

**DETERMINATION OF THE MARKET SURVEILLANCE AND COMPLIANCE PANEL
MSCP/2023/D1**

Market Surveillance and Compliance Panel

Professor Walter Woon, Chairman

Mr. T P B Menon

Er. Lee Keh Sai

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Dr. Stanley Lai

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Date of Determination

10 March 2023

Party

YTL PowerSeraya Pte. Limited

Subject

SER G3 Failure to comply with PSO's directions on 17 May 2022

FACTS AND CIRCUMSTANCES

1. Power System Operator ("PSO") submitted a referral report on 27 May 2022 to the MSCP regarding the alleged breach of Section 3.7.1.7 of Chapter 5 of the Singapore Electricity Market Rules ("Market Rules") by YTL PowerSeraya Pte. Limited's ("YTLPS") SER G3 for its failure to comply with PSO's directions from periods 18 to 42 on 17 May 2022.
2. On 14 May 2022 at 10:37 hrs (P22), PSO issued directions in accordance with Section 3.7.1.7 of Chapter 5 of the Market Rules to YTLPS under the Directed Supply Scheme ("DSS") for 17 May 2022 from periods 18 to 42. YTLPS acknowledged the directions at 11:27 hrs (P23) on the same day.
3. On 16 May 2022 at 21:43 hrs (P44), the technical issue was discovered and maintenance team was informed to perform verification on-site at 22:50 hrs (P46). Maintenance team arrived at 00:20 hrs (P1) on 17 May 2022 and reported that the 1st stage auxiliary steam pressure control valve ("PCV") had jammed and was no longer able to control the auxiliary steam pressure. As a safety precaution, the Duty Shift Charge Engineer decided to shut down the boiler. Hence, SER G3 failed to comply with PSO's directions. PSO was only informed of the technical issue regarding SER G3 on 17 May 2022 at 00:24 hrs (P1). An email notification to this effect was sent to PSO at 01:04 hrs (P3), stating:

"With regards to the proposed run up of SER G3 on 17/05/22, we are unable to proceed due to the 1st stage Auxiliary Steam PCV jammed at more than 50% opening resulting in the steam blowing of the safety valve. Without the proper control of the above PCV, we are not able to operate the Boiler safely and efficiently. We need to stop firing the boiler to rectify the PCV."

4. On 21 December 2022, the MSCP wrote to YTLPS informing of its prima facie breach of sections 1.2.5, 3.7.1.3, 3.7.1.7, 9.6.1 and 9.6.2 of Chapter 5 of the Market Rules and section 10.2 of Chapter 10 of the SOM for periods 18 to 42 on 17 May 2022 and invited YTLPS to submit written representations by 4 January 2023.
5. On 11 January 2023, YTLPS submitted its written representations to the MSCP including mitigating circumstances for the MSCP's consideration. YTLPS also informed that it fully acknowledged and complied with its duty of adherence to the Market Rules and that it will continue to work closely with the authorities to promptly resolve all issues.
6. YTLPS indicated that a hearing was not required.

EXPERT EXTERNAL ADVICE

7. Pursuant to section 4.7.1 of Chapter 3 of the Market Rules, the MSCP decided to consult expert external advice to validate and support the MAU's assessment of the technical aspects of the investigation.
8. The external expert concurred with MAU's assessment of the technical aspects and provided additional technical assessment of the incident, an analysis of the clarity and sufficiency of the Market Rules regarding compliance with PSO's dispatch instructions, verification of the justification of a reasonable timing for notification of the non-compliance to the PSO, and an extensive view of the estimation of the market impact.

APPLICABLE MARKET RULES

9. Section 1.2.5 of Chapter 5 provides that
 - 1.2.5 Unless a direction, instruction or order of the *PSO* provides otherwise, wherever this Chapter specifies that an action is to be taken "promptly" or "immediately", such action shall be taken as soon as possible after receiving the direction, instruction or order from the *PSO* or after becoming aware that an action is to be taken or is required not to be taken, but in any event action shall be commenced to be taken within five minutes and shall be continually progressed in an expeditious manner and sustained for so long as may be required, subject only to delay necessitated by concerns for the safety of employees or the public or the prevention of substantial damage to equipment or the environment. Where such delay occurs, the *market participant* shall promptly report such delay to the *PSO* and shall provide justification and reasons for the delay.
10. Section 3.7.1 of Chapter 5 provides that
 - 3.7.1 Each *market participant* for a *generation facility* shall operate and maintain its facilities and equipment in a manner that is consistent with the *reliable* operation of the *PSO controlled system* and shall assist the *PSO* in the discharge of its responsibilities related to *reliability* and related *responsibilities* specified under this section 3.7.1. Such obligation shall include the following:
 - 3.7.1.3 promptly informing the *PSO* of any change or anticipated change in the status of any *generation facility* in respect of which it is the *market participant* or any related equipment and that is under the *dispatch* control of the *PSO* as described in these *market rules*, or of any other change or anticipated change in its *generation facilities* or equipment that could have a material effect on the *reliability* of the *PSO controlled system*. Such

change shall include any change in status that could affect the maximum output of a *generating unit*, the minimum load of a *generating unit*, the ability of a *generating unit* to operate with *automatic voltage regulation*, or the availability of a *generating unit* to provide *contracted ancillary services*;

- 3.7.1.7 promptly complying with the *PSO's* directions issued under Chapter 9, section 9.6.4(ii) of the *System Operation Manual*, and any further directions issued by the *PSO* relating to (a) the fuel to be used by the *generation facility*, (b) the relevant *market participant's* contractual agreements for and in relation to the purchase and use of fuel by the *generation facility*, and (c) the associated *energy offers* deemed necessary by the *PSO* to prevent inefficient market outcomes arising from the *PSO's* directions issued under Chapter 9, section 9.6.4(ii) of the *System Operation Manual*.

11. Section 9.6 of Chapter 5 provides that

- 9.6.1 Each *dispatch coordinator* shall ensure that each of its *registered facilities* complies with the *dispatch instructions* issued in respect of such *registered facility*, except as may otherwise be permitted under these *market rules*.
- 9.6.2 A *dispatch coordinator* that expects its *registered facility* to operate in a manner that differs materially from the *dispatch instructions* issued to it shall so notify the *PSO* as soon as possible. The *PSO* shall *publish* in the *system operation manual* guidelines defining when a difference is material and how notice shall be provided for the purposes of sections 9.6.2 and 9.6.3.

APPLICABLE RULES IN SYSTEM OPERATION MANUAL

12. Section 10.2 of Chapter 10 provides that

10.2 Criteria for measuring compliance

This section deals with non-compliance with *PSO's* directions or *dispatch instructions* only.

Transmission Licensee, each *Generation Licensee*, *Wholesaler (Generation) Licensee* and *Interruptible Load Provider* shall ensure that each of its *transmission facilities*, *generation* or *load registered facilities* complies with the directions or *dispatch instructions* issued in respect of the facilities, except as may otherwise be permitted under these market rules.

***Transmission Licensee*, any *Generation Licensee*, *Wholesaler (Generation) Licensee* or *Interruptible Load Provider* that expects its facilities to operate in a manner that, for any reason, differs materially from the directions or *dispatch instructions* issued to it by the *PSO*, shall so notify the *PSO* as soon as possible.**

Compliance with a direction or *dispatch instruction* for a *transmission, generation* or *load registered facilities* is not required if such compliance would endanger the safety of any person, damage equipment, or violate any *applicable law*. The *Transmission Licensee*, *Generation Licensee*, *Wholesaler (Generation) Licensee* or *Interruptible Load Provider* for a *transmission, generation* or *load registered facilities* that departs from directions or *dispatch instructions* for any reason shall so notify the *PSO*.

If the failure by a *transmission, generation* or *load registered facilities* to comply with

a direction or *dispatch instruction* endangers the reliability of the *power system*, the *PSO* shall declare the facility to be non-conforming and shall take any actions allowed or any other provision of the market rules as the *PSO* determines appropriate.

ENFORCEMENT

13. Based on the facts referred to above, the MSCP determined that YTLPS had breached sections 1.2.5, 3.7.1.3, 3.7.1.7, 9.6.1 and 9.6.2 of Chapter 5 of the Market Rules and section 10.2 of Chapter 10 of the SOM on 17 May 2022.
14. The PSO has oversight of the state of the power system and issues directions to market participants in order to ensure the security and stability of the system. Compliance with such directions is not optional. Failure to comply may undermine system security and the fair and efficient operation of the electricity market. It is the duty of a market participant to inform PSO promptly if there is a possibility that the PSO's directions cannot be complied with, even while steps are being taken to identify and rectify the fault. This is to enable PSO to take appropriate steps to deal with the contingency.
15. It must be emphasized that informing PSO of technical problems does not absolve a market participant of the obligation to comply with PSO's directions. Non-compliance with PSO's directions may amount to a breach of the Market Rules unless excused under those Rules or the System Operation Manual.
16. The incident did not have a significant impact on the National Electricity Market of Singapore, however, the compliance with PSO's dispatch instructions could have provided additional supply to the power system and alleviated the prolonged contingency reserve shortfall situation experienced by the market on the day of the event.
17. The MSCP hereby issues a letter of non-compliance to YTLPS and directs YTLPS to pay costs fixed at \$7,000.
18. YTLPS is sternly reminded that the MSCP takes a serious view of non-compliance with PSO directions, especially where such breaches undermine system security or the fair and efficient operation of the wholesale electricity markets. It is critical that market participants comply with their obligations, in accordance with the Market Rules and the SOM, and inform PSO of any technical issues which may have an impact on compliance in a timely and effective manner, in order to ensure a reliable supply of electricity.



Professor Walter Woon
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