR011 webservice report. These two groups implemented their respective tracks in parallel to meet the target timeline.
6. Under the DRCAP SRS, the webservice report section for MCR011 did not indicate any requirement to limit the display of REW and CL to MPs who own the LRF, while the user interface requirements section for the NEMS secure website stated that REW and CL information was to be displayed to the DR-MP only.
7. EMC concluded that this incident occurred due to the webservice report section of the SRS not indicating that the REW and CL information should be limited to MPs who own the LRF, and a lack of process to check for consistency between the webservice report section and user interface requirements section of the SRS. It was also not detected during the User Acceptance Testing (“UAT”) that the report contained information that should have been confined only to selected MPs.
8. Following the incident, EMC undertook the remedial actions stated below:
 - a. EMC updated the webservice programming logic for MCR011 to restrict LRF’s REW and CL display only to its own MP. The fix for MCR011 report was deployed to production on 6 December 2023 at 01:12 hrs.
 - b. EMC completed verification checks on all webservice reports for assurance that the issue did not recur. The check also included new webservice reports that were undergoing implementation at the time. EMC confirmed that no other reports were compromised because of this glitch.
 - c. EMC sent notification emails to inform the affected DR-MPs on 8 December 2023. Notification emails to other MPs (i.e. those who are not DR-MPs) and data subscribers of the MCR011 webservice report were sent on 12 December 2023. The email reminded MPs and data subscribers that they should cease access to use or reproduce any previously downloaded LRFs’ information.
 - d. EMC notified EMA of the incident and its plan to notify the affected MPs on 12 December 2023.
 - e. EMC undertook improvements in the project management methodology to avoid similar occurrence, namely to enhance the requirements gathering process and user acceptance testing process.
9. On 19 February 2024, the MSCP wrote to inform EMC that it considered EMC to be *prima facie* in breach of section 6.4.2 of Chapter 3 of the Market Rules for its disclosure of confidential information from April 2016 to December 2023.
10. EMC did not make any written representations or require a hearing.
11. On 21 February 2024, the MSCP wrote to inform EMA that it has received a self-report from the EMC which might indicate the possibility of anti-competitive agreements or the abuse of a dominant position contrary to sections 50 or 51 of the Electricity Act. A copy of the self-report and the relevant information received from the EMC were also submitted to the EMA.

APPLICABLE MARKET RULES

12. Section 6.4.2 of Chapter 3 of the Market Rules states:
- 6.4.2 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 operation manual*.
13. Section 1.1.35 of Chapter 8 of the Market Rules states:
- 1.1.35 *confidential information* means information which is or has been provided pursuant to the *market rules*, a *market manual* or the *system operation manual* which is (a) stated by the *market rules*, a *market manual* or the *system operation manual* to be confidential information; (b) otherwise confidential or commercially sensitive; or (c) derived from information referred to in (a) or (b), but shall not include information that is required by the *market rules*, a *market manual* or the *system operation manual* to be published by the *EMC* or the *PSO* or otherwise made available to all *market participants*;

ENFORCEMENT

14. Based on the facts referred to above, the MSCP determined that EMC had breached section 6.4.2.1 of Chapter 3 of the Market Rules on the disclosure of confidential information from April 2016 to December 2023.
15. The incident was self-reported and there was no significant impact on the NEMS given the following considerations assessed by the MSCP:
- a. REW and CL is only relevant when there is DR energy curtailment. Based on statistics provided by EMC, the number of real-time dispatch runs with DR energy curtailment activated is not significant, at less than 1,000 dispatch runs in a year (approximately 5% of the total real-time dispatch runs).
- b. While the information disclosure spans approximately 7.5 years between April 2016 and December 2023, the impact only became more pronounced for around a year when the third DR participant joined the market. Prior to December 2022, there were only two DR participants in the market. Given that the total curtailed load ("TCL") is published for all MPs, the other DR participant's CL could be derived based on the TCL.
- c. REW and CL relate to quantities and there is no exchange of price information/ pricing strategies (i.e. bid price) in the disclosure.

- d. The impact which load facilities can cause, based on the load curtailment capacity out of the total maximum generation capacity in the market, is minimal. Further, the statistics provided by EMC show that the percentage of average scheduled CL versus the average demand forecast lies in the range between 0% to 0.02% in the last five years. Therefore, such LRF schedule information is unlikely to be pivotal in the setting of pricing strategies by generation companies.
 - e. The MSCP views the impact of this incident to be similar to the past two breaches by EMC on a disclosure of confidential information.
16. In view of the above, the MSCP hereby issues a letter of non-compliance and directs EMC to pay costs fixed at \$5,000. The MSCP also reminds EMC of its crucial obligation to safeguard and protect confidential information that it receives or generates as the market operator.



Professor Walter Woon
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