

limit as may be notified by the Commission based on a review of the performance of SRAS; and

(b) Such other events may be specified in the KEGC.

8.2 The Area Control Error (ACE) for the State would be auto-calculated at the control center of the Nodal Agency based on telemetered values, and the external inputs referred to in clauses (8.3) and (8.4) of this Regulation, as per the following formula

$$ACE = (I_a - I_s) - 10 * B_f * (F_a - F_s) + Offset$$

Where,

I_a = Actual net interchange in MW (positive value for export)

I_s = Scheduled net interchange in MW (positive value for export)

B_f = Frequency Bias Coefficient in MW/0.1 Hz (negative value)

F_a = Actual system frequency in Hz

F_s = Schedule system frequency in Hz

Offset = Provision for compensating for measurement error

8.3 Frequency Bias Coefficient (B_f) shall be assessed and declared by the Nodal Agency as per the Detailed Procedure.

8.4 The offset shall be used to account for measurement errors and shall be decided by the Nodal Agency for the State.

8.5 Nodal Agency may operate SRAS in any of the two control modes namely, tie-line bias control mode or flat tie-line control mode depending on grid requirements.

9. Procurement of SRAS

9.1 SRAS shall be procured at the State level by the Nodal Agency through the mechanism as specified in this Regulation.

9.2 An SRAS Provider willing to participate in SRAS shall be required to provide standing consent for a minimum period of time of 7 (seven) days to the Nodal Agency for participation, which shall remain valid till it is modified or withdrawn:

Provided that standing consent except in case of forced outage cannot be modified or withdrawn without giving notice of at least forty-eight hours:

Provided further that in case the capacity earmarked for SRAS is not called for and at the same time there is a requirement of power by the beneficiary, the same may be released by the nodal agency at its sole discretion based on a written requisition for benefit of the beneficiary.

- 9.3 The SRAS Providers that are generating stations shall be required to declare in such time interval as may be stipulated in the Detailed Procedure, the technical parameters as required by the Nodal Agency, including but not limited to installed capacity, declared capacity, maximum possible generation (Pmax), schedule, Technical Minimum, Ramp up and Ramp down capability.
- 9.4 The SRAS Providers other than the generating stations shall be required to declare the technical requirements as may be stipulated in the Detailed Procedure.
- 9.5 The SRAS Providers that are generating stations whose tariff is determined under Section 62 of the Act, shall declare their energy charge upfront on monthly basis in the manner as stipulated in the Detailed Procedure.
- 9.6 The SRAS Providers other than those covered under Clause (9.5) of this Regulation, shall be required to declare a single rate of the compensation charges upfront on a monthly basis but limited to the average market clearing price of Day Ahead Market (DAM) of previous month of Power Exchange in the manner as stipulated in the Detailed Procedure.
- 9.7 The Nodal Agency, based on the estimate of the SRAS requirement as per Regulation 6 of these Regulations, shall ascertain the availability of adequate SRAS capacity by factoring in the declarations made by the SRAS Providers under this Regulation, on a day-ahead basis and reviewing the same on a real-time basis.
- 9.8 In the case of the generating stations whose tariff is determined by the Commission under Section 62 of the Act, the Nodal Agency shall identify the generating stations for providing SRAS, in the following manner, namely:

(a) On a day-ahead basis, based on the un-requisitioned capacity available after the schedule has been communicated at 23:00 hrs for the next day; and

(b) On a real-time basis after gate closure for incremental SRAS requirements:

Provided that the capacity so identified shall be considered for SRAS based on the actual availability of such capacity.

9.9 There shall not be any commitment charge for the SRAS Providers for the capacity ascertained under Clause (9.7) or identified under Clause (9.8) of this Regulation, but not signaled for SRAS:

Provided that the Commission based on a review of the availability and performance of SRAS, may in future provide through a separate order, a mechanism for the SRAS Providers to commit SRAS capacity in advance, and also for appropriate compensation for such committed SRAS capacity.

10. Selection of SRAS Providers and Dispatch of SRAS

10.1 SRAS signal shall be allocated among the SRAS Providers of the State to meet the SRAS requirement of the system based on the merit order of variable charges or compensation charges as applicable.

10.2 SRAS shall be dispatched at the State level through secondary control signals by the Nodal Agency.

10.3 The secondary control signal for SRAS-Up and SRAS-Down shall be sent to the control center of the SRAS Provider every 4 seconds (or any other interval decided by the Commission) by the Nodal agency. SRAS Provider shall allow its control center to follow the secondary control signal for SRAS-Up or SRAS-Down automatically without manual intervention.

10.4 The SRAS Provider shall increase or decrease active power injection or increase or decrease drawal or consumption, as the case may be, as per the automatic signal from the Nodal Agency.

10.5 The SRAS Provider shall share real-time data with SLDC as stipulated in the Detailed Procedure.

10.6 The average of SRAS-Up and SRAS-Down MW data shall be calculated for every 15- minute time block in MWh for every SRAS Provider by the Nodal Agency using the archived SCADA data at the Nodal Agency and reconciled with the data received at the control centre of the SRAS Provider and shall be used for payment of energy charge or compensation charge, as the case may be, to the SRAS Provider as per Regulation 11 of these Regulations.

11. Payment for SRAS:

11.1 SRAS Provider shall be paid from the **SDSMA** at the rate of their energy charge or compensation charge, as declared by the SRAS Provider, as the case may be, for the SRAS-Up MW quantum despatched for every 15-minute time block, calculated as per clause 10.6 of Regulation 10 of these Regulations.

Provided that the energy charges or compensation charges, as declared by the SRAS Providers as applicable at the time of delivery of the SRAS shall be used to calculate the payment of SRAS by the providers and no retrospective settlement of energy charges or compensation charges shall be undertaken even if the said charges are revised at a later date.

11.2 SRAS Provider shall pay back to the **SDSMA**, at the rate of their energy charge or compensation charge, as the case may be, for the SRAS-Down MW quantum despatched for every 15- minute time block, calculated as per clause 10.6 of Regulation 10 of these Regulations.

11.3 No incentive shall be provided to SRAS Provider during the introductory stage of SRAS implementation. However, the Commission after the introduction of SRAS in the State and after analyzing the financial impact thereon, shall introduce a scheme for providing incentive to SRAS provider at a later stage through a separate order.

11.4 Methodology of computation under clauses (11.1) to (11.3) of this Regulation shall be stipulated in the Detailed Procedure.