FACTS AND CIRCUMSTANCES


2. On 20 April 21 at 14:31 hrs (period 30), SER CCP2 experienced a technical issue while operating in combine-cycle mode. The higher ambient temperature at 31.2 degrees Celsius resulted in the gas turbine ("GT") outlet to be maintained at the set point.

3. A technical decision was then made to hold the load of SER CCP2 at 220 MW until the GT Outlet Temperature Control ("OTC") was release. At 15:18 hrs (period 31) the duty trader was informed to submit offer variation files for energy, primary reserve, contingency reserve and regulation, which were made at 15:39 hrs, 15:44 hrs, 15:45 hrs, and 15:46 hrs respectively for periods 33 and 34.

4. Section 10.4.1.1b of Chapter 6 of the Singapore Electricity Market Rules ("Market Rules") allow offer variations after gate closure to be submitted to reflect the real capability of a facility which experienced a forced outage only for the three consecutive dispatch periods immediately following the incident. Therefore, the offer variation submitted after gate closure for period 34 has been assessed to be not compliant with the Market Rules, given that SER CCP2 experienced the technical issue at period 30.

5. On 30 June 2021, the MSCP wrote to inform YTL PowerSeraya that it considered YTL PowerSeraya to be in prima facie breach of section 10.4.1 of Chapter 6 of the Market Rules for period 34 on 20 April 2021. The MSCP invited YTL PowerSeraya to submit written representations by 14 July 2021 before the MSCP makes a determination.
6. YTL PowerSeraya requested for a day of extension on the submission of the written representation. On 15 July 2021, YTL PowerSeraya submitted its written representations to the MSCP with further supporting information and technical data detailing the incident. YTL PowerSeraya also submitted additional information on the submission process, and mitigating factors for the MSCP’s consideration, including that:

   a. As at 15:18 hrs, the duty trader tried to submit for periods 33 and 34 via SMART (in-house bidding tool) the revised capability of SER CCP2 but there was some slowness in the submission process.

   b. The duty trader then informed at 15:26 hrs that he was unable to breach energy offer due to slowness in submission.

   c. The duty trader switched to EMC’s Offer Management System and successfully breached periods 33 and 34 for Energy Offer to 220 MW at 15:39 hrs (period 32). Subsequently, the duty trader submitted breach offer via SMART to remove Primary Reserve, Contingency Reserve and Regulation for periods 33 and 34 at 15:44 hrs, 15:45 hrs and 15:46 hrs respectively.

   d. YTL PowerSeraya further explained that once GT OTC become “Active”, the load increment will be dictated by the Power Gas Turbine (“PGT”) module i.e. the GT and ST controller signal the unit load increment in a balanced condition to ensure no instability in the GT combustion and ST temperature margins. There is no possibility of manual intervention when the OTC is Active.

   e. In lieu of the above, YTL PowerSeraya submitted that as a mitigation action it will consider smaller step loading of the unit so that the ramp rate is sufficient to ensure that the unit meets the scheduled load within the period. This consideration is based on the existing conditions of the GT and the ST.

   f. YTL PowerSeraya did not require a hearing.

APPLICABLE MARKET RULES

7. Section 10.4.1 of Chapter 6 provides that

Notwithstanding sections 5.1.5, 5.1.6 and 5.1.7, no offer variation or revised standing offer shall be submitted by or for a market participant within 65 minutes immediately prior to the dispatch period to which the offer variation or revised standing offer applies, except:

10.4.1.1 where it is intended:

   a. for a generation registered facility, to reflect its expected ramp-up and ramp-down profiles during periods following synchronisation or preceding desynchronisation; or

   b. for a generation registered facility, to reflect its revised capability for the three consecutive dispatch periods immediately following a forced outage or its failure to synchronise; or

   c. to contribute positively to the resolution of an energy surplus situation pertaining to which the EMC has issued an advisory notice under section 9.3.1, by allowing for decreased supply of energy; or
d. to contribute positively to the resolution of energy, reserve or regulation shortfall situations pertaining to which the EMC has issued advisory notices under section 9.3.1, by allowing for increased supply of energy, reserve or regulation; or

e. to contribute positively to the resolution of energy, reserve or regulation shortfall situations in that dispatch period, where:

i. the shortfall situations were indicated in a system status advisory notice issued by the EMC in respect of a high-risk operating state or emergency operating state declared by the PSO; and

ii. at the time of submission of such offer variation or revised standing offer, the EMC has not yet withdrawn, in respect of that dispatch period, such system status advisory notice, by allowing for increased supply of energy, reserve or regulation; and

f. for a load registered facility, to reflect its revised capability during a forced outage or following a decrease in energy withdrawal under sections 9.3.3 and/or 9.3.4 of Chapter 5; and

10.4.1.2 where the price so offered, other than for additional quantities of energy, reserve or regulation, is the same as that previously offered for that dispatch period.

ENFORCEMENT

8. Based on the facts referred to above, the MSCP determined that YTL PowerSeraya had breached section 10.4.1 of Chapter 6 of the Market Rules for period 34 on 20 April 2021.

9. The incident was self-reported and did not have a significant impact on the National Electricity Market of Singapore. Nonetheless, the incident could have been avoided with the prompt submission of the offer variation to reflect the revised capability of the plant.

10. MSCP hereby imposes a financial penalty of $2,500 on YTL PowerSeraya and directs YTL PowerSeraya to pay costs fixed at $2,000.

T P B Menon
Chair, Market Surveillance and Compliance Panel