CERC Ancillary Services Regulations, 2022

Notified 31 Jan 2022 | Phase 1 (PRAS/SRAS) live 5 Dec 2022 | Phase 2 (TRAS) live 1 Jun 2023

OBJECTIVE & SCOPE

Provides administered and market-based mechanisms for procurement, deployment and payment of Ancillary Services at regional/national level — maintaining grid frequency near 50 Hz and relieving transmission congestion. Applies to regional entities, including energy storage and qualified demand-response providers.

FOUR SERVICE TYPES (REG. 5)

PRAS (Primary Reserve) — governed via Grid Code. SRAS (Secondary Reserve) and TRAS (Tertiary Reserve) — full mechanism in these regulations. Other services (voltage control, black start) as specified in the Grid Code.

SRAS — ELIGIBILITY & ACTIVATION

Eligible if: bi-directional RLDC comms, AGC-enabled (generating stations), ≥1 MW response, metering/SCADA in place, responds within 30s and sustains full capacity for 15+30 minutes. Activated when regional ACE exceeds ±10 MW. ACE = (Ia−Is) − 10×Bf×(Fa−Fs) + Offset.

SRAS — SELECTION, PAYMENT & INCENTIVE

Selected via Custom Participation Factor (Rate Participation Factor & Cost Factor). Paid/charged at declared energy or compensation charge per 15-min block. Performance incentive: 0–50 paise/kWh scaling with response accuracy; below 20% for 2 days = 1-week disqualification.

TRAS — ELIGIBILITY & PRICE DISCOVERY

Eligible if capable of varying output/drawal on despatch instruction, providing TRAS within 15 minutes and sustaining 60+ minutes. TRAS-Up: Uniform Market Clearing Price (highest cleared bid). TRAS-Down: Pay-as-bid, bids stacked highest to lowest.

TRAS — PAYMENT & SHORTFALL

TRAS-Up: MCP-Energy-Up + commitment charge (10% of MCP, capped 20 paise/kWh) for cleared-but-undespatched capacity. TRAS-Down: pays own bid rate. Market shortfall: URS stations get 110% (TRAS-Up) or pay 90% (TRAS-Down) of energy charge.

KEY DEFINITIONS

- Nodal Agency: National Load Despatch Centre, implementing via Regional Load Despatch Centres
- Deviation and Ancillary Service Pool Account: the shared settlement pool, also used for DSM
- Un-Requisitioned Surplus (URS): generating capacity available but not requisitioned, computed as declared/Pmax capacity minus total schedule
- Compensation Charge: price declared by a non-Section-62 SRAS Provider for SRAS participation
- No transmission charges, losses or transmission deviation charges apply to SRAS or TRAS (Reg. 22)

REGULATORY TIMELINE

31 Jan 2022 Regulations notified • 26 Apr 2022 Statement of Reasons • 5 Dec 2022 Phase 1 commences (PRAS/SRAS) + SRAS Detailed Procedure issued • 15 Feb 2023 TRAS commencement notified for 1 Apr 2023 • 27 Mar 2023 commencement deferred to 1 May 2023 • 28 Apr 2023 commencement further deferred to 1 Jun 2023 (2015 AS Regulations' Detailed Procedures end)

SRAS PERFORMANCE INCENTIVE (REGULATION 12)

- 95% and above actual performance vs. signal → +50 paise/kWh
- 75% to below 95% → +40 paise/kWh | 60% to below 75% → +30 paise/kWh
- 50% to below 60% → +20 paise/kWh | 20% to below 50% → +10 paise/kWh
- Below 20% → no incentive; below 20% for 2 consecutive days → 1-week disqualification

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