FACTS AND CIRCUMSTANCES


2. On 1 September 2021 at 18:18 hrs (P37), SRCGTG1 tripped due to the generator’s protection system during the loss of power to the 400V low tension panel. This occurred when SRCGTG2 gas turbine was down for maintenance and transformer maintenance was performed. After the nomination engineer was informed, offer variations were submitted at 18:29 hrs (P37) to nominate SRCGTG1 to 0 MW for periods 39, 40, and 41.

3. With the low-tension power supply normalised for SRCGTG1, attempts were made to start-up the unit and resynchronise expeditiously to stabilise the refinery’s steam supply which was generated from the unit. At 19:21 hrs (P39), offer variations were submitted for period 41 to renominate SRCGTG1 to the operating power generation for start-up.

4. Section 10.4.1.1b of Chapter 6 of the Singapore Electricity Market Rules (“Market Rules”) allows for offer variations to be submitted after gate closure to reflect the facility’s revised capability for the three consecutive dispatch periods immediately following a forced outage or its failure to synchronise. In this case, SRCGTG1 tripped at period 37, therefore, the offer variations after gate closure submitted for periods 39 and 40 fall within this exemption. The offer variation submitted for period 41 fell outside of the allowable three periods window and also reflected an increase in offer quantity, which is not allowed under the Market Rules.
5. Due to the rapid loss of refinery steam header pressure, SRC GTG2’s Steam Turbine Alternator (“STA”) tripped at 18:30 hrs (P38) and at 20:12 hrs (P41), SRC submitted offer variations to nominate SRC GTG2 to 0 MW for periods 42 and 43 to reflect the operating power generation while the operators attempted to restart the STA.

6. The restart of the STA was subsequently cancelled due to limited field resources resulting from the recovery of the refinery steam supply. Therefore, at 21:25 hrs (P43), offer variations were submitted for periods 45 and 46 to nominate 0 MW for the actual power generation of SRC GTG2 until the following morning.

7. SRC GTG2 tripped at period 38, therefore, the offer variations after gate closure submitted for periods 42, 43, 45, and 46 fall outside of the exempted three-period window allowed under section 10.4.1.1b of Chapter 6 of the Market Rules.

8. On 30 November 2021, the MSCP wrote to inform SRC that it considered it to be in *prima facie* breach of section 10.4.1 of Chapter 6 of the Market Rules for SRC GTG1 for period 41 and for SRC GTG2 for periods 42, 43, 45 and 46 on 1 September 2021, and invited SRC to submit written representations by 14 December 2021 before the MSCP issues a determination.

9. On 13 December 2021, SRC submitted its written representations to the MSCP with further information detailing the incident. SRC submitted additional information on remedial actions that SRC is in the midst of implementing to avoid reoccurrence:
   a. To comply with market rules, procedures will be instituted to ensure future renomination to reflect actual STA power generation will be performed in a timely manner, taking note of both the dispatch instructions and gate closure compliance; and
   b. To provide adequate nomination window for the recovery of generation facility (e.g., nominating a longer duration of offer to prevent incident referred to for periods 45 and 46 from happening).

10. SRC indicated that a hearing was not required.

APPLICABLE MARKET RULES

11. 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

12. Based on the facts referred to above, the MSCP determined that SRC had breached section 10.4.1 of Chapter 6 of the Market Rules for SRCGTG1 for period 41 and for SRCGTG2 for periods 42, 43, 45 and 46 on 1 September 2021.

13. The incident was self-reported and did not have a significant impact on the National Electricity Market of Singapore.

14. The MSCP hereby imposes a financial penalty of $4,000 and directs SRC to pay costs fixed at $2,000. The MSCP reminds SRC to observe the Market Rules and take appropriate corrective measures to prevent future recurrences.

Professor Walter Woon
Chair, Market Surveillance and Compliance Panel